



**Management Accounting Control :**  
Papers presented at a Workshop at Trondheim Business  
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Edited by

Inger Johanne Pettersen

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# Workshop Management Accounting & Control

Papers to the workshop at  
Lian, Trondheim 8-10  
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Trondheim Business School

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This TØH-notat contains 12 of the papers presented at the workshop 8<sup>th</sup>-10<sup>th</sup> November 2011, at Lian in Trondheim. The workshop had the following theme *Where does the current practice-turn shift in accounting research bring us – what is the ‘practice turn’ about and with what implications?*

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Papers are work in progress and should not be cited without the permission from the authors.

Trondheim, December 2011

Inger Johanne Pettersen

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<b>Thursday 8<sup>th</sup> November</b>	
13.00-14.00	Lunch at Lian
14.00-15.00	Key note speech prof Peter Skærbæk, Copenhagen Business School: <i>Where does the current practice-turn shift in accounting research bring us – what is the ‘practice turn’ about and with what implications?</i>
15.15 - 15.45	Gudrun Baldvinsdottir, TØH
15.45 - 16.15	Lili Anne Kihn, University of Tampere, Finland
16.15 - 16.45	Terje Berg/Sjur Westgaard, NTNU/BI/TØH
17.15 - 17.30	Coffe
17.30 - 18.00	Charlotte Andreassen, TØH
18.00 - 18.30	Denis Becker/Terje Berg TØH/BI
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<b>Wednesday 9<sup>th</sup> November</b>	
<b>09.00</b>	Train/tram from City
10.00 - 10.30	Mikael Cäker, Handelshögskolan i Göteborg
10.30 - 11.00	Kari Nyland, TØH
11.00 - 11.30	Lili Anne Kihn & Salme Näsi, University of Tampere
11.30 - 14.00	Lunch & walk around the Lian Lake – (if OK weather)
14.00 - 15.00	Key note speech prof Katarina Kaarbøe, Norwegian School of Economics & Business Administration- NHH <i>Beyond Budgeting – a Scandinavian Perspective</i>
15.00 - 15.15	Coffee
15.15 - 15.45	Even Fallan, TØH
15.45 - 16.15	Elsa Solstad, Harstad University College/
16.15 - 16.45	Per Ståle Knardal, TØH
17.12	Tram from Lian to city centre
20.00	Dinner at Jonatan (Britannia)
<b>Thursday 10<sup>th</sup> November</b>	
<b>09.00</b>	Train/tram from City
10.00 - 11.00	Key note speech professor Sven Siverbo, University of Karlstad <i>The dilemmas of vertical and horizontal management &amp; control</i>
11.15-11.45	Levi Nesbakk Gårseth, Handelshøgskolen i Bodø
11.45-12.15	Tor-Eirik Olsen, TØH
12.15-12.30	Inger Johanne Pettersen, TØH
12.30-13.30	Lunch & return to city centre and to airport..

The value of trust:

Accounting facts and organisational change

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## **Abstract**

The paper explores how a lack of trust between key groups within an organisation obstructs intentional change in organisations. The study is based on a longitudinal case study conducted between 1994 and 2002, in a large Swedish energy company. We begin from the premise that if organisational changes are needed, there must be facts to support these values and, furthermore, these facts are coherent with colleagues' understanding of what they believe to be facts. It is also important to trust any facts presented and, we develop, accounting information represents one very important source of facts, generally regarded as being more reliable and trustworthy than other types of information. Several extant studies have argued that accounting information can increase and even create trust in relationships (Tomkins, 2001; Johansson and Baldvinsdottir, 2003; Busco et al., 2006). In this paper, however, we argue that accounting per se does not itself create trust. But we do claim that accounting can remedy problems of distrust. Our study conveys how accounting information can help reduce distrust, and also contribute to building relationships that are characterised by a lack of distrust. This is important to organisations because, in relationships characterised by distrust, collaboration is highly likely impossible. On the other hand, although a relationship might not necessarily be characterised by trust, a lack of distrust can imply at least a potential for collaboration.

Keywords – trust, distrust, values, facts, accounting information, organisational change, Sweden

## 1. Introduction

In order to realise financial goals, companies design and implement routines, practices, and methods that help individuals and groups within the organisation to perform their jobs in the required way. The individual's performance is then assessed regularly in various ways. It is assumed that this type of performance assessment will motivate and inspire the employees to carry out their jobs in a favourable way for the company. The jobs performed by the individuals are then exposed to a variety of measurements in order to judge if financial- and/or quality-related requirements are attained. We know that performance measurement is important and serves as an all-pervading feature of most modern organisational settings. We also know that accounting data are commonly used to make performance measurement possible. However, although research in this field has discovered dysfunctions of varying kinds, our knowledge of why these dysfunctions occur in particular circumstances but not in others is still rather limited<sup>1</sup> (Lau and Sholihin, 2005).

Accounting facts are used by business management to influence and shape employees actions, attitudes and even their views of the world. The chosen accounting facts indicate to employees what type of performance is valued within a company. The behavioural consequences can thus be extensive; if the performance measures are to serve their purpose, i.e., to improve organisational efficiency, employees need to view it as trustworthy and procedural fairness must be in place (Davis et al., 2000).

Although the importance of the relationship between trust and accounting has been recognised by accounting scholars, relatively few studies have focused on trust (Baldvinsdottir and Strid, 2007). However, of those published to date, there are significant variations between them in terms of their scope, methods, and theoretical influences. Both Seal et al. (1999) and Tomkins (2001) premise their work on institutional-based trust. A greater disclosure of accounting information is viewed as a means to enhance the trust between organisations by Seal et al. (1999); Tomkins (2001) adds that the need for control mechanisms decreases when trust increases. Both of these studies emphasise the potential for consciously using accounting as a means to create trust. Also, Dekker (2004) states that trust held in a partner's goodwill will reduce the need for control mechanisms.

Johansson and Baldvinsdottir (2003) relate to relational trust when they discuss how accounting can both create and demolish trust relations. The relational aspects of the trust concept is stressed and the importance of a person who can act as a trust carrier is regarded as crucial if performance measurement systems are to be changed and used successfully to increase organisational efficiency. Similarly, Busco et al. (2006) describes how accounting operates as a source of trust and emphasises the importance of trust when new performance measurement systems are being implemented. Chew and Greer (1997) explain how accounting demolishes trust relations when it is used to control in a situation where control is perceived to be unnecessary. It is claimed that such use of accounting can encourage or signal suspicion.

Common to most of the researches is the conclusion that if trust is effectively utilized, transaction costs will decrease since increased trust implies lesser need for control mechanisms. Accounting is generally seen as a means of building trust, although some researchers have a more nuanced view and point out the risks of control mechanisms as destroyers of trust relations.

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<sup>1</sup> See also Hopwood (1983) and Ross (1995) for insights of this debate over time.

Performance measurement systems are underpinned by the values that a company wishes to emphasise (Nørreklit et al., 2006; Baldvinsdottir and Johansson, 2006). If these values are incoherent, or conflict with more prevailing values or worldviews of key groups within a company, it can escalate cycles of distrust (Sitkin and Stickel, 1996). By drawing on a constructivist pragmatism framework, as developed by Nørreklit et al. (2006), we argue that it is possible to better understand how the four dimensions of human life — facts, logic, values and communication — need to be integrated if we are to achieve a valid management model in practice. When a deliberate change in one of the dimensions of reality is carried through, change must be coherent with other dimensions. Otherwise, there is a risk of portraying illusory and abstract concepts that people neither can relate to nor work within. In this study, we aim to illustrate this by discussing a change in the business values of a large Swedish energy company, Göteborg Energy. We argue that if the new business values are incoherent with the facts presented, this will imply distrust. Unlike previous research on trust and accounting, we do not claim that accounting can both cure distrust and establish trust. However, we do claim that accounting facts can both support changes in business values and cure distrust between groups previously unknown to each other.

The remaining part of the paper is structured, as follows: In Section two, the general framework used is introduced with its four dimensions of reality, i.e., facts, logic, values, and communication. In Section three, the concept of trust is discussed and defined. Section four presents the case company and describes the difficulties the company faces when business values are changed. This is followed by a discussion regarding how accounting facts can be used to facilitate changes in business values. Finally, in the last section, some concluding remarks are provided.

## **2. The general framework: Constructivist pragmatism**

The constructivist pragmatism framework as developed by Nørreklit et al. (2006) is an attempt to better understand accounting practices in their social context. They argue that the various research paradigms represented in the management accounting field tend to be reductivist in the sense that each discourse focuses on a certain aspect of reality but omits other aspects of reality. This creates some kind of abstract ‘non-reality’ impossible to act upon in practice. According to Nørreklit et al. (2006), a valid reality involves an integration of the four dimensions of human life, namely, facts, logic, values, and communication. An underlying foundation of this framework is its acknowledgement of the complexity of human reality.

Reality is created by humans and their actions. These actions, in turn, shape relationships with other humans, and relations to organisations. In other words, it is our actions that form the relationships that we have to the world we live in. Actions are informed by our individual subjective ‘topos’<sup>2</sup> but, simultaneously, our topos is also informed by the prevailing thoughts and opinions concerning the society in which we live. The topoi of a group working within an organisation would therefore not only reflect the topos of the individuals within this group, but also the established topoi of the organisation. The topoi within the same organisation can thus vary between individuals and different groups as well as vary over different time periods. Topoi illustrate the relation between concepts such as actions and consequences, possibilities and difficulties, and events and alternatives. It mirrors any predominant perspective, but also allows an opening to see and understand other perspectives, and possibly even change one’s own perspective.

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<sup>2</sup> Nørreklit et al. (2006) use the terms topos (singular) and topoi (plural) to refer to “concepts and arguments applied in a specific setting” (p. 43).



## 2.1 *The four dimensions of reality*

According to Baldvinsdottir and Johansson (2006), facts are the most unproblematic dimension of reality to grasp since “[f]acts simply are” (Nørreklit et al., 2006, p. 7). Like “[i]llusion is the antonym of reality, fantasy is the opposite of facts” (Baldvinsdottir and Johansson, 2006, p. 117). Facts are relatively unproblematic since nothing can be called a fact if it is not based on a source and has been recognised by a person. Although a thing (possible fact) can exist without being observed by a person, it does not exist as a fact if it has not been recognised and established as a fact by a person. Nørreklit et al. (2006) argue that facts are only one dimension of reality and cannot stand alone as basis for human reality, since possibilities are also essential. “Without possibilities, a person has no future but is already dead.” (Nørreklit et al., 2006, p. 46). The dimension of logic is, thus, introduced to assist in recognising, structuring, and reflecting upon future possibilities since “[i]f one cannot recognise possibilities, then one cannot act or plan for the future.” (Ibid). Logic is a necessary dimension when a valid reality is constructed. However, on its own or combined with facts in the form of possibilities, logic is no more than facts sufficient to portray human reality.

On their own, possibilities do not create any kind of action; “[t]hey cannot even make people rise in the morning.” (Nørreklit et al., 2006, p. 47). Although a person may see all possible possibilities when she wakes up in the morning, this alone will not put her on her feet and start the day. A choice between the possibilities has to be made and there is a reason why a certain possibility is chosen to act upon. This choice is guided by the third dimension of reality, i.e., the values. It is solely the values of a person that direct the choice of what is a good and valuable possibility and what is a less good and less valuable possibility. “Values translate the will and energy of a person into action.” (Ibid). Values are, thus, the motivating force of actions that drive humans to seek facts and systematise their possibilities and are, therefore, the most important dimension of what we experience and how we engage in different tasks in life (Baldvinsdottir and Johansson, 2006; Nørreklit et al., 2006). Possibilities combined with values enable people to accomplish things. Further, in an organisational setting, accomplishment implies cooperation. Thus, the fourth and last dimension of reality, communication, is introduced. The human language tool is embraced in our communication, facilitating collaboration amongst employees and making it possible for management to “[a]ccess the subjective worlds of the values and reasoning of employees.” (Nørreklit et al., 2006, p. 48). The constructivist pragmatist framework stresses that these four dimensions have to be integrated sufficiently, if a valid reality is to be achieved. In this article, we will illustrate the cross-dimensional integration of the four dimensions of reality by describing how changes in the four dimensions developed and changed. In doing so, we aim to show how incoherence between the dimensions creates distrust, thus, undermining the prerequisites for successful organisational change.

## 3. Framing the field: Trust and distrust

The importance of trust in creating organisational success is already widely acknowledged (Dirks and Ferrin, 2001). In recent decades we have, thus, witnessed a dramatic increase of research attention on the role of trust in various organizational settings (Mayer, Davis and Schoorman, 1995; Kramer and Cook, 2004). Until recently, trust was mainly regarded as a sociological phenomenon. This view, however, has been changing, with more researchers directing their interest towards how trust affects the dynamics of relationships at individual, organisational, and institutional levels. Interpersonal trust between peers as well as between subordinates and superiors is, some argue, important for both individual and organisational efficiency (Davis et al., 2000; Johansson and Baldvinsdottir, 2003). Similarly, when referring

to social capital, Putman (1993, 2002) claims that the presence of social networks improves the efficiency of society. Moreover, trust for institutions, such as proprietorship and judicial systems, is seen as crucial for achieving national growth (North, 1990).

In order to lean on the concept of trust when carrying out research, we must first define what we mean by this. When talking about such an elusive concept, it is inevitable that misunderstanding occurs if the concept is used vaguely and even carelessly (Huemer, 1998; Rousseau et al., 1998). It is thus important to clearly state the kind of trust to which we relate, e.g. is it trust between individuals or trust for institutions that is at the heart of the discussion and in what respect trust is looked upon as being important ingredient for relationships.

### *3.1 The complexity of trust*

A good example of the vague use of the trust concept is the manner it is used in influential public opinion surveys commonly undertaken in such countries as Canada, Sweden, United Kingdom and the USA. These surveys generally report a decline of trust in most areas over recent years, causing great concerns. For example, in Sweden, a special Trust Commission was appointed in 2002 by the government to identify how trust towards Swedish industry and Swedish business leaders could be secured. Although all of us can probably answer vague questions like “How much do you trust your government to do what is right?” it becomes more problematic to say anything about the scale and nature of such trust in a government (Hardin, 2006). We all have different apprehensions of what trust means, although it can be assumed that such apprehensions will tend to overlap among individuals. But, we also hold different views on what is right, and even when we agree on what is right; we also have different views on how to achieve what we think is right.

According to Mayer et al. (1995), it is not enough to ask the question “Do you trust them?” Rather, they argue, this question has to be qualified by another question, i.e., “trust them to do what?” The same relation will lead to different meetings in different situations, with different intentions resulting in different outcomes (Lewicki, McAllister and Bies, 1998). The following captures the complexity of a single relation:

[...] I may learn to know a professional colleague in my department fairly well. Over time, I may learn that this colleague is excellent as a theoretician, adequate but not exceptional as a methodologist, highly limited in skills as a classroom teacher, completely at odds with me in his political beliefs, outstanding as a golfer, tediously boring in committee meetings but periodically quite insightful, and terrible at keeping appointments on time. My disposition toward my colleague will be a function of all these different encounters with him and I may have to learn to live with all of them if he becomes my departmental chair (Lewicki et al., 1998, p. 442).

The same relation can hold both trust and distrust, and everything in between. Trust is a complex phenomenon, and to describe it as one dimensional and bipolar would be oversimplification. As the above quote suggests, a person has neither trust nor distrust in another person. When we refer to distrust, both when we use it as an everyday concept and when it is discussed scholarly, we normally discuss it as being the opposite of trust, or an expectation that others will not act in one’s best interests or even threaten injury (Wiethoff and Lewicki, 2005). Until recently, our knowledge about distrust has been sparse; trust has received more attention both conceptually and empirically (see Hardin, 2004; Kramer and Cook, 2004). There is, however, growing interest in studying the concept of trust, to look beyond a one-dimensional

perception of trust and distrust as opposite ends of a single trust-distrust continuum (Lewicki et al., 1998). Ullman-Margalit (2004) illustrates the range between these two extremes:

If I distrust you, this surely means that I do not trust you. The converse, however, does not hold: if I do not trust you, I may actually distrust you, but this is not necessarily so. And what if I do not distrust you? Does that mean that I trust you? (Ullman-Margalit, 2004, p. 61)

The same author further argues that if one does not trust someone, this could both mean that one actually distrusts someone and has reason to do so, or it may mean that one has no reason to trust or to distrust someone.

Also, Swift (2001) poses a similar idea although her work refers to situations of accounting and accountability. In Figure 1, clear cases of trust are positioned to the right whereas clear cases of distrust are to the left. In between these extremes are cases that are characterised neither by trust nor distrust. According to Swift, distrust occurs when one or both parties in a relationship assume — sometimes on good grounds, but sometimes without good grounds — that the other party will pursue self interest with guile. Lack of distrust, she adds, is the reliance that parties hold on the predictability of others' behaviour. Suspicion between the two parties might be reduced, for example, through formal controls such as accounting. Trust, on the other hand, is premised on confidence in the goodwill of others' intent, and is typically, but not always, grounded in previous experience. Lack of trust is ignorance towards another party, whether trustworthy or not, and the range of vulnerability reflects the degree of vulnerability that different parties are willing to expose themselves to. Trust can also develop through informal controls such as engagement and dialogue.

----- **Insert Fig. 1. here** -----

A common view is that trust is good, distrust is bad, and that we would all be better off if we were all more trusting. Therefore, it follows, we should all trust more (Uslander, 2002). However, according to Hardin (2006), it is a misconception to simply conclude that those who trust more are happier than the ones who trust less, with the apparent connotation that to be trusting is good for us 'per se'. He argues that it would be naive, even stupid, to trust more in a society or context where those being dealt with are not trustworthy:

But maybe those who are more trusting have good reason to be because they deal primarily with people who recognize the benefits of being trustworthy. It is not trust per se, but trusting the right people that makes for successful relationships and happiness. (Hardin, 2006, p.61)

In other words, we are entitled to a lack of trust, even distrust in some situations. This can motivate us to seek more information, such as accounting information about a situation and others involvement, thus, contributing towards our judgement over the potential trustee's trustworthiness, i.e., if she is worth our trust. At this point we can raise defences against potential dangers and exercise appropriate caution in our dealings with our surroundings (Welch-Larson, 2004).

### 3.2 *What do we mean by trust?*

As mentioned above, a great deal of recent literature has focused on defining and structuring the concept of trust. Indeed, there is now an abundance of definitions, each being applicable to different situations. Bigley and Pearche (1998) have categorised the most significant works as follows: (1) trust between unfamiliar actors (Deutsch, 1962; Zucker, 1986; Meyerson et al., 1996); (2) trust between familiar actors (Zand, 1972; Gambetta, 1988; Sabel, 1993; Mayer et al., 1995; Lewicki and Bunker, 1996); and (3) trust in economic transactions (Bradach and Eccles, 1989; Ring and Van de Ven, 1992; Barney and Hansen, 1994; Nooteboom, 1996). In this article, we focus on the first mentioned category, i.e., trust between unfamiliar actors. The definition adopted in this article is as follows:

We see trust as the trustor's positive expectations of the actions of others. These expectations increase the trustor's vulnerability with reference to others, whose behaviour is not under his control, and where abused confidence leads to a deteriorated situation for the trustor (Bergmash and Strid, 2004, p. 259).

The above definition is inspired by Boon and Holmes (1991), Lewicki and Bunker (1996), and Das and Teng (1998) who emphasise the individual's positive expectations with respect to other individuals' motives. This definition also considers the importance of vulnerability and interdependency (Zand, 1972). It also emphasises that loss, when trust is broken, is much greater than gains, when trust is sustained (Luhman, 1979; Lorentz, 1988; Hosmer, 1995; Chiles and McMackin, 1996).

For trust to develop, the trustor implies that the trustee is trustworthy and will thus act in a favourable way towards him or her. These positive expectations are based, on the one hand, on an assumption that the trustee will act in accordance to the institutional environment; and, on the other hand, on what the trustor already knows about the trustee. Through positive expectations, a willingness to trust can emerge (Hosmer, 1995). This willingness to trust, however, presents a vulnerability to the trustor. It is the trustee's potential to act opportunistically towards the trustor that can create such vulnerability. Without such risk, there would be no need for trust. According to Luhman (1979), trust is about risk; risk is about the trustor's choice to engage in situations whereby the possible damage from the trustee's opportunistic actions from the trustee outweighs the advantages that the trustor gains when positive expectations are fulfilled.

With risk involved in a situation, trust is put to the test (Dasgupta, 1988). Equally, trust is put to test when a trustee has both the possibility and the incentive to betray the trustor but chooses to refrain (Huemer, 1998). However, trust is not risk-taking 'per se'; rather, trust is the willingness to expose oneself to risk (Mayer et al., 1995). Interdependency implies that the goal of one party cannot be achieved without other parties' support (Boon and Holmes, 1991; Rousseau et al., 1998). Thus, in this sense, interdependency can be considered in terms of lack of control over a trustee. On the other hand, when a trustor could control the actions of a trustee, this would be a situation characterised by power, not trust (Dasgupta, 1988).

## **4. The case: From energy delivery to energy utility**

Our case study draws on material from longitudinal research undertaken between 1993 and 2002 in a large Swedish energy company. The first part was undertaken in one year (1994), inspired by an interventionist research approach (Jönsson and Lukka, 2006). In 1998, we undertook a follow-up study, involving interviews, and then further interviews in 2001.

Altogether, we undertook interviews with 30 people, as well as observations in meetings, workshops, and multiple informal discussions with employees at different levels of the organisation.

Our interviews were mostly with employees from the sales and production departments, although we also conducted several interviews with customers. A longitudinal emphasis presented the opportunity to explore changes related to the deregulation of the Swedish electricity market in 1996. This was important as a key dimension to our research was the changing conditions in the Swedish energy market and its influence on the Swedish energy company's search for new strategies.

#### *4.1 Energy Efficiency Services (EES)*

When the Swedish electricity market was deregulated in 1996 energy companies<sup>3</sup> directed their attention towards new and innovative services, including internet supply, telephone services, and energy efficiency. Changed market conditions, it was argued, would lead to greater competition, and energy companies would need to be in a position to offer their customers a variety of services. One such service was the concept of 'Energy Efficiency Services' (EES).

EES targets customers' need for energy utility - e.g. lighting, heating, power, and air conditioning. The concept of 'energy services' can be vague and different meanings have been attributed to it (Bergmash and Strid, 2004; Sandoff, 2002), The aim of this paper is not to discuss such definitions in detail; however, at least to clarify our position, EES is here referred to as services intended to increase energy efficiency and thereby increase the utility of the energy delivered. Organisations that adopt this new way of selling energy are described as Energy Service companies, whereas organisations that focus on energy delivery are referred to as 'traditional' Energy companies. The differences between both are illustrated below:

#### ----- Insert Table 1 -----

Energy companies and energy service companies differ in four respects. Energy companies focus on the sale of their products, for which the starting point is to secure the production and delivery of those products. In contrast, the focus of an energy service company is on satisfying such customers' energy utility needs as lighting, heating, electricity, and air-conditioning. An energy company prices its products in accordance with the amount of kWh<sup>4</sup> sold, and delivers the energy sold to customers' properties. Whereas, an energy service company goes a stage further in the energy refinement chain by working with the customer within the property, thus promoting more effective use of the energy and greater benefits for the customer. Energy

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<sup>3</sup> By energy companies, we mean companies that sell, produce or deliver network energy - i.e., electricity, district heating/cooling and gas.

<sup>4</sup> kWh denotes a kilowatt-hour. The work performed by one kilowatt of electric power in one hour and is the unit on which the price of electrical energy is based. For example, a 1000 watt light bulb operating for one hour would use one kWh. The kilowatt-hour is not a standard unit in any formal system, but it is commonly used in electrical applications.

service companies price their products with consideration given to the delivered energy utility, irrespective of which energy type has been used (Polesie and Strid, 1998). In an energy company, profitability is gained by selling as much kWh as possible, whereas an energy service company augments its profitability through effective provision of energy utility, for example by ‘delivering 21C of heating’.

At the time of deregulation in Sweden, the knowledge amongst energy companies of their customers’ energy utility needs was insufficient. This was partly due to the distance which energy companies had kept from their customers, something that is relatively common practice for organisations in a monopoly position. However, with EES, it is customers’ needs that govern the energy organisations, rather than the other way round. In order to obtain the much-needed knowledge about their customers, the energy companies needed to improve communication with their customers. Unlike the traditional approach, EES requires closeness to and discussion with its customers. The traditional methods of selling energy targets high quantities and low prices; whereas, EES aims to facilitate long-term customer relations and generate stable energy and energy-related sales over a long duration.

#### *4.2 Göteborg Energy (GE)*

Göteborg Energy (GE) was, at the time of our investigation, the fourth largest energy company in Sweden. It is owned by the municipal, and employs around 1000 workers. GE introduced EES in 1992, although most other Swedish energy companies had at that time elected to delay such a move because of expected market (deregulation) reforms.

When a new MD was appointed in 1991, a more financially oriented terminology was introduced in the municipally-owned company. The new MD had a commercial background unlike his recent predecessors who had all come from an engineering background. New concepts were being emphasised as vital to adapting to changing market conditions, such as ‘businesslike’, ‘profitability’, ‘energy services’, and ‘environment management’. Faced with changes in market conditions, the new MD was keen to establish GE as an Energy service company instead of a traditional Energy company. Thus, in 1992 the new MD decided to re-introduce EES with some vigour. However, the introduction of a new EES proved to be more problematic than was expected. The company found itself embroiled with problems of trustworthiness, both externally and internally. Customers questioned the company’s intentions behind their services, since experience told them that GE had traditionally encouraged high energy consumption due to high fixed costs; that is, the more you use, the lower the price per unit of kWh:

We find it rather strange that Göteborg Energy now wants to take care of us and even save energy for us. They only wanted to sell as much energy as possible to us. I don’t think I have ever talked to anyone from Göteborg Energy before, the only contact I have is when I get an invoice (Customer 1)

Many other customers expressed dissatisfaction over their relationship with GE as they perceived little chance to negotiate or influence an agreement between them and the company. They felt exploited and powerless and, thus, welcomed the forthcoming deregulation:

As soon as the market is deregulated, we will change to another energy supplier (Customer 2)

Other customers expressed their general concern towards ‘contradictory’ messages of incitement to use less energy, even suggesting that EES was an expression of organisational

incompetence and desperation. An important aim of the transformation to an Energy Service company was thus to overcome this negative corporate image.

The department that was created to work actively with EES was named ‘Sensible Energy Use’ (hereafter referred to as the EES Department). It attracted a great deal of attention among other energy companies when it was established in 1992. This interest was particularly grounded in a rather innovative idea at that time, i.e. selling tailor-made EES to commercial premises such as offices and shops. All the required monitoring was computerised and undertaken centrally by GE, which brought significant cost savings for both GE and their customers. The concept of EES was brought in from another company, together with 17 service agreements and five employees. EES agreements incorporated different service levels, from simple maintenance and emergency services to the overall management of lighting, heating and power, the operation of all equipment related to energy in the properties, and a complete maintenance program.

#### *4.3 EES – Conflicts that emerged*

Internal credibility was a difficult obstacle, more so than any lack of credibility amongst customers. As mentioned above, the acquisition of 17 successful EES agreements from a privately-owned company brought with them employees who had already worked under the acquired agreements. This acquisition became the foundation of the EES Department at GE. The decision to acquire competence from outside instead of internal nurturing was made by GE’s Senior Management for practical reasons. It was viewed as being important for quickly establishing their new concept. However, although the EES concept was generally viewed as being ‘exciting’ and as a prelude to a new era, management failed to anchor it into day-to-day operations. It transpired that the two relevant departments - Sales and EES - had very different views with regard to GE’s objective. On the one hand, the new EES Department’s view represented the new management vision for a GE that was reforming to a modern energy service company:

Our business concept is first and foremost to sell light, power and heating together with helping our customers to achieve low energy costs, partly through being effective ourselves and partly by effective energy solutions for the customers (Göteborg Energy, 1992, p. 4).

On the other hand, the Sales Department’s view represented a more traditional ‘sell as much as you can’ ethos that was ingrained in the company. Given such different views, these two departments were probably bound to experience conflict at some stage. Their conflicting views facilitated a situation of stalemate, whereby the Sales Department refused to sell or market new EES to customers. The manager of EES explained:

It has been problematic to sell the idea of energy efficiency services to the Sales Department. We have arranged several seminars. We believed this was exciting and interesting. But, no, there is no interest at all. And there doesn’t seem to be any demands from Senior Management on the sales organisation – like “you have to try to understand the new company strategy!” What the salesmen say is “the company strategy is wrong and our task is to sell more energy, not less”. This is frustrating. One has to be convinced and believe in this and this conviction has to be absorbed in the company (Manager, EES Department)

The above remarks highlight difficulties that can occur when strategic change fails to become embedded in all parts of an organisation. In this instance, the management’s vision of turning

GE into an energy service company was not followed up by suitable activities to support such strategy. And, in turn, a lack of such supporting measures implied that the EES concept neither penetrated nor diffused within the organisation. Thus, in the absence of any serious action plan and a lack of pressure on the Sales Department to take the new concept more seriously, the EES Department was sidestepped and its services became unacceptable activities for some parts of the organisation.

Conflict between Sales and EES was stirred up further by the failure of both to acknowledge or appreciate the competence of each other. Numerous employees of the EES Department held positions of relatively high status and power, grounded in the complexity of their service, and their attitude towards the Sales Department was viewed by others as being one of superiority:

They [the EES Department] think they are really something. They think that their energy services are high-tech and complicated, but is this so called ‘new concept’ a rocket science? Is it? How difficult can this be? We actually know the market, and the market doesn’t want this concept (Salesman 1)

Staff in the EES Department were also forthcoming when describing sales staff:

They [the Sales Department] are useless. They do not contact customers; they do not deal with customers’ needs. And if they would visit a customer – which is against the odds – they would try selling one product at a time, never suggesting a total solution for the customer. Also, all of them want to sell to the big customers. Smaller customers are neglected because their volume isn’t big enough. (EES engineer 1)

An uneven state of dependence between the two departments fuelled this underlying conflict and disagreement even further. That is, the EES Department was entirely dependent upon the Sales Department for the sale of their services. And, as mentioned above, this had been refused.

A distrust prevailed between the two departments. Their different objectives, grounded in the business values of each department, had developed suspicion over intention in both directions. The EES Department claimed, with good reasons, that the Sales Department had refused to sell their products. With senior management approval, they therefore considered themselves to be on safe grounds to hire external sales staff to do so. They failed, however, to inform the Sales Department about these activities. And, when the Sales Department eventually heard about the two external sales staff, initially via a rumour, their frame of mind became even more indignant because, as they saw it, EES had gone behind their backs. In other words, this confirmed to the Sales Department how untrustworthy EES was, and a distrust was cemented.

## **5. Getting the facts right**

Logically, the main income source for energy companies is their sale of energy. A reasonable question asked by the Sales Department was “why should we sell EES if it results in lower sales of energy, thereby lower income for us?” There are, of course, reasons why it is deemed sensible for a society to reduce its energy consumption, such as economising on scarce resources and minimising adverse environmental impacts. But what about more direct incentives, for example, financial incentives for GE? It was evident that the Sales Department was not convinced by the rhetoric of senior management or engineers at the EES Department. Could EES management have presented the facts differently, showing how EES was not only beneficial for the customer but also for GE? Could they have used accounting information to



win the Sales Department over?

### *5.1 The EES Department's raison d'être (1992)*

As a municipally-owned company, GE's management was guided by the principles and values of social democracy. The company was not 'profit oriented', and the rationale for its operations was to meet City residents' energy needs so that they could live comfortable lives, as well as to supply the industry with lowest cost energy to support competitiveness and, thereby, help to create economic growth. During the early 1990s, as discussions regarding deregulation were gathering pace, fears of losing businesses were expressed. At this stage, Senior Management was beginning to discuss market adjustments. These discussions focused on the positioning of GE as an Energy Service Company, whereby GE would supply its customers with utilities instead of energy. GE's role as an advocate for the sustainable use of natural resources was emphasised, and to underline GE's commitment in this respect, the EES Department was established. The strategy was to profile the company as environmentally-friendly, thus, seeking to gain important competitive advantages in a future deregulated market.

It is possible to look retrospectively at what facts were presented by Senior Management and the EES Department to convince colleagues in general and Sales Department personnel in particular about the benefits of EES agreements. As mentioned earlier, Senior Management had claimed in its external communication that GE's primary objective was to help their customers cut energy costs through effective energy solutions (Göteborg Energy, 1992). When the concept of EES was re-introduced in 1992, the Senior Management decided to buy-in the necessary competence instead of developing it internally. The Sales Department, for their part, interpreted this as lack of confidence in their competence. Also, the nature of rhetoric used when EES was presented to the Sales Department was fundamentally different to what they had been previously used to, i.e., the volume of kWh sold. The advantages and 'selling points' of the EES concept were more or less presented in narratives and anecdotes. More specifically, the non-use of accounting facts was very noticeable. Typically, when introducing seminars, narratives used by the employees of the EES Department would be something like this:

When we came to the Town library, the opening hours were restricted because of the poor indoor climate in the building. It was either too cold or too warm; it was draughty and it could also be damp, especially on rainy days. Librarians often had colds and coughs – some of them got nasty bronchitis and they often had to stay at home, away from work. After signing an EES agreement with us, this all changed. The indoor climate is now great – the librarians are healthy and happy. Best of all, we have managed to lower their energy costs by 50 percent! (Engineer 2, EES Department)

This begs the questions of the thoughts running through the minds of the Sales Department. Fifty percent reduction in the sale of energy! Do they want to ruin this company? And do they want 'our' assistance to dig its grave? Are they totally out of their mind? Stories of satisfied customers, together with a reduction in energy sales, were not going to convince the Sales Department that EES was to become the main contributor of GE's future profits. Other types of facts, we argue, including accounting facts, were needed. We may ask why the EES Department did not support its presentations of their new concept with any accounting facts; for instance, could they not have supported their narratives with profitability calculations?

To answer the above questions, we need to have a look at what accounting facts were available to convey the situation in 1992? In Table 2, the cost of a single customer's electricity

consumption is illustrated. It illustrates the cost savings from an EES agreement between GE and a Real Estate Company with respect to a property of 4 000 m<sup>2</sup>, and where the consumption of energy has been reduced from 233 MWh<sup>5</sup> to 152 MWh.

----- **Insert Table 2** -----

In such a situation, where the objective is to increase the efficiency of an existing customer's use of energy, a consequence will be a decrease in energy sales revenues because energy sales will fall. Thus, the incentive for energy efficiencies were, at this stage, not clear to the sales staff. Presenting only potential (customer) savings would not convince the Sales Department about the benefits of an EES concept. Additionally, the Sales Department's success was measured by the volume of sold kWh. The performance measurement system in place was grounded in kWh volume, and the Sales Department was evaluated against such parameters. And, therefore, achievers in the Sales Department had traditionally been those who sold the greatest volume of kWh.

In 1992, the Senior Management decided to try to replace the existing values connected with 'sell as much as you can' with values aligned to 'sensible energy use'. What this essentially meant was greater focus on customer satisfaction and environmental issues; and, as was described earlier, to ensure the establishment of new company values, these values need to be coordinated with reason, facts and logic (Nörreklit et al., 2006).

The integration of facts and logic form the real possibilities for action. Logic concerns reasoning through the use of concepts and is a way of realising possibilities - i.e., when logic is integrated with facts, real possibilities can be recognised. But some possibilities are logical only because they do not have a factual base. When the EES was re-introduced in 1992, logical possibilities were at hand; that is, the market was about to become deregulated. There was, however, an absence of accepted facts used to support the logic. What was used as facts instead in this case were success stories about customers' decreased energy use. Furthermore, the Sales Department could not see the logic of selling less energy, especially since it was not clear to them how this would increase the company's overall revenues. This particular attempt to change organisational values was thus not integrated with facts and logic - i.e., change in the value dimension was not coherent with the facts, nor was the logic apparent since the facts did not add up.

Initially, the two departments had no reason to distrust each other. Although the EES Department regarded themselves as superior in technical knowledge, they assumed that the Sales Department would sell their services to the customers. The Sales Department, on the other hand, assumed that they could continue their operations as they had always done without interference from the EES Department. Lack of distrust, according to Swift (2001) is the reliance on the predictability of another's behaviour. This situation however was to change radically within a relatively short period of time. Neither department could rely on predictability of the other's behaviour - the Sales Department refused to sell EES, and the EES Department preferred to hire its own sales-people. In this case, distrust emerged when the relevant parties assumed that the other was pursuing self-interest with guile, and this distrust can be understood from the viewpoints of both departments. Distrust can motivate people to

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<sup>5</sup> 1 MWh = 1000 kWh

seek more information about their situation, and could have been reduced with the use of formal controls such as accounting facts (Welch-Larsson, 2004). However, since the EES Department was unable to present such ‘hard facts’, relying instead on story-telling as facts, the Sales Department interpreted this as further confirmation of the former’s untrustworthiness.

### *5.2 The EES Department’s raison d’être (1998)*

Pre-deregulation, the Senior Management’s main rationale for the EES concept was environmental and society gains. In 1998, two years after deregulation kicked in, their tone had changed and different values had emerged. Environmental and social arguments had been put on the back-burner, and more emphasis was now being placed on the EES agreements’ supporting function. The aim of EES is to create long-term relations with the customers, and build up loyalty that, in turn, could generate greater sales. Profitability aspects of EES were, thus, not particularly highlighted or stressed.

In 1992, the only easily available information concerned facts about sold kWh. For instance, it was possible to show efficiency gains in kWh for a particular customer, but the accounting system did not support information regarding revenues and costs for a specific customer. In 1998, when we conducted some follow-up interviews, this situation had not changed. Resistance towards the concept of EES was still significant and the accounting facts were not in place. The EES Department was a cost centre and was not accountable for any revenues from the EES agreements. Thus, it was still impossible to calculate the profitability in relation to individual customers.

Apart from direct electricity costs, the above-mentioned Real Estate Company had other related costs for daily operations and maintenance of the energy equipment. These costs, mostly salaries, amounted to approximately EUR 45 545 before the EES agreement. The EES agreement meant that GE adopted all the energy equipment, together with all operating expense and maintenance of such equipment. Following the EES agreement, the Real Estate Company had costs as follows:

#### ----- **Insert Table 3** -----

As mentioned earlier, the EES Department managed to make the Real Estate Company’s energy use more effective, thus saving EUR 4 930 on their behalf. Additionally, GE operated the equipment more effectively than the Real Estate Company, meaning that the cost for the EES only amounted to EUR 25 291, a decrease in costs by EUR 20 254 compared to the Real Estate Company’s previous costs for operations and maintenance. The point highlighted is that the EES department had information regarding the large cost savings they had brought about for the customers. However, problematic for the EES Department was their lack of access to numbers showing how profitable their services were to GE. They could not, for example, show if the profit from EES covered the loss of energy sales.

The value of ‘sensible energy use’ (circa 1992) was replaced by the value of ‘good customer relations’, to some extent representing a return to the ‘sell as much as you can’ mentality pre-1992. EES are now support services, with the aim of winning customers in the now deregulated market. For that reason, the EES Department’s profitability was less important to GE. However, the contradiction here is that the EES Department works actively towards reducing

the customers' use of energy. At the same time, the dominant business value of GE is to sell as much energy as possible to its customers. The reason used at that time was that the EES can be used as a door-opener to new customers for the Sales Department. However, there were no sufficient accounting facts available to support the claim that the profit from the sales of EES covers the loss of energy sale. Yet another time, the business values were changed without adequate coherence with facts and logic. This means that the Sales Department still not sees the logic of selling less energy. The distrust between the two departments is still evident, although the conflicts seem to have toned down. With a new manager at the EES Department, who had a greater understanding of the Sales Department's arguments, and new sales people who did not view the EES suspiciously, it became more possible to discern a movement towards lack of distrust (Swift, 2001).

### *5.3 The EES Department's raison d'être (2001)*

GE has operated over the years without significant competition, and any demands towards achieving and improving efficiency have been more of a façade. Instead of working on the difficult task of improving efficiency, the company has opted for an easier alternative, i.e., increasing prices. However, from 2001, the scope to increase prices had diminished because markets had become more competitive. Also, a significant increase in energy taxes meant that the customers now already paid up to double the price for energy even before any GE-led price increase. Growth was no longer possible through price increase as GE's prices were now close to the limit for what customers were prepared to pay for their energy. Their customers expressed dissatisfaction with GE's price strategies, and many had begun searching for ways to decrease their use of energy. Corporate focus thus shifted towards streamlining operations and finding new growth areas. Arguments for environmental and society benefits in EES agreements had become marginalised and, instead, primary business attention was directed at product growth-potential and profitability.

In a second follow-up investigation in 2001, things were improving. Instead of being a supporting function to the Sales Department, the EES Department was now a profit centre, and responsible for both its costs and its revenues. They had also employed an accountant, something which they viewed as being imperative:

It was crucial for us to be able to 'see' the financials for our products. We now have an accountant who assigns costs to where they belong. If we sell a package, it can include electricity, gas and district heating. We do not use transfer prices, but we had to find solutions to show how costs and revenues divide between us and the other departments (EES Product Manager).

So, by 2001, it had become possible to use accounting facts more convincingly; and it had become easier to argue in favour of the EES principle due to this increased availability of uncomplicated accounting information. Customers' energy costs were divided into three components, namely: (1) electricity costs, (2) distribution costs, and (3) energy taxes. And, when customers' use less energy, all three components will be affected.

Referring again to the Real Estate Company example, we can recall that their savings from energy efficiency were EUR 4 930. However, we can now analyse the total savings in more detail, as follows:

----- **Insert Table 4** -----

Also, in 2001, the EES Department negotiated with their customers about the revenue from energy efficiency savings that resulted in agreements regarding revenue sharing. GE's decrease in profits as a result of the Real Estate Company's electricity savings (EUR 2 250) amounted to EUR 270. Thus, the total saving to share between GE and the Real Estate Company was EUR 4 660. Clearly, both companies gain financial benefit from energy efficiencies because the major components of the savings were distribution costs and taxes. But if the profit from the EES agreement is taken into account, the following cost and profit statements can be produced:

----- **Insert Table 5** -----

GE has the possibility to adjust the prices to protect against revenue decreases when less electricity is sold. And if customer-based pricing is adopted, it is possible to adjust the prices depending on different types of customers. From the beginning of EES in 1992, the customer gains are evident. However, it was not until 2001 that the profit increase could be manifested in a conventional profit statement:

----- **Insert Table 6** -----

The total savings for the Real Estate Company is significantly higher than the profit which GE generates in the EES agreement. The accounting information conveys that the EES Department is profitable, and they can now argue with more confidence for their *raison d'être*. The EES Department is now more accepted than it had been, because it could now provide accounting facts to any sceptics.

Business values had changed again. The values underlying 'good customer relations' (circa 1998) had changed to 'profitability' value in 2001. Deregulation coupled with significant increases in tax implied that market conditions had tightened, and that GE could no longer rely on fuelling growth via price increases. To convey their viability, profit centres such as the EES Department were now required to be profitable. And yet, until this point, detailed accounting facts had not been viewed as being of the utmost importance by GE because profitability had always been possible through price increases. However, by 2001, this was no longer the case and the EES Department had to be able to prove their profitability. By employing an accountant, the EES Department could produce the accounting facts that helped them prove their profitability. With the availability of more accounting facts, it was also possible to negotiate with customers about profit-sharing from energy savings, thereby further increasing the EES Department's profits. Summing up, changes in the value dimension were now integrated with logic and facts. Once the EES Department was able to use accounting facts to show the Sales Department that its services compensated for any losses in energy sales, the distrust between the two different units transformed to lack of distrust (Swift, 2001). In turn, this lack of distrust then implied that the two departments could now cooperate regarding the sale of EES despite the lack of trust still evident in their relationship.

## 6. Conclusions

An important source for trust is a feeling of communion, the feeling of being included in relations where one can identify with the predominant values. According to Welch-Larson (2004), the identification with others is one of the strongest motives for group-based trust. Other members of the group are perceived as more trustworthy, honest, and loyal than individuals who are not included in the group. However, the dark side of a group-based trust is the prevalent suspicion of others. Meanwhile, positive attributes of own group members are taken for granted while the attributes of the ones that are outside the group are far less flattering (Rorty, 1989).

Trust is associated with a sharing of values and beliefs about the future. To attain a higher level of trust in a relation, the involved parties need to develop shared values and beliefs (Chenhall and Langfield-Smith, 2003). When new concepts are introduced in organisations, more often than not, a change in the organisational value and belief system will be required if the new concepts or systems are to be anchored into the organisation (Brunsson, 1985). As was highlighted in the previous section, accounting information can help nurture such change in values and beliefs which, in turn, also suggests a potentially key role for accountants.

A strong individual identification with the new organisational concepts is necessary for the change to become successful (Kramer et al., 1996). According to Chenhall and Langfield-Smith (2003), this may imply a suspension of the self-interest of one group in favour of the good of the organisation as a whole, something the Sales Department was not willing to do.

Differences in values are classical causes of conflicts (Walton and Dutton, 1969). Conflicts are likely to lead to disrespect and counteractions fuelled by ‘we and us’ rhetoric (Rorty, 1989). This was evident in how the two departments referred to each other. The Sales Department felt that the competence of employees in the EES Department was overstated, while the EES Department also considered the Sales Department as being incompetent. For trust to develop, the trustee needs to fulfil the trustor’s positive expectations (Hosmer, 1995). Although none of the department can be said to have had positive expectations toward each other, they did at least expect the other to act with integrity. When both parties were proven wrong — i.e., the Sales Department refused to sell the EES and the EES Department hired external salesmen — the relation developed from lack of distrust to distrust.

Many studies show how accounting information can increase or even create trust in business working relations (Tomkins; 2001; Johansson and Baldvinsdottir; 2003; Busco et al., 2006). Thus, it can be argued that trust might be used effectively to reduce the need for control mechanisms as well as the costs associated with such mechanisms. In this article, we see how the relations within GE between the Sales and EES departments respectively moved from a rather neutral point of departure, i.e. lack of trust, to a relation that is characterised by distrust (Swift, 2001). When change in the value dimension was introduced, the risk of possible conflicting values between the EES and the Sales Department was not considered. More importantly, the change in values was not coherent with the facts used to support the new values. Since the facts did not add up, the logic was not apparent. This meant a breakdown in the communication between the departments and their distrust of each other became cemented. It first became possible to restore the mutual relationships when changes in the value dimension were backed up by accounting facts in 2001; that is, with the logic of accounting, communication between the departments was facilitated.

However, our claim here is that accounting by itself cannot create trust. We agree with Swift (2001) who argues that the opposite of trust is not distrust, but lack of trust. The opposite of

distrust, on the other hand, is lack of distrust (see Figure 1). In essence, we are arguing that accounting information can be used successfully to restore relations that have become characterised with distrust since accounting information is generally regarded as some objective measure of extensive control that can be more reliable and trustworthy than other types of information.

Once distrust has been replaced by lack of distrust, the process of achieving a stage in a relationship that is characterised by lack of trust can be initiated (see Figure 1). When this has been accomplished, the painstaking process of trust-building can be set out. We argue further that accounting information can reduce the suspicion that usually surrounds distrustful relations. When someone is involved in a relationship characterised by suspicion, the propensity to expose oneself to risks is low (Mayer et al., 1995). However, in the process of trust-building, accounting information can provide the confirmation that taking a risk was okay to do. In other words, it is not the accounting 'per se' that contributes to trustful relations, but our actions.

Although we claim that accounting information cannot by itself create trust, the importance of accounting information in establishing acceptable working relations between groups who distrust each other should not be understated. When a relation is characterised by distrust, collaboration is impossible. Meanwhile, lack of distrust implies the possibility of collaboration. As stated earlier, accounting information is generally perceived as being trustworthy, and, more importantly, may be used as an impartial judge (Sotto, 1983; Johansson and Baldvinsdottir, 2003). But, if accounting information is to be regarded as neutral and impartial, two conditions need to be met, namely (1) perceived accuracy, and (2) outcome instrumentality (Mayer and Davis, 1999). Perceived accuracy refers to what extent the parties involved believe that the accounting information accurately mirrors their reality. Whereas, outcome instrumentality refers to what extent the performance evaluation generated by the accounting information acknowledges and remunerates contributions made by the parties. With both dimensions clear, accounting information can eradicate distrust, but only by replacing it with lack of distrust.

In summary, we have argued that when an organisation is about to carry through fundamental and strategic change in its value concepts, it is vitally important to have the necessary facts to support the change, and for that change to be successful. These facts are needed to enable the introduction of new values, and they must also be coherent with what people within an organisation accept as being facts. Accounting information, we claimed, is mostly perceived as being trustworthy and its established logic can thus be used in the communication between groups, hence also facilitating cooperation towards organisational goals.

## References

- Baldvinsdottir G., Strid, M., 2007. Accounting and the institutionalisation of trust (Working paper).
- Baldvinsdottir, G., 2001. Management Accounting and the Institutionalisation of Trust. BAS, Gothenburg.
- Baldvinsdottir, G., Johansson, I-L., 2006. Responsibility in action: Expressions of values in a Swedish company. *Qualitative Research in Accounting & Management* 3(2), 112-125.
- Barney, J. B., Hansen, M. H., 1994. Trustworthiness as a source of competitive advantage. *Strategic Management Journal* 15, 174-189.

- Bergmash, M., Strid, M., 2004. Energitjänster på en avreglerad marknad: För en effektivare energianvändning? BAS, Göteborg.
- Bigley, G. A., Pearce, J. L., 1998. Straining for shared meaning in organization science: Problems of trust and distrust. *Academy of Management Review* 23 (3), 405-421.
- Boon, S. D., Holmes, J. G., 1991. The dynamics of interpersonal trust: Resolving uncertainty in the face of risk. In: Hinde, R., A., Groebel, J., (Ed.), *Cooperation and Prosocial Behaviour*. Cambridge university press, Cambridge, 190-211.
- Bradach, J. L., Eccles, R. G., 1989. Price, Authority, and Trust: From Ideal Types to Plural Forms. *Annual Review of Sociology* 15, 97-118.
- Brunsson, N (1985) *The Irrational Organization. Irrationality as a Basis for Organizational Action and Change*. John Wiley & Sons, Chichester.
- Busco, C, A., Riccaboni, A., Scapens R. W., 2006. Trust for accounting and accounting for trust. *Management Accounting Research* 17, 11-41.
- Chenhall, R. H and Langfield-Smith, K (2003) Performance Measurement and Reward Systems, Trust, and Strategic Change. *Journal of Management Accounting Research*, vol 15, p. 117-143.
- Chew, A., Greer, S., 1997. Contrasting world views on accounting: Accountability and Aboriginal culture. *Accounting, Auditing & Accountability Journal* 10 (3), 276-298
- Chiles, T. H., McMackin, J. F., 1996. Integrating variable risk preferences, trust, and transaction cost economics. *Academy of Management Review*, 21 (1), 73-99.
- Das, T. K., Teng, B-S., 1998. Between trust and control: Developing confidence in partner cooperation in alliances. *Academy of Management Review* 23 (3), 491-512.
- Dasgupta, P., 1988. Trust as a Commodity. In: Gambetta, D., (Ed.), *Trust: Making and Breaking Cooperative Relations*. Basil Blackwell, New York, 49-72.
- Davis, J. H., Schoorman, F. D., Mayer, R. C., Hoon Tan, H., 2000. The trusted general manager and business unit performance: Empirical evidence of a competitive advantage. *Strategic Management Journal* 21 (5), 563-576.
- Dekker, H. C., 2004. Control of inter-organizational relationships: Evidence on appropriation concerns and coordination requirements. *Accounting, Organizations and Society* 29, 27-49.
- Deutsch, M., 1962. Cooperation and trust: Some theoretical notes. In: Jones, M. R, (Ed.), *Nebraska Symposium on Motivation*. University of Nebraska Press, Lincoln, 275-319.
- Dirks T. K., Ferrin, D. L., 2001. The Role of Trust in Organizational Settings. *Organization Science* 12 (4), 450-467.
- Gambetta, D., 1988. Can We Trust Trust? In: Gambetta, D., (Ed.), *Trust: Making and Breaking Cooperative Relations*. Basil Blackwell, New York, 213-237.
- Göteborg Energy., 1992. Annual Report. Göteborg.
- Hardin, R., 2004. *Distrust*. Russell Sage Foundation, New York.
- Hardin, R., 2006. *Trust*. Polity Press, Cambridge.
- Hosmer, L. T., 1995. Trust: The Connecting Link Between Organizational Theory and Philosophical Ethics. *Academy of Management Review* 20 (2), 379-403.
- Huemer, L., 1998. *Trust in Business Relations: Economic Logic or Social Interaction?* Boréa Bokförlag, Umeå.



- Johansson, I-L., Baldvinsdottir, G., 2003. Accounting for trust: Some empirical evidence. *Management Accounting Research* 14, 219-234.
- Jönsson, S., Lukka, K., 2006 There and back again. Doing interventionist research in management accounting. In: Chapman, C., Hopwood, A., Shields, M. (Ed.), *Handbook of management accounting research*. Elsevier, Oxford.
- Kramer, R. M., Cook, K. S., 2004. *Trust and Distrust in Organizations*. Russell Sage Foundation, New York.
- Lau, C. M., Sholihin, M., 2005. Financial and nonfinancial performance measures: How do they affect job satisfaction? *The British Review* 37, 389-413
- Lewicki, R. J., Bunker, B. B., 1996. Developing and Maintaining Trust in Work Relationships. In: Kramer, R. M., Tyler, T. R., (Ed.), *Trust in organizations: Frontiers of theory and research*. SAGE Publications Inc., Thousand Oaks, 114-139.
- Lewicki, R. J., McAllister, D. J., Bies, R. J., 1998. Trust and Distrust: New Relationships and Realities. *Academy of Management Review* 23 (3), 438-458.
- Lorentz, E. H., 1988. Neither Friends nor Strangers: Informal Networks of Subcontracting in French Industry. In: Gambetta, D., (Ed.), *Trust: Making and Breaking Cooperative Relations*. Basil Blackwell, New York, 194-210.
- Luhmann, N., 1979. *Trust and Power*. John Wiley, New York.
- Mayer, R. C., Davis, J. H., Schoorman, F. D., 1995. An integrative model of organizational trust. *Academy of Management Review* 20 (3), 709-734.
- Mayer, R., Davis, J. H., 1999. The Effect of the Performance Appraisal System on Trust for Management: A Field Quasi-Experiment. *Journal of Applied Psychology* 84 (1), 123-136.
- Meyerson, D., Weick, K. E., Kramer, R. M., 1996. Swift Trust and Temporary Groups. In: Kramer, R. M., Tyler, T. R., (Ed.), *Trust in organizations: Frontiers of theory and research*. SAGE Publications Inc., Thousand Oaks, 166-195.
- Nooteboom, B., 1996. Trust, opportunism and governance: A process and control model. *Organization Studies* 17 (6), 985-1010.
- Nørreklit, L., Nørreklit, H., Israelsen, P., 2006. The validity of management control topoi: Towards constructivist pragmatism. *Management Accounting Research* 17 (1), 42-71.
- North, D. C., 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge University Press, Cambridge.
- Polesie, T., Strid, M., 1998. *Energitjänster som Strategi: En bok om Göteborg Energi*. BAS. Göteborg.
- Putnam, R. D., 1993. *Making Democracy Work. Civic Traditions in Modern Italy*. Princeton University Press, Princeton.
- Putnam, R. D., 2002. *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster, New York.
- Ring, P. S., Van de Ven., 1992. Structuring cooperative relationships between organizations. *Strategic Management Journal* 13, 483-498.
- Rorty, R (1989) *Contingency, irony and solidarity*. Cambridge University Press.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., Camerer, C., 1998. Not so different after all: A cross -discipline view of trust. *Academy of Management Review* 23 (3), 393-404.

- Sabel, C. F., 1993. Studied trust: Building new forms of cooperation in a volatile economy. *Human Relations* 46 (9), 1133-1170.
- Sandoff, A., 2002. Resursbaserad konkurrenskraft: En analys av elleverantörers konkurrensfördelar. BAS, Göteborg.
- Seal, W., Vincent-Jones, P., 1997. Accounting and trust in the enabling of long-term relations. *Accounting, Auditing & Accountability Journal* 10 (3), 406-431.
- Sitkin S. B., Stickel, D., 1996. The Road to Hell: The Dynamics of Trust in an Era of Quality. In: Kramer, R. M., Tyler, T. R., (Ed.), *Trust in organizations: Frontiers of theory and research*. SAGE Publications Inc., Thousand Oaks, 196-215.
- Sotto, R., 1983. Scientific Utopia and Accounting, *Accounting, Organisations and Society*, 8 (1), p. 57-71.
- Swift, T., 2001. Trust, reputation and corporate accountability to stakeholders. *Business Ethics* 10 (1), 16-26
- Tomkins, C., 2001. Interdependencies, trust and information in relationships. *Accounting, Organizations and Society* 26, 161 – 191.
- Ullman-Margalit, E., 2004. Trust, Distrust and in Between. In: Hardin, R., (Ed.), *Distrust*. Russell Sage Foundation, New York, 60-82.
- Uslander, E. R., 2002. *The Moral Foundations of Trust*. Cambridge University Press, Cambridge.
- Walton, R. E and Dutton, J. M (1969) The Management of Interdepartmental Conflict: A Model and a Review. *Administrative Science Quarterly*, Vol. 14, Issue 1, p. 73-84.
- Welch Larson, D., 2004. Distrust: Prudent, If Not Always Wise. In: Hardin, R., (Ed.), *Distrust*. Russell Sage Foundation, New York, 34-59.
- Wiethoff, C. M., Lewicki, R. J., 2005. Trust and Distrust in Work Relationships: A Grounded Approach, June 1. IACM 18th Annual Conference. Available at SSRN: <http://ssrn.com/abstract=736273>
- Zand, D. E., 1972. Trust and Managerial Problem Solving. *Administrative Science Quarterly* 17 (2), 229-239.
- Zucker, L. G., 1986. Production of trust: Institutional sources of economic structure, 1840-1920. *Research in Organizational Behavior* 8, 53-111.

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**DEVELOPMENTS IN MANAGEMENT ACCOUNTING RESEARCH:**

**Research Strategic Analysis of Finnish Doctoral Dissertations through the Ages**

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**DEVELOPMENTS IN MANAGEMENT ACCOUNTING RESEARCH:**

**Research Strategic Analysis of Finnish Doctoral Dissertations through the Ages**

**Abstract**

Management accounting practice, research and education have changed substantially over time. The purpose of this study is to interpret and analyze which management accounting research themes, research traditions, methodologies and forms of publications have been found innovative for doctoral research at different times. The paper presents such a research strategic analysis of all the doctoral dissertations in management accounting published in Finland from 1940s to the present time. Our key results imply several trends in what has been found innovative at different decades and times. Impacts of internationalization on higher business education are seen in that most of the dissertations were published in English rather than in Finnish or Swedish and the share of article and essay collections has increased over time. Overall, the findings indicate that the research themes, methodological approaches and traditions of research have become much more diversified over time.

**NB Tables and figures have been excluded due to format problems**

**Key words:** Doctoral education, Innovations, Management accounting research, Research methodologies, Research traditions.

## 1. Introduction

Management accounting practice, research and education have changed over time. The developments have not necessarily been fast and radical (see Bromwich and Bhimani, 1989), but they do indeed exist. In this paper we focus on developments in management accounting research and doctoral education using doctoral dissertations published in Finland as our data. The purpose of the study is to interpret and analyze which management accounting research themes, traditions, methodologies and forms of publications have been found innovative for doctoral research at different times.<sup>6</sup>

Higher education in business studies in Finland, and in other Nordic countries, started with the establishment of the first business schools in the early decades of the 20th century. In Finland, the first business school (School of Economics in Helsinki) was founded in 1911 and the first doctoral dissertation was defended in the field of financial accounting in that school in 1937 (see Nurmilahti, 1937). The first dissertation in the field of management accounting was completed at the University of Helsinki in the 1940s (see Kaitila, 1945). During the past 60 years more than sixty dissertations have been accomplished in this field in a total of ten universities in Finland. Analysis of the topic areas, research traditions and methodologies chosen by the doctoral students reflects and provides a picture of the developments and innovations of management accounting.

The remainder of this paper comprises four sections. The following section introduces classifications of management accounting research themes, traditions of research, and methodological approaches. Thereafter, our data and research methods are described. We next

analyze and synthesize the doctoral dissertations produced in Finland according to their research themes, research traditions, methodologies, and type of publication. The final section presents a summary and our conclusions.

## 2. Classifying management accounting research

### 2.1 *Classifying management accounting research themes*

In this study, we use a classification of management accounting research themes and topics that is based on management accounting doctrine and, to a very small extent, inductively on our data. In line with management accounting doctrine (Bhimani, Horngren, Datar & Foster, 2009; Atkinson, Kaplan, Matsumur & Young, 2007) and research (Hesford, Lee, Van der Stede & Young, 2007; Shields, 1997), we make a distinction between cost accounting and control systems in classifying management accounting research themes and topics. Cost accounting systems refer to conventional and activity-based cost allocation, cost variances, the use of cost information for decision-making, and strategic costing. Strategic costing includes attribute costing, life-cycle costing, quality costing, target costing and value-chain costing (see Cadez & Guilding, 2008).

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<sup>6</sup> Innovations generally refer to “something new or different introduced” (see Webster’s College Dictionary, 1998, 673).

Control includes, for example, capital budgeting and investments, budgeting, performance measurement and evaluation, and organizational control. Following Hesford et al. (2007), budgeting research consists of studies on budget target setting, budget participation, and budget-related dysfunctional behaviours. Capital budgeting and investments research investigates investment decisions and their follow-up. Performance measurement and evaluation involves the study of the various aspects of financial and nonfinancial performance measurement and incentive systems and their consequences for organizational behavior and performance. Finally, organizational control studies are conducted on management and organizational control systems. (See also Hesford et al., 2007).

In addition to cost and control, we extend the field of management accounting to also include the following research themes: decision-making, profitability and pricing, accounting information systems (AIS), management accounting history and change, strategies and strategic management accounting.

## *2.2 Classifying theoretical traditions of management accounting research*

Hopper and Powell's (1993) classification can be used in classifying research traditions. It is rooted in Burrell and Morgan's (1979) classification of organizational research. According to Burrell and Morgan (1979), the two important and independent dimensions of organizational research are the nature of social science and the nature of society. The social science dimension consists of the following distinct but related elements: assumptions about ontology, epistemology, human nature and methodology. The assumptions can range from subjective to objective and may also be merged into a single subjective-objective continuum. The following assumptions of ontology, epistemology, human nature and methodology exist at the subjective end of the continuum: reality exists in the mind of the individual, knowledge of the world is essentially of a personal nature (i.e., interpreted), individuals are regarded as possessing free will and autonomy of action and, hence, hermeneutical philosophy of science is needed. The following assumptions exist at the objective end of the continuum: there is an external reality, which is concrete and objective (i.e., independent of the observer), knowledge is gained through observation, individual behavior is deterministic (i.e., determined by the environment), and scientific method is appropriate.

In their study, Hopper and Powell (1995) adopted Burrell and Morgan's (1979) subjective--objective continuum, and added a new dimension representing the range of approaches which scholars take towards society. At the ends of that dimension, researchers are concerned with either with regulation and the creation of order in society or with the potential for radical change. By combining the two continua, Hopper and Powell (1995) developed their taxonomy of accounting research. Following Burrell and Morgan (1979), four categories of (organizational) research are identified: functionalism, interpretive, radical humanism and radical structuralism. According to Hopper and Powell (1995), they can be linked to the following three categories of accounting research: mainstream research, interpretive research and critical research.

Ryan et al. (2000, 32-49 and 68-93) have usefully provided further examples of the above three approaches. According to them, mainstream approaches can, first of all, be further classified into economics based normative research and positive economic theories of management accounting. To the extent that behavioral and contingency research extend the discipline base of management accounting research, but do not represent a shift in methodology, they can also be classified as mainstream approaches. Interpretive research is concerned with understanding and making sense of the social world, and includes work that seeks to understand the social nature

of accounting practices. Critical accounting researchers are interested in conflicts and inequalities in society and are concerned with potential radical change. The interpretive and critical management accounting research directions have their origins in the work of social theorists. Critical management accounting research especially is rooted in the studies, for example, by Goffman, Giddens, Foucault, Latour etc. (see Ryan et al., 2000, 87-90).

### *2.3 Classifying research methodologies*

Research methodology generally includes the rules, commitments, and methods, which the researcher has accepted and applied, and which govern his or her work. While various classifications exist, in Finnish business economics and accounting, the research methodologies have traditionally been classified on the basis of Näsi (1980) and Neilimo and Näsi (1980) classification (see also, e.g., Kasanen, Lukka & Siitonen, 1991 and 1993; Lukka, Majala, Paasio & Pihlanto, 1984). The classification distinguishes the following four different approaches: nomothetic, decision-oriented, action-oriented, and conceptual approach. Kasanen et al. (1991, 1993) later added a fifth approach, the constructive approach. While the distinctions are not always clear-cut, the basic underlying difference between these approaches is the division between the Aristotelian and Galileian philosophy of science. The first refers to an ‘understanding’ way and the latter to a ‘causal’ explanation way to do research. Figure 1 summarizes the main characteristics of each approach.

Figure 1 about here.

According to Näsi (1980) and Neilimo & Näsi (1980), the conceptual (or concept analytical) approach follows Aristotelian tradition and is used in philosophy in particular. It uses the method of reasoning and argumentation. It aims to develop new concepts and conceptual systems – consisting of mental and linguistic systems – through conceptual analysis and synthesis.

Nomothetic research methodology, in turn, follows the Galileian tradition and its ideals are hence close to those of the natural sciences. The nomothetic approach is positivist-empirical and emphasizes the need for large samples of data. Causality, explanation and verification are emphasized, likewise testing hypotheses and finding evidence. The key characteristics include discovering invariances, generalizations, patterns, recurrences, and obediences to “laws”. (Neilimo and Näsi, 1980; Näsi, 1980)

The decision-oriented (or decision-analytical) approach is also rooted in positivism, but it has more specific goals than the nomothetic approach. It usually aims to find normative rules to help a firm’s management run their company, most commonly by building different models for decision-making. As the name suggests, in this approach decision-making is analyzed in its entirety and therefore logic is emphasized and close relations kept to management science and operations research. (Näsi, Laine, Mäkinen & Näsi, 1993)

According to Neilimo and Näsi (1980), the action-oriented (or action-analytical) approach follows the Aristotelian tradition and seeks to further in-depth understanding of a single or only few cases. The concept of action is taken as something broader than the concept of behavior, which is thought to be only a part of action. The human core of a firm is emphasized and the approach tries to produce not just understanding but also conceptual systems, frameworks and languages.

According to Kasanen et al. (1991, 1993), the purpose of constructive management accounting research is to solve managerial problems through the construction of innovative models, diagrams, plans, organizations, etc. An essential part of the constructive approach is to connect a practically relevant problem and its solution to accumulated theoretical knowledge. The novelty and the actual functioning of the solution have to be demonstrated as well. Constructive research can thus be divided into the following phases, the order of which may vary: 1. find a practically significant problem that also has potential for a theoretical contribution, 2. obtain a general and comprehensive understanding of the topic, 3. innovate (i.e., construct) a solution idea, 4. demonstrate that the solution works, 5. show the theoretical connections and the research contribution of the solution concept, and 6. examine the scope of the applicability of the solution.

According to Kasanen et al. (1991, 1993), the constructive approach has a lot in common with the decision-oriented and action-oriented approaches. Both in the constructive and decision-oriented approaches, theoretical analysis, thinking, etc. play an important role leading to the creation of a new entity. However, as Kasanen et al. point out, there are also differences such as the fact that decision-oriented approach typically uses the method of deduction while the constructive approach is characterized by heuristic innovations. The decision-oriented approach emphasizes theoretical modeling, but the constructive approach entails an attempt to explicitly demonstrate the practical usability of the constructed solution. The constructive approach is close to the action-oriented approach in the empirical phase of the studies, in which the case method is usually applied. Both approaches presuppose a thorough understanding of organizational processes and that the researcher adopts the role of a “change agent”. According to Kasanen et al., a clear difference is, however, that action-oriented research does not aim to create any explicit managerial constructs. Nevertheless, in certain cases decision-oriented or action-oriented studies may correspond to a constructive one.

### **Data and the research methods**

This study is by nature a historical investigation. Based on the dissertations selected, it tries to produce as comprehensive a picture as possible of the development of doctoral dissertation research. In particular, we analyze and classify the doctoral research based on its themes, research traditions, and methodological approaches. The focus of this research is on such Finnish doctoral dissertations that are in the field of management accounting and that were published in the period 1940 to 2010. This time period was selected because it covers all the management accounting dissertations published in Finland so far.

Our data collection and analysis involved several steps. First, those Finnish universities were identified with doctoral students in the field of accounting and finance. The search focused on departments offering doctoral education in business economics and accounting. Other departments such as those offering doctoral education in public sector administration and accounting, and industrial economics were excluded from the search. As a result, departments in a total of ten such universities were identified in which doctoral dissertations had been published in the field of business economics and accounting during the period of this study. The universities, in alphabetical order, are: the Helsinki School of Economics (HSE, today part of the Aalto University), Lappeenranta University of Technology (LUT), the Swedish School of Economics (Hanken), Turku School of Economics (TSE, today part of the University of Turku), the University of Helsinki (UH), the University of Jyväskylä, the University of Oulu, the University of Tampere, the University of Vaasa, and Åbo Akademi University (ÅA).

Second, the names of the scholars and the bibliographic details of their dissertations were collected. Library databases were searched, likewise university and departmental level web-pages. If no information was available at all, or not all the way to year 2010, information was requested from and provided by representatives of the accounting departments in question. The third task was to identify dissertations that belong to the field of management accounting. Based on the titles, most of the dissertations could be easily classified as studies in management accounting. In a few cases classification was more difficult. Even though, e.g., Björkman's (1989) dissertation could also be classified as a study in management, Näsi's (1990) as a study in accounting in general, Jokipii's (2006) as a study in auditing (in a broad sense), Pätäri's (2009) as a study in industrial economics, and Kurunmäki's (2000), Järvinen's (2005) and Rautiainen's (2010) as studies in public sector accounting, they are also included in the current study due to the scope of certain management accounting themes. The search resulted in a total of 67 management accounting dissertations published in the period 1945-2010. Appendix 1 summarizes the management accounting dissertations by name of author, dissertation title, research tradition, methodological approach, type of publication and year of publication. Fifty (about three fourths) of the authors of the dissertation were men and 17 (about one fourth) women (see Appendix 2).

Fourth, the 67 management accounting dissertations selected were analyzed and classified using the frameworks presented above as follows:

- theme (see Section 2.1 and also Table 1, first column),
- research tradition (Section 2.2)
- what their methodological approach is on the basis of the Näsi (1980), Neilimo & Näsi (1980) and Kasanen, Lukka & Siitonen (1993) classifications (see Section 2.3 and Figure 1 above), and
- is the dissertation in the form of a monograph or a collection of essays or published articles (if the dissertation consisted of less than two published articles we labeled it a collection of essays, if it consisted of at least two published articles, we labeled it a collection of articles),
- in what language the thesis was published.

### **3. Results**

#### *4.1 Dissertations published*

As Table 1 shows, a total of 67 doctoral dissertations in the field of management accounting have been published in various business schools and corresponding university departments in Finland. The time period (1945-2010) covers 66 years, so this means about one doctoral dissertation per year on average. The actual distribution over time is not as even. One of the dissertations was published in the 1940s, two in the 1950s, and one in the 1960s, nine dissertations were published in the 1970s, eight in the 1980s, a total of 13 in the 1990s and 33 in the period 2000-2010. These numbers indicate that doctoral education in management accounting started to grow substantially in the 1970s and the growth has continued since then. More than two thirds of the dissertations were completed during the past two decades and almost half of them during the most recent decade. In conclusion, the number of management accounting doctoral dissertations published in Finland is significant and has increased



significantly over the last few decades. More resources have been spent on doctoral education in this field over the years and management accounting has become a popular area of research.

#### 4.2 *Synthesis of the research themes*

In the first column of Table 1, we classify the 67 dissertations into the following seven main categories: cost accounting, management control systems, decision making, profitability and pricing, accounting information systems, management accounting history and change, and strategy and strategic management accounting. Management control systems are further divided into capital budgeting and investments, budgeting, performance measurement and evaluation, and organizational control. Overall, the results suggest that, to some extent, different topics have been considered innovative topic areas over time.

Table 1 about here

Our results presented in the columns two through nine of Table 1 clearly show that some of these management accounting research themes have been popular research topics throughout the years. First, as the second row of Table 2 shows, dissertations on cost accounting have been conducted all the way from the 1940s to the 2000s. A total of six studies (i.e., almost one tenth of the dissertations), addressed cost accounting. These are the studies by Kaitila (1945), Virkkunen (1951), Malmi (1997), Agbejule (2000), Järvinen (2005) and Wingren (2005). While the first two studies were on conventional cost accounting, the latter four addressed the use of activity-based costing.

Another management accounting topic that has long been researched includes capital budgeting and investments. This was the second most popular management accounting practice with ten studies (about one seventh of all dissertations). The first study in this area was presented by Honko (1955) in 1950s. A total of three studies were completed in the 1970s, namely those by Junnelius (1974), Reponen (1977) and Virtanen (1979). Two studies – Asp's (1980) and Björkman's (1989) – were conducted on capital investments and budgeting in the 1980s. Likewise, two studies were conducted in the 1990's – namely those by Lumijärvi (1990) and Wikman (1993) – and two in early 2000s; notably by Silvola (2007) and Huikku (2009).

Doctoral research on performance measurement and control also began early on in the 1960s with Pitkänen's (1969) dissertation followed by the dissertations of Hussan (2000), Vaivio (2000), Puolamäki (2004), Chakhovic (2010) and Rautiainen (2010) in the 2000s. While Pitkänen's study was on operational output objectives in the public sector context, the next three studies were related to contemporary nonfinancial and strategic performance measurements in the business sector and the final one on performance measurement systems of municipalities.

Several new topic areas proved popular or innovative from the 1970s on. These include studies on organizational control, decision-making, pricing and profitability, and accounting information systems organizational control. Organizational control research includes the following seven dissertations: Carlsson (1977), Paasio (1981), Kurunmäki (2000), Ylinen (2004), Jokipii (2006), Hyväri (2007) and Bürkland (2009). The studies analyzed different aspects of organizational control and represent about one tenth of all dissertations. Decision-making was addressed in three dissertations, all of which were published in the 1970s. These are the dissertations by Lindström (1971), Salmi (1975) and Wallenius (1975). Profitability was dealt with in Tamminen (1976) and

pricing in Rännäri (1992). A total of five studies (about 8 per cent) have been conducted on accounting information systems. Wallin (1978) was the first to research accounting information systems. That work was followed by Koironen (1982), and more recently by Teittinen (2008), Velcu (2008) and Hyvönen (2010).

All the other topics of management accounting have been researched since the 1980s. They include budgeting, management accounting history and change, and strategies and strategic management accounting. A total of four studies have been conducted in the field of budgeting. Both Alaluusua (1982) and Lukka (1988) completed their dissertations on budgeting in the 1980s. Their studies were followed in the 1990s by Hassell (1992) and Ihantola (1997). Management accounting history and change have been a very popular topic area with a total of seven dissertations since the 1980s. These are the dissertations by Meklin (1987), Näsi (1990), Pellinen (1997), Granlund (1998), Partanen (2001), Järvenpää (2002) and Kasurinen (2003). The first two dissertations addressed management accounting history in general and the latter four studies management accounting change.

Last but not least, strategies and strategic management accounting have become the most popular area of research over the years. Fifteen dissertations, which is over one fifth of all the dissertations, have been conducted in that area. The very first dissertation was completed in the 1980, four dissertations in the 1990s and ten dissertations in the 2000s. The first stream of these dissertations addressed issues related to strategies and strategic management. It consists of six studies by Kyläkoski (1980), Leppäälho (1991), Kaikkonen (1994), Ahola (1995), Määttä (2005), and Pätäri (2009). The second stream of dissertations has addressed relations between selected dimensions of strategy and management control systems. The following five dissertations can be included in this category: Kihn (1997), Vihtonen (2004), Virtanen (2006), Jänkälä (2007), and Hyvönen (2008). Finally, the third stream of research consists of studies on the use of various strategic management accounting techniques. They include the dissertations by Sippola (2008) and Tanninen (2008) on quality, Uusitalo's (2007) dissertation on multiple contemporary techniques, and Yigitbasioglu's (2008) dissertation on supply chain management.

#### 4.3 *Synthesis of the traditions of research*

Table 2 summarizes the research traditions represented in the 67 doctoral dissertations of management accounting. Overall, almost two thirds of the dissertations applied mainstream accounting research and over one third interpretive accounting research. We classified all the dissertations published from the 1940s to the 1970s as mainstream accounting research. It is difficult to present an exact classification of all the theories applied in these 67 dissertations, because many theories have been used especially in those dissertations consisting of articles and essays. Certain tendencies can, nevertheless be identified. Economic and decision theories were popular in the earlier mainstream studies, whereas the most recent studies have often used contingency theory.

The first interpretive accounting dissertation was published in the 1980s – Lukka's (1988). Thereafter, (i.e. in the 1990s and 2000s), nearly as many interpretive accounting studies were published as mainstream accounting studies. The first interpretive studies often applied behavioral accounting theories. Several other theories were used in the more recent studies, among them institutional theory and actor-network theory. A few interpretive dissertations also applied critical theories, but were not so clearly oriented to radical change. Only one of the dissertations published in the 2000s could be classified as critical accounting research.

Table 2 about here

#### 4.4 *Synthesis of the research methodologies*

Table 3 summarizes the methodological approaches applied in the 67 Finnish management accounting dissertations published in the last 66 years. While thirteen studies used two approaches, a total of 67 primary approaches were found. The overall results presented in the final column of Table 3 show that the action-oriented approach was by far the most popular in the past seven decades. About half of the scholars (34, about 51 per cent) used this approach. The nomothetic approach ranks second. It was used in 17 (about 25 per cent) cases representing one fourth of all the dissertations. The other approaches were utilized less. The decision analytic approach was used in eight (about 12 per cent) cases, and both concept analytic and constructive approaches in four (6 per cent) cases each. In conclusion, most of the doctoral dissertations were empirical in nature and utilized case studies either with an action-oriented or to a smaller extent constructive research approach.

Table 3 about here

A more detailed analysis of the various research methodologies shows that different methodological approaches have been popular at different times. Several of the earliest dissertations were concept analytical in nature. The concept analytical dissertations include the very first management accounting dissertations by Kaitila (1945) and Virkkunen (1951) as well as those by Pitkänen (1969) and Paasio (1980). Primarily concept analytical dissertations were thus conducted from the 1940s until the 1980s, but not recently.

The decision analytical approach has been utilized first in the 1950s by Honko (1955) and it became very popular in the 1970s. A total of seven dissertations were conducted with this methodological approach. These were the dissertations by Lindström (1971), Wallenius (1975), Salmi (1975), Tamminen (1976), Carlsson (1977), Reponen (1977) and Wallin (1978). So far, these are the only management accounting dissertations conducted with a decision analytical approach in Finland. They are all from the 1970s.

The action-oriented approach was first utilized in the 1970s in Junnelius' (1974) and Virtanen's (1979) dissertations. It became very popular during the latter decades. According to our classification, it was applied as the primary approach in four dissertations in the 1980s, in nine dissertations in the 1990s, and in nineteen dissertations in the 2000s. The constructive research approach, which is still very new in management accounting, has been applied in four dissertations, all of them were published during the most recent decade.

Table 4 about here

As Table 4 shows, the dissertations conducted at the Turku School of Economics and at the Universities of Tampere and Jyväskylä were primarily action-oriented case studies. The scholars of Åbo Akademi University published decision analytical and nomothetic dissertations. The one dissertation published at the University of Helsinki applied a concept analytical approach. Action-oriented and nomothetic studies were spread more evenly over the other universities, i.e., at the Helsinki School of Economics, Lappeenranta University of Technology, the Swedish School of Economics, the University of Oulu, and the University of Vaasa. The above results indicate clear trends in the utilization of different methodological approaches and differences between universities.

#### 3.5 *Type of publication*

In addition, we analyzed the publication type (monograph, essay collection or article collection) and language of the management accounting doctoral dissertations published in Finland. These results are presented in Tables 5 and 6. As Table 5 shows, overall, the majority of dissertations (70.1%) were published as monographs, followed by article collections (17.9%) and essay collections (11.9%). The first 21 dissertations, published from 1940s to 1980s, were monographs. The absolute numbers of monographs still increased from 10 in 1990-1999 to 16 in the period 2000-2009, but their relative share decreased from 76.9 to 50.0 per cent. At the same time, the absolute number of article collections increased dramatically from 1 to 11 and their relative share more than tripled from about 7.7 to 33 per cent. The absolute share of essay collections increased from 2 to 8, but their relative share decreased from 15.4 to 8 per cent.

Table 5 about here.

Table 6 describes the language distribution of the dissertations. Overall, almost two thirds (42, about 63 per cent) of the dissertations published in Finland have been written in English. About one third (22) of them has been written in Finnish and one twentieth (3) in Swedish. Initially, from the 1940s to the 1960s, all the dissertations were written in Finnish only. Since then, the absolute number of dissertations written in Finnish has increased or remained the same each year. In the 1970s, one dissertation was written in Finnish, but three in Swedish and five in English. Hence, for the first time, most of the dissertations were published in English in the 1970s. While most dissertations were published in Finnish in the 1980s again, most dissertations were published in English in the 1990s, and also 2000-2010. Note that over 80 per cent of dissertations were written in English during the most recent decade.

Table 6 about here

#### **4. Summary and Conclusion**

Doctoral education in management accounting in Finland was introduced in the 1940s, started to grow substantially in the 1970s, and the growth has continued since then. Dissertations on cost accounting have been published all the way from the 1940s to the 2000s. The first two (published in the 1940s and 1950s) were on traditional cost accounting; the latter ones (published since the 1990s) on activity-based costing. Capital budgeting has been constantly popular ever since the 1950s. To date, there has not only been research on cost and capital budgeting, but on a relatively wide range of other management accounting topics. Dissertations have been published on performance measurement and evaluation since the 1970s and on organizational control since the 1980s. Other research themes appear to have been trendy at certain times. Decision-making studies with mathematical modeling, for example, were popular in the 1970s only, profitability and pricing studies in the 1970s and 1990s, and budgeting studies in the 1980s and 1990s. The “relevance lost” (see Johnson and Kaplan, 1987) debate may have increased interest in the strategy and strategic management accounting issues among management accounting scholars; likewise management accounting change has become popular during the most recent decades. Different research themes have, hence, been considered innovative at different times. Given the ample diversity of the topics and research contexts, the research objectives of the dissertations have not overlapped and the results have not been essentially cumulative (cf., Kihn, 2005 and 2010; Malmi and Granlund, 2009, 611 of accounting research), but mostly decidedly independent and groundbreaking.

Different methodological approaches have also been considered innovative at different times. We can identify trends in the utilization of different methodological approaches in that the most popular methodological approaches have changed over time, and differences between universities. Scholars' interest in empirical research conducted in real-world companies either with case or field studies or surveys has clearly increased (cf., Johnson and Kaplan, 1987). Notably, the first dissertations were concept analytical in nature. The positivistic dissertations were first decision analytical all the way until the 1970s and later on nomothetic. While about 40 per cent of the dissertations have been primarily positivistic, over one half of the dissertations have been case studies. Action analytical case studies have been conducted ever since the 1970s and have become the most popular approach to date. The constructive case research approach is still new, but some dissertations have applied it during the most recent decade. The case studies may yield a more profound and richer understanding of accounting

within its social context (Ryan et al., 2002, 161). At the same time, they are – as any method – challenged by producing theoretical contributions and broader practical implications (i.e., rather than too firm specific results) to aid the accumulation of knowledge over time (cf., Kasanen et al., 1991, 1993). Mixed methods research (Bryman, 2006, Hurmerinta-Peltomäki & Nummela, 2006; Kakkuri-Knuutila, 2009) has become more common since the 1990s. Almost one fifth of the dissertations can be classified as mixed method studies.

Two traditions of research have been most apparent according to our research. While almost two thirds of the dissertations represent mainstream accounting research, over one third of the dissertations have been classified as interpretive studies. Mainstream research has been conducted throughout the period of interest. The use of qualitative, interpretive accounting research has been innovative since the 1980s and has continued ever since. To some extent, the research traditions and methodological approaches also seem to overlap. Overall, the above results indicate that the selection and use of research themes, methodological approaches and traditions of research has become much more diversified over time.

Internationalization of academics is clearly seen in that the dissertations have been increasingly written in English and published as collections of essays or international journal articles. As to the gender of the scholars the field of accounting research in Finland used to be very distinctly male dominated. The 1990s brought the first doctoral dissertations written by female authors. In the 2000s, over 40 per cent (i.e., 14 out of 33) of doctorates in the management accounting field have been by women.

The limitations of this study include the following: First, in categorizing the studies, we had to be flexible in selecting research themes and dissertations. A few dissertations could perhaps have been categorized or interpreted differently, although we wished to provide as comprehensive a picture as possible. Second, the results of this study cover Finnish management accounting dissertations published over the past 66 years. Given that we wished to analyze the management accounting dissertations published in Finland through the ages, it was not possible to provide an in depth description and analysis of each and every dissertation.

Our work, however, is intended to provide the interested reader the ability to further study the dissertations. Finally, our results describe the case of Finland only. Nevertheless, our results should be relevant in advancing the understanding about the development of management accounting research. Analysis of these questions could also be extended to other countries.

## References

- Agbejule, A. (2000) *An Administrative and Institutional Perspective of Activity-Based Costing Implementation*. Acta Wasaensia, No. 74, Vaasa 2000.
- Ahola, J. (1995) *Yrityksen strategiaprosessi. Näkökohtia strategisen johtamisen kehittämiseksi konserniorganisaatiossa*. University of Lappeenranta, Research papers 44, Lappeenranta.
- Alaluusua, S. (1982) *Structural Determinants of the Budgeting Process: An Approach with Application to Finnish Firms*. Helsinki School of Economics, Helsinki.
- Asp, K. (1988) *Rahoitustuki yrityksen investointiprosessissa* (The Role of Financial Incentives in the Capital Investment Process). Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis. Series A, Helsinki.
- Atkinson, A. A., Kaplan, R. S., Matsumura, E. M., and Young, S. M. (2007) *Management Accounting*. Fifth Edition. Pearson Prentice Hall. Upper Saddle River, New Jersey.
- Bhimani, A., Horngren, C. T., Datar, S. M., and Foster, G. (2008) *Management and Cost Accounting*. Fourth Edition. Prentice Hall Pearson Education, London.
- Björkman, Ingmar (1989) *Foreign Direct Investments: An Empirical Analysis of Decision Making in Seven Finnish Firms*. Economi och samhälle, skrifter utgivna vid Svenska handelshögskolan, 42. Helsinki: Svenska handelshögskolan.
- Bromwich, M., and Bhimani, A. (1989) Management Accounting Evolution: not Revolution. CIMA.
- Bryman, A. (2006) 'Integrating Quantitative and Qualitative Research: how is it done?' *Qualitative Research*, Vol. 6, No. 1: 97-114
- Bürkland, Sirle (2009) *Managing the development of valuable intellectual capital. The role of management control*. Acta Wasaensia, No. 207, Vaasa.
- Cadez, S., and Guilding, C. (2008) An exploratory investigation of an integrated contingency model of strategic management accounting. *Accounting, Organizations and Society*, 33, 836-863.
- Carlsson, C. (1977) *Adaptiv multimålkontroll, Om principerna för operationell problemlösning i en komplex omgivning*, Åbo Akademi University, Turku.
- Chakhovich, Terhi (2010) *Essays on Managerial Myopia and Subject Positions in Companies with Different Governance Structures*. Acta Universitatis of Oeconomicae Helsingiensis A-360, Helsinki.
- Granlund, M. (1998) *The Challenge of Management Accounting Change. A Case Study of the Interplay between Management Accounting, Change and Stability*. Publications of the Turku School of Economics and Business Administration, Series A-7:1998, Kirjapaino Grafia Oy, Turku.

Hassel, L. (1992) *The Effectiveness of Budgetary Control in a Multinational Context*. Åbo Akademi Press, Grafia Oy, Turku.

Hesford, J. W., Lee S. H., Van der Stede, W. A., and Young, S. M. (2007) *Management Accounting: A Bibliographic Study*. In Chapman, Hopwood and Shields (Eds.) *Handbook of Management Accounting Research* Volume 1, Elsevier, Amsterdam, The Netherlands.

Honko, J. (1955) *Koneen edullisin pitoaika ja investointilaskelmat, Taloudellinen tutkimus* (The Economic Life of Machinery and Capital Investment Calculations). Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis, Series A, Helsinki.

Huikku, J. (2009) *Post-Completion Auditing of Capital Investments and Organizational Learning*. Helsinki School of Economics, Acta Universitatis Oeconomicae Helsingiensis, A-347, Helsinki.

Hurmerinta-Peltomäki, L., & Nummela, N. (2006) Mixed methods in international business research: a value-added perspective. *Management International Review*, 46, 4, 439-459.

Hussain, M. (2000) *Management Accounting Systems in Services. Empirical Evidence with Non-Financial Performance Measurement in Finnish, Swedish and Japanese Banks and other Financial Institutions*. Acta Wasaensia, No. 78, Business Administration 32, Accounting and Finance, Universitas Wasaensis, Vaasa.

Hyväri, I. (2007) *Project Management Effectiveness in Different Organizational Conditions*. Helsinki School of Economics, Acta Universitatis Oeconomicae Helsingiensis, A-290, HSE Print.

Hyvönen, J. (2008) *Linking management accounting and control systems, strategy, information technology, manufacturing technology and organizational performance of the firm in contingency framework*. Acta Universitatis Ouluensis, Oeconomica G31, Oulu University Press, Oulu.

Hyvönen, T. (2010) *Exploring Management Accounting Change in ERP Context*. Acta Universitatis Tampereensis 1506, Tampere.

Ihantola, E. M. (1997) *Organisaation budjetointi-ilmapiirin ymmärtäminen organisatoris-sosiaalisessa kontekstissaan*. Acta Universitatis Tampereensis 537, Vammala.

Johnson, H. T. Kaplan, R. S. (1987) *Relevance Lost: The Rise and Fall of Management Accounting*. Harvard Business School Press, Boston, MA.

Jokipii, A. (2006) *The Structure and Effectiveness of Internal Control. A Contingency Approach*. Acta Wasaensia, No. 166, Universitas Wasaensis, Vaasa.

Junnelius, C. (1974) *Investingsprocessens utformning vid olika organisationsstrukturtyper*, Swedish School of Economics, Helsinki.

Jänkälä, S. (2007) *Management Control Systems (MCS) in the Small Business Context. Linking Effects of Contextual Factors with MCS and Financial Performance of Small Firms*

Sarja: Acta Universitatis Ouluensis, series G Oeconomica, nro 30

Järvenpää, M. (2002) *Johdon laskentatoimen liiketoimintaan suuntautuminen laskentakulttuurisena muutoksena – vertaileva case-tutkimus*. [English Summary: Business Orientation of Management Accounting as a Cultural Change – a Comparative Case Study]. Publications of the Turku School of Economics and Business Administration, Series A-5:2002, Turku.

Järvinen, J. (2005) *Rationale for Adopting Activity-Based Costing in Hospitals. Three Longitudinal Case Studies*. Acta Universitatis Ouluensis Oeconomica, G 20, Oulu University Press, Oulu.

Kaikkonen, V. (1994) *Ihminen, strategia-ajattelu ja laskentatoimi: hermeneuttinen tutkimus*. Tampereen yliopisto, Tampere.

Kaitila, E. (1945) kustannusten riippuvaisuus suoritemäärästä, Liiketaloudellinen tutkimus I (Cost and Volumes, A Business Economic Study I). Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis, Series A Helsinki.

Kakkuri-Knuuttila, M-L. (2009) Filosofia yhdistää. The Finnish Journal of Business Economics, 2/2009, 115-121.

Kasanen, E., Lukka, K., and Siitonen, A. (1991) Konstruktiivinen tutkimusote liiketaloustieteessä. *Liiketaloudellinen Aikakauskirja*, 3, 301-325.

Kasanen, E., Lukka, K., and Siitonen, A. (1993) The constructive approach in management accounting research. *Journal of Management Accounting Research*, 5, 243-264.

Kasurinen, T. (2003) *Exploring Management Accounting Change in the Balanced Scorecard Context*. Helsinki School of Economics, Acta Universitatis Oeconomicae Helsingiensis, A-211, Helsinki.

Kihn, L.A. (1997) *International Strategies, Relative Financial Controls and the Performance Evaluation of Overseas Managers – Empirical Evidence from Finnish Firms*. Publications of the Turku School of Economics and Business Administration, Series A-3:1997, Turku.

Kihn, L.A. (2005) Comparing Performance Measurement Approaches in Accounting Research. *Finnish Journal of Business Economics*, No. 2, s. 143-184.

Kihn, L.A. (2010) Performance Outcomes in Empirical Management Accounting Research: Recent Developments and Implications for Future Research. *International Journal of Productivity and Performance Management*. In press.

Koironen, M. (1982) *The Development Dimensions of a Computer-based Management Information System, A Study of Systems Effectiveness and Information Management*. University of Tampere, Tampere.

Kurunmäki, L. (2000) *Power Relations in the Health Care Field: Accounting, Accountants, and Economic Reasoning in the New Public Management Reforms in Finland*. University of Jyväskylä, School of Business and Economics, Jyväskylä.



Kyläkoski, K. (1980) *Yrityksen strategiasuunnittelu systeeminä ja prosessina* (Corporate Strategic Planning as a System and as a Process), Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis, Series A, Helsinki.

Latour, B. (1987) *Science in Action*. Harvard Business School Press. Cambridge, MA.

Leppäälho, Markku (1991) *Yrityksen kehitysvaiheet ja liiketoimintastrategian*

*muotoutumisprosessit*. 384 Acta Universitatis Tamperensis, Ser. A: 314. Vammala.

Lindström, C.G. (1971) Om informationen i beslutprocessen, Ett utkast till en systemanalys, Åbo Akademi University, Turku.

Lukka, K. (1988) *Budjettiharhan luominen organisaatiossa* (Budgetary Biasing in Organizations). Publications of the Turku School of Economics A-5:1988, Turku.

Lukka, K., Majala, R., Paasio, A., and Pihlanto, P. (1984) Accounting research in Finland. Teoksessa A.G. Hopwood ja H.Schreuder (toim.) *European Contributions to Accounting Research: The Achievements of the Last Decade*. Free University Press, Amsterdam.

Lumijärvi, O.P. (1990) *Gameplaying in Capital Budgeting*. Publications of the Turku School of Economics and Business Administration, Series A-7:1990, Turku.

Malmi, T. (1997) *Adoption and Implementation of Activity-Based Costing: Practice, Problems and Motives*. Helsinki School of Economics and Business Administration. Acta Universitatis Oeconomicae Helsingiensis, A-128, Helsinki.

Malmi, T., and Granlund, M. (2009) 'In Search of Management Accounting Theory. *European Accounting Review*, Vol. 18, No. 3, 597-620.

Meklin, P. (1987) *Päämääräongelma valtion liikelaitoksessa* (The Objectives Problem in a State Enterprise), University of Tampere, Tampere.

Moilanen, S. (2008) *The Role of Accounting in Management Control Systems of Firms Having Subsidiaries in the Former Soviet Union*. Acta Universitatis Ouluensis, Oeconomica G 34, Oulu University Press, Oulu.

Määttä, S. (2005) *Strategian ja strategisen informaation tulkintahorisontteja. Case Valtiovarainministeriö*. [Interpretative Horizons on Strategy and Strategic Information. Case Ministry of Finance]. Publications of the Turku School of Economics and Business Administration. Series A-2:2005. Esa Print Tampere, Tampere.

Neilimo, K., and Näsi, J. (1980) *Nomoteettinen tutkimusote ja suomalainen yrityksen taloustiede. Tutkimus positivismin soveltamisesta*. Yrityksen taloustieteen ja yksityisoikeuden laitoksen julkaisuja A-2:12, Tampere.

Näsi, J. (1980) *Ajatuksia käsiteanalyysistä ja sen käytöstä yrityksen taloustieteessä*. (Thoughts about conceptual analysis and its use in business economics). Yrityksen taloustieteen ja yksityisoikeuden laitoksen julkaisuja A2:11, Tampere.

Näsi, S. (1990) *Laskenta-ajattelun kehitys viime vuosisadan puolivälistä nykypäiviin – suomenkieliseen laskentatoimen kirjallisuuteen perustuva historiantutkimus*. [The Development of Accounting Thought from the Middle of the Last Century to the Present Day – A Historical Investigation of Accounting Literature in Finnish]. Tampereen yliopisto, ser A vol 291, Vammalan Kirjapaino Oy, Vammala.

Näsi, S., Laine, P., Mäkinen, V., and Näsi, J. (1993) *A Research Strategic Analysis of the Finnish Doctoral Dissertations in Accounting*. Paper presented in Nordiska Företagsekonomiska Ämneskonferensen i Lund, 18-20.8.1993.

Näsi, S., and Näsi, J. (1985). *Suomalainen laskentatoimen tutkimus 1940-luvulta nykypäiviin. Väitöskirjatuotannon tutkimusstrateginen analyysi*. Yrityksen taloustieteen ja yksityisoikeuden laitoksen julkaisuja, Sarja A 2: Tutkielmia ja raportteja 39. Tampere.

Näsi, S., and Näsi, J. (1996) Accounting and business economics traditions in Finland – from a practical discipline into a scientific subject and field of research. *The European Accounting Review*, 6, 2, 199-229.

Paasio, A. (1981) *Yrityskybernetiikka ja laskentatoimi* (Managerial Cybernetics and Accounting). Turku School of Economics, Turku.

Partanen, V. (2001) *Muuttuva johdon laskentatoimi ja organisatorinen oppiminen: Field-tutkimus laskentatoimen henkilöstön roolin muutoksen ja uusien laskentainnovaatioiden käyttöönoton seurauksista*. Publications of the Turku School of Economics and Business Administration, Series A-6, Turku.

Pellinen, J. (1997) *Unfolding a Management Accounting System Change*. Jyväskylä Studies in Computer Science, Economics and Statistics 39, University of Jyväskylä, University Printing House, Jyväskylä and ER-Paino Ky, Lievestuore.

Pitkänen, E. (1969) *Tuotostavoitteiden operationaalisuus julkisessa hallinnossa* (Operational Output Objectives in Public Administration). Helsinki School of Economics, Helsinki.

Puolamäki, E. (2004) *Strategic Management Accounting Constructions in Organizations*. A Structural Analysis of Two Divisional Strategy Processes. Publications of the Turku School of Economics and Business Administration, Series A-10:2004.

Pätäri E. (2000) *Essays on portfolio performance measurement*. Acta Universitatis Lappeenrantaensis, no. 106, Lappeenranta.

Pätäri, S. (2009) *On Value Creation at an Industrial Intersection – Bioenergy in the Forest and Energy Sectors*. Acta Universitatis Lappeenrantaensis. In press.

Rautiainen, A. (2010) *Conflicting Legitimations and Pressures in Performance Measurement Adoption, Use and Changes in Finnish Municipalities*. Jyväskylä Studies in Business and Economics, University of Jyväskylä.

Reponen, T. (1977) *The Screening Off of Investment Alternatives in the Dynamic Planning of Expansion Programs for Economically Interdependent Projects*. Turku School of Economics, Turku.

Ryan, B., Scapens, R.W., and Theobald, M. (2002) *Research Method & Methodology in Finance & Accounting*. 2nd edition. London: Thomson.

Rännäri, O. (1992) *Electricity Pricing Behaviour in Finland*. Acta Academiae oeconomicae Helsingiensis, A, 83. Helsinki School of Economics and Business Administration, Helsinki.

Salmi, T. (1975) *Joint Determination of Trade, Production, and Financial Flows in the Multinational Firm Assuming Risky Currency Exchange Rates. A Two-Stage Linear Programming Model Building Approach*. Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis, Series A, Helsinki.

Shields, M. D. (1997) Research in Management Accounting by North Americans in the 1990s. *Journal of Management Accounting Research*, 9, 3-61.

Silvola, H. (2008) *Management Accounting and Control Systems used by R&D Intensive Firms in Different Organizational Life-Cycle Stages*. Acta Universitatis Ouluensis, Oeconomica G26, Oulu University Press, Oulu.

Sippola, K. (2008) *Two case studies on real time quality cost measurement in software business*. Acta Universitatis Ouluensis, series G Oeconomica, nro 36, Oulu.

Tamminen, R. (1976) *A Theoretical Study in the Profitability of the Firm*, University of Vaasa, Vaasa.

Tanninen, K. (2008) *Diffusion of Administrative Innovation: TQM Implementation and Effectiveness in a Global Organization*. Acta Universitatis Lappeenrantaensis, 304, Lappeenranta teknillinen yliopisto, Digipaino.

Vaivio, J. (2001) *Non-Financial Measurement in an Organizational Context*. Helsinki School of Economics and Business Administration. Acta Universitatis Oeconomicae Helsingiensis, A-186, HeSE print.

Velcu, O. (2008) *Drivers of ERP Systems' Business Value*. Publications of the Swedish School of Economics and Business Administration, no. 178, Edita Prima Ltd, Helsinki.

Vihtonen, T. 2004. *Tuote- vai liiketoimintaosaamista? Pienten ja keskisuurten leipomoalan yritysten strategiset valinnat, liikkeenjohdon käytännöt ja menestyminen*. [English Summary: Focusing on Products or Business? Strategic Views, Management Practices and Performance in Finnish SMEs in the Bakery Industry]. Acta Universitatis Lappeenrantaensis 191, Lappeenranta University of Technology, Digipaino.

Virkkunen, H. (1951) *Teollisuuden kertakustannukset, niiden degressio sekä käsittely kustannuslaskennassa* (Initial Costs of Manufacturing Industry, Their Degression and Treatment in Cost Accounting). Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis, Series A Helsinki.

Virtanen, K. (1979) *Yritystoston suunnittelu prosessina* (Acquisition Planning as a Process). Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis, Series A Helsinki.

Virtanen, T. (2006) *Johdon ohjaujärjestelmät muuttuvassa toimintaympäristössä*. Series Acta Universitatis oeconomicae Helsingiensis A: 270, Helsinki.

Vuorenmaa, E. (2006) *Trust, Control and International Corporate Integration*. Publications of the Turku School of Economics and Business Administration, Series A-6:2006, Esa Print, Tampere.

Wallenius, J. (1975) *Interactive Multiple Criteria Decision Methods: An Investigation and an Approach*. Helsinki School of Economics, Acta Academiae Oeconomicae Helsingiensis, Series A Helsinki.

Wallin, J. (1978) *Computer-aided Multiattribute Profit Planning, A Study of Risk Simulation and Multiple-Criteria Decision-Making*. Åbo Akademi University, Turku.

Webster's College Dictionary (1998) Random House Inc., New York.

Wikman, O. (1993) *Yrityksen investointiprosessi ja siihen vaikuttavia tekijöitä*. [The Company Investment Process and Factors that Influence it. Publications of the Turku School of Economics and Business Administration, Series A 7:193, Kaarinan Tasopaino Oy, Kaarina.

Wingren, T. 2005. *Essays in Activity-Based Costing. Mass-Tailorization, Implementation and New Applications*. Acta Wasaensia, No. 136, Business Administration 56, Accounting and Finance, Universitas Wasaensis, Vaasa.

Vuorenmaa, E. (2006) *Trust, Control and International Corporate Integration*. Publications of the Turku School of Economics, Series A-6:2006, Esa Print, Tampere.

Yigitbasioglu, O. (2008) *Determinants and Consequences of Information Sharing with Key Suppliers*. Publications of the Swedish School of Economics and Business Administration, No. 177, Edita Prima Ltd., Helsinki.

Ylinen, M. 2004. *Management Control Systems in Technical and Administrative Development Projects*, Acta Wasaensia, No. 126, Business Administration 49, Accounting and Finance, Universitas Wasaensis, Vaasa.

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IN SEARCH OF CRITERIA TO QUALITY IN ACCOUNTING EDUCATION:

A literature analysis

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**IN SEARCH OF CRITERIA TO QUALITY IN ACCOUNTING EDUCATION: A literature analysis**

#### **ABSTRACT**

*This literature analysis examines what makes quality in education based on existing accounting literature. The findings of the analysis suggest that, overall, quality of accounting education can be assessed from the viewpoint of many different stakeholders and with many different focuses, criteria and sub-criteria. In so doing, the paper provides a reflection of the research that plays a central role in informing how educators and their universities are likely to succeed.*

## INTRODUCTION

Quality education has become extremely important in the strategies of many academic institutions all over the world. According to Harvey and Knight (1996), there are five different meanings that quality can have in higher education. The first meaning, *exceptional*, refers to something special and distinctive in the education. Second, *consistency*, focuses on the specifications of processes to achieve ‘zero defects’. Third, *value for money*, means achieving economy, efficiency and effectiveness. The fourth meaning, *fitness for purpose*, is about achieving the job for which it is designed. The fifth one, *transformative*, is connected to student learning as it has to do with the enhancement of students’ conceptual ability and self-awareness (see Harvey and Knight, 1996 in Beattie and Collins, 2000).

In this paper, the point of departure is accounting education. The purpose of this study is to systematically analyze and synthesize what makes quality in education based on previous accounting research. In particular, it seeks to map criteria that contribute to quality in accounting education. Attention will also be paid to which stakeholders and focuses of higher education have been selected in the accounting studies. Note that according to Köksal and Egitman (1998, 639, see also Navarathnam and O’Conner, 1993), stakeholders of higher education can include faculty, students, their parents, future employers, taxpayers and the public at large. Based on Beattie and Collins’ (2000, 5-6) classification, the focus of higher education research can be on the *inputs* (human and physical resources), *processes* (teaching and learning) and/or *outputs* (graduates) of education. Alternatively, it can be on variables (such as faculty research output, library resources and departmental size) that are expected to be highly correlated with quality.

The study consists of a literature analysis of research articles in the field of accounting education. Our findings here show that, overall, quality of accounting education can be assessed from many different viewpoints and through many different criteria. The practical outcome of the paper is that it provides a reflection of the research that plays a central role in informing how teachers and their universities are likely to succeed. The results are intended for the use of scholars, educators and practitioners interested in research accomplished in this field.

In the remainder of this paper, the theoretical background is first described. Thereafter, dataset and methods are introduced. Thereafter, the results are presented, followed by conclusions.

## DATA COLLECTION AND ANALYSIS METHODS

The literature analysis conducted in this study is based on peer-reviewed journal articles collected from Ebsco Business Source Elite, Emerald and ScienceDirect. Advanced searches of titles and keywords were conducted with the following search phrases: “accounting education” and “quality”, “effectiveness” or “excellence”. Because of some overlapping search results and as all articles were not in the topic area of this study, the number of articles selected for further analysis was 13. They were published in the following eight journals:

- Accounting Education: 4
- Journal of Accounting Education: 3

- Quality Assurance in Education: 2
- Advances in International Accounting: 1
- Critical Perspectives on Accounting: 1
- International Journal of Accounting: 1
- Issues in Accounting Education: 1

After collecting the articles, the texts were analyzed with qualitative content analysis. The following information is reported for each study: 1) authors, 2) title, 3) focus of analysis, 4) perspective, 5) criteria of quality education and 6) sub-criteria of quality education.

## LITERATURE ANALYSIS

Several studies have addressed criteria contributing to the quality of higher education over time. Below we analyze and summarize some of the key studies conducted in the field of accounting.

### (1) Donald Madden (1985) “Quality Accounting Education as Our Continuing Challenge”

Donald Madden (1985) was one of the very first to address quality in accounting education. In particular, he focused on teaching effectiveness. He discussed the question from the perspective of the American Accounting Association (AAA). According to him the quality of educational process in accounting can be, and has been, improved with the aid of *innovative educational programs and activities* provided by the association to its members. In particular, he acknowledged meeting arrangements, editorial services, publication mediums, research programs on accounting and educational topics, and continuing education offerings on improving the state of the teaching art.

### (2) Thomas G. Calderon, Alexander L. Gabbin and Brian P. Green (1996) “Summary of Promoting and Evaluating Effective Teaching”

Calderon, Gabbin and Green examined methods for promoting and evaluating effective teaching.

Their article was based on a report of the Teaching and Curriculum Section of the American Accounting Association (AAA). They identified five accounting programs with “best practice” systems for promoting and evaluating teaching effectiveness. They also stressed the importance of a comprehensive administrative system and the Accounting Education Change Commission’s (AECC’s) dimensions of effective teaching. They listed the following slightly modified version of the AECC’s five-dimension model by the Promoting and Evaluating Teaching Effectiveness (PETE) committee:

- *Curriculum design and course development* (set appropriate objectives; develop a useful framework for the conduct of courses and programs; conceptualize, organize and properly sequence the subject matter; integrate courses with other related courses, disciplines, and current research; be innovative and adaptive to change; and keep up with the profession and relevant research in the areas that they teach).

- *Use of well-conceived course materials* (that enhance presentation skills, fulfill course objectives, are consistent with current developments and new technology in the field, create a base upon which continued learning can be built, challenge students to think and give them the tools to solve problems).
- *Presentation skills* (effective presentation skills stimulate students' interests and their active participation in the learning process, respond to classroom developments as they occur, convey mastery of the subject matter, achieve clarity of exposition, instill professionalism, and engage students with different learning styles).
- *Well-chosen pedagogical methods, assessment devices and outcomes.* Pedagogical methods (e.g., experiments, cases, small group activities) vary with circumstances (e.g., size of class, nature of the subject, ability or skill being developed). Assessment devices (e.g., examinations, projects, papers, presentations) should be geared both to course objectives and to the progress of the course and should have a pedagogical component (e.g., fixing in the student's mind what is most important, learning by thinking through a problem, identifying weaknesses to be corrected, reinforcing acquired skills). Effective instructors document learning outcomes attributable to their class through the use of appropriate and valid exams, tests, cases, projects and experiments.
- *Guidance and advising* to the level of study and research (e.g., a freshman's exploration of potential careers, a senior's job placement, or a doctoral student's work on dissertation. Effective instructors share their teaching methods, techniques and successes with other instructors (through publications and presentations) and participate in mentoring activities for junior faculty.

(3) Jesse F. Dillard and Tony Tinker (1996) "Commodifying Business and Accounting Education: The Implications of Accreditation"

Dillard and Tinker focus on business and accounting education. Among other things, they provide a critical discussion and analysis of the new AACSB standards for business and accounting accreditation. The standards include:

- mission and objectives,
- faculty composition and development,
- curriculum content and evaluation,
- instructional resources and responsibilities,
- students and
- intellectual contributions.



The authors conclude that while these standards appear not greatly dissimilar to the prior standards, the underlying philosophy and implementation guidelines have dramatically changed. The total quality management technology was suggested to provide the basis for the AACSB's new standards.

(4) Zezhong Xiao and John R. Dyson (1999) "Chinese Students' Perceptions of Good Accounting Teaching"

The Xiao and Dyson study investigated student perceptions of good accounting teaching in China and considered whether or not good teaching is good irrespective of the subject discipline. Their research extends the work of Dyson and Godfrey (1997 in Xiao and Dyson), who had examined characteristics of good accounting teaching in six New Zealand higher education institutions.

Following Dyson and Godfrey (1997), Xiao and Dyson used a repertory grid technique to collect data. Data were collected from final year undergraduate students in three universities in Beijing. A total of 31 usable responses were received. Based on the data, Chinese students view good teaching to be good irrespective of the discipline. The most important characteristics of good teaching are:

- 1) being knowledgeable,
- 2) adoption of effective teaching approaches,
- 3) being responsible and conscientious,
- 4) making teaching interesting,
- 5) encouraging and facilitating independent thinking and
- 6) providing moral and behavioral guidance.

Being knowledgeable consisted of the following aspects of knowledge: theoretical, practical, relate theory to practice, broad knowledge, specialist knowledge, updated knowledge and others. The adoption of effective teaching approaches comprised: elicitation methods, flexible methods, own methods, distinguishing between key and non-key elements, exemplification, interaction with students and others.

Some of the characteristics of good teaching – such as an ability to provide moral and behavioral guidance to students and being modest – were found to be consistent with the educational traditions of China or characteristics peculiar to China. Some characteristics were similar to those found in New Zealand, but the importance attached to them was different. For instance, being knowledgeable was required in both countries, but was perceived to be more important in China than in New Zealand. Others were found to reflect upon recent changes in the country. For instance, contrary to Chinese education traditions, students did consider an ability to encourage and facilitate independent thinking a main element of good teaching.

(5) Peter Booth, Peter Luckett and Rosina Mladenovic (1999) "The Quality of Learning in Accounting Education: the Impact of Approaches to Learning on Academic Performance"

Booth, Luckett and Mladenovic (1999) focused on the quality of student learning. They used the Approaches to Learning paradigm to examine learning approaches of accounting students. Two learning approaches were analyzed. First, a deep approach was characterized by an intention by students to understand and is reflected in a focus on underlying arguments and the identification, organization and classification of new ideas and previous knowledge. Second, a surface approach to learning was characterized by an intention to complete task requirements, while the focus was on the facts, memorization of information and procedures, and an unreflective acceptance of material. Data (374 usable responses, 70.6 per cent response rate) were collected from accounting undergraduate students from two Australian universities. When compared to previously reported results, the data suggest that the accounting undergraduate students had relatively higher surface and lower deep learning approaches. Higher surface approach scores were found to be associated with less successful academic performance, but no association was found for deep approach scores.

(6) Brian Patrick Green, Thomas G. Calderon, Alexander L. Gabbin and Jerrell W. Habegger (1999) "Perspectives on Implementing a Framework for Evaluating Effective Teaching"

The Green, Calderon, Gabbin and Habegger (1999) study focused on teaching effectiveness from the perspective of accounting departments. They described the experience of three accounting departments in their initial application of selected recommendations by the Committee on Promoting and Evaluating Teaching Effectiveness (PETE). Each case was described in terms of the department's motivation, how chosen recommendations were applied, information resources required and the problems and concerns encountered. Lessons learned were also provided.

(7) Vivien Beattie and Bill Collins (2000) "Teaching Quality Assessment in Accounting: the Scottish Experience"

Beattie and Collins' (2000) study focused on teaching quality assessments (TQA) in the field of accounting. They examined such assessments by the Scottish Higher Education Funding Council (SHEFC) based on the TQA framework. It includes 11 key aspects and 63 elements, and adopts a process of self-assessment followed by peer review. The key aspects include:

- aims and curricula, curriculum design and review, teaching and learning environment, staff resources, learning resources, course organization, teaching and learning practice, student support assessment and monitoring, students' work and output, outcomes and quality control.

A total of 11 TQA reports were examined using content analysis. The authors concluded that to the extent that the level of comment proxies for the perceived importance of an item, the key performance indicators were:

- 1) enrichment of learning,
- 2) course reviews,
- 3) feedback and
- 4) academic environment and appropriate research.

Their findings also suggested several ways in which the TQA framework could be refined and improved. First, the 11 aspects and 63 elements were not found mutually exclusive or exhaustive. Second, assessors should be required to comment on all quality elements applicable to the discipline and indicate explicitly which elements are of insufficient importance to warrant a comment. Third, consideration should be given to the development of explicit benchmarks against which performance can be assessed.

(8) Stuart McChlery and Catriona Paisey (2003) "Quality in professional accounting education – provision in the UK – the CIMA experience"

McChlery and Paisey's (2003) study was on teaching quality assessments. In particular, they discussed teaching quality assessments in professional education provided by the Chartered Institute of Management Accountants (CIMA). According to the authors, the Quality Through Partnership (QTP) scheme introduced by the CIMA is very similar to the SHEFC's areas of review. The only exceptions are that it does not include aims and curricula and curriculum design and review as they were not found appropriate to professional course providers. This was because the curricula had already been set by CIMA itself. The QTP scheme was designed to provide a system of monitoring and quality control for colleges providing CIMA tuition. Their study concludes that the CIMA experience in quality assurance was one of evolution rather than revolution in that whilst the primary objectives of the scheme have remained in place, the means of achieving them has changed over time and continues to do so. Another development over time was the move from quality control to quality assurance (i.e., from a focus on an internal monitoring system to a wider viewpoint).

(9) David S. Kerr and Murphy Smith (2003) "Attributes and Techniques of Highly Effective Accounting Educators: A Multinational Study"

Kerr and Smith (2003) focused on the attributes and specific techniques and methods of highly effective accounting educators. Their results indicate that highly effective accounting teachers possess several common attributes and achieve teaching effectiveness through a variety of techniques. Specifically, the most distinguishing attributes of highly effective accounting teachers were:

- 1) degree of preparation and organization,
- 2) a strong communication style, and
- 3) showing genuine interest in students as persons (in this rank order).

In particular, the respondents emphasized the importance of communicating in an understandable way to students, blending theory and practice, being available to students outside of class time, providing prompt feedback to students and care and planning with respect to the achievement of course objectives. The following factors were also empirically supported:

- concern for student mastery of course materials, challenging yet fair criteria for evaluating students, real-world orientation, ability to get students to participate in class discussions and activities, scope and depth of knowledge of the material, ability to stimulate students to work

beyond minimum requirements, and use of applied projects (in this rank order). (See Kerr and Smith, 2003, 127-128)

The five examined teaching techniques included: lecturing techniques, methods of facilitating student participation, use of questions in the classroom, examination and syllabus content, and policies concerning assignments and grading. In regards to lecturing, Kerr and Smith (2003) identified the use of an enthusiastic and entertaining lecture style as the most effective technique for enhancing student learning, followed by the use of examples and discussions of implications, and interactive style. Other empirically supported factors included: adopting a teamwork philosophy with students, use of supplemental aids, professional tone while lecturing and use of guest speakers (in this rank order). In addition, learning students' names early in the semester, the day-to-day use of preprinted case packages, taking an applications approach where students apply readings to problem situations, and maintaining an element of fun in the classroom were mentioned by some of the respondents.

Kerr and Smith (2003, 130-131) found that the respondents most frequently used impersonal questions (in which the instructor allows students to voluntarily answer questions) followed by personalized use of questions in order to enhance student participation. Other less frequently used methods to enhance student participation included the use of student and team presentations, discussion of current events, debates, and providing continuous opportunity for students to raise their questions. The majority of respondents often used questions for assessing students' understanding of the material and encouraging students to pay attention and participate. The other less frequently mentioned purposes of using questions were: often beginning class by asking questions about the material to be discussed and often beginning class by asking questions relevant to the prior literature. Respondents' additional comments indicated they also use questions to encourage students to think critically, and to consider related issues beyond those contained in a particular problem or case. (Kerr and Smith, 2003, 130-131)

The majority of the respondents described their syllabi as comprehensive and detailed, while little over one third said they were short and simple (see Kerr and Smith, 2003, 132). All respondents indicated their syllabi include a description of the course and its objectives. The vast majority of respondents also present the grading policies for the course and a homework assignment schedule. Exam dates and guidelines for projects were also frequently included. The other items included: student responsibilities, a day-by-day assignment schedule and objectives, examples of good papers/projects in previous years, guidelines for succeeding in the course, and an explanation of the teaching methods in the course. (Kerr and Smith, 2003, 132)

On average, over half of the total points possible on typical exams comprised of (short-answer and long comprehensive) problems. Essay questions, multiple-choice questions, true/false and matching-type questions were used more sparingly. On average, slightly over one half of the exam questions were written by the instructor, and nearly one-fourth were adapted from test banks or from professional examinations. (Kerr and Smith, 2003).

(10) Kim Watty (2005) "Quality in Accounting Education: What Say the Academics?"

Watty (2005) addressed in accounting education from academic accountants' viewpoint. Twelve attributes developed from Harvey and Green's (1993) framework were used to assess respondents' views about the attributes of quality in accounting education currently portrayed and what they consider ought to be the attributes of quality in accounting education.

The accountants' perceptions about the current practice suggested that the number one attribute is designing a program to suit the requirements of the accounting profession. Compliance driven documentation was ranked second. It was followed by designing a program/course to suit the requirements of university administrators, ensuring the desired quality (however defined) is achieved, value for money, caring for students, students achieving high academic standards, empowering the learner and transforming the learner. At the opposite end of the rankings were designing a program/course to suit the requirements of academics, designing a program/course to suit the requirements of government and distinctive student achievement (Watty, 2005).

Respondents' attitudes about what ought to be showed a different picture in the Watty (2000) survey as follows (in this order of importance):

1. students achieving high academic standards, empowering the learner, ensuring the desired quality (however defined), transformation of the learner caring for students, designing a program/course to suit the requirements, value for money and designing a program/course to suit the requirements of academics

At the opposite end were distinctive student achievement, which ranked 9, designing a program/course to suit the requirements of government, which ranked 10, compliance driven documentation, which ranked 11 and designing a program/course to suit the requirements of university administrators. These results indicate that academic accountants have very different views about the attributes of quality in accounting education currently portrayed and what they consider ought to be the attributes of quality in accounting education.

When asked how quality in accounting education is currently promoted in their schools/ departments, the respondents ranked fitness for purpose 1, value for money 2, excellence 3 and transformation 4. In contrast, when asked what quality in accounting education should be about, the respondents ranked transformation 1, fitness for purpose 2, excellence 3 and value for money 4. (Watty, 2000, 125-127)

(11) Robert Angell, Troy W. Heffernan and Phil Megicks (2008) "Servicer Quality in Postgraduate Education"

Angell, Heffernan and Megicks (2008) addressed quality in postgraduate education by applying service quality frameworks. Empirical data from UK postgraduate students were collected by both interviews and an online survey. 20 service attributes were identified from the qualitative stage of the research. The following four service factors emerged from them in the survey data (in this order of importance):

- Academic factor : Skilled and engaging teachers, Practical skills taught, Regular access to teaching staff, Variety of library books and journals, Easily transferable skills, Reputable degree program, Good computing and web facilities, Industry link factor, Industry contacts provided by tutors, A helpful career service
- Cost/value for money factor: Tuition fees at a reasonable expense, Accommodation charged at a reasonable expense, Module variety offers good value, Leisure factor, Nearby pubs, clubs and bars, Sports and recreational facilities, Cafes and social meeting places, Attractive campus layout and appearance, Opportunities for meeting fellow students, Places on campus to relax during the day

The findings suggest that postgraduate students find academic and industry link aspects of the service to be more important than issues of cost and leisure. The students, hence, found cost and leisure issues as secondary to the quality of knowledge and career platform they will receive following qualification. A quality deficit was found to exist in three of these four service factors in the university studied.

(12) Janek Ratnatunga (2008) “Strategic Quality Management in an Internationalised University Department: A Case Study”

Ratnatunga (2008) focused on the quality management objectives and strategies of an Australian university, Syme, accounting department. It documents how a department implemented a comprehensive quality management programme largely in keeping with the framework provided by the Higher Education Council. The quality management program was designed around the following five dimensions:

- Quality of inputs (incl. student demand, cut-off scores, staff qualifications, teacher training and research opportunities)
- Quality of programs (incl. curriculum, progression rates and grade dispersion)
- Quality of outputs (incl. graduate employment rates, post-qualifying professional examination success rates and research publication success),
- Internal quality control (student forums, course documentation, cross-campus subject rationalization, etc.)
- External quality control (incl. the appointment of adjunct professors and course advisory boards).

The accounting department was found to climb from a position of significant under-achievement amongst its peers to one of strength in terms of research performance and entrepreneurship to a new decline in its research output due to a merger.

(13) David E. Stout and Donald E. Wygal (2010) “Negative Behaviors that Impede Learning: Survey Findings from Award Winning Accounting Educators”

Stout and Wygal (2010) focused on the quality of teaching. They present evidence of classroom behaviors to be avoided because of their perceived negative effect on student learning. They report survey responses from a sample of 105 accounting educators who have been formally recognized for their teaching excellence (i.e., exemplars). Each respondent was asked to list up to five responses to the question what behaviors would you counsel other accounting educators to avoid? A total of 374 responses were received to this question. A content analysis of the responses suggests the following major factors (in increasing order of importance): 1) negative or uncaring attitudes about students and the class, 2) improper preparation and organization, 3) faulty or deficient course-delivery skills, 4) assessment mistakes and 5) inflexible/inaccessible demeanor. The results are found relevant to accounting faculty interested in assessing and improving their own teaching as well as to senior faculty interested in mentoring junior faculty.

## THE MAIN RESULTS

Based on the data presented in Table 1, it is possible to report the following preliminary results.

### *Synthesis of the focus*

Based on the results presented in the second column of Table 1, the vast majority (11 of 13) of studies focus on the process of accounting education. In addition, an article focuses on the process of education in part. Most (eight) of the studies focus on teaching, one on learning, one on accreditation and one on education. The process of teaching has been examined throughout the period examined. In contrast, only one study focuses on the inputs of education, another study addresses it in part and none of the studies focus on the outcomes of education.

### *Synthesis of the perspectives*

The perspectives of the 13 articles on accounting education are classified in Table 1, third column. The results show that the perspectives of accounting education have undergone a very considerable expansion over the years. The studies have adopted a wide range of perspectives such as:

- academic association's (2 cases), accounting departments' (2 cases), highly effective accounting educators' (2 cases), undergraduate students' (2 cases), accreditation agency's (1 case), the Scottish Higher Education Founding Council's (1 case), the Chartered Institute of Management Accountants' (1 case), academic accountants' (1 case) and UK postgraduate students' (1 case).

The two very first studies (Madden, 1985 and Calderon et al., 1996) adopted perspectives of an academic association. Thereafter, a study by Dillard and Tinker (1996) discussed standards set by an accreditation agency. The latter studies published since the late nineties have selected other perspectives. Zezhong and Dyson (1999) and Booth et al. (1999) examined undergraduate students, Green et al. (1999) and Ratnatunga (2008) accounting departments, Beattie and Collins (2000) the SHEFC assessments, McChlery and Paisey (2003) the CIMA, Kerr and Smith (2005) and Stout and Wygal (2010) highly effective accounting educators, Watty (2005) academic accountants and Angell and Megicks (2008) postgraduate students. The perspectives of other possible stakeholders – such as the parents, future employers, taxpayers and the public at large – have not been analyzed in these studies.

### *Synthesis of the criteria of quality in accounting education*

Based on the data presented in the fourth column of Table 2, it is possible to report that the studies have focused on:

- teaching effectiveness (3 cases), teaching quality assessments (2 case), good teaching (1 case)

Table 1. Focus of analysis and perspective in the studies on accounting education

	<b>Focus of analysis</b>	<b>Perspective</b>	<b>Criteria of quality</b>	<b>Drivers of quality</b>
Madden (1985)	Process (teaching)	American Accounting Association (AAA)	Teaching effectiveness in accounting	Innovative programs and activities provided: meeting arrangements, editorial services, publication mediums, research programs and continuing education
Calderon, Gabbin and Green (1996)	Process (teaching)	Teaching and Curriculum Section of the AAA	Teaching effectiveness in accounting	Curriculum design and course development; use of well-conceived course materials; presentation skills; well-chosen pedagogical methods, assessment devices and outcomes; and guidance and advising
Dillard and Tinker (1996)	Inputs and process (accreditation standards)	AACSB	Business and accounting accreditation standards	Mission and objectives, faculty composition and development, curriculum content and evaluation, instructional resources and responsibilities, students and intellectual contributions
Zezhong and Dyson (1999)	Process (teaching)	Chinese undergraduate students	Good teaching in accounting	1. Being knowledgeable, 2. adoption of effective teaching approaches, 3. being responsible and conscientious, 4. making teaching interesting, 5. an ability to encourage and facilitate independent thinking and 6. an ability to provide moral and behavioral guidance, etc.
Booth, Lockett and Mladenovic (1999)	Process (learning)	Accounting undergraduate students of two Australian universities	Student learning in accounting	A deep versus surface approach to learning
Green, Calderon,	Process	Accounting	Teaching effectiveness in	



Gabbin and Habegger (1999)	(teaching)	departments	accounting	
Beattie and Collins (2000)	Process (teaching)	the Scottish Higher Education Founding Council (SHEFC)	Teaching quality assessments in accounting and finance	Aims and curricula; curriculum design and review; teaching and learning environment; staff resources; learning resources; course organization; teaching and learning practice; student support; assessment and monitoring; students' work and output; outcomes and quality control.
McChlery and Paisey (2003)	Process (teaching)	The Chartered Institute of Management Accountants (CIMA)	Teaching quality assessments in professional education	Minimum entry requirements; syllabus coverage and information; types of course / course information; employer liaison; facilities and information; staff resources and expertise; tutorial support; attendance; student evaluation of courses; course monitoring and review arrangements
Kerr and Smith (2003)	Inputs (educators)	Highly effective accounting educators	Highly effective accounting educators	1. Preparation and organization, 2. Communication style, 3. Show genuine interest in students as persons, 3. Concern for student mastery of course materials, 4. Challenging yet fair criteria for evaluating students, 5. Real-world orientation, 6. Ability to get students to participate, 7. Scope and depth of knowledge of the material, 8. Ability to stimulate students to work beyond minimum requirements and 9. Use of applied projects
Watty (2005)	Process (teaching)	Academic accountants	Quality in accounting education	Designing a program/course to suit the requirements of the accounting profession, compliance driven documentation, designing a program/course to suit the requirements of university administrators, ensuring the desired quality, value for money, caring for students, students achieving high academic standards, empowering the learner, transformation of the learner, designing a program/course to suit the requirements of academics, designing a program/course to

				suit the requirements of government and distinctive student achievement
Angell and Megicks (2008)	Process (education)	UK postgraduate students	Service quality in postgraduate education	Academic, industry link, cost/value for money and leisure factors
Ratnatunga (2008)	Process (quality management program)	A department of an Australian university	Implementation of a quality management program	Quality of inputs, quality of programs, quality of outputs, internal quality control and external quality control
Stout and Wygal (2010)	Process (teaching)	Exemplars (excellent accounting educators)	Quality of teaching (negative behaviors that impede learning)	1. Negative or uncaring attitudes about students and the class, 2. Improper preparation and organization, 3. Faulty or deficient course-delivery skills, 4. Assessment mistakes and 5. Inflexible /inaccessible demeanor

- characteristics of highly effective accounting educators (1 case), quality in accounting education (1 case), service quality in postgraduate education (1 case), quality management program (1 case), negative behaviors impeding learning (1 case).

Hence, teaching effectiveness is the most popular emphasis, followed by teaching quality assessments. The other criteria have been analyzed once each.

Analysis of teaching effectiveness begun already in the very first study by Madden (1985) and continued in the subsequent studies by Calderen et al. (1996), Green et al. (1999), Beattie et al. (2000) and McChlery and Paisey (2003). Teaching effectiveness has, hence, been examined during each decade. Accreditation standards, good teaching characteristics and student learning approaches were examined in the late 1990s (see Dillard and Tinker, 1996; Xiao and Dyson, 1996; Booth et al., 1999). Beattie et al. (2000) were the first to address teaching quality. The analysis of that topic continued in McChlery and Paisey's (2003), Watty's (2005), Angel and Megicks (2005), Ratnatunga's (2008) and Stout and Wygal's (2010) articles. Highly effective accounting educators were considered in Kerr and Smith's (2003) work. Broader quality factors of education were addressed in Angell and Megicks (2008) study.

#### *Synthesis of the sub-criteria of quality in accounting education*

As the fifth column of Table 1 shows, it is possible to map out several potential sub-criteria of quality education in accounting. The sub-criteria are many and run from innovative programs and activities provided by the association to (lack of) inflexible/inaccessible demeanor.

The very first study by Madden (1985) focused on the support provided by an academic association in the form of the innovative programs and activities. The next study by Calderen et al. (1996) as well as the Green et al. (1999) study discussed five dimensions of effective teaching set by the AECC and the PETE committee. The first dimension – curriculum design and course development – has since been addressed in several other studies as well (see Dillard and Tinker, 1996; Beattie et al., 2000; McChlery and Paisey, 2003; Kerr and Smith, 2003; Watty, 2010). The third dimension – presentation skills – has been later examined in the Kerr and Smith (2003) and Stout and Wygal (2010) studies. Aspects of the fourth dimension – pedagogical methods and assessment devices – have also been analyzed in the studies by Xia and Dyson (1996), Beattie et al. (2000), McChlery and Paisey (2003), Kerr and Smith (2003), and Watty (2010). The fifth dimension – guidance and advising – has also been taken into consideration in the studies by Beattie et al. (2000), McChlery and Paisey (2003) and Stout and Wygal (2010). The second dimension – course materials – has not been examined in the latter studies as explicitly.

The Dillard and Tinker (1996) also introduced some additional quality criteria (accreditation standards) such as mission and objectives, faculty composition and development, students and intellectual contributions. Various aspects related to students have also been addressed in latter studies. The Booth et al. (1999) study considered student learning approaches, Beattie et al. (2000) learning resources,

student support and students' work and output and McChlery and Paisey (2003) minimum entry requirements and attendance.

Beattie et al. (2000) introduced the following new dimensions of quality education: teaching and learning environment, teaching and learning practice and outcomes and quality control. Watty (2010) and Ratnatunga (2008) have since also mentioned quality control. McChlery and Paisey (2003) introduced facilities and information and employer liaison as new criteria of teaching quality. In their study Kerr and Smith (2003) mentioned several new criteria of quality education such as preparation and organization, showing interest in students, real-world orientation, ability to stimulate students to work beyond minimum requirements and the use of applied projects. Two subsequent studies have contributed to caring for students (see Watty, 2010 and Stout and Wygel, 2010). Watty's (2010) study also brought up the following new dimensions: transformation of the learner, empowering the learner and value for money. The Angell and Megics study presented the following new and rather broad criteria of quality education: academic, industry and leisure links.

## **SUMMARY, LIMITATIONS, CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH**

Using 13 articles published in seven journals, this study considered what makes quality in accounting education. This design was advantageous to accounting researchers, educators, students, and others interested in the challenges faced by accounting education. It was possible to identify many different focuses, perspectives, criteria and sub-criteria affecting the perceived quality of accounting education.

This study is subject to certain limitations as it analyzed articles published in peer-reviewed journals only. Books and other publications were not included in our analysis. In addition, a few of the studies and their perspectives were somewhat difficult to classify. Despite these limitations our findings indicate that scholars have had an overwhelming interest in examining issues related to the quality of accounting education.

Several areas deserve consideration in future research. For example, it would be beneficial to extend the research to other samples and academic fields. If possible, future research should explore ways to measure the relative efficacy of different criteria in impacting quality of education in accounting in order to identify the most important criteria and sub-criteria. Expanded studies on accounting educators and students could greatly inform this discussion.

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## **REFERENCES**

Andreu, R., Canós, L., de Juana, S., Manresa, E., Rienda, L. and Tarim H. (2003) Critical friends: a tool for quality improvements in universities. *Quality Assurance in Education*, Vol. 11, No. 1, pp. 31-36.

Angell, R. J., Heffernan, T. W. and Megicks, P. (2007) *Service quality in postgraduate education. Quality Assurance in Education*, Vol. 16, no. 3, pp. 236-254.

Beattie, V. and Collins, B. (2000) Teaching quality assessment in accounting: the Scottish experience. *Accounting Education*, Vol. 9, No. 1, pp. 1-22.

Biggs, J. (2001) The reflective institution: assuring and enhancing the quality of teaching and learning. *Higher Education*, Vol. 41, pp. 221-238.

Booth, P., Lockett, P. and Mladenovic, R. (1999) The quality of learning in accounting education: the impact of approaches to learning on academic performance. *Accounting Education*, Vol. 8, No. 4, pp. 277-300.

Calderon, T. G., Gabbin, A. L. and Green, B. P. (1996) Summary of Promoting and Evaluating Effective Teaching. *Journal of Accounting Education*, Vol. 14, No. 3, pp. 367-383.

Cullen, J., Joyce, J., Hassall, T. and Broadbent, M. (2003) Quality in higher education: from monitoring to management. *Quality Assurance in Education*, Vol. 11, No. 1, pp. 5-14.

Dillard, J. F. and Tinker, T. (1996) Commodifying business and accounting education: the implications of accreditation. *Critical Perspectives on Accounting*, Vol. 7, pp. 215-225.

Green, B. P., Calderon, T. G., Gabbin, A. L. and Habegger, J. W. (1999) Perspectives on implementing a framework for evaluating effective teaching. *Journal of Accounting Education*, Vol. 17, pp. 71-98.

Harvey, L. and Green, D. (1993) Defining quality. *Assessment and Evaluation in Higher*

*Education*, Vol. 18, No.1, pp. 9-34.

Hill, Y., Lomas, L. and MacGregor, J. (2003) Students' perceptions of quality in higher. education. *Quality Assurance in Education*, Vol. 11, No. 1, pp. 15-20.

Kekäle, J. (2000) Quality assessment in diverse disciplinary settings. *Higher Education*, Vol. 40, pp. 465-488.

Kerr, D. S. and Smith, M. (2003) Attributes and techniques of highly effective accounting educators: a multinational study. *Advances in International Accounting*, Vol. 16, pp. 123-138.

Madden, D. L. (1985) Quality accounting education as our continuing challenge. *Issues in Accounting Education*, Issue 3, pp. 8-14.

McChlery, S. and OPaisey, C. (2003) Quality in professional accounting education – provision in the UK – the CIMA experience. *Accounting Education*, Vol. 12, No. 2, pp. 197-225.

Nagel, T. and Kvernbekk, T. (1997) A dialogue about the quality of education. *Quality Assurance in Education*. Vol. 5, No. 2, pp. 101-109.

Navarathan, K. K. and O' Conner, R. (1993) Quality assurance in vocational education: meeting the needs of the nineties. *The Vocational Aspect of Education*, Vol. 45, No. 2, pp. 113-22.

Ratnatunge, J. (2008) Strategic quality management in an internationalized university department: a case study. *International Journal of Accounting and Information Management*, Vol. 16, No. 2, pp. 96-121.

Stout, D. E. and Wygal, D. E. (2010) Negative behaviors that impede learning: Survey findings from award-winning accounting educators. *Journal of Accounting Education*, Vol. 28, pp. 58-74.

Tsinidou, M., Gerogiannis, V. and Fitsilis, P. (2010) Evaluation of the factors that determine quality in higher education: an empirical study. *Quality Assurance in Education*, Vol. 18, No. 3, pp. 227-244.

Watty, Kim (2005) Quality in accounting education: what say the academics? *Quality Assurance in Education*, Vol. 13, No. 2, pp. 120-131.

Xiao, Z. and Dyson, J. R. (1999) Chinese students' perceptions of good accounting teaching. *Accounting Education*, Vol. 8, No. 4, pp. 341-361.

## **Performance Measurement Systems in Performing Arts**

### **Project description for PhD-thesis**

**Trondheim 8. – 10. November 2011**

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### **Introduction**

#### **Background**

In 1987 Johnson and Kaplan published the book *Relevance lost – the rise and fall of management accounting*. In this they stated that: “Today’s management accounting information, driven by the procedures and cycle of the organization’s financial reporting system, is too late, too aggregated, and too distorted to be relevant for managers’ planning and control decisions” (Johnson and Kaplan, 1987: 1).

A number of tools, such as balanced scorecard and activity based costing, were presented as the solution for the problem (Bjørnenak and Kaarbøe, 2011). These tools have also diffused to the public and non-profit sector, especially in Scandinavia (Ax and Bjørnenak, 2005). This research project follows this trend by emphasising the adoption and implementation of performance measurement systems (PMS) in performing arts organizations. Although these organizations are important actors in society, with high public interest and many examples of lack of financial control and governance, little attention is given to how and why they implement different PMSs (e.g. Turbide and Laurin, 2009).

The aim for these organizations is to enrich a cultural environment through artistic achievement (Turbide and Laurin, 2009). One can therefore argue that financial measures are less relevant as indicators of whether the arts organization is delivering on its mission. Turbide and Laurin (2009) conducted a survey of more than 300 general managers of performing arts organizations in the Canadian province of Quebec. Their main finding was that even if managers in arts organizations realize that the aim is artistic excellence, the performance measurement systems are putting as much emphasis on financial performance indicators as non-financial ones.

Performance measurement has been widely discussed throughout the history, and it has been defined in different ways. Three different definitions of performance measurements are: (i) *the process of quantifying the efficiency and effectiveness of action*, (ii) *a metric used to quantify the efficiency and/or effectiveness of an action* and (iii) *the set of metrics used to quantify both the efficiency and effectiveness of actions* (Neely et al., 2005).

Kaplan and Norton (2001) emphasises the importance of measuring performance using a multidimensional set of indicators, primarily based on non-financial indicators, in the no-for-profit sector. In performing arts and orchestras these are highly relevant arguments, since the main objective for performing arts organization is artistic excellence and not profit. If emphasis is put on a set of non-financial metrics, orchestras and other performing arts organisations may be able to act on their objective. However, non-financial measures in orchestras and other performing arts organisations have strong limitations. It is difficult to measure the qualitative outcomes and there is a lack of technological capability to bring forth timely and relevant information (Turbide and Laurin, 2009). 4

### **Research aims**

The main object of the PhD is to look at performance measures in the arts, more specifically symphony orchestras in Europe. The thesis is based on theory about performance measurement, and a key activity will be to establish a broad understanding of performance measurement. Turbide and Laurin (2009) state that research done on performance indicators in performing arts organisations is limited. To gain an understanding of performance measurement and performance measurement systems in performing arts empirics has to be collected. The first aim of the thesis is therefore to understand how the PMSs are designed in symphony orchestras. Given this, the further aim will be to understand more about the purposes of the PMSs, the functions and the uses. Based on this, the suggestions for research questions are:

1. What are the design characteristics of PMSs in orchestras?
2. What are the purposes, uses and functions of the PMSs?

In the second research question the expressions purposes, uses and functions are used in the context of PMSs. First, purposes of PMSs are understood as why the organisation has chosen to implement a PMS. Second, uses of the PMSs are interpreted as how a PMS is used in an organisation. Third, functions of PMSs, considers what effects the PMSs have on musicians and management in the symphony orchestras.

### **Research methods**

To answer the research questions it is considered useful to make use of several methodological approaches. Little research is done on performance measurements in symphony orchestras, and there is a need for collecting different sources of data. Triangulating between qualitative and quantitative methods is considered to be the most relevant methodological approach.

First, to get a general understanding of the performance measurement literature, it is necessary to study existing literature on the field. Second, to get an understanding of



the performing arts sector, symphony orchestras and performance measurements in symphony orchestras, a key aspect will be to study documents and conduct interviews. This broad understanding of the research field will have the purpose of being descriptive about design characteristics of PMSs in orchestras, and to be a base for the following survey.

A survey will be conducted with the aim of exploring some general features in performance measurement systems in orchestras. The aim is to explore PMSs in orchestras further, but it needs to be stressed that the sample selected not will be random, and that findings of the study not can be interpreted as general.

Given the descriptive and exploring design in the first part of the thesis, a multiple and explanatory case-study will be conducted. The focus will be to gain an in-depth understanding of the purposes, functions and uses of the PMSs in orchestras. A base of the case study will be interviews, but there is an aim to gather a broader variety of evidence, such as documents, artefacts and observations (Yin, 2009). 5

### **Structure of the thesis**

The thesis is article-based and the proposal suggests four articles and a possible fifth.

1. Literature
2. Descriptive study
3. Survey
4. Explanatory case study
5. Ideological analysis

### **1 – Literature review**

Because of the volume and diversity of the literature, and a review article is considered to be necessary to provide focus and clarity to the area.

The aim of the paper is to get an overview of the theoretical foundation of the field of study, and an elaboration on what is written about performance measurements will be a necessary framework. Issues that will be treated in this paper are inter alia what are performance measurements used for, how are performance measurements used towards different objectives, how does performance measurements influence practice and what have been and is considered to be criterion for beneficial performance measurements.

As mentioned, Turbide and Laurin (2009) has emphasized that little attention is given to how and why performing arts organisations have implement different performance

measurement systems, and special attention will be given to what is written about PMSs in performing arts.

The study will be based on a systematic review of literature, and articles published in business journals and books published about the topic will be included.

## **2 – Descriptive study**

This paper examines PMSs in orchestras. The intention of this paper is to get an overview and understanding of PMSs in the orchestras. To gain this understanding, the management dilemmas of the orchestras have to be described. The internal dilemmas, such as the difficulty of setting metrics for the performing arts, have to be described. In addition external factors such as ownership may have a substantial influence on PMSs in symphony orchestras. Orchestras are funded by the governments and private sponsors, and the study must aim for a description of which measures are adopted for internal management and which are adopted for external reporting. There are important differences in funding across nations, and there is an aim to gather information from one international orchestra as well as a Norwegian orchestra.

The study will have a research design of a descriptive case study. To be able to reach an understanding of PMSs in the orchestras a variety of documentation has to be gathered – documents, artefacts, interviews and observations.

## **3 – Survey**

The survey will, as mentioned have the aim of exploring some possible general features in PMSs in orchestras. Based on the information gathered in the descriptive case-study a quantitative study may be formulated meaningful to gain additional information. 6

To be able to gather meaningful information, the survey needs to be of high quality and have strong relevance; therefore the survey is based on the previous case-study. This information will make it possible to frame a questionnaire which is valid for its purpose. The questionnaire will be validated before it is sent out via Questback to orchestras in Scandinavia, England and hopefully other European countries

## **4 – Explanatory case study**

Turbide and Laurin (2009) acknowledge that non-profit organisations need to manage conflicting objectives in their PMSs, and the purpose of this in depth qualitative study is to get a further understanding of PMSs in the orchestras, in particular to gain an understanding of how the purpose of the PMSs, how it is used and how the PMSs influence the organisation (function). Based on the broad information gathered from the descriptive case study and the survey, the aim is to design an in-depth case study where interviews are carried out, in addition to document- and artefact analysis and observations, in two to four orchestras in Norway and abroad. An important aspect is to gather information from the perspectives of both musicians and administration.

PMSs in orchestras, and the purpose uses and functions of these can be analysed by utilizing different classifications of relevance: instrumental relevance, legitimizing relevance and conceptual relevance. (i) Orchestras are measured from the governments on how many minutes of contemporary music which is performed yearly. If this measurement is a part of the internal PMS, the organisation is managed in the direction of enough contemporary music and hence is an example of measurements having instrumental relevance. (ii) The PMSs may have legitimizing relevance. If PMSs are used with the purpose of justifying loss, the PMSs have legitimizing relevance. (iii) Analysing the PMSs in the light of conceptual relevance, one may claim that, in the example of contemporary music, contemporary music is made important because it is a part of the PMS.

Analysing PMSs in orchestras may take different approaches and the one presented is one opportunity.

## **5 –Ideological analysis**

As mentioned, a number of tools, such as balanced scorecard and activity based costing, have been presented as a solution on the problems of traditional accounting-based measurement systems (Bjørnenak and Kaarbøe, 2011).

However, the balanced scorecard has not received a lot of attention in France, and one of the reasons for this may be that French companies have used and developed the *tableau de bord* for fifty years (Bourguignon et al., 2004). Bourguignon et al (2004) suggests that the French reluctance to the balanced scorecard is due to fundamentally different ideologies in the French and the American society. Whereas in the US the fair contract between free individuals is a central dimension in regulating social order (Nørreklit et al., 2006), honour plays an important role in the creation of social order in France (Bourguignon et al., 2004).

The symphony orchestras have a strong tradition of social order. Musicians have played together and have created their social orders at all times. The symphony orchestra as we know it today containing 80 – 110 musicians in a standard complement with double winds and brass developed strongly with Ludwig van Beethoven early in the 19th century. 7

This paper aims to investigate the ideological beliefs in a symphony orchestra and to which ideology, the American or the French, there is a degree of coherence. The idea in this paper is that the ideological assumptions underlying the management and control instruments applied in a symphony orchestra must be consistent with the underlying ideological assumptions in a symphony orchestra to function properly (Bourguignon et al., 2004).

## **Outcomes**

As mentioned Turbide and Laurin (2009) has stated that little attention is given to PMSs in performing arts. This thesis explores if orchestras have made use of PMSs, how the PMSs are designed and which purposes, uses and functions the PMSs may

have. The thesis also explores ideological dimensions in an orchestra and how this may affect a PMS design specifically for an orchestra.

Symphony orchestras have a several hundred years old tradition, and systems for decision making, management and control have developed over time. Symphony orchestras may therefore be perceived as rigid organisations, and it is interesting to explore if orchestras have implemented PMSs and if they have, to look at what the PMSs contains, what the purposes are, how they are used and which functions they have.

Symphony orchestras are mainly funded by the governments and they have a pressure of maintaining a very high artistic level while the general direction in society is that there is a demand for more efficient use of public resources. Hence it is interesting and important gain further knowledge about PMSs in symphony orchestras. 8

## References

Ax, C., Bjørnenak, T., (2005). *Bundling and diffusion of management accounting innovations - the case of the balanced scorecard in Sweden*. Management Accounting Research 16, 1-20.

Bjørnenak, T. and Kaarbøe, K. (2011). *Dynamiske styringssystemer – hva er det?* Magma , nr. 5, s. 22-30.

Bourguignon A., Malleret V. and Nørreklit H. (2004). *The American Balanced Scorecard versus the French Tableau de Bord: the Ideological Dimension*. Management Accounting Research, 15 (2), 106-134.

Johnson, H. T. and R. S. Kaplan. (1987). *Relevance Lost: The Rise and Fall of Management Accounting*. Boston: Harvard Business School Press.

Kaplan R.S., and Norton, D.P. (2001) *Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part I*. Accounting Horizons, 15 (1), 87 - 104

Nørreklit, H., Nørreklit, L. and Melander, P. (2006). *US 'Fair Contract' Based Performance Management Models in a Danish Environment*. Financial Accountability and Management, Vol. 22, No. 3, pp. 213-233.

Neely, A., Gregory, M. and Platts, K. (2005). *Performance measurement system design: A literature review and research agenda*. International Journal of Operations & Production Management, Vol. 25 Iss: 12, pp.1228 – 1263

Turbide, J. and Laurin, C. (2009). *Performance Measurement in the Arts Sector: The Case of Performing Arts*. International Journal of Arts Management, vol. 11, nr. 2, s. 56-95.

Yin, Robert K. (2009). *Case Study Research. Design and Methods*. Los Angeles: Sage

## **The four levers of control in coercive and enabling control**

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### **Abstract**

Contemporary development of business society provides strong arguments for both centralization and decentralization. Organizations have often been characterized as somewhere on a continuum between centralized and decentralized. In this study, we remove this simplifying assumption and elaborate on the research question of how centralizing and decentralizing processes can work simultaneously and interact. A case study of a Swedish bank with customer responsiveness as its outspoken priority in this highly regulated industry forms the basis for the study.

The article offers two conclusions. First, management control, based in the four types of communication suggested by the levers of control, are shown to be able to support both centralizing and decentralizing processes in an organization and develop on how the centralizing processes enable decentralization through interaction between the levers of control. Second, a broader definition of interactive controls is offered. It is suggested to view interactive controls as a capacity for bottom-up communication that is potentially driven by employees when considered needed. Such interactive controls have been shown to help reconcile the potential conflicts that might arise from pursuing simultaneously processes of centralization and decentralization. This definition of interactive controls broaden their purpose, from only being used as an input to strategic development to include support for local employees and a channel to communicate frustration.

**\*\*\* Work-in-progress\*\*\*\***

**Sorry for inconsistencies due to an unfinished rework for this workshop**

## Introduction

Contemporary development of business society provides strong arguments for both centralization and decentralization. Customer responsiveness, high local complexity in business and rapid speed of development point at a need to local responsibility for well informed decisions, i.e. decentralization. On the other hand, technical complexity, globalization and growing institutional pressure increase the importance of high strategic alignment to business plan and adaption to central regulation, i.e. centralization. Organizations have often been characterized as somewhere on a continuum between centralized and decentralized. Not denying that an organization at a specific point in time may be described as more or less decentralized, Cummings (1995) argue that decentralization and centralization are two constantly ongoing processes.

In this study, we follow how centralizing and decentralizing processes can operate side by side in an organization. management control will be considered as enforcing either of them – and supporting in the conflicts that are bound to arise between them.

The balance between centralization and decentralization has been a core issue in literature on management control. Through design and use of instruments for planning and evaluating subordinate units the degree of decentralization can be influenced. For example, Van der Stede (2001) discusses tightness in control and suggests more detailed performance measures, increased intensity in communication of targets and emphasis on achieving targets in rewarding managers as means to tighten control. With a tighter control, the space to maneuver decreases for employees and thereby centralization increases. A traditional assumption within management control is that this might have negative consequences by putting limits on empowerment and flexibility (Adler and Chen, 2011), implying a trade-off between centralization and decentralization.

In later years a number of studies have turned attention to management control of having a potential role in both centralizing and decentralizing processes. Frow, Marginson and Ogden (2010) discusses continuous budgeting to simultaneously achieve financial performance and flexibility to handle uncertainties. Mundy (2010) discuss relations between levers of control to enable a balanced use of management control systems to direct and empower employees. Östergren & Stensaker (2011) show how a project, with an overall intention to strengthen the ability for local action, relied on centralized target setting. Ahrens and Chapman (2004) suggest four design principles to support an enabling use of management control systems aiming to reconcile efficiency and flexibility. These researchers are in contrast to a traditional view, which point at it is by decreasing control that the room to maneuver increases, which in turn is assumed to empower employees to take initiative and contribute to development of organizational activities. In recent research, control has been outlined as potentially active supporting and inspiring to employees creativity and engagement while maintaining efficiency, i.e. enabling control.

This development is related to how many nowadays put more focus on management control packages. This approach questions the simple connection between a single management accounting technique and balance between centralization and decentralization. Malmi and Brown (2008) reminded us about arguments introduced

already by Otley (1980) about the need to study control with management control with a holistic approach. To focus single techniques risks to provide an incomplete picture of control (Chenhall, 2003) and different types of control interact with each other (Alvesson and Kärreman, 2004; Abernethy, Bouwens and van Lent, 2010). For example, Alvesson & Kärreman (2004) provides an example of controls that are designed as technocratic controls were dominated by a socio-ideological form of control and Merchant and van der Stede (2007) discusses how both budget control and certain forms of reward system may support social forms of control. Such examples point at the need for a holistic approach to control and the risk related to studying controls as isolated phenomenon.

Even if control has been suggested to be able to support both centralizing and decentralizing processes simultaneously, there is still agreement of a potential conflict between the two. Ahrens & Chapman (2004), Mundy (2009), Frow et al (2010) and others suggest different ways in which the conflict can be balanced. Much of this research takes Simons (1995) and his earlier articles on levers of control is taken as an input. The levers of control model is intended to ensure that four types of communication occurs, regarding beliefs and boundaries for overall operations, diagnostic information to ensure that the organization is “on track” and interactive control systems should ensure that top management interact with relevant internal sources on strategic development. Thereby, even if Simons keeps to the line of thought in classical management control regarding senior management ability to implement a chosen strategy, the interactive controls highlight the need to consider local experiences.

It will in this article be suggested that to consider control as enabling and coercive needs to be approached in a different way. Various mechanisms are in play to enforce either coercive or enabling control and by considering Simons levers of control as different communication processes, these various mechanisms can be categorized as belief, boundary and diagnostic control active in either enabling or coercive control. Frow et al (2010) points out that that it is hard from a top management position to point out how the levers of control will function to balance tensions on middle and operative management levels. This complicates to devote specific directions for controls that should balance tensions. It will here be argued that interactive control, defined as a capacity for communication, may have a primary role in balancing tensions, parallel to the role of influencing strategic development. A key feature with interactive controls as discussed in their paper is that they are potentially employee-driven, i.e. employees in frustration can put them in play. The aim of the paper is to contribute to our understanding of how decentralizing and centralizing processes may be simultaneously enforced by coercive and enabling control and conflicts reconciled by viewing interactive control systems as capacity for communication that is potentially employee driven.

### **Frame of Reference**

Management control is about how to influence behavior in organizations. Two alternatives are available regarding what to communicate, in order to influence

behavior. Either, prescribing behavior (also labeled action or process<sup>7</sup>) or communicating expectations on output (also labeled as results or outcome) (Ouchi, 1979).

A behavior control has the potential to create a uniform and aligned organization, but requires that knowledge on how to behave must be available in the hierarchy above the controlled employee (Ouchi, 1979). Merchant & van der Stede (2007) claim many forms of behavior controls to be frustrating to employees in that action controls restricts freedom to behave as employees see best. The perception of behavior controls as frustrating is often enforced by an intense review built into organizational routines of employees following the behavior controls. This might result in that following instructions dominates the overall task to be fulfilled. Learning from the tradition of research on sales control, behavior controls can also be viewed as support in how to treat different situations (Anderson and Oliver, 1987). Instructions may clarify how to cope with strategic intentions, which customer to focus and how to meet the customer. Anderson and Oliver claim that by viewing behavior controls as support, employees under such control, in relation to being under outcome control, will be more committed to their organization and cooperate as a sales team. Their hypotheses have later on been supported by survey research (Cravens, Ingram, LaForge and Young, 1993; Oliver and Anderson, 1994). Besides being interesting experience in itself, the example from the sales control literature shows how problematic it may be to presume a certain consequence of a certain control.

To aim at influencing output instead means that there is a proposition regarding what should be achieved. With output specified, the logic is to empower employees to be creative in finding ways to achieve output with respect to local conditions. Therefore, and on a general level, results control has primarily been seen as a tool to be used to increase decentralization, just as behavioral control has been primarily considered as a tool to increase decentralization. However, also here the results control research point in another direction. Results control has been shown to decrease creativity and cause stress. A potential consequence is results control causing a focus on achieving what the organization expect through formal target setting, instead of developing business based on a perception on what would be suitable considering local conditions. Thereby, also results control might have other effects than what is generally expected from a traditional management control perspective. When considering coercive and enabling controls, it is potentially interesting to explore the role of communicating expectation both regarding results and behavioral control.

Traditionally, control researchers have focused on the technocratic tools available to establish behavior or outcome controls, but this might also occur through the use of informal processes (Jaeger and Baliga, 1985), or in terms of Alvesson and Kærreman (2004), socio-ideological control. Technocratic control is “management works primarily with plans, arrangements and systems focusing on behavior and/or measurable outputs”) and socio-ideological control is “with social relations, identity

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<sup>7</sup> Process controls are sometimes distinguished from input controls (Jaworski, 1988), where input controls are made up of training programs or criteria that should affect hiring of new staff, while process control relates to activities in operations, when resources are in use. Many behavior controls are hard to characterize as either or, as for example operation related training integrated in daily activities.



formation and ideology as basic ingredients” (Alvesson & Kärreman, 2004, 425). Technocratic and socio-ideological control may be considered differentiated by how direct they relate to the behavior searched for. Technocratic control are directly aimed at specifying what should be done or what should be achieved, while socio-ideological control are set up to create an interest or sense of being forced to find out what is expected and the willingness of the employees to fulfill these expectations. Socio-ideological controls are claimed to cope with a bigger complexity (Ouchi, 1979), while sometimes being less specified and requiring more of interpretation concerning what is expected in terms of detailed behavior or outcome. Instead of specifying which actions to take, a cultural norm may establish what overall behavior is appreciated which may facilitate to decide how to act in a certain situation.

A lack in many earlier management control studies is the focus on single techniques (Chenhall, 2003). Otley (1980) and Malmi & Brown (2008) suggest looking at control as packages, a wide array of techniques and structures, which may influence behavior. Most of these are covered by the broad categorization done here in behavior/outcome control and technocratic/socio-ideological control, with exception of organizational structure, which both of them include. Organization structure has also been rather invisible in many management control studies, but will in this article be considered as a relevant consideration. Span of control, liaison devices, organization of support functions and market or functional organization are important consideration in designing organizational structures (Mintzberg, 1983). A way of influencing behavior is to decide on how many managers there are in an organization, how many employees that each manager is responsible for and assigning people to the task of ensuring cross-border communication between units. These aspects are relevant in how their influence the capacity for communication within the organization and also which groups that can be under joint outcome controls, what people that have more access to each other for daily interaction and so on.

After this introduction on *how* control can be expressed (technocratic and socio-ideological creating expectations on outcome, behavior or organizational structure), we will now turn to *what* controls are used for. The idea is to look at the four levers of control as four different types of communication, used to enforce either enabling or coercive control. Simon (1994) framework suggests that management control need to include tools or processes that are used to communicate beliefs and boundaries, support to diagnose progress and interaction between managers and subordinates regarding uncertainties. His framework has been used and developed in a large number of academic articles the last decade. Especially this regards studies that by different approaches have tried to contribute to reconciliation of trade-offs between centralization and decentralization (Frow et al (2009)

In this article, our level of analysis is management control packages in its role of supporting decentralization and centralization. Cummings (1995, 103) gives a classic definition of the terms: “The term *centralized* indicates that authority to make important decisions lies towards the "head" or centre of an organization, while conversely *decentralization* implies more autonomy, whereby authority is vested in those further removed from the centre” . This definition reflect that a decision, at least in a single point of time, may be placed somewhere on a one-dimensional scale between the two. Mintzberg (1983) exemplify how difficult it might be to make such

a judgment, considering the many formal and informal aspects of an organization that influences a decision. Complete autonomy in daily action, what will that really mean after many years of in-house training and strong indoctrination? Can a manager with authority to take decisions on technically complicated matters really use this “power”, if he/she is dependent on technical experts? Is a rule on an issue of minor importance really an expression for centralization, if it provides security and help for a subordinate to take a decision on an issue of major importance and therefore reduces the need to seek guidance from a manager?

Cummings (1995) argue that over time, the two notions are in constant interaction with each other and that by considering centralization and decentralization as two constantly ongoing processes, organizations might better prepare to influence them. Especially, considering centralization and decentralization in relation to management control package makes the traditional definition of the terms problematic. Management control packages are not designed for single decisions. Instead, they influence organizations, in which a myriad of decisions are taken – each day. We will therefore instead consider the two as parallel processes. This requires a somewhat different definition. Centralization indicates influence on actions flows from the "head" or centre of an organization, while conversely *decentralization* implies freedom to act by those further removed from the centre. A management control package may simultaneously support both centralization and decentralization. That is, centralization would imply management control to achieve alignment concerning about how to act and what to achieve. Decentralization would direct management control to enable organizational members to by themselves decide on how to act and what to achieve. Centralization and decentralization are parallel processes and we might study how management control packages support managements influence on employee's action, and enable employees to take action.

For a single situation, a rule for action or results may bear all information needed. However, organizations do not design control systems (only) for single situations, control systems are designed for ongoing operations involving many situations. Simons (1994) contributes with ideas of what we need to include in a control system on an overall level in order to manage<sup>8</sup>. The four levers of control will here be reflected upon in their potential to contribute to centralization and decentralization – and to resolve the tension that might arise between these conflicting processes.

- *Beliefs* emphasize that employees are aware of the basic values and purposes of the organization and the overall strategy of how purposes should be fulfilled. They may contribute to enable employees to align with organizations on a general level (to pick up on tendencies for stewardship, (Davis, Schoorman and Donaldson, 1997)), and has been identified as a protection towards short-term attitudes (Mundy, 2010). Belief systems *centralize* by enforcing cultural uniformity within the organization by communication of “the broader picture”, values and mission of the organization, idiosyncratic control of what people should think. It may enable employees to interpret

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<sup>8</sup> Simons (1994) emphasize top management orientation, information content and formality in his definition of the four levers of control. In this paper, I “borrow” the content of the four levers of control but use in a broader sense, which will be evident from the discussion of this paper. [*These aspects of course needs to be developed extensively*]

more detailed controls and unsurveilled areas in processes, i.e. to enable employees to act in the interest of the organization without detailed supervision. Belief system may also support *decentralization* by providing security for employees to dare to act, most notably simply by communicating the freedom to act and responsibility for actions taken.

- *Boundaries* are according to Simons (1994) important to communicate limits, what the organization should avoid. A broad interpretation of this is to include all negative action control, which restricts certain actions in a formal or informal way. This would mostly be a *centralizing* tool. However, from the sales control literature we learn that action control, that reduces alternatives of action and therefore act as boundary controls, may build ability and confidence among employees to act and provide support on how to act. Therefore, even if a boundary regarding a specific action would be centralizing, boundaries may enable decentralization by providing an overall supportive work environment that enable employees to act.
- Diagnostic controls have a role surveilling the organizations performance, much connected to classic results control , and these controls should have a background function – as long as plans are followed, no actions need to be taken from top management. Diagnostic controls therefore enable decentralization. Employees are given the freedom to act in order to achieve certain targets. However, targets on more specific performance areas would be a step towards centralization. Diagnostic controls might also enable centralization, since they give managers the tools to follow what happens and therefore indicates when central influence is needed.
- Interactive controls, which instead are central in ongoing communication between strategic and operative levels. Simons (1994) propose that top management should decide on what the strategic uncertainties are and focus (decide in advance on) interactive controls on these areas. In this way, interactive controls would be strongly centralized since they enable managers to act on directing employees in strategic new directions. Mundy (2010) brings up the arguments of Simons about how managers are limited in their ability to use multiple interactive controls, they can only use one at the time. This will be questioned in the coming analysis by viewing interactive controls as a capacity for communication, potentially initiated by employees. It will be argued that this widened definition make interactive control important in enabling decentralization through offering a channel through which frustration may be communicated and local dilemmas resolved.

Mundy (2010) highlights the need to follow how levers of control influence each other and suggests *internal consistency, logical progression, dominance/historical tendency and suppression* as potential character of the interaction. Tension between levers of control has been noted as a source for improved performance, and in accordance, Mundy (2010) concludes that absence of tensions problematises to achieve progress. For example, when a belief is manifested through boundary and diagnostic controls, a strong signal can be sent and without interactive controls in place, relevant local concerns may be suppressed. This is suggested a probable

outcome when belief systems manifest a short-term focus, suppressing long-term considerations. Therefore, Mundy outlines *interactive controls as specifically central in balancing the other levers*. These must be able to challenge the basic assumptions in organizations, to avoid inertia. In this article, the approach from Mundy is followed mapping interaction between levers of control is separated in centralizing and decentralizing control processes. This is done to analytically separate how an organization can support strategic alignment and to let local conditions influence decision-making. This approach means that internal consistency will be highlighted. Further, since this is bound to create situations where decision-makers are potentially “trapped” between central instruction and local situations, the article offers a redefinition of interactive control mechanisms to reconcile such conflicts based on the processes in the case organization.

Behavior control is based on a proposition about how to behave, which must be communicated. This proposition must be communicated to the organizational member in order to gain relevance. Communication is done through either physically or administratively restricting the alternatives of possible actions, e.g. to require that a subordinate gets an approval before action or by formulating instructions of how to behave (Merchant and Van der Stede, 2007).

## Method

Malmi & Brown (2008, 290) suggest that management control can be seen as starting off from the managerial problem of directing employee behavior. “Those systems, rules, practices, values and other activities management put in place in order to direct employee behavior should be called management control”. According to their definition, management control only includes features that are consciously put in place, and with the purpose of directing employee behavior. However, it is reasonable to assume that the behavior of employees is influenced by other aspects than what managers have *consciously put in place* with the *purpose of control*. This is especially important to notice, since Malmi & Brown (2008) points out that control packages are formed over time, and new features may be added without consideration of prevailing control system. For example, newly appointed managers can implement new techniques without a complete picture of current status of control. Therefore, even if current managers in an organization are important to study to create a picture of current management’s view of control, it is not enough in order to explore how a control package operates. For this, we need to study what influences the actors who are supposed to be controlled.

Furthermore, a lot of parameters in a control package, mostly related to social aspects, are not exhaustively under the influence of managers. Most obvious, concerning culture, we would expect that even if managers try to influence, it will be formed throughout the history of organizations and under influence from many directions.

Therefore, we should not confuse the processes that managers are purposefully pursuing with the processes that influence behavior of employees. When we study control packages, we must not only follow how managers and subordinates perceive and act on management control initiatives, but also follow the context of relevance to the controlled situation.

To map out the control package of a somewhat larger organization is bound to be a complex task. For this study, managers of local branches within banks are chosen as focal point. This would be the lowest level where we could find a general management task. Each local branch includes a number of different functions which managers need to attend to. A case study approach based on semi-structured interviews and document studies are chosen as method. The following description of the Swedish bank Handelsbanken [SHB] are based on interviews with senior management of SHB (by another project member) and my own interviews with CEO, CFO and staff manager of the South Regional Bank of SHB, concerning how the control context for a local branch in the South region should operate. Two branch managers and three of their employees have also been interviewed, in order to learn how they relate to the intended control. It is important to note that at this point, the study relies on interviews on operative levels where the interviewed persons have been chosen by their superiors. This approach allows us to see the good examples, but is inadequate to establish any fair picture of the control processes of SHB in general. The study is an ongoing project, and more interviews will be conducted.

## **SHB**

Handelsbanken [SHB] is a Swedish full-service bank that presents themselves as working decentralized with at strong local presence (most branches in Sweden) and a long-term approach to customer relations. The goals are to be the most profitable bank in every home market they act on and having more satisfied customers than their competitors. SHB has been considered a huge success for 40 years. Almost without exception, the two goals have been reached, and the bank has avoided government support during both crises (is it not fantastic that in a market economy, that is considered a merit?!). The story of SHB's management control will be told with a departure of the practices of decentralization, thereafter turning to centralizing and balancing features of control.

### **SHB and the empowered, accountable employee**

*“The bank is decentralized in its way of working and that means a strong faith in the employees’ willingness and ability to take responsibility.”*

AR2009

The importance of having operative employees that take responsibility is emphasized by everyone. The core aspect of “decentralization” in terms of SHB appears to be that everyone should take, and be allowed to have, full responsibility for everything they do. This especially regards when the employees interact with customers. SHB aims to build long-term relationships with its customers, and one important part of this is how a clear interface to the customer with one person as responsible.

This also regards many important decisions to the bank, overall. If the head office of a potentially large customer is located close to a small local branch of SHB, then it is one of the employees at that branch that is responsible for this customer – worldwide if the customer is a multinational company. There are some restrictions to this policy. If it regards large credits, then a decision to allow large credits must be approved by higher hierarchical levels. Still, the decision is based on the information provided by

the one responsible. Furthermore, if the first decision of the responsible is “this credit will not be allowed” then this is the final decision. No superior is ever to instruct or afterwards override a decision taken by anyone. Employees and managers are convinced that in SHB, the credit limits for each individual employee is higher than in comparable banks and that a new employee is allowed a credit of his/her own after a shorter period of time than in other banks.

This line of thinking also regards both managers for local branches and managers for regional banks. At both these levels, managers should feel like they are running their own banks in terms of feeling full responsibility for their own performance. Annika acknowledges this:

*We can influence everything ourselves. Should our CEO in Stockholm sit and say that now we should do it like that, no I would not have liked that. No one in Stockholm decides what is a good market in our little town”.*

When it comes to instructions from the central administration, Helene give a typical comment:

*“Of course, they send signals, in newsletters or through our manager, about to be aware of certain things, but they never give orders, it does not feel like that. We at least get the feeling that we have mandate to decide for ourselves”.*

The idea about decentralization is claimed to have been at the core of since the early 1970:s. SHB is claimed to have changed substantially with the entrance of a new CEO at the time. The bank had gone through a crisis, which is claimed to have enabled the former CEO, Jan Wallander, to make drastic changes to the bank. A substantial part of senior management was exchanged and the strategy was shifted from product driven to customer driven. The budget was removed from being a central part of the control process<sup>9</sup>, and replaced with a decentralized responsibility for performance and customer as key factors. In numerous interviews, this background is given as the starting point of how SHB is controlled today. None of the employees on regional or local level were active at this time, but they still choose to highlight this part of the SHB history. They still emphasize that the basic foundation of the SHB model of control is the same today as outlined back then.

Decentralization is central to how both employees and the bank presents themselves. In interviews, respondents frequently refer to both the bank as decentralized. Especially, they compare their own situation with their perception of how colleagues at other bank work.

However, it is intriguing when a member of top management in SHB claims that:

*“We have driven decentralization far, concerning credit decisions and as an overriding policy. This has a lot of obvious advantages, concerning customer satisfaction, customer service, motivation among employees, the possibility to*

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<sup>9</sup> This decision has been extensively treated in the management literature, in numerous descriptions made by Wallander himself but also as one of the key examples behind the concept of “Beyond Budgeting” (xxreferences).

*influence your own business. To be able to have this, you must have an extensive and strong control. We have always had that”.*

The continued presentation will be aimed at developing how SHB has a strong control in parallel to the decentralized responsibility, i.e. a centralized form of decentralization.

### **The organization**

The formal organization of SHB operations in Sweden contains three hierarchical levels, the CEO, the regional manager and the branch manager. With a 461 branches, this appears to be a flat organizational structure with wide span of controls. Within the six regional banks in Sweden, there is however a position called area manager. The between three and six area managers per regional bank have no formal part in the hierarchical structure, but work to help the regional manager in keeping contacts with all the branch managers. Since they also are responsible for the yearly development meetings that each branch managers is entitled to, they are an important part and close to a middle manager role, but do not have the formal business responsibility for their banks. Every area manager works with approximately 15 branch managers. They are positioned between the regional managers and the local branch managers in the organizational scheme, but they lack many responsibilities usually connected to a manager position. For example, financial performance is only reported on branch and regional level, and the regional CEO is the formal manager to the branch managers. However, the area managers are supposed to support the regional CEO:s in their management of the branches, foremost with keeping up communication between the region and the branches. The regional CEO claims that the role of the regional managers is recurrently questioned, but so far the discussion always ends with recognition of the role as vital in the SHB model. RM considers AM to be important to drive business in the branches:

*“They do not really exist in the organizational chart, but they do a lot of things. We recently went from 3 to 4 AM here. It is because we want more business. We want them to be out in the branches, stress them, support them and ask them questions. If you are a branch manager, you can often feel lonely, you have the responsibility, you need to have someone to turn to. They should be involved in everything, to a certain degree. They do not have the responsibility, so they should back down before the decision, but they should influence the ones that take decisions.*

RM continues with AM’s central role in communication

*“I talk to the branches in different kinds of meetings perhaps 2-3 times a year. The things I say needs to be reinforced. AM do that, they repeat and interpret our intentions when they meet the branches”.*

The intentions with AMs’ role is twofold, to informally enforce central directives and act as a support when branch managers seeks this.

This dual role comes back when people from the market organization describes other function in the bank. Besides the market based organizations, with regions and

branches, SHB also has a product based organization with five product areas.<sup>10</sup> These product areas are responsible for profits, as the regions are. Most businesses are conducted through the branches, or sometimes directly with customers but in that case on behalf of the branch. In this sense, there is a clear distinction that the responsibility for customer contacts still rests on the branch offices, and the product structure of the organizations depends on the branches for their business. Furthermore, there are of course support departments<sup>11</sup>. The regional banks decide on how to organize themselves, but they often find an interest in having departments on most of these functions, as well. Ingrid gives her view of the role of the regional office:

*We have 500 employees [regional bank], everyone cannot know everything. We have specialists in all administrative areas, that is because we should be a support. It is in the branches they meet the customer, they must know a little about everything. When they feel a need, we put in some support – or if we need to go to Stockholm if it is more advanced.*

### **Senior managements' communication of value**

*“Since the basic model of organization has remained unchanged for a long time the bank has a very strong corporate culture that is expressed in the internal document Targets and Resources.”*

AR 2009

Many of the respondents claim that is something special with being hired at SHB, centered on notions as long term perspective, customer responsiveness, survival of the bank and financial prudence. Even if those values are considered as communicated in many ways, as we will see later own, two channels are considered as central in senior managements' communication of these values.

First, there is the book “Targets and Resources”, which outlines the core values of SHB. This is distributed to every new employee and is supposed to be “constantly prevailing”, giving guidance on a comprehensive level to be interpreted in local situations.

Second, there are the monthly letters from the CEO that goes out to all employees. This regards contemporary issues, but is often put forward as important in reminding employees about what SHB should be about. These monthly letters are also complemented on the regional level by the region managers of the most important aspects for their regional setting.

### **Career planning and promotion policy**

SHB has a policy to be restrictive with hiring of managers from outside. Managers are instead found among the employees. For example, in 2009 98% of the newly

<sup>10</sup> These are Capital Market (mostly company products), Asset Management (for example life insurance), International (business outside the domestic markets of Sweden, Great Britain, Norway, Denmark and Finland), Finance (mostly private products and Stadshypotek (mortgages).

<sup>11</sup> These are treasury, control and accounting (with risk control), credits, personnel, legal matters, compliance, internal auditing (reporting to the board) and corporate communication.



appointed managers were internal recruitments (AR2009). A number of reasons are given to this. Managers should be well informed about operations, to be able to understand the situations that the employees experience in their daily contact with customers and other routines. Furthermore, managers are important in bringing on the basic values of SHB, and then they need to have learned about these before they become managers.

Becoming a manager for a local branch takes some time. After working “at the floor” a couple of years, there are positions as deputy managers at the branches that are considered the first gate to pass. One manager tells that she thinks she relatively made quick career, she became a branch manager after only five years, but she think this was mainly due to her previous experience from two other banks, besides SHB.

Also, before becoming a manager for a large branch, you would be expected to have been a manger for a small branch and it is claimed usual to start with a small branch of three to four employees, then move on to a branch with ten to fifteen employees before applying for a big branch of perhaps 30 employees. To move higher up, for example on the regional level, would normally imply that a manager started to work in a team at the regional level, then became a manager for a function (auditing, personnel or accounting) or become an area manager and then possibly apply for a position at a regional level. A broad experience of the bank is considered to be a key factor.

To manage the process of feeding the bank with managers is considered a key process. The branch managers are expected to contribute. SHB has a standard yearly procedure of each manager discussing the future plans of their employees, and to tease out the ones suitable to advance is considered meriting:

*“I succeed if my employees succeed in the bank. We lose in benchmark ratings if someone leaves, but I think this is just as important to contribute to people’s development – and it is important to the bank” Annica.*

However, it is also a balance to keep for the bank concerning promotions. With a long term perspective on operations and especially important to have long term relationships with customers, it is problematic if people leave to quick. Customers should not have to change contact too often and especially branch managers have to tend to this question. However, even if this may be problematic, it is in some dimension counterbalanced by the fact that average time for employment is above 25 years in SHB – even if the employees of SHB move around now and then, they rarely leave the bank completely.

### **Training, education and cross-functional cooperation**

SHB works after the idea that even the bank is scattered in 470 branches in Sweden, all should cooperate as one bank. Furthermore, the core knowledge in the bank is practice-based experience of handling customer and credits. These ideals are supported by various control mechanism relating to human relations management, which is fundamental to SHB control package.

Education is foremost internal. Central office sets up education packages, which are adjusted to local circumstances at the regional level and then also given by them. Outside experts may be used, but usually teachers are the functional expertise on the regional level and from time to time also branch managers. The intention is to adapt the education to the SHB way of doing things, to harmonize the message with existing values.

An important part of the education is the daily training that people get in their ordinary work. Branch managers have a task in seeing to that their employees are given the opportunity to develop. Marie sees a task for the regional personnel department here:

*We follow them from their first education. We, and the course leaders, react if someone is not keeping up. Perhaps they do not get the right conditions or the right coaching. A lot of training is in the ordinary work, you should not rely on courses to learn the profession, it is about getting practical experiences. That is why we talk with branch managers about conditions. It is rare that it depends on the employee.*

Furthermore, an important part is to create a network of contacts. Through educations, employees get to know each other. Since few employees leave the company and many become managers or experts, it is a good chance that a new acquaintance becomes useful in the future. The intention is that everyone should help each other and that there should always be someone to call to, and this is considered to be facilitated by encouraging personnel ties. It is also supported that managers or specialists in branches or regions establish unofficial work groups with their counterparts in similar situations, to share knowledge.

### **Recruitment**

SHB considers themselves to have many managers, which will be elaborated on later on. This is considered vital to the recruitment process.

*“Everyone hired at SHB must be material to be a manager. Perhaps you hire three persons during ten years at a branch office. One of them is likely to be a mistake, i.e. not manager material. One of them needs to become a branch manager and one of them moves on to other positions, either as an expert or becomes manager on the regional level. Therefore, we must search only for manager material in the ones we employ” (Martin).*

The assumption that everyone need to be manager material has made SHB to departure from their idea about decentralization concerning recruitment. The decision about who to hire is made by the personnel manager on the regional level. The employment should not only be done based on local needs, but also based on the interests from SHB in general. In this, there is also a signal made to the newly employees that they are not hired by a branch office, they are hired by SHB. However, an intense communication between branch managers and the personnel managers take place before any decisions are made.

### **Performance measurement...**

*“The Bank’s overall goal is to have a higher return on equity than a weighted average of comparable listed Nordic and British banks. This is to be achieved by having the most satisfied customers and by being more cost-effective than peer banks.”(AR, 2009, p 45)*

Accordingly with this statement, the core of the SHB performance measurement of branches is focused on two measures, cost/income ratio (C/I) and customer satisfaction (CS). These are communicated externally, and on an aggregated level SHB has outperformed the average their competitors in Sweden for 20 years (and on return on equity since the early 1970:s). These results are a great source of pride in SHB.

The use of C/I and CS are intense on the branch level. Regarding C/I, the cost includes all of SHB’s costs, allocated to the each branch office as fair as possible. A ratio is used instead of an absolute measure, to increase comparability among the branches. However, a lot of costs are fixed, as for example the security system, which disturbs comparability. In some situations, the C/I is adjusted for credit losses. This is when it is interesting to look at performance of the current period, since credit losses are a consequence of decisions in earlier periods. The cost/income ratio has been in focus for many years in SHB, and is in general considered as able to catch what a branch manager should focus at, financially. At regional levels they look at return on investments instead. To follow return on investments on branch level could be done, but it is seen as unnecessary complicated and it is rare that the balance sheet of a branch is of such significant amount that it is considered necessary to look at. SHB has followed this question over many years, and the regional manager is convinced that it is better to have branch managers focus on C/I since it is easier to follow and influence.

CS is also followed for every branch. It is claimed that it would be impossible to deploy the strategy of long term perspective on business if not customer satisfaction was high-lighted, and to measure this is a way of constantly reminding everyone of how important it is.

However, even if these two measures are at the core of the process and always around, the general saying is that in SHB they measure everything. Every month, the local branch managers get a report, in the form of an Excel-sheet that contains numerous measures. Sales of different types of products, credit losses in various categories, new customers and so on. On the main screen of the sheet, there are comparisons to the previous period and the middle performance of the region. Behind every measure presented on the first screen, there are links to a sheet which displays all the branches in the region. Each branch manager may therefore see how they are doing in comparison to any other branch in the region.

This comparison, or benchmarking, between branches is considered fundamental to the management process of SHB by many of the respondents – and as something a little inspiring in the background to others. There are no formal targets connected to neither the measures themselves nor the rank in the comparison, besides the intention that everyone should always try to improve themselves. *“We expect everyone above average. That is the least I think”* is a phrase that comes back a number of times, and it is often followed by *“and no matter whom you ask, they are above average”*. It is

said with a humoristic touch, a kind of standing joke in the organization. The background seems to reside in loose use of the benchmarking process. If you are above average, that is ok. If you are challenged on a single measure and you are below average, you could always provide an explanation for this. For example, if a rebuilding of the office is done, the C/I is bound to go up. If you lose an important employee, that moves on in his/her career, the CS is most likely to go down. If you are asked an open question on how your branch is doing, you can choose among the measures and present yourself in a positive way.

No one has expressed any worry about this situation. Many respondents see a point in having measures around that always can be used to create a positive feeling within the organization. It is claimed that in SHB, the focus is not on the outcome per se, it is on the plans about how to improve your performance. For example, an important function with showing all the branches' performance on each measure is that someone from a branch that is near the bottom of a specific ranking should be able to see which branches are doing well, in order to turn to them for tips on how they have succeeded.

Furthermore, the measures are important as input to qualitative communication process of development of people. In frequent meetings between branch managers and area managers or other, functional managers, these measures are highlighted and branch managers are asked to explain why it is like this, how it should be handled and especially if the superior managers can do anything to help the branch managers. As far as possible, this should be a positive process. If nothing happens with a poor performance over a longer period of time, patience may run out and superior managers might turn to try to replace the branch manager. However, this is explained as both rare and something that should be avoided as far as possible.

### **Detailed instructions for – everything**

The operations of SHB are highly regulated. Instructions have been developed for most activities that the employee needs to perform, both towards the customer and for internal purposes. A lot of the instructions are today built into IT systems, but the personnel manager of region South tells about her impression when she started 20 years ago.

*“I had been working at a bank before, and there we had three folders of instructions. When I came to SHB, it was ten. Then you might wonder is this a decentralized bank, when there are so many instructions. But if you think about it, we need this to know how to act when we have so much responsibility” (Marie).*

The interviewed on regional and branch level all agree on that the bank is highly regulated concerning operations. There is an instruction for how to behave in most situations and there are good reasons for this. There are so many external regulations that banks have to pay attention to that it is necessary to have instructions, The employees bring forward that they appreciate the usability of the instructions, that they have been ‘translated’ into how external pressures should be interpreted and deployed in SHB.

To follow all instructions (including both rules and new products) is seen as a challenge. Within the branches, they try to help each other to keep up. Both formal

and informal meetings are used to help each other. Most often there would be someone with a more intense need or interest for different instructions, and they are to inform or discuss news with their fellow colleagues in these meetings.

There are not only many instructions, there is also a well developed structure for follow-up on compliance. Internal auditing, compliance managers and other expertise on regional level have as a task to see that the instructions within their areas are followed, and the area managers have a responsibility to follow the overall development of the branches, including obedience to instructions. However, even if the control dimension of these functions is acknowledged, this is not how it is first perceived. Foremost, these different functions (especially compliance, functional expertise and the area managers) are considered as a support in interpreting and deploying the instructions. Even if the instructions are written to fit the SHB way of working, specific situations can still be tricky. If such a situation arises, there is always someone to call or send an e-mail, if it can't be sorted out with colleagues in the branch. This also regards the product owners, that most often are located in headquarter in Stockholm.

This intertwined process of controlling and supporting the obedience could be exemplified by the credit process. The decision on the first loan to a new customer, to grant additional loans and to do yearly follow-ups on the creditworthiness of customers is one of the decisions that are decentralized. In SHB, 94% of the credit decisions are made on the branch-level (AR 2009, page 6). However, for each loan, there is a process to follow. Each customer should be ranked (1-5) regarding both their ability to earn money in order to repay their loan (the future profits) and the financial situation and owner structure that enable a company to handle unforeseen setbacks (the balance sheet). These rankings are based on a two to five page report that every credit assessor should write for each customer and up-date with certain intervals, more often if the figures are worse. These reports should include a discussion of both preset factors and other factors that the credit assessor judge as important.

These reports are sent to the regional credit assessment department. They evaluate the decision. They cannot change the decision to be taken. However, they can, out of their expertise, ask question to the credit assessor about the decision taken, to establish a dialogue. This is supposed to induce a learning curve with the credit assessor. This arrangement also makes the regional credit assessment department able to follow the different branches, and individuals, over time. If they notice that things are often missed at a branch, if they are more or less willing to provide credits than the regional function experience as suitable, then they may intensify contacts and try to change the situation. In this way, a single mistake cannot be stopped, but over time it should clear out unbalanced decision making.

### **The profit sharing plan**

SHB has no short term incentive plans. Short term incentives are seen as risky for SHB in that they might induce a willingness to offer customers products that are not in the customers' long term interest, i.e. it is not seen as harmonizing with the long term perspective deployed at SHB.

However, SHB do have a profit sharing plan. A part of the profit are put in a pension fund, called Oktogonen, every year that SHB has a higher return on equity than the average of banks listed from the Nordic countries and Great Britain. Of the profits exceeding the average level, one third is put into the Oktogonen. The policy is that if the bank outperforms the competitors, the employees should get their share. Since 1973, SHB has contributed with money to the pension fund every year except for two years and this has made employees with long tenures wealthy.

### **The levers of control in centralizing and decentralizing processes**

In the following, will consider the experiences from SHB as management control processes that reinforces centralization and decentralization, with departure from the model of four levers of control. First, we will review how beliefs, boundaries and diagnostic controls systems work in both directions. After that, we will consider, and extend, the concept of interactive controls systems with an explicit focus on its potential role not only in reinforcing both processes, but also as central to overcome the potential dilemmas that employees under a centralized decentralization may find themselves in.

#### **Decentralization**

A core part of the *belief control system* in SHB is that the bank is decentralized, in the sense that SHB evolves out of the right for every employee to take the decisions necessary for their customer. This appears to be central in how employees perceive themselves and it is continuously reinforced by both formal documents and how managers present the organization. In the belief system, it is also included that mistakes are allowed, as long as they are reflected upon, that SHB expects a life-time commitment to and from their employees and that within SHB, people are expected to help each other. Furthermore, the belief system includes an interpretation of customer focus that points at the necessity of taking decisions in close contact with customer, i.e. this makes it concrete that local information should influence decisions. The belief system is thereby enabling to decentralization by establishing a not only a right to take decisions, but also a trust in that the organization (to a certain extent) accept mistakes, provide support and has a long term commitment.

The *boundary control system* provides limits for which decisions an employee can take. Credit limit is the most obvious example. Employees view of themselves as having higher authority than their equivalents in other banks is frequently pointed out, these boundaries are used as a proof of the high degree of decentralization in Handelsbanken. Boundaries are therefore central in establishing decentralization. Other boundaries limit the freedom to act, through information systems and process descriptions that, automatically or by rule, enforces certain behavior. These types of boundaries, in the form of action controls, are of course enforces of centralization. However, in line with experiences from the sales control literature, SHB employees refer to these rules as enabling of decision making by providing knowledge input to decision making and facilitating the work. Boundaries, driving centralization on certain issues, may therefore enable decentralization of other processes.

The *diagnostic control systems* are intriguing to consider in relation to SHB. When Simons (1994) describe them as “used to track variances from preset goals and

manage by exception”, it is questionable if there are any formal diagnostic control systems of the most usual kind, results control, in SHB. Without any budget and fixed targets, the basis for such a control does not exist. Concerning decentralization, Mundy (2010) considers that a diagnostic control system also can work to highlight problems and act to motivate. The benchmarking process would be possible to characterize as such a diagnostic tool. As a flexible target, the position on the ranking act as a trigger for self-reflection and motivation. As an example, a comparable unit's higher positioning on the list concerning volume of a certain type of customer might trigger intensified activity toward such a customer in the own branch.

### **Centralization**

SHB declares itself to be decentralized. The strong emphasis of both regional managers and branch managers as “running their own business” and many employees with their own credit limits and high degree of credit decisions taken on the branch level supports this. However, in the continued presentation it will be elaborated upon how many centralizing processes can be found parallel to and interacting with the decentralizing processes described in the previous section.

First, it should be declared that it is of no surprise that we find centralizing processes in a bank. Two classic reasons for centralization are important to the banking industry. First, it is a highly regulated industry. The financial sector is vital to our society, and over time, escalating with the crisis in 2008, society's regulating of the financial sector is increasing. This means that internal processes and decisions should be transparent from the outside. This regards foremost risks and available capital, but also legal requirements of for example controls of large deposits from customers. Second, the banking industry depends on an extensive and complex information system. These require high investments and make it unfeasible to allow local branches and regional banks to not use these systems. Both these centralizing processes are highly visible in SHB, although not of prime interest here.

Here, we instead focus on the centralizing forces related to how managers on different levels influence local decisions. Top management in SHB has a clear view of how things should be done throughout the bank. The *belief control system* is strong, based in a long and successful history. Although it works through expected channels, like mission statements and monthly newsletters, it is how it is reinforced through recruitment policy (we hire for the long term), career planning (long plans with a lot of cross-functional experiences among higher managers to get experienced bankers with a long SHB tradition on high positions), education (internal courses, to have them adapted to the SHB way of working) that makes it understandable that the mission statements are integrated in employees' way of thinking and that the monthly letters are carefully regarded by employees. To conclude on SHB – a lot of effort and many control practices are used to reinforce values in SHB, i.e. to indoctrinate employees.

*Boundary control systems*, with the purpose to communicate what employees should refrain from, communicated through explicit limits and rules, are many. They are often driven by development of information system and by external forces. However, many are also derived from the beliefs – you should *not* make business (even if it gives a huge short term profit), if it is not in the long term interest of the customer or

if it is a high risk involved, since SHB is long term and customer focused. Boundaries of this kind are rarely formalized in SHB, but are informally put formal in follow-up processes and it is expected that employees reflect on such issues.

As mentioned, *diagnostic control systems* of the most usual kind, results control, is scarce since SHB lacks a budget. However, concerning results control, a reasonable interpretation is that the benchmarking process acts also as a centralizing diagnostic control, even if it is informal. Benchmarking is used by managers as input in communicating with their subordinates. Since they do not communicate fixed targets, there is no formal base to judge a failure. However, if a branch or a region is falling on the list, it is a trigger for a manager to contact a subordinate to ask why and if any assistance might be useful. The expression “no one should be below average” is an expression for this pressure on improvement that influences branches.

*Diagnostic control systems* can also be found in the action controls of SHB. The credit process is the prime example of this, which is also considered to be a core process of SHB (actually, it at least should be a core process in banking). By having a regional department that afterwards scrutinizes all decisions, decisions taken are visible. As mentioned, decisions cannot be reversed. The intention with this process however multiple. First, it enables the credit department to follow the development in the region. Second, if they find irregularities or are missing bases for judgment, they can contact the responsible for an inquiry about this. This might lead to that complementary information is retrieved. However, the more important function is to avoid similar situations the next time a credit process is initiated. An action based diagnostic control is thereby used as input to informal “teaching processes”.

Before turning to the interactive controls, we need to consider an additional aspect that reinforces the centralizing process. This credit process reflects an ongoing and overall evaluation process in SHB, which reinforces intentions in beliefs, boundaries and diagnostic controls. By setting up an organizational capability to monitor branches and their employees continuously, through area managers and others, a centralized process is enforced. Furthermore, the high reliance on internal recruitment for managers further emphasizes this. Considering the high density of managers, there are high probabilities to become promoted in SHB. Together with the capacity among managers to follow their subordinates, this can further enforce the interest to follow rules, intentions and procedures suggested from the organization. This implies a risk. If an employee, within his or her rights in the decentralized organization, chooses to take a decision in contradiction to the analysis provided from the organization, it will be noticed. If the decision is considered a success, no harm is done. If it is a failure, this might delay building or destroy an individual’s reputation as a good SHB-employee. This might be seen as in contradiction with the acceptance of mistakes. However, this can be understood as a difference between faulty decisions made based on all internal procedures and decisions taken counter wise to these. In interviews, respondents make frequent reference to both themselves and others as employees that could be characterized as stewards (Davis et al, 1997). However, the internal recruitment process might be a further reinforcement of this tendency. *The conclusion of this reasoning is fairly simple, with a high capacity in an organization devoted to follow-up of organizational activities, an informal, supportive enforcement of centralization is facilitated.* This is an important input to our understanding of



interactive control systems in SHB, developed on in the next section. The awareness of that decisions will be scrutinized might induce employees to in advance seek guidance, i.e that how this follow up of diagnostic control system might trigger employees to use interactive controls.

### **Dynamic, employee driven interactive controls in enabling a centralized decentralization**

Simons (1995) set up interactive controls as supporting communication between top management and subordinates and should be pointed out by top management towards area of high uncertainty that might require strategic change Simons (1994). In the light of the SHB experience, it is here suggested that interactive control instead is seen as a capacity for bottom-up communication that might be put into action by either managers or employees when considered necessary. Simon's definition connects with the purpose of the interactive controls, to enable top-management driven strategic development. Interactive controls seen as a capacity for communication points at a broader purpose, which also includes the ability to seek or give support and clarification of task. This view of interactive control systems will be developed in the following.

SHB has been outlined as an organization with a strong connection to the ideal of decentralization, and with strong structural aspects connected to and processes enabling decentralization. It is also an uniform organization in a regulated and investment intense business with an extensive control package, aspects signaling centralization. The literature points at multiple problematic aspects for employees that are supposed act on local situations under high, central regulation. These problems concern for example motivation, diverging loyalties and objectives and frustration when centralization limits decentralized action taking.

Employees in SHB signalize limited experiences of such problems. The enforcement of decentralization and clear strategic mission in the belief control systems, perception of boundaries as well adapted to operations and the lack of fixed targets concerning results control as diagnostic control systems are parts of explaining this. However, a core part relates to the possibility for support. The organization has the capacity to provide support when employees think they need it. The role of the area managers, the support of building of personnel networks, the outspoken task of administrative staff on regional and central level to act supportive of branches and that the product organization depends on the branches for their business are all examples of how parts of SHB, outside each branch, may act as capacity for support. SHB is a manager dense organization, a capacity for interactive controls come at cost, but is in SHB motivated by the need to support, and monitor, branches in their business. The CFO of region South claims this to be a consequence of all the demands that are put on the branches. When so much responsibility is put on them, the rest of the organization must be responsive to their needs and be available to give support when central instructions or other decisions cause problematic situations in local situations. The branch managers also claim that this works as intended. And the value of to have someone to turn to in the constant flow of new regulations and products is considered high. Since there is always someone to turn to that has a responsibility to respond, issues less often become frustrating.

However, to have a capacity for interactive control would not be enough. It needs to be considered useful, and there must be a trigger to seek support. The close evaluation of action controls and importance of benchmarking are triggers. Branches in SHB are visible, and employees are aware of this. Knowing that actions taken will be scrutinized gives incentives to seek support, in alignment with a general stewardship, i.e. will to act in alignment with the organization's intentions. Why not seek guidance in advance, when mistakes anyway will be noticed? This is further reinforced by the perception of high possibilities of advancement within the organization. To communicate and actively seek to learn how to behave in the SHB's way of working is considered to increase future career possibilities.

Ambition to develop an organization that has the potential to support branches is further enforced by long career paths and emphasis on experience from many positions in the bank and foremost experience of interacting with customers. People intended to give support should be well aware of the situation that the ones seeking support are in. If this works, it should increase the possibility that support is considered useful of the branches.

## **Conclusion**

The article offers two conclusions. First, management control, based in the four types of communication suggested by the levers of control, are shown to be able to support both centralizing and decentralizing processes in an organization. Second, a broader definition of interactive controls is offered. It is suggested to view interactive controls as a capacity for bottom-up communication that is potentially driven by employees when considered needed. Such interactive controls have been shown to help reconcile the potential conflicts that might arise from pursuing simultaneously processes of centralization and decentralization. This definition of interactive controls broaden their purpose, from only being used as an input to strategic development to include support for local employees and a channel to communicate frustration.

## **References**

- Abernethy, M. A., J. Bouwens and L. van Lent (2010). "Leadership and control system design." *Management Accounting Research* 21(1): 2-16.
- Adler, P. S. and C. X. Chen (2011). "Combining creativity and control: Understanding individual motivation in large-scale collaborative creativity." *Accounting, Organizations and Society* 36(2): 63-85.
- Ahrens, T. and C. S. Chapman (2004). *Accounting for Flexibility and Efficiency: A Field Study of Management Control Systems in a Restaurant Chain. Souplesse et efficience : une Étude sur le terrain des systèmes de contrôle de gestion d'une chaîne de restauration.*, Canadian Academic Accounting Association. 21: 271-301.
- Alvesson, M. and D. Kärreman (2004). "Interfaces of control. Technocratic and socio-ideological control in a global management consultancy firm." *Accounting, Organizations and Society* 29(3-4): 423-444.

Anderson, E. and R. L. Oliver (1987). Perspectives on Behavior-Based Versus Outcome-Based Salesforce Control Systems. *Journal of Marketing, American Marketing Association*. 51: 76-88.

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* 28(2-3): 127-168.

Cravens, D. W., T. N. Ingram, R. W. LaForge and C. E. Young (1993). Behavior-based and outcome-based salesforce control systems. *Journal of Marketing, American Marketing Association*. 57: 47.

Cummings, S. (1995). "Centralization and decentralization: The neverending story of separation and betrayal." *Scandinavian Journal of Management* 11(2): 103-117.

Davis, J. H., F. D. Schoorman and L. Donaldson (1997). Toward a stewardship theory of management. *Academy of Management Review, Academy of Management*. 22: 20-47.

Frow, N., D. Marginson and S. Ogden (2010). "'Continuous' budgeting: Reconciling budget flexibility with budgetary control." *Accounting, Organizations and Society* 35(4): 444-461.

Giraud, F., P. Langevin and C. Mendoza (2008). "Justice as a rationale for the controllability principle: A study of managers' opinions." *Management Accounting Research* 19(1): 32-44.

Jaeger, A. M. and B. R. Baliga (1985). "Control Systems and Strategic Adaptation: Lessons from the Japanese Experience." *Strategic Management Journal* 6(2): 115-134.

Jaworski, B. J. (1988). Toward a Theory of Marketing Control: Environmental Context, Control Types, and Consequences. *Journal of Marketing, American Marketing Association*. 52: 23-39.

Malmi, T. and D. A. Brown (2008). "Management control systems as a package-- Opportunities, challenges and research directions." *Management Accounting Research* 19(4): 287-300.

Merchant, K. A. (1988). "Progressing Toward a Theory of Marketing Control: A Comment." *Journal of Marketing* 52(3): 40-44.

Merchant, K. A. and W. A. Van der Stede (2007). *Management control systems : performance measurement, evaluation, and incentives*. New York, Financial Times/Prentice Hall.

Mintzberg, H. (1983). *Structure in fives : designing effective organizations*. Englewood Cliffs, N.J., Prentice-Hall International.

Mundy, J. (2010). "Creating dynamic tensions through a balanced use of management control systems." *Accounting, Organizations and Society* 35(5): 499-523.

Oliver, R. L. and E. Anderson (1994). An empirical test of the consequences of behavior-and outcome-based sales control systems. *Journal of Marketing*, American Marketing Association. 58: 53.

Otley, D. T. (1980). "The contingency theory of management accounting: Achievement and prognosis." *Accounting, Organizations and Society* 5(4): 413-428.

Ouchi, W. G. (1979). A conceptual framework for the design of organizational control mechanisms. *Management Science*, INFORMS: Institute for Operations Research. 25: 833-848.

Simons, R. (1994). "How New Top Managers Use Control Systems as Levers of Strategic Renewal." *Strategic Management Journal* 15(3): 169-189.

Simons, R. (1995). *Levers of control : how managers use innovative control systems to drive strategic renewal*. Boston, Mass., Harvard Business School Press.

Van der Stede, W. A. (2001). "Measuring tight budgetary control." *Management Accounting Research* 12(1): 119-137.

## Appendix 1: Respondents

### Central organization

(Interviews done by Sten Jönsson)

Pär	President
Rolf	Manager Risk
Olle	Manager Credits
Mikael	Vice President
Bo	Former manager Risk

### Regional bank South

Ingrid	Manager Finance
Marie	Manager HRM
Anders	Regional Manager

### Branches in Regional bank South

Annika,	Branch Manager
Daniel	Credit assessor
Helene	Branch manager
Marie	Credit assessor
Hans	Credit assessor

### Other sources

Martin	Manager HRM, Western Regional bank
Annual report 2009 [AR2009 ]	<a href="http://www.handelsbanken.se">www.handelsbanken.se</a>

## **The role of management accounting and control in process oriented health care – an explorative study**

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### **Abstract**

Process orientation has been a trend during the last decades within the private industrial sector and more recently it has made its entrance in Health Care Organizations (HCOs). The purpose of process orientation in health care is to improve patients' journeys through the health care system. One factor that potentially affects process orientation is the Management Accounting and Control System (MACS). In the health management literature, the accounting literature and the prescriptive management literature there are worries that process orientation often is not supported by a well designed MACS but, on the contrary, is counteracted by a MACS designed for other purposes than supporting processes. The study contributes to the existing knowledge in that it shows how the introduction of process orientation within health care is accompanied by the development of horizontally oriented management accounting systems and a subsequent demand for more process information. The study also illustrates how the horizontally oriented MACS mainly are used for interactive and coordinative purposes although also, but to a very limited extent, in a diagnostic way. The horizontal MACS do not substitute the existing vertical functionally oriented MACS, but complement it. However, what we can see is that the use of horizontal and vertical MACS are kept separate and are used in different situations.

## **The role of management accounting and control in process oriented health care – an explorative study**

### ***Introduction***

Process orientation has been a trend during the last decades within the private industrial sector and more recently it has made its entrance in Health Care Organizations (HCOs). The purpose of process orientation in health care is to improve patients' journeys through the health care system. A review of the research on process orientation in health care indicates a lack of substantial studies of its effects (Campbell et al., 1998, Mazzocato et al., 2010) but among the studies that have been done some show failure (McNulty and Ferlie, 2004, Bragato and Jacobs, 2003) and other report more positive results (Grabau, 2009).

One factor that potentially affects process orientation is the Management Accounting and Control System (MACS). In the health management literature, the accounting literature and the prescriptive management literature there are worries that process orientation often is not supported by a well designed MACS but, on the contrary, is counteracted by a MACS designed for other purposes than supporting processes (Ferreira and Otley, 2009). Some studies indicate that lack of support from various kinds of accounting systems, both financial and non-financial, might be one explanation of why attempts of process orientation have been less successful (Emsley, 2008). Other studies show that traditionally designed (vertical) MACS obstruct the realization of process orientation since such MACS reinforce a vertical perspective on the organization, which makes inter-departmental cooperation and inter-organizational collaboration harder (McNulty and Ferlie, 2004, Frandsen, 2010, Vikkelsø, 2007, Scott and Hawkins, 2008). Still other studies indicate that the professionals in health care organizations do not pay much attention to MACS or give them low priority (Lapsley, 2007). Several studies indicate that the health care professionals have been successful in fighting off MACS initiatives or in turning them into practices that fulfill professional needs and priorities (Ferlie et al., 1996, McNulty and Ferlie, 2004).

These observations in present research give rise to the question what role MACS play in process orientation in a health care setting. Therefore, the aim of this study is to explore the role of MACS in process oriented health care organizations. This is accomplished through the development of a theoretical discussion and an analysis of the results of two case studies.

The study contributes to the existing knowledge in that it shows how the introduction of process orientation within health care is accompanied by the development of horizontally oriented management accounting systems and a subsequent demand for more process information. The study also illustrates how the horizontally oriented MACS mainly are used for interactive and coordinative purposes although also, but to a very limited extent, in a diagnostic way. The horizontal MACS do not substitute the existing vertical functionally oriented MACS, but complement it. However, what we can see is that the use of horizontal and vertical MACS are kept separate and are used in different situations.

The rest of the paper is structured as follows. In the next section we present the theoretical framework where we define the concept process orientation, make a review of general management accounting literature that deals with process orientation and present the findings from research on management control in HCOs. In the three sections thereafter, we describe our method and present two case studies of hospitals working with process orientation. In the penultimate section we discuss the results from our cases and in the last section we present our conclusions.

### ***Theoretical framework***

Process orientation is a concept that describes different efforts to make organizations focus more on flows than on the individual performance in functional units. There are several models and concepts that fit under the “process orientation” umbrella.<sup>i</sup> However, in this paper we focus on the kind of process orientation that brings with it a formation of a matrix organization where the traditional functional organization remains but is complemented by processes developed for specified patient groups or diagnoses. This form of process orientation initiative in health care could be characterized as a post-NPM (New Public Management) movement since it downplays organizational units’ individual responsibilities and instead emphasizes units’ common responsibilities for patients and patient flows (McNulty & Ferlie, 2004).

### **Management control systems and process orientation**

Within mainstream management control literature MACS are defined as a Management Accounting Systems (MAS) used for control purposes, that is, to direct manager and employee behavior to achieve organizational objectives (Malmi & Brown, 2008, Ferreira & Otley, 2009). MAS are designed to support decision making at all organizational levels through planning, budgeting, performance measurement and reporting. Nowadays it is common not only to include financial measures in MAS but also non-financial measures such as quality, flexibility and time. MAS are defined as MACS if they incorporate the purpose of controlling behavior through monitoring, motivating, sanctioning and rewarding (Malmi & Brown, 2008). Consequently, control is about making sure that someone who plays a role in an organization follows the script (Macintosh & Quattrone, 2010). Traditionally MACS are designed for line organizations to allocate responsibilities among managers at different levels. In process oriented organizations the MACS may be complemented to support the horizontal dimension, that is, to support decisions and control behavior in processes. Even though there hardly exist two explicitly separated control systems within organizations, for analytic reasons it is reasonable to separate those parts of the MACS intended for vertical control from those parts intended for horizontal control, that is, control of the processes. We label the former MACS *vertical* (VMACS) and the latter *horizontal* (HMACS)

In process oriented health care inter-departmental cooperation is the ambition. It is therefore interesting that the inappropriateness of VMACS (at least tightly used) in organizations with interdependent departments, was highlighted already almost sixty years ago (Argyris, 1952). VMACS caused an adverse effect on the cooperative spirit between department managers who found themselves forced to narrow their attention to the problems of their own departments (Hartmann, 2000). In the following years a



stream of studies on VMACS was conducted and many, but not all, reached the same conclusion. Rigid use of budgetary measures of performance (VMACS) is inappropriate when there is an extensive interdependence between units and especially when the measures for various reasons are perceived as incomplete (Otley, 1980, Chapman, 1997, Hartmann, 2000, Chenhall, 2003). It may also cause a role conflict among managers where they feel they have to deal with conflicting pressures, which increase their job-related tension (cf. Hartman, 2000). However, this does not mean that VMACS have to be eliminated altogether in process oriented HCOs. What it means is that the management accounting information should not be used too tightly for control purposes.

Other researchers have studied how MACS would be designed to support processes. In an empirical study by Chenhall (1997) it was evident that a MACS adjusted to a process oriented setting had positive effects on the results of the organizations. In an extensive literature review by Chenhall (2003) it was shown that informal controls and meetings between managers and subordinates fit process orientation well. Seemingly, informal controls in HMACS would have potential. Still other researchers have claimed that process orientation should be complemented by more formal HMACS. For instance, Hansen & Mouritsen (2007) argue that MACS designed for supporting processes would give valuable information and incentives at the operative level. With reference to earlier research by Jönsson and Grönlund (1988) they do not rule out financial information as useful on the shop floor. Moreover, to facilitate cross-functional coordination they believe it is necessary to establish incentives, clarify goals and report performance results – which require cost accounting and measurement – for the processes.

Another group of researchers have expressed strong doubts about the idea of MACS altogether and especially in process oriented organizations. Chenhall's review (2008) shows that MACS have been given a secondary role within the literature on process orientation. Chenhall sees a potential explanation in the noted risk that MACS components such as ABC and BSC put too much emphasis on the functional vertical organization and hence, in fact, might be an obstacle when trying to process orient the organization (even though there is a process perspective in BSC). In the same vein, Hansen & Mouritsen (2007) note management gurus fear MACS since they create boundaries, make cooperation harder, produce dysfunctional incentives, do not stimulate change orientation and flexibility, and lead to focus on short-term targets instead of continuous improvements. According to this line of reasoning, MACS should be replaced by a focus on trust, competence, empowerment and cooperation (Ferreira & Otley, 2009), that is, informal controls. The same arguments come from the proponents of Beyond Budgeting (BB) who claim traditional MACS are expensive, give false security and hinder cooperation and therefore should be replaced by empowered self-managing groups (Hansen et al., 2003).

Interestingly, in his study of a Swedish world class manufacturer, Lind (2001) noticed that successful process orientation – in manufacturing – was accompanied by a change towards both a more horizontal MACS containing financial and non-financial data *and* more empowered employees (through managerial selection, however). The operators in the process as well as the managers at all levels had access to detailed information about the process for which the operators were accountable. Thus, Lind's

study shows that process orientation may be supported by both formal and informal HMACS components.

Based on the accounting literature it seems reasonable to assume that process orientation is hindered by the existence of tightly used VMACS but is supported by formal and informal HMACS.

### **The use of management control systems**

Following the aim of the study it is important to recognize the broad array of roles management is given in the existent literature. Already in the 1950s accounting researchers observed that accounting information was collected for various purposes, e.g., problem-solving, attention-directing and scorecard-keeping (see Hartmann, 2000). In recent accounting literature there is more focus on how MACS are actually used in organizations and less on the design of the system (Ferreira & Otley, 2009). This is not only a consequence of New Institutional Sociological (NIS) research (Meyer and Rowan, 1977/1991; DiMaggio & Powell, 1983/1991) that highlights the decoupling and the legitimizing role of MACS but also of the rediscovery of research done by e.g. Hopwood (1972) and Otley (1978). According to Ferreira & Otley, (2009) it is necessary to go beyond the design of MACS and focus on how the systems are *used* in practice. Therefore Ferreira & Otley are surprised that there are very few substantial contributions in the area of MACS use. In their view, the only substantial control framework developed for analyzing MACS use is the one developed by Simons (1995, 2000).

In order to categorize the use of MACS in our empirical material we differ between *diagnostic*, *interactive* and *coordinative* use. The diagnostic use of a control system is ‘to communicate critical performance variables and monitor the implementation of intended strategies’ and ‘to monitor organizational outcomes and correct deviations from preset standards of performance’ (Simons, 2000, p. 208-209). Diagnostic control systems are naturally incomplete in guiding organizations in a changing environment and the diagnostic use has also been criticized for conserving existing rules and routines and resting on linear and top-down perspectives on control.

Therefore, an interactive use of control systems has been suggested. The role of such systems is ‘to focus organizational attention on strategic uncertainties and provide a lever to fine-tune and alter strategy’ (Simons, 2000, p. 208). More specifically, an interactive control system is about intensive use of accounting information (broadly defined) by top managers and operating managers, a pervasiveness of face-to-face challenges and debates where the information is used to challenge existing action plans or the assumptions on which the plans rest, a focus on strategic uncertainties, and a non-invasive, facilitating, inspirational and empowering involvement by superiors (Bisbe et al, 2007).

Besides the diagnostic and interactive role of MACS, these systems are also used for coordinating organizational activities (see e.g. Anthony & Govindarayan, 2007). This role is underlined in the early studies by Thompson (1967) who among other things investigated the impact of different interdependencies on MACS. Basically, the coordination role of the MACS is about the mastery of events (Tomkins, 2001). In Hansen & Mouritsen’s (2007) view this mastery of events may be assisted by either a

VMACS where coordination is secured with a centrally developed master plan or by an HMACS where operationally relevant information is pulled backwards through the value chain. Within the lean management literature (Grabau, 2009, Liker, 2009) the importance of coordinative use of MACS is highlighted and the emphasis is on how systems (like kanban) can help processes run smoothly.

### **MACS in a health care setting**

HCOs are examples of what is often referred to as loosely coupled organizations (Weick 1995), dominated by a strong profession, the physicians (Mintzberg 1983, Mintzberg & Gruber 2004) and consisting of differentiated domains (Kouzes & Mico, 1979). When addressing the problem of MACS and process orientation, this rather specific setting is important to take into consideration.

Since the advent of the NPM doctrine there has been much research on its effects on HCOs. One question that has been posed in several studies is if the physicians' way of thinking and their behavior has been affected by the NPM ideas of disaggregation, vertical lines, efficiency and performance measurement (Hood, 1995; McNulty & Ferlie, 2004). The rationale for the focus on physicians has been their crucial role in the commitment of HCOs' resources (Pollitt et al, 1988, Llewelyn 2001).

The core position of the physicians has therefore attracted attention in several studies that address the question of how, in what way and if at all the physicians are affected by MACS in their work. The present studies point in different directions. Some studies indicate that HCOs have been rather resistant and successfully decoupled their practice from the new ideas, for instance VMACS (Pollitt et al, 1988; Preston et al, 1992, Lapsley, 2007). Others have argued that MACS have had an impact, albeit to a limited extent and the concept of polarization has been used to characterize the situation (Broadbent and Laughlin 1997, Jacobs 2005, s 157, Llewellyn 2001). Some managerial oriented physicians absorb the matters connected to new accounting techniques and hence function as buffers, leaving the rest of the professionals more or less untouched by the new demands. Still others have argued that MACS have made a more thorough entrance affecting the medical profession. Kurunmäki (1999, 2004) argues, based on empirical observations of Finnish and British physicians, that physicians tend to adopt the new language and the new knowledge necessary to handle matters connected to new principles of accounting and accountably.

Studies of MACS innovations also indicate that when introduced, the models tend to be used in new ways and maybe not always in intended ways (see e.g., Brorstrom, Hallin and Kastberg, 2004). For instance, control models such as the balanced scorecard (BSC) which originally were developed for vertical control in practice seem to fill other purposes in HCOs, such as learning and communication (Aidemark, 2001, Hallin and Kastberg, 2002). Consequently, there are reasons to believe that MACS intended for diagnostic control sometimes are used in an interactive way.

### **Implications for empirical research and the need for empirical studies**

The discussion thus far points at necessary questions to investigate in an empirical study. First, it is important to capture what kinds of MACS are used and affect the work with process orientation. Is it VMACS, HMACS or a combination? Second,

how are the MACS actually used, if at all, in the process work? Based on the literature on physicians' relationship to MACS we arrive at the conclusion that the existing literature gives little guidance regarding to what extent MACS actually have an impact on the work of the professional core and to what extent MACS are used by different groups. This indicates the importance of catching by whom and in what situations MACS are used.

Consequently, since we know too little about how MACS are used generally and specifically in the work with process orientation in health care there is need for more empirical studies. Our aim is therefore to "explicate practice" (Llewellyn 2004) through studying the role of MACS. We do this through a qualitative case study approach where two hospitals trying to implement process orientation are studied. The study is explorative but theoretically guided and the aim is to take into account different contextual factors and the specificity of different situations. The aim is therefore to provide new angles and new potential aspects (Mouritsen et al 2010) of the use of MACS that help us understand the use of MACS in process oriented HCOs better.

Since one central dimension of the problem addressed here is the transcendence of organizational units' boundaries, the aim of the presented study is to follow process orientation that spans organizational units. This reflects the observations made in reviews (Campbell et al., 1998, Mazzocato et al., 2010) that indicate that most empirical studies have captured only the initiating phase and attempts of process orientation with rather limited organizational reach (Mazzocato et al., 2010).

The two hospitals chosen are Sahlgrenska and Södra Älvsborgs Sjukhus (SÄH); Sahlgrenska a large teaching hospital and SÄH a provincial hospital. Both are emergency hospitals. Important considerations when choosing hospitals were that they should have started the work with introducing process orientation and that the processes include several clinics. Since the literature indicates that physicians involved in managerial tasks might have a different relation to MACS than those who do not, we chose two cases where the persons involved in the process orientation had different relations to managerial tasks. At Sahlgrenska clinic managers were involved to a large extent, while at SÄH the core members of the process organization did not have other managerial positions. At SÄH the work with process orientation was centered on diagnosis/patient groups, while at Sahlgrenska the process orientation was defined as a process for emergency patients. Both hospitals were operating under severe fiscal stress.

Different empirical sources provide the foundation for the empirical descriptions: documents, interviews and observations. At Sahlgrenska 17 interviews were conducted and five process meetings were observed. At SÄH 15 interviews were conducted and six process meetings were observed. Most of the interviews were with persons that directly, although to a varying degree, were involved in the work with process orientation. Both studies were conducted during fall 2010 and early spring 2011.

The interviews were recorded and transcribed, which allowed for processing the empirical material in a software program (Atlas). Since the questions used during the interviews were open-ended, the work with the empirical material consisted of a

process where categories and basic themes were sought, which in the next step allowed for comparisons between the cases.

### ***MACS in the emergency care process at Sahlgrenska hospital***

#### **Background**

Sahlgrenska Hospital is a part of Sahlgrenska University Hospital (SUH) that also embraces Östra hospital and Mölndals hospital. SUH is in its turn one of several hospitals in Region of Västra Götaland. In the Autumn of 2008 the Region Council in Västra Götaland decided that the waiting times in the emergency units had to be reduced. The politicians were displeased by the fact that despite having urged the hospitals at several occasions, the hospitals had been unsuccessful in their attempts to reduce the waiting times.

As a consequence, the director of SUH initiated a development project at Sahlgrenska Hospital where not only the emergency unit participated, but also representatives for the departments whose activities had impact on the waiting times at the emergency unit. At Sahlgrenska Hospital, the emergency unit was a unit at the medical department and therefore the management of the medical department took a leading role in the development project. Together with representatives from the other departments they started to identify improvement areas within the emergency process. In the earlier (and failed) attempts to reduce waiting times it had been obvious that it was impossible to succeed only by changing the routines at the emergency unit. The unit could only affect a part of the whole process and therefore the entire hospital (almost) had to be involved.

Accordingly, an emergency process was developed in which several of the hospital areas<sup>12</sup> and departments were involved. From area 6, the medical department (containing the emergency unit) and three additional departments participated. From area 5, the surgery and urology departments took part, and from area 4, the radiology department participated. A control team was established consisting of the department managers. The assistant manager of the medical department was responsible for summoning the team. Often the manager of area 6 showed up at the control team meetings and at one occasion the hospital manager did. The control team met each month to discuss the emergency process, its waiting times and other measures.

#### **Objectives and measures**

The overall objective related to the emergency process was that the emergency unit would handle 90 per cent of the patients within the waiting time targets (see TTR, TTD and TTT in table 1). For Sahlgrenska Hospital the waiting time targets were a real challenge since their earlier record was far over the target level (TTD=350 minutes and TTT>9 hours).

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<sup>12</sup> SUH's organizational levels are Hospital → Areas → Departments → Units.

Lead time	Abbreviation	Target 31/12, 2009	Target 31/12, 2010	Target 31/12, 2011
Time to triage	TTR	10 m	10 m	10 m
Time to doctor	TTD	120 min	90 min	60 m
Total throughput time	TTT	6 h	5 h	4 h

**Table 1. Waiting time targets for the emergency care process.**

To be able to reduce the waiting times an action plan was developed. In the plan, changes in the work processes at the emergency unit and at the nursing wards were specified. The nursing wards were involved since one major explanation for long TTTs was lack of beds at the wards. The action plan also specified what had to be measured and followed up to check up on if the action plan was realized and functional. Naturally, the main measures were TTR, TTD and TTT since these were the lead times the process work aimed at reducing.

An important reason for the extensive throughput times was the fact that X-ray examination consumed a lot of time and therefore almost always was a threat for the TTT target. Therefore, in the action plan it was emphasized that X-rays would not be done at the emergency unit. Instead, patients should either be admitted to a nursing ward and x-rayed from there or admitted to a Clinical Decision Unit (CDU). In both cases further waiting times would not be registered. Docility to the action plan was controlled by following up the number of x-rays ordered from the emergency unit. Lead times for X-rays still ordered from the unit were measured to register how much of the waiting time was caused by X-rays.

To reduce emergency patients' wait for a bed at the nursing wards, beds had to be made available earlier at the day. Therefore, in the action plan a rule was initiated that stated that patients at wards should be discharged before noon, and this was to be measured. Additional measures were number of unused beds every day and the average lead time from the time patients were finished at the emergency unit until the patients actually left the unit. Still other measures were number of patients registered at the emergency unit at four o'clock and the number of patient transports ordered from the unit. To provide concerned employees with relevant feedback, all measurement results were published monthly at the departments' websites.

At the initiative from of manager of area 6 – who was a great promoter of the action plan – all concerned department managers would sign the plan. Several of the interviewed managers had opinions about this. Some believed the signing was a positive way of drawing attention to the fact that the action plan had to be realized and, at later stages, maybe it would be good to have a document to show some manager what he/she committed to. Others believed the signing procedure signaled lack of trust in the department managers.

### **Implementation of the MACS**

When the action plan was completed, signed and ready for implementation, several of the managers were optimistic about its potential. Especially, expectations were high on the performance evaluation system since it made it possible to see if any department did not act in accordance with the plan. One of the managers established that it would be possible to hold responsible managers who did not live up to the commitments in the plan.

Since there was a lot of faith in follow-ups and accountability, it was quite frustrating for the management of the medical department when it turned out to be very complicated to get reliable data about the waiting times and other KPIs. At several occasions during the Autumn of 2010 the quality of the performance evaluation data was discussed and problemized and there were requirements for better information.

First, it was complicated to get reliable information of TTD and TTT. One problem was that all patients were not correctly included in the time measurement. Normally, the starting point for measurement was when the patient arrived at the emergency unit and took a queue ticket in the waiting hall. If the patient, for some reason, did not take a ticket, the staff would instead make a note of the arrival time, but this was occasionally forgotten. The result was a dropout rate of 10-30<sup>13</sup> per cent. Another problem was that "the time did not stop" in the measurement system for those patients who were transferred from the emergency unit to the CDU. Consequently, time for treatment and observation at the CDU was also included in the TTT measure. At an Autumn meeting with the control team, the managers of the emergency unit had to admit they did not know if TTT had improved since the introduction of CDU.

Second, there was a shortage of reliable data about X-ray frequency at the emergency unit. The problem was that even if patients were transferred to the CDU or directly admitted to nursing wards, in the X-ray system they still were registered as emergency patients. Consequently, the consultants at the emergency unit appeared to X-ray more than they actually did. Another problem was that it was not possible to get information about which department's consultants who followed the X-ray rules and which who did not. On the whole it was unclear to what extent the new rules were successful, which the following altercation at a control team meeting indicated:

"There may be improvements that we don't see in data (...) we lack a model for evaluations" (Department manager)

"I must have help with this!" (Assistant department manager)

"It's a technical question, where are the experts?" (Department manager)

To get a rough estimate of the impact of the X-ray rules, the assistant manager at the medical department compiled figures about the number of transports from the emergency unit to the X-ray department. This procedure also made it possible to find differences between consultants from the medical discipline and the surgical discipline. The figures indicated that the rule generally had been effective but more

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<sup>13</sup> Different statements were made by the respondents

effective in the medical discipline. While the control team members agreed that these ad hoc figures gave somewhat encouraging signals, they also cautioned against implementing more time demanding and less reliable manual routines for data gathering and compilation.

Third, data about the nursing wards' discharges arrived to the management of the medical department in raw form. The assistant manager made efforts to compile data and create diagrams but still the information was hard to interpret. The diagrams only showed discharges for the last month which meant developments over time could not be understood. Furthermore, the figures were not presented as percentages and that made comparisons between nursing wards and departments complicated. The department managers disagreed about whether it was more informative to present absolute numbers or percentages (e.g., the percentage of patients discharged before noon). The department managers also believed it was complicated to make fair comparisons since it was easier for nursing wards with long treatment times to discharge patients early at daytime. Earlier, the manager of area 6 and the management of the medical department had discussed implementing a reward system where a collective reward was given to the nursing ward that discharged patients earliest in the day (thereby creating space for new emergency patients). However, the difficulties in deciding how this would be measured made the managers postpone the idea.

### **Use of MACS**

The use of the collected accounting information was affected by how Sahlgrenska was organized. The manager of area 6 – where the medical department (with the emergency unit) and some other departments were situated – used the information at his managerial body meetings. The department managers at area 6 experienced that the performance evaluation of their department at least to some extent included the measures in the action plan, especially the measure to discharge patients earlier at the day. One department manager said this was emphasized “extremely strongly” and on regular basis at the managerial body meetings.

The department managers in area 5, however, were of the opinion that their area manager did not prioritize the lead times at the emergency unit. Therefore they did not focus very much on the measures in the action plan on their managerial body meetings. Also, on the whole, these department managers were of the opinion that they unjustly were given a responsibility they should not have. One of the area 5 department managers declared that since the emergency unit's operations were not very related to his department he had no formal responsibility for the unit's waiting time targets. However, he accepted accountability for realizing the measures in the action plan that were connected to his activity and he strongly emphasized that pressure should be put on managers who did not live up to their commitments in the action plan. He argued for a more effective (horizontal) control system to make sure the action plan was implemented. Today, it was too much up to the managers themselves to realize the plan.

”Who is responsible for reducing the waiting times? Or if they are not reduced? It must be the person who has developed this [the action plan] and thought that it is enough (...). We have decided what has to be done, sure, but just because it is written



on paper does not mean it will be done. We have a lot of very nice documents about the emergency unit. A lot of very nice papers. Now it is about implementation. Who is on guard so this is done? What happens if it isn't done? I'm not much for punishments but that is control." (Department manager)

However, the manager of the radiology department (situated in area 4) experienced that she was partly evaluated based on her achievements in cooperating with other departments to hit the waiting time targets.

"I'm evaluated based on the question: What does your activity do to support the waiting time targets? How do you cooperate in this task? And I have already had to answer for that. During the spring." (Department manager)

Several department managers emphasized there was an obvious conflict between the emergency unit's waiting time targets and their "own" department targets, which they also considered more important. These department targets were arranged in balanced scorecards and there were (vertical) targets and KPIs for finances, employees, customers, development and (internal) processes. However, there was at best one (horizontal) target related to the emergency process and this target was not quantified but a general appeal to contribute to the work with reducing waiting times at the emergency unit. Some of the department managers underlined that they could not spare more consultants for duty at the emergency unit without endangering their departments' performance targets and long-term development, for instance national guarantee of limited waiting period to people seeking care, budget targets, in-service training of house officers and recruitment possibilities. Moreover, they needed physicians at the nursing wards to discharge patients, i.e., to make beds available for new emergency patients.

"We have a large group of elective patients that according to the law have ... . We must take care of them! It is the national guarantee of limited waiting period to people seeking care, it is patients for which the guarantee applies and we have operations required by the guarantee." (Assistant department manager)

"I cannot recruit one single specialist if I say: 'You have to serve at the emergency unit and take care of emergency patients.' Forget it! No one would come." (Department manager)

"The emergency duty is resource consuming and means the young surgeons spend too little time at the operating theatre. This was criticized by the National Board of Health and Welfare's inspectors." (Department manager)

"Because when someone decides that the urology would send three consultants to the emergency unit, this someone has to take the consequences. Either the solution is to give more resources to hire more consultants or the urology department is allowed to stop doing this and this and this." (Department manager)

"If you reinforce the competence down at the emergency unit, then you lose it at the wards and then you slow things down there. Then you don't get any discharges, you get no business there. In my view, they have not analyzed the consequences in the next step." (Department manager)

Since the objective to reduce waiting times at the emergency unit was prioritized differently and the horizontal accounting information almost solely was used by the management of area 6, the monthly meetings with the control team became central. The meetings became the occasions when all involved department managers met to discuss the emergency unit. Often the meetings were opened with a presentation of the waiting times the month before and a selection of KPIs, for instance when during the day patients were discharged from the nursing wards. The control team meetings were an opportunity for the managers “more” responsible for the waiting times to influence the other managers. Especially, the manager of area 6 took this opportunity.

”I had so to speak already made it clear in my managerial body that we are jointly responsible. But we only controlled the medical emergency process. Neurology and surgery [including urology] were situated in area 5. (...) We cannot go into their organization and tell them what to do. Although, I have put rather hard pressure on the surgeons at the meetings I have attended.” (Area manager)

This pressure had caused strained relations between the manager of area 6 and one of the department managers in area 5, who actually refused to attend to the meetings and instead sent his assistant manager. Another of the concerned department managers emphasized he was not accountable to the manager of area 6 or the management of the medical department/emergency unit. On the whole, it was also clear that the efforts at the meetings to influence the department managers to focus more on the waiting times at the emergency unit did not result in noticeable effects at the meeting after. For instance, despite the fact that the information was poorly presented, at meeting after meeting the participants observed that patients’ were not discharged earlier in the day. Since the obvious explanation was failure to change the routines at the nursing wards, this caused critical remarks from the managers of the medical department. However, soon the discussion turned into a general (and unsuccessful) discussion about how the problem could be solved.

Another example of how the accounting information was used was a control team meeting in which figures about how long treated emergency patients waited for transportation (either to home or to a bed at a nursing ward) were presented. The average waiting time was two hours. The hospital director was present at the meeting and when he realized that half of the TTT was consumed by waiting for transportation he challenged the other managers at the meeting to find solutions for the problem. In the discussion, for instance, they considered transferring the already treated emergency patients to a waiting hall at another place at the hospital for further transportation later.

At the end of 2010, the manager of area 6 resigned. After that, the control team meetings were even less focused on holding department managers responsible for shortcomings, even if there occasionally were incisive exchanges of views.

Not many of the respondents experienced any formal or informal incentives connected to the realization of the action plan. In practice there were only intrinsic rewards, i.e., a feeling of accomplishment in making improvements for the emergency patients. One of the department managers said he did not expect any particular reward if the work went well. Neither did he fear much critique if he failed. Another of the

managers explained that they did not have a tradition of holding people responsible in the health care sector.

”No, it is very unusual in our world to face such consequences that you have to leave your position. (...) Yes, that is very unusual. I believe I have never experienced that.” (Area manager)

Furthermore, some of the interviewees stated they had perverse incentives since, for them, to concentrate efforts to the emergency unit would mean they would risk missing targets closer to their own core activities. In reality, there were incentives for the managers to hit the targets since the Region Council gave extra remuneration to successful hospitals. However, this was either unknown to the department managers or the managers considered the compensation too small to have impact.

”If they made it clear to us that if we can handle the lead times at the emergency unit we get ten million [Sek<sup>14</sup>] towards our personnel budget ... . It must be on about that level. Otherwise it makes no difference. They can’t just say ’we reduce your yearly deficit with 200 000 this year’. Then my comment is: so little money won’t affect our decision makers at all.” (Department manager)

### *Process orientation at Södra Älvsborgs Hospital (SÄH)*

#### **Background**

SÄH is a province emergency hospital serving an area with 285000 inhabitants and has about 4000 employees. At SÄH the first discussions of process orientation started several years before they found a concept that really suited the hospital. First in 2008, when a chief process director (CPD) was appointed, the work with process orientation took off. It was then also decided that there should be a matrix organization where the traditional functional division of labor would be intact (hereafter referred to as the resource organization) but complemented by processes headed by the CPD.

Before 2008 the work with process orientation had taken different forms and there did not exist a clear definition of what a process really was. Now, a process was defined as based on a diagnosis with a certain amount of complexity spanning over several units within the resource organization (colon rectal for example spanned over seven clinics). The aim was set out that 80 per cent of the operations should be carried out in defined processes. When the empirical study was carried out they had reached 17 per cent. Examples of processes were hip-fracture (HF), sepsis and colon rectal cancer. Before reaching formal status as a process it should be approved by the hospital director. Once approved the next step is to appoint a process owner. The requirement stated that the process owner should be a senior physician. The process owner worked 25 percent of the working hours as process owner (reporting to the CPD) and the rest of the time as a physician (reporting to the clinic manager).

A cross-functional team with representatives from different parts of the process and with different competencies (physicians, nurses and other staff members) was established to support the process owner of each process. One important first step for

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<sup>14</sup> Approximatly 1 million euro.

a process owner and the team was to establish an annual operational plan (AOP) consisting of a plan for the year and specific measures and objectives to be reached during the year. Each process team should then renew the plan annually.

### **MACS initiatives**

The process owner had the right to produce guidelines for the diagnosis and it was formally stated that the rest of the organization should obey the guidelines. For each process a standard care plan (SCP) was produced and it was also formally decided that the SCP must be used by the physicians. The process owner therefore produced guidelines of what should be done, what tests to be taken and so forth, and the personnel working in the resource organization had to follow them. The guidelines and the SCP were described as important parts of the work with establishing the processes.

The observations of the team-meetings, the interviews and the studied documents all point in the same direction; they measured a lot. Already when working with the first AOP the teams followed a routine where objectives were identified and measures specified that captured how the operations developed in relation to the objectives. A lot of time at the team-meetings was spent discussing different aspects of the outcome of the measuring activity. A respondent stated that all in all 137 different measures had been identified (2010) and formed part of the different AOPs of the processes.

For each process some measures were held to be more important than others. For hip-fracture, the ambition to reduce the time from patient arrival to surgery to less than 24 hours became an important aspect of the process to measure. For sepsis, “time to needle” became a central measure illustrating how quickly after diagnosis the patient had antibiotics. The ambition was to give antibiotics within four hours. In both cases the respondents argued that these measures were very important for the quality of care and medically evidence based. These two examples illustrated how core dimensions of the processes were measured.

The persons engaged in the teams and the process organization almost solely discussed, related to and asked for more “horizontal” measures. When reviewing the different measures that the respondents engaged in the process work seemed to regard as most central, it was also obvious that all of them were operational and related to the processes carried out. One respondent describes the objectives for one process:

“Our next goal is that all patients are to have their medication reviewed. We have goals for how early after operation a patient is to be evaluated by a physical therapist and an occupational therapist. So we evaluate based on various goals.”

This was mirrored in the systems that the data was generated from, which in almost all cases were operational systems. Questions regarding financial dimensions were not discussed during the team-meetings and the respondents did not describe the financial aspect as relevant during the interviews. There was one exception though. The objective regarding the hip-fracture process stating that 90 per cent of the patients should go through operation within 24h was tied to a remuneration that would only

fall out if the objective were met and then be split between the different resource organizational units involved in the process. This caused a special focus on the measuring activities and the outcomes. The process owner repeatedly stressed the importance of meeting the criteria because of the risk of not getting the extra remuneration.

However, when interviewing persons in leading positions within the resource organization, their main focus was on “vertical” measures, such as budgets and priorities within the departments. For them the measures catching the processes were considered less relevant. *“We discuss it to a very limited extent”*, one respondent in the resource organization said.

Altogether there were a lot of measuring activities going on. However, during the interviews there were also complaints that it was sometimes hard to bring out relevant data of the systems. The problems mentioned were several. One problem was that there were several different systems containing data covering different relevant aspects of the processes. The problem was that the systems could not communicate with each other. Sometimes, in order to measure central aspects of a process, a medical secretary had to log on to different systems to get the data needed and then put it together in a spread sheet. This procedure then had to be repeated as often as the information was asked for and sometimes each month, which took a lot of time and effort. Another problem was that relevant data were registered in different ways and sometimes not at all. Routines for registering had to be altered in order to make measuring possible.

“Is it possible to do a search on it? Because if you enter the journal, it will be found under a specific key word. In that case, it has to be apparent that documentation is to be made under the key word in order for us to be able to measure it.”

In some cases, however, the data analysis unit had managed to change the systems in a way that allowed the persons involved in the process work to easily take out the reports they needed. Another problem discussed was that some things just could not be measured. One respondent described when discussing the measure “time to needle” that it would be desirable to measure time from falling ill to diagnosis, but that that would be impossible in reality.

### **Linking problems**

One central problem that the respondents described was the connection between the work of the process organization and the resource organization. One measure taken, in order to make the work of the process organization impact the resource organization, was to reschedule the work with the annual operating plans of the processes. When introducing the plans as a part of the control of the processes the plans were most often not in place before the annual operating plans of the clinics, which made it hard for the resource organization to consider the work of the process organization. A change had therefore been made and the annual operating plans of the process organization were to be in place in time so that the resource organization could consider them. Another attempt to link the process organization to the resource

organization was made through the introduction of “dialogue meetings” where the process owners meet with the directors of the clinics that formed part of the process.

“Process owners and the clinic directors meet together with the CPD and discuss if ideas are possible to realize, so that a process does not come up with fully unrealistic plans. So they have some kind of discussions then.”

However, the interviews indicated problems regarding the extent to which the resource organization actually considered the work in the process organization. One problem that was discussed was the lack of compliance regarding use of the SCP. As described above, the SCP was held to be a central tool both for implementing the guidelines, but also for the following up of the processes, since the use of SCP also meant registering in a certain way. There were, however, strong indications that SCP was used only to a limited degree by the physicians.

“...some things have to be registered in a certain way in the act. And that is also in the SCP. So, if you use it [the SCP] it will be correct all through, and then the PO can follow up important key indicators.”

“... regarding plenumia, the PO did the following: for half a year he sent the results of compliance to each clinic. That way, he reached a 50-60 per cent usage of the SCP, and then he is actually doing it every week. So, it is not easy to take it into the resource organization.”

The problem indicated by the quotations, according to some of the respondents, formed a part of a larger problem; the process organization at large lived somewhat a life by its own. One respondent even described it as “two separate organization” that never meet, and that explained why the initiatives taken by process owners did not have the stipulated effects.

### **Use of MACS**

When reviewing the empirical material it becomes evident that the traditional management accounting information was not used by the actors involved in the process organization. Financial constraints were only mentioned in terms of scarce resources like lack of capacity, too few physicians and so forth. For the managers within the resource organization the ordinary control, such as the budget, was more relevant and set the agenda to a great extent. The hospital was under severe fiscal stress, which made the budget constraints obvious. On the other hand, they cared less about the information and measurement activities produced by the process organization.

As described, budgets and other vertically oriented information was not used in the organizing activities of the processes, but horizontal information played a significant role, as indicated above. The empirical material clearly indicates that the main use of measures related to the processes was directed towards learning and coordination. These measures were used in the attempt to visualize the process in order to learn about it, make it manageable and follow up how different initiatives were realized. One important measure, for example, was the total time spent at hospital for hip-fracture patients, which allowed for discussion on how to cut the time. The

measurement of different parts, or sub-processes, also allowed for learning about where possible improvements could be made.

The implementation of measures and the quantification of different parts of the process were also driven by the ambition to visualize problems and highlight the need for change. One example was that a process owner felt that one link in the process, regarding the transport of a patient from the X-ray unit to the nursing ward, was not functioning in a satisfactory way. This was partly because there was a quarrel within the team regarding areas of responsibilities. “*We must start to measure and clock this*”, one respondent said, because when getting the facts on the table it would get easier to push for important changes.

These measures (i.e., the HMAACS) were used in order to hold persons and units accountable to a lesser extent. Facts and figures indicating that parts of the process were not up to set standards were used to point out important areas for improvement and the allocation of responsibilities for it. If a measure indicated that one part of the process chain did not live up to set standards, this could render a call for action in order to improve the situation, but this was not so much an expression of holding someone responsible as a way of signifying an important area for improvement. Formally, the process owner had no actual power to hold other persons responsible. They could provide binding guidelines but not hold persons responsible.

When addressing the question of accountability and responsibility, the situation can be categorized in the following way: The process owners, together with members of the process organizations, felt accountable for the process organization and its outcomes. The team members, if weighted together, felt somewhat accountable regarding the processes, although it varied between the members. When looking at persons not involved in the process organization or the teams, that is, managers and physicians within the resource organization, they mainly felt accountable with regard to the dimensions expressed in traditional, vertical measures and controls (i.e., VMAACS) and the professional belonging.

The CPD did not use information about outcomes to hold process owners responsible. The main focus was instead information that captured process dimensions of the different processes, such as how often the teams meet and to what extent the process owner and the teams managed to capture the whole process.

”We look at how they have captured the complexity of the organization plan... . If you encounter an organization plan in which only some aspects are covered, but which does not include emergency flows or emergency transport and in which there are no elements of rehabilitation or physical therapy, then you are not likely to have grasped your process.”

That the different actors in the hospital used and were affected by different MAACS also became evident when they met and discussed common matters. As described, different actors used different kinds of information and felt responsible and accountable with regard to different objectives. Managers and physicians within the resource organization argued against demands from the process organizations, pointing at their mission and objective to care about all patients equally and based on medical priority within their financial restraints. With reference to horizontal data,

process owners, on the other hand, strongly argued the importance of changes and actions that would improve the flow connected to their processes.

There were several problems regarding the realization of the processes. One regarded scarce resources. To the process owners and the teams, financial matters were not a direct problem, obstacle or even an important dimension. However, indirectly scarce resources were discussed but not in monetary terms. One example was the problem with surgery capacity that was discussed several times during the HF-team meeting and the interviews. The problem was that in the HF-team's view, the HF patients were de-prioritized too often. The consequence was that they failed to meet the objective of surgery within 24h. The basic problem, as it was described, was that there were too few surgery rooms, but also that the orthopedic patients were crowded by other patient groups.

### *Analysis*

Here we turn to the question of what the empirical descriptions can teach us about the role of MACS in process oriented HCOs and how our findings can be related to other scholars' contributions. First, we address how the formal control situation can be characterized. Secondly, we address the question of how MACS actually were used in practice. Thirdly, we discuss which actors draw on the MACS information. Finally, we explicate the core contributions of the study.

### **MACS design**

When scrutinizing the empirical material, it is clear that VMACS in both cases was in place the same way as before the introduction of the process orientation. Budgets and operational targets were used and regarded as important by the managers of the resource organizations.

In both cases the VMACS were complemented by HMACS. At SÄH, annual operating plans for each identified process with objectives and measures to follow them up were implemented. There were also standard care plans to standardize and quality assure the process work. Within the process organization there were systems for checking that the routines for working with processes were kept. All in all, an HMACS was established containing not only objectives and measures, but also routines for process work. At Sahlgrenska, the situation was similar. There were clearly stated objectives regarding waiting times and following up through measurement. An action plan with routines and KPIs was also produced. Parts of the emergency process were measured as well as the implementation of different actions that were to be taken, like discharging patients earlier and restrictiveness regarding X-rays. Ideas about strengthening the incentives through financial rewards had, however, to be abandoned because of the challenges towards establishing relevant measures that mirrored the complexity of different departments. However, even if there were implementation problems and to some extent lack of relevant accounting information, the complete lack of horizontal MACS commented on and problemized in earlier studies (e.g., Chenhall 2007) was not the case in our two studies.

Some differences between the two cases were also evident. The HMACS at Sahlgrenska was designed for diagnostic use. The emphasis was on following up a set



plan with a clearly established objective: shorter waiting times. One clear expression of the diagnostic ambition was the procedure under which the managers involved had to sign the action plan that was introduced. Moreover, at Sahlgrenska, the HMACS was an interest for top management. At SÄH there were also diagnostic dimensions in the design of the horizontal MACS, but the work with developing the content was delegated to the operative level and responsibilities were not emphasized in the same way. There was no formal authority given to the process organization to hold persons or departments responsible.

Altogether, the two cases show how HMACS were introduced and that there were differences in the design and the intentions. In the next section we turn to the question of how the MACS were used, and for what purposes.

### **The use of MACS for coordination purposes**

In the theoretical framework we noted that coordination (or the mastery of events) is one potential use of MACS. In the cases it was evident that the HMACS were used in this way since the information supported coordination through learning. The information was used to grasp the process, to make it understandable and provide a basis for communication about the process. Typical examples were the mapping and measuring of different activities in order to coordinate and identify potential slack and bottlenecks. When starting up the work with process orientation at SÄH, for example, the very first step was to get a hold of the process from the beginning to the end by mapping it and starting to measure it. Visualizing through measurement allowed the involved actors to reflect on the effectiveness of actions taken and initiate discussions on alternative ways of doing things. At Sahlgrenska, the measuring indicated bottlenecks in X-ray routines, transportation and nursing wards, which led to discussions of CDUs and waiting rooms for discharged patients.

However, the empirical descriptions of the two cases indicate that there was sometimes a lack of relevant information from a process perspective, which in turn hindered learning. At SÄH there was a quarrel between different professional groups and the absence of relevant time measures was problematic since it was impossible to decide who made the most accurate appreciation of time. At Sahlgrenska where the use of X-rays did not decrease as intended and it was complicated to trace who ordered the X-rays. The absence of relevant information was described as a result of a lack of registration of data and an inability of the systems to deliver relevant output data; the systems and registration routines were not designed for delivering the data needed.

In both cases we can observe how HMACS helped visualize the process, which provided a foundation for learning for coordination purposes, but also how a lack of visualization made the process work run less smoothly. Knowledge gaps made it harder to evaluate actions and trace the roots of problems. The empirical material also shows that in neither of the two cases was MACS introduced or used in a way that facilitated the flows, as suggested in the lean literature. Coordination regarding the ongoing operative activities was done in the same way as before the introduction of process orientation.

### **The diagnostic use of MACS**

The diagnostic use of MACS aims at pinpointing the gap between established objectives (and standards) and outcome. Deficiencies call for superior managers' attention, allow for holding managers to be responsible and demand measures to be taken. MACS are, in this process, used as tools for evaluating to what extent the operations are developing in line with the standards and targets decided upon.

The design of the HMACS at Sahlgrenska indicated that a diagnostic use was an aim. To some extent this was also how the MACS was used. The most committed area manager used the accounting information to put pressure on his subordinates and also on managers not formally under his command (i.e., informal control). However, the dominating impression is that the HMACS was not extensively diagnostically used. For instance, another superior manager did not use the MACS at all and other managers did not accept accountability to others than their own superiors. Also, as a consequence of lack of reliable figures, missing data, data hard to interpret and managers' limited controllability, it was hard to hold managers and departments responsible. At SÄH there was no explicit aim to use the HMACS diagnostically. However, at SÄH some measures connected to objectives in the HMACS were followed up regularly but missed targets did not lead to anyone being held responsible. In neither of the cases were there examples of sanctions against managers or departments that did not meet set standards. The monetary rewards from the county council to the hospitals that managed to hit process objectives were also too small to affect managers' behavior.

The diagnostic use of the HMACS seemed very much to be confined to attention directing. The figures caught committed managers' attention and these managers used the figures to catch other managers' attention. Our observations show that the information about lack of goal fulfillment, reluctance to take measures and unwillingness to follow new routines was used to ask questions and create interest among other actors. At Sahlgrenska, committed managers used the accounting information to direct other managers' attention to the fact that waiting times were still too long and that the discharge and X-ray routines had not been changed as planned. It was also used to problemize the incomplete actions of the surgical department. At SÄH the reference to the outcomes of measures was a way of highlighting the existence of bottlenecks and persuading others that it was important to take action.

Altogether, we observed a limited diagnostic use of the HMACS. They were used to signify what was interesting (i.e., actions needed) but without the attempt or success to tie it to responsibility.

### **The interactive use of MACS**

Although maybe not intentionally, the HMACS were in both cases, to a fairly large extent, interactively used. At Sahlgrenska, the accounting information was used both by top managers and operational managers. Top managers used the information for challenging the department managers and for questioning if the action plan was sufficient. The HMACS information was the starting point for top management involvement in discussions about what was required for increased goal fulfillment. This was done in face-to-face meetings with concerned operational managers and without explicit ambitions from top managers to intervene or dictate what should be done, but rather to participate in the problem-solving process. A conceivable

explanation for the interactive use by top managers was the fact that a traditional diagnostic use was not possible. For instance, since all measures were far from the targeted levels, it was unduly to concentrate attention only to the deviations. In other words, it is hard to practice 'management by exception' when all figures are exceptional.

However, the interactive use at Sahlgrenska was by no means restricted to top management use. The operational managers used the information for questioning the process idea altogether and for commenting on complexities and goal conflicts. Parts of the VMACS were used by operation managers to illustrate the complexity of their operations and how process orientation conflicted with their other obligations as resource units. A further interactive use of MACS information was in discussions about boundaries within the hospitals. At SÄH bottlenecks connected to the surgical department lead to a questioning about who should perform certain tasks; was it personnel from the orthopedic section or anesthetic department? In a more profound way, VMACS also formed an important part in the argumentation about how reasonable the chosen strategy regarding process orientation was. Both HMACS and VMACS were used to argue for changes regarding responsibilities and the preservation of existing boundaries. Interestingly, the same figures that were not used for diagnostic control were considered qualitative enough for interactive use.

Although there were clear differences between the cases, at both Sahlgrenska and SÄH, the HMACS were interactively used by managers in face-to-face challenges and debates to question the existing state of affairs. If focusing on how HMACS generated debate and dialogue it was obvious how they played a role in the discussions. The introduction of HMACS meant a strengthening of the rhetoric about process orientation, which caused irritations (Luhmann 1995), but also resistance based on arguments with the help of VMACS. Arguments about improving the processes were met by reference to the budget constraints and competing operational objectives in the resource organization. This way of using accounting information is in line with the observations that financial and non-financial accounting information is pervasive and strengthens arguments (Munro 1996). MACS therefore played a significant role in the dialogue and debate over areas of responsibilities, attempts to persuade different actors and about how realistic different strategic initiatives appeared to different parties.

If we go back to the question of how MAC, horizontal and vertical, was actually used in practice, we can see that both were used in different ways and maybe not always as intended. Before moving on to the most central conclusions the question of who the users are will be addressed.

### **Used in different situations and by different actors**

When reflecting on the discussion above about MACS use, it is important to note that the study has a focus on MACS, which might obscure the fact that much of the discussions in the studies were unrelated to MACS and that the infusion of accounting or accountingization of the medical profession did not seem that thorough. Although, as described, there were plenty of references to both VMACS and HMACS, it was striking that much of the argumentation was connected to the concrete situations in the activities. For example, when discussing the use of X-ray it was emphasized that

any guidelines must not violate the physicians' space for judgments in the specific situation and when arguing for the need of surgical capacity in order to improve a process, the scarce resources were discussed with a centering on the prioritizing of the individual operators. Arguments were not mainly based on an accounting discourse, as the idea of hybridization would indicate (Kurunmäki 2004), but rather mainly on a clinical discourse.

The empirical study also indicates that different MACS are used in different situations. As was evident from both cases, at the process meetings almost solely HMACS were used. When VMACS were referred to it was more indirectly and most often in discussions about scarce resources. The interviews also indicate that within the resource organizations, the VMACS are still dominating, and HMACS is paid attention to only to a limited degree. It is also evident that in both cases the HMACS had limited reach. While intensely used in process orientation situations, like in team meetings, it was not as present in the day to day work in the resource organization. The standard care plans at SÄH for example, although formally given a strong position, show low compliance.

All in all, the empirical material gives a picture of a polarization when it comes to the use of HMACS, and at large, MACS did not seem to dominate the discourse. Polarization means that the use of HMACS to a large extent was limited to the persons actively involved in or accountable for the process work. The studies therefore support the position that management discourse has not infused the professionals. The use of MACS of different kinds is limited to the persons most closely involved and often there seems to be a separation between what kind of MACS is drawn upon.

What we also can observe in both cases was a demand for more HMACS by those who were involved in the work with process orientation. In fact, much of the newly introduced HMACS stemmed from experienced shortcomings in the existing accounting information. This led to new demands and a pressure on systems and routines and a recognition that in many cases there was an inability to deliver requested information because of the systems not being designed for registering relevant data.

### *Conclusions*

The aim of this paper was to explore the role of MACS in process orientated health care organizations. For this purpose we developed a framework about MACS and conducted two case studies of MACS in process oriented HCOs. Because of the lack of existing studies on the topic, we argue that the results of this study contribute in several ways to the existing knowledge.

The empirical investigation and the analysis show how the introduction of process orientation within health care is accompanied by a development of horizontally oriented management accounting systems (HMACS) that are developed and used alongside traditional, vertically oriented accounting systems (VMACS).

In the contexts studied, HMACS are mainly used in order to enhance coordination, direct attention and in a diagnostic manner follow up the development. Although the

literature suggests an important connection between accounting, accountability and responsibility the empirical findings indicate that HMAACS are not used very much for holding persons or departments accountable. Also, HMAACS do not penetrate whole organizations. Instead the use is polarized and centered to persons more actively involved in the process work. At a more general level, the HMAACS are used for coordination, for interactive control and for attention direction (a limited form of diagnostic use).

The studies allow us to reflect on limits and failures when HMAACS are introduced. First, due to meager input data and an inability to produce output data, systems fail in delivering relevant information for actors involved in process work. To create MACS that fulfill the needs of persons involved in process orientation seems to be a time and resource consuming task. Secondly, even when there are explicit ambitions to use HMAACS diagnostically, the system may fail.

In further research it would be interesting to find out how diagnostic use of HMAACS is accomplished and what impact such use would have on resource organizations and HCOs. Does it lead to primacy for the process work and, if so, does it have crowding out effects on the regular activities in the resource organizations? More research is also needed on the role of MACS in increasing the cooperation between actors in the resource organization and actors in the processes. For instance, would MACS lead to increased team spirit in cases where resource unit managers and the process managers have overlapping accountabilities? Finally, we call for more research that explicitly maps and analyses the interest and power of different actor groups in HCOs and how these affect the realization of process orientation and implementation and use of HMAACS.

## References

- Aidemark, L-G. (2001). [The Meaning of Balanced Scorecards in the Health Care Organisation](#). *Financial Accountability & Management* 17(1), pp. 23–40.
- Anthony, R. & V. Govindarayan (2007). *Management Control Systems*. Boston: McGrawHill Education.
- Argyris, C. (1952). *The Impact of Budgets on People*, New York: The Controllershship Foundation.
- Bisbe, J. J-M. Batista-Foguet & R. Chenhall (2007). Defining management accounting constructs: A methodological note on the risks of conceptual misspecification. *Accounting, Organizations and Society*, 32, 789–820.
- Bragato, L. & Jacobs, K. (2003). Care pathways: the road to better health services. *Journal of Health Organization and Management*, Vol. 17(3), pp. 16.
- Campbell, H., Hotchkiss, R., Bradshaw, N. & Porteous, M. (1998). Integrated care pathways. *BMJ*, 316(7125), pp. 133-137.
- Chapman, C.S. (1997). Reflections on a contingent view of accounting. *Accounting, Organizations and Society*, 22, pp. 189- 205.

Chenhall, R.H. (1997). Reliance on manufacturing performance measures, total quality management and organizational performance. *Management Accounting Research*, 8(2), pp. 187-206.

DiMaggio, P.J. and W.W. Powell (1983/1991). 'The Iron Cage Revisited. Institutional Isomorphism and Collective Rationality', in W.W. Powell and P. DiMaggio (eds.), *The New Institutionalism in Organizational Analysis*. Chicago and London: The University of Chicago Press.

Ferlie, E., Ashburner, L., Fitzgerald, L. & Pettigrew, A. (1996). *The new public management in action*, Oxford: Oxford university press.

Ferreira, A. & D. Otley (2009). [The design and use of performance management systems: An extended framework for analysis](#). *Management Accounting Research*, 20, pp. 263-282.

Ferreira, A. & Otley, D. (2009). The design and use of performance management systems: An extended framework for analysis. *Management Accounting Research*, 20(4), pp. 263-282.

Frandsen, A.-C. (2010). The role of disciplining/translating accounting practices in patient-centred care. *International journal of public sector management*, 23(34), pp. 315-330.  
 Graban, M. (2009). *Lean hospitals. Improving quality, patients safety, and employee satisfaction*, London: CRC Press.

Hansen, S.C., D. Otley & W. van der Stede (2003). Practice developments in budgeting: an overview and research perspective. *Journal of Management Accounting Research*, 15, pp. 95-116.

Hartmann, F. (2000). The appropriateness of RAPM: toward the further development of theory. *Accounting, Organizations and Society* 25, pp. 451-482.

Hood, C. (1995) The New Public Management in the 1980's Variation on a Theme. *Accounting, Organisation and Society*, 20, pp. 93-100.

Jönsson, S. & A. Grönlund, 1988. Life with a subcontractor: new technology and management accounting. *Accounting, Organizations and Society*, 13, pp. 512-32.

Kouzes, J. M., & Mico, P. R. (1979). Domain Theory: An Introduction to Organizational Behavior in Human Service Organizations. *The Journal of Applied Behavioral Science*, 15, pp. 449-469.

Kraus, K. (2007). *Sven, inter-organisational relationships and control - a case study of domestic care of the elderly*. Ph.D. thesis, Stockholm School of Economics

Lapsley, I. (2007). Accountingization, trust and medical dilemmas. [Journal of Health Organization and Management](#), 21, pp 368-380.

Liker, J. (2009). *The Toyota Way - en väg till världsklass*. Malmö: Liber.

Macintosh, N & P. Quattrone (2010). *Management Accounting and Control Systems. An Organizational and Sociological Approach*. Chichester, UK: John Wiley & Sons Ltd.

Mazzocato, P., Savage, C., Brommels, M., Aronsson, H. & Thor, J. (2010). *Lean thinking in healthcare: a realist review of the literature*. *Quality and Safety in Health Care*.

McNulty, T. & Ferlie, E. (2004). Process Transformation: Limitations to Radical Organizational Change within Public Service Organizations. *Organization Studies*, 25(8), pp. 30.

Overill, S. (1998). A practice guide to care pathways. *Journal of Integrated Care* 2, pp. 93–98.

Pollitt, C., S. Harrison, D. Hunder & G. Marnoch (1988). Managers, clinicians and budgets in the NHS. *Financial Accountability and Management*, 4, pp 213–233.

Preston, A.M., Cooper, D. & Coombs, R.W. (1992). Fabrication budgets: A study of the production of management budgeting in the National Health Service. *Accounting, Organizations and Society* 17, pp. 561–593.

Proudlove, N.C & R. Boaden (2005). Using operational information and information systems to improve in-patient flow in hospitals. *Journal of Health Organization and Management* 19(6), pp. 466–477.

Scott, J.M & P. Hawkins (2008). Organisational silos: affecting the discharge of elderly patients. *Journal of Health Organization and Management*, 22(3), pp. 309–318.

Simons, R. (2000) Using Diagnostic and Interactive Control Systems. In Simons, R. *Performance measurement & Control Systems for Implementing Strategy*. Prentice Hall.

Thompson, J.D. (1967). *Organizations in action. Social science base of administrative theory*. New York: McGraw-Hill.

Vikkelsø, S. (2007). In Between Curing and Counting: Performative Effects of Experiments in Healthcare Information Infrastructure. *Financial Accountability & Management*, 23(3), pp. 269-288.

Whittle, C & A. Hewison, (2007). Integrated care pathways: pathways to change in health care? *Journal of Health Organization and Management* 21(3), pp. 297-306.

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## Miljørapportering som innovasjon: hvilken miljøinformasjon rapporterer norske selskaper i årsrapporten?

Av Even Fallan

*Dette er work-in-progress. Jeg ber om at det ikke refereres til dokumentet uten godkjenning fra forfatteren.*

### 1. Innledning

For 30 år siden rapporterte knapt noen selskaper miljøinformasjon i årsrapporten. Hvis det unntaksvis sto noe om selskapets forhold til det ytre miljø, var det ved eksistensielle hendelser som store ulykker, nye vesentlige miljøkrav i konsesjonsbetingelsene etc. I dag er miljørapportering regelen blant selskapene som er notert på Oslo Børs. En ny type allmenn rapporteringsform er født. Det er imidlertid fortsatt store variasjoner i hvilken miljøinformasjon som blir rapportert (Fallan, 2007). Mens enkelte selskaper nøyer seg med en linje i årsberetningen, utarbeider andre miljørapporter. Regnskapsloven har minimumskrav til hvilken miljøinformasjon som må rapporteres, men det meste av faktisk rapportert informasjon er frivillig (Fallan & Fallan, 2009). Det finnes flere frivillige rapporteringsstandarder, men det er ingen enhetlig rapporteringspraksis. Selskapene bestemmer selv hva som skal rapporteres og hvordan informasjonen gis. Miljørapportering kan slik sett betraktes som en innovasjon.

Denne artikkelen viser hvor vanlig det er å rapportere ulike typer miljøinformasjon, og bidrar til å forklare hvorfor noen typer informasjon rapporteres hyppigere enn andre. De konkrete problemstillingene er som følger:

1. Hva er adopsjonsratene for ulike typer innhold i miljørapporteringen?
2. Er adopsjonsteori relevant for å predikere adopsjonsratene for ulike typer innhold?

Artikkelen fokuserer på tilbudet av informasjon. Spørsmålene besvares ved å studere innholdet i miljørapporteringen i årsrapporter blant selskaper notert på Oslo Børs. Det brukes data fra regnskapsåret 2008. Adopsjonsrate betyr her andelen av selskapene som rapporterer en bestemt type innhold.

Begrepet "miljørapportering" omfatter rapportering av informasjon om hvordan selskapets organisering, produksjonsprosess eller produkter gjennom sin livssyklus påvirker det ytre miljøet (Fallan & Fallan, 2009). Miljørapportering skiller fra rapportering om



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samfunnsansvar, helse, miljø og sikkerhet, tredelt bunnlinje eller bærekraft. Definisjonene og ikke minst bruken av de fire siste begrepene varierer. Ytre miljø er ofte, men ikke alltid en delmengde i disse begrepene, i tillegg til arbeidsmiljø, sykefravær, ulykker og skader, likestilling, diskriminering, menneskerettigheter og/eller bidrag til lokalsamfunnet m.m. Samtidig brukes for eksempel bærekraft av og til som en delmengde innenfor ytre miljø. Forretningsetikk har også tematisk flere fellesnevnerer med begrepene nevnt ovenfor. En nærmere avklaring av (bruken av) disse begrepene er en problemstilling for en egen artikkel. Her brukes begrepet miljørapportering.

Artikkelen er bygd opp på følgende måte: i del 2 presenteres adopsjonsteorien og prediksjonsmodellen; prediksjoner utarbeides i del 3; det redegjøres for metode i del 4; i del 5 presenteres resultatene; og resultatene drøftes i del 6.

## **2. Adopsjonsteori og prediksjonsmodell**

Legitimitetsteorien hevdes å ha blitt den foretrukne teorien for å forklare utviklingen av miljørapportering (Campbell *et al.* 2003). Teorien bidrar til å forklare hvilke foretak som rapporterer og hvorfor, men teorien har store begrensninger når det gjelder prediksjon av hvilke typer informasjon et selskap rapporterer. Denne artikkelen introduserer et, for dette forskningsområdet, nytt teorigrunnlag; nemlig adopsjonsteori.

### *Adopsjonsteori*

Rogers (1995: 11) definerer en innovasjon som: "An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption." Det holder at noen anser at ideen er ny; den trenger ikke være ny objektivt sett. Nyheten i en innovasjon kan innebære ny kunnskap. Den kan også ha vært kjent en stund uten at aktører ennå har utviklet en positiv eller negativ holdning til den eller bestemt seg for å adoptere eller forkaste den. Frivillig miljørapportering tilfredsstillende disse kravene. Innholdet i miljørapporteringen grupperes i 13 informasjonskategorier. Hver kategori har spesifikke egenskaper og kan betraktes som en rapporteringsinnovasjon.

Tidligere forskning har vist at egenskaper ved det rapporterende selskapet, særlig bransje og størrelse, er viktige forklaringsvariabler for miljørapportering, jf. for eksempel Fallan (2007). I tillegg til egenskaper ved adoptøren gir adopsjonsteorien også muligheter til å studere andre faktorer. Denne artikkelen fokuserer på attributter ved innovasjonen (Rogers, 1995; 2003).

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Adoptørens oppfatning av fem ulike attributter ved innovasjonen påvirker sannsynligheten for adopsjon (Rogers 2003: 222). De fem attributtene er: kompatibilitet (+), prøvbarhet (+), kompleksitet (-), synlighet (+) og relativ fordel (+). Tegnene i parentes angir virkningens retning, der (+) betyr at attributtet fremmer adopsjon, mens (-) betyr at attributtet hemmer adopsjon (Rogers, 1995). I artikkelen vurderes det hvordan kompatibilitet, prøvbarhet, kompleksitet, synlighet og relativ fordel påvirker adopsjonsraten for 13 definerte informasjonskategorier.

#### *Beskrivelse av informasjonskategoriene*

For å besvare artikkelens problemstillinger må ulike typer miljøinformasjon i årsrapportene kunne identifiseres, beskrives og skilles fra hverandre. Dette har blitt standard prosedyre innenfor forskning på miljørapportering. Innholdet i rapporteringen kodes og grupperes i informasjonskategorier. Dette er for eksempel gjort i artiklene det refereres til i tabell 2. Hvilken kategoriinndeling som benyttes bør variere med formålet. Utgangspunktet kan være en rapporteringsstandard, lovkrav eller lignende. I denne artikkelen er det nødvendig å bruke overordnede kategorier som kan passe på tvers av mange bransjer og som i tillegg fanger opp kravene i den norske regnskapsloven. Kategoriseringen bygger på Fallan (2007). Tabell 1 beskriver de 13 gjensidig utelukkende innholdskategoriene. Hver av disse kan adopteres i årsrapporten.

#### *Tabell 1: Beskrivelse av informasjonskategoriene*

##### **Nr.: Kategori: Definisjon/beskrivelse:**

**1 Miljøpolicy** Beskrivelse av overordnede mål og strategier som er lagt til grunn for miljøarbeidet.

Et minimumskrav er angivelse av prioriteringer for miljøarbeidet / selskapets miljøfokus eller en intensjon om å følge et miljøprogram fra f.eks. Det Internasjonale Handelskammeret (ICC), World Business Council for Sustainable Development, FNs Global Conduct eller Prosess- og foredlingsindustriens Landsforening (PIL). Det er ikke tilstrekkelig å skrive kun at selskapet har en miljøpolicy.

**2 Miljømålsettinger** Rapportering av konkrete, målbare (og kontrollerbare) målsettinger og handlingsplaner. En konkretisering av den overordnede policyen. Eksempler kan være et mål om å redusere utslipp av et stoff med en spesifisert mengde innen en bestemt tidsfrist eller implementering av miljøstandarden ISO 14001 innen en bestemt tidsfrist.

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### **3 Miljøpåvirkning – prosess**

Informasjon om miljøvirkninger fra produksjonsprosesser, både status og (tiltak for) miljøforbedringer. I flere typer tjenesteproduksjon foregår produksjon og forbruk samtidig, og slik informasjon er valgt registrert i kategori 3 og ikke i kategori 4. Status inkluderer f.eks. (teknisk) miljøregnskap (som viser bl.a. utslipp, avfall, forbruk av energi og andre innsatsfaktorer både totalt og relativt til produksjon), produksjonsmetoder, avfallshåndtering og miljørisiko. Miljøforbedringer inkluderer f.eks. bedre produksjonsprosess eller renseteknikk, endringer i utslipp og redusert bruk av innsatsfaktorer.

### **4 Miljøpåvirkning – produkt**

Tilsvaret kategori 3, men gjelder miljøvirkninger og tiltak for miljøforbedringer vedrørende foretakets produkter. Et livsløpsperspektiv er lagt til grunn: informasjon kan gjelde tema fra hele prosessen, fra forskning, utvikling og design, via salg, transport og bruk, til disponering (avfall, gjenbruk og gjenvinning).

**5 Miljøorganisasjon** Informasjon om hvordan foretaket har organisert sitt miljøarbeid: f.eks. ansvarsfordeling, arbeidsdeling, kompetanse(utvikling), beredskap for å håndtere miljøkrav og ulykker, implementering av / sertifisering i henhold til miljøledelsesstandarder som ISO 14001 og EMAS. Merk avgrensning mot kategori 2, hvor mål om fremtidig implementering etc. registreres. Revisjon av miljøledelsessystemer (EMAS m.fl.) registreres her, men spesifikke revisjoner av miljøstatus eller miljørapportering er ekskludert, jf. kategori 6.

**6 Miljørevisjon** Informasjon om planlagte og gjennomførte revisjoner (interne og eksterne), rapportering av resultater og oppfølging. Både miljørevisjoner og revisjon av miljørapportering er inkludert.

**7 Miljømyndigheter** Informasjon om nåværende og framtidige rammevilkår, grønne sertifikater, pågående tvister, resultat av avsluttede tvister, (resultat av søknader om) utslippstillatelser etc. Myndigheter kan være på flere nivåer i Norge, lover og regler, overnasjonale organisasjoner, internasjonale avtaler etc.

**8 Miljøhendelser** Informasjon om spesifikke hendelser som har forårsaket miljøvirkninger, f.eks. overskridelse av utslippstillatelse, alvorlige miljøulykker etc. Informasjon av negativ

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karakter.

**9 Miljøinvesteringer** Økonomisk informasjon om fullførte investeringer for å redusere foretakets miljøpåvirkning. Rapporterte, planlagte investeringer er ekskludert og tilhører kategori 11.

### **10 Miljøkostnader/-inntekter**

Økonomisk informasjon om årets miljøkostnader. Begrepet må defineres, jf. kategori 12, men kan være f.eks. bøtter, avgifter, kostnader ved fjerning og opprydding og miljøberedskap. Miljøinntekter og kostnadsreduksjoner ses som negative kostnader og registreres her. Informasjon om framtidige kostnader er registrert i kategori 11.

**11 Miljøforpliktelser** Økonomisk informasjon om framtidige utgifter. Forpliktelsen kan følge av foretaket er

utpekt som ansvarlig for miljøskader, krav om fjerning og opprydding etter endt virksomhet (f.eks. i oljeinstallasjoner i Nordsjøen), pålagt økte rensekrav i framtida etc. Det kan også være usikkerhet mht. ansvar, f.eks. rettsak, hvor det må gjøres avsetninger for betingede utfall.

### **12 Begrepsavklaring /regnskapsprinsipper**

Informasjon om definisjoner, begrepsavklaringer, regnskapsprinsipper, vurderingsregler og felles rapporteringsnormer. Kategorien er særlig knyttet opp mot presentasjon av finansiell informasjon.

### **13 Ingen miljøpåvirkning/ ingen forurensning**

Fra 1989 måtte styret i norske foretak rapportere i årsberetningen om foretaket forurenset det ytre miljø. Dette medførte en særnorsk rapporteringsform bestående utelukkende av ett utsagn, a`la: "Selskapet forurenser ikke det ytre miljø."

Kilde: Fallan (2007)

#### *Egenskaper ved informasjonen*

For å utlede prediksjoner for adopsjonsratene behøves en link mellom attributtene i adopsjonsteorien og de 13 informasjonskategoriene. Modellen utnytter at informasjon kan karakteriseres ved andre egenskaper enn kun innhold. Nyere forskning innen miljørapportering og beslektede emner gir ledetråder for dette. Et tema som adresseres er regulering versus frivillighet, jf. Fallan & Fallan (2009). Betydningen av lovregulert- og ikke lovregulert informasjon brukes i diskusjonen nedenfor. Forskning på miljørapporteringspraksis har stilt spørsmål ved bruken av positiv og negativ informasjon;

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egenskaper som også diskuteres her. Dette er en del av et større bilde hvor sentrale kvalitetsegenskaper som relevans og pålitelighet etc. hyppig studeres, og hvor mål på rapporteringens kvalitet enten benyttes eller undersøkes. I denne diskusjonen hører også ulike temaer knyttet økonomiske vurderinger inn.

#### *Prediksjonsmodellen*

Det er fire verktøy som sammen predikerer om det er henholdsvis stor eller liten sannsynlighet for at ulike typer informasjon blir produsert.

- Rammeverket er adopsjonsteori, nærmere bestemt fem attributter ved innovasjonen selv, skissert av Rogers (1995; 2003).
- Innovasjonene er rapportering av ulike typer informasjon, operasjonalisert gjennom bruk av 13 uttømmende og gjensidig utelukkende informasjonskategorier.
- Sannsynligheten for adopsjon, adopsjonsratene, er operasjonalisert som andelen av selskaper notert på Oslo børs som rapporterer hver enkelt av de 13 informasjonskategoriene i årsrapporten. Adopsjonsratene hentes ut fra regnskapet gjennom metoden beskrevet, og måles ikke som andres persepsjon av adopsjonsratene. Dermed unngås kritikken som er rettet mot måling av adopsjonsrater ved selvrappotering, jf. for eksempel (Adams *et al.* 1999: 190)
- Prediksjonen under hvert av de fem attributtene fra adopsjonsteorien gjennomføres ved at de 13 informasjonskategoriene knyttes til andre egenskaper ved informasjonen, som for eksempel kvalitetsmål.

For ytterligere å forstå produksjonsprosessen for miljøinformasjon, og dermed støtte argumentasjonen, er det foretatt semistrukturerte intervjuer med de ansvarlige for miljørapporteringen i tre ulike selskaper notert på Oslo børs. Selskap A har børsen klassifisert innenfor bransjen konsumvarer, selskap B innenfor industri og selskap C innenfor energi.

### **3. Prediksjon**

Miljørapportering påvirkes av tilbud og etterspørsel etter miljøinformasjon. Denne artikkelen fokuserer på tilbudssiden, gjennom å studere attributtene ved innovasjonen selv. I diskusjonen nedenfor tas derfor produsentenes ståsted, inkludert produsentenes oppfatning av etterspørselen.

#### *Kompatibilitet*

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Kompatibilitet betyr her i hvilken grad en innovasjon oppfattes som konsistent med eksisterende verdier, erfaringer og adoptørens behov. En ide som er i overensstemmelse med verdier, normer og interesser i samfunnet eller ens sosiale nettverk vil ha større sannsynlighet for å bli adoptert enn ideer som er inkompatible.

Når miljøinformasjon er institusjonalisert gjennom kravene i regnskapsloven taler det sterkt for at rapporteringen oppfattes å være i overensstemmelse med samfunnets verdier og samtidig dekker selskapets behov. Dette gjelder kategoriene (3) og (4) som tilsvarer dagens lovkrav. Det samme bør gjelde for bestemmelsene i regnskapsstandarden NRS 16 Årsberetning<sup>1</sup>. Regnskapsloven er en rammelov, og innholdet i lovens begrep «god regnskapsskikk» fastsettes i de endelige regnskapsstandardene fra Norsk RegnskapsStiftelse. I følge forarbeidene til loven skal endelige regnskapsstandarder følges (Revisors Håndbok 2011: 957-958). Det vil si, «skal»-bestemmelsene i NRS 16 er en utdyping av lovens minimumskrav, mens «bør»-bestemmelsene anbefales fulgt. Skal-bestemmelsene tilsvarer kategoriene (3), (4) og (13) i denne artikkelen. Bør-bestemmelsene i NRS 16 omfatter i tillegg kategoriene (1), (2) og (7).

Forurensningsloven § 7 forbyr forurensning av det ytre miljø. Loven skal beskytte mennesker, dyr og natur. Forurensningsmyndighetene har imidlertid gjort noen unntak og kan gjennom forskrifter gi konsesjoner for forurensende virksomhet. Det er rimelig å anta at informasjon om myndighetenes regulering av foretaks virksomhet oppfattes å være i overensstemmelse med samfunnets normer. Dette gjelder kategori (7).

Oslo børs krever at selskapene som er notert der årlig skal gi en redegjørelse i samsvar med norsk anbefaling om eierstyring og selskapsledelse<sup>2</sup>. En slik klargjøring av ansvarsforhold eller rollefordeling i selskapet utover lovens krav bør også inkludere miljøområdet. Kravene illustrerer at selskaper notert på børsen er av stor offentlig interesse, og at det er høyere forventninger til deres oppførsel og transparens. Selskapene i denne undersøkelsen vil sannsynligvis oppfatte at rapportering av informasjon i kategori (5) er i tråd med samfunnets verdier og interesser.

Kompatibilitet fremmer adopsjon av informasjonskategoriene (1) - (5), (7) og (13).

*Prøvbarhet*

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1 NRS 16 Årsberetning er en endelig regnskapsstandard fra Norsk RegnskapsStiftelse. Det er krav til miljørapportering også i NRS 8 God regnskapskikk for små foretak, men den gjelder ikke for børsnoterte foretak.

2 Se [www.nues.no](http://www.nues.no)

Prøvbarhet forteller i hvilken grad en innovasjon kan prøves ut i mindre målestokk, er lett å prøve eller utvikle. Nye ideer som kan prøves ut gradvis eller i separate deler, blir gjerne adoptert raskere enn innovasjoner som ikke kan deles opp.

Forskning på miljørapportering og relaterte områder har ofte behov for å kunne rangere rapporteringen mellom foretak eller år etter hvor god den er. I tidlig forskning ble rapporteringen ofte rangert etter volum, det vil si antall sider rapportert etc., jf. Unerman (2000). Etter hvert har dette endret seg til å måle innholdet i rapporteringen. Bredden, eller antall ulike typer informasjon, i rapporteringen blir ofte brukt som et kvalitetsmål, for eksempel Brown *et al.* (2010). I senere tid har stadig flere studier i tillegg til bredden også begynt å rangere innholdet innenfor hver informasjonskategori etter oppfatning av diverse kvalitetsegenskaper eller kjennetegn ved informasjonen. Eksempler på rangeringer av slike egenskaper er gjengitt i tabell 2 nedenfor. I tabellen er egenskaper ved miljøinformasjon rangert fra rapportering assosiert med høyest «kvalitet» øverst til lavest «kvalitet» nederst. Brammer & Pavelin (2008: 126-127) hevder at rangeringen er konsistent med store deler av litteraturen, samt i overensstemmelse med indikatorer for beste praksis i diverse rapporteringsstandarder<sup>3</sup>. Toms (2002) har i tillegg undersøkt preferansene til investorer og finansanalytikere, noe som er tatt med i siste kolonne. Egenskapene ved informasjonen som knyttes til oppfatningen av kvalitet i tabell 2 har betydning for vurderingen av prøvbarheten.

*Tabell 2: Sammenhengen mellom oppfattet kvalitet og egenskaper ved miljøinformasjonen*

Finansiell informasjon blir sett som et tegn på rapportering av høy kvalitet, men er samtidig også kompleks. Utarbeidelse av finansiell miljøinformasjon oppfattes som teknisk vanskelig. Dette skyldes både utfordringer knyttet til avgrensning, usikkerhet, måling, klassifisering og/eller tilleggsopplysninger ved regnskapsføring generelt, pluss spesifikke utfordringer knyttet til (hva som er) miljøtransaksjoner. Norsk RegnskapsStiftelse ga opp å lage en regnskapsstandard vedrørende økonomisk miljøinformasjon. Personen fra selskap C uttalte følgende: "Det å skulle lage et eget økonomisk miljøregnskap er i beste fall vanskelig. ... Det

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er ingen ennå som har kommet opp med noe som er såpass brukbart at det virkelig brukes utenfor såkalte forskningsmiljøer.” Dette er sannsynligvis den mest komplekse typen miljørapportering. Informasjonskategoriene (9) - (11) er finansiell informasjon. Kategori (12) må inkluderes fordi finansiell informasjon vil være meningsløs uten nærmere begrepsavklaring og presisering av regnskapsprinsipper og vurderingsregler. Utfordringene knyttet til utarbeidelse av informasjonen gjelder også kontrollen, jf. kategori (6).

Kompleksitet hemmer adopsjon av kategoriene (6) og (9) – (12).

Annen type kvantitativ informasjon, for eksempel utslippsregnskap, er også assosiert med høy kvalitet, jf. tabell 2. Samtidig er den mer kompleks enn for eksempel generell retorikk, på grunn av behov for datainnsamling, rapporteringssystemer, avgrensninger etc. Ekstern rapportering er i tillegg lett observerbar, slik at selskapene kan studere hverandres løsninger. Hvis en type informasjon er lett å kopiere kan andres utprøving av innovasjonen være tilstrekkelig. Både Hasseldine *et al.* (2005) og Toms (2002) legger vekt på at kvantitativ og verifisert informasjon er vanskelig å imitere uten ekte forpliktelse til miljøarbeid, mens generell, ikke-kvantitativ retorikk er lettere å kopiere. Kvantitativ informasjon er særlig relevant i kategori (2). Det kan forekomme også i andre kategorier som (3) og (4), men der er det ikke en påkrevet egenskap i samme grad. Kompleksiteten hemmer adopsjonen av kategori (2). Ikke-kvantitativ informasjon er tilsvarende mindre kompleks. Lav kompleksitet fremmer adopsjonen av kategoriene (1), (5) og (13).

Tabell 2 antyder også at spesifikk informasjon oppfattes å ha høyere kvalitet enn generell prosa. Konkret informasjon anses i større grad å representere faktisk aktivitet og hendelser. Den er blant annet mer kontrollerbar og pålitelig. På samme måte som for kvantitativ informasjon vil kravene til rapporteringsprosessen øke med spesifikasjonsnivået. På samme måte som i forrige avsnitt legges det også til grunn at svært spesifikk, ikke-økonomisk informasjon være vanskeligere å imitere enn generell prosa. Ulik grad av kompleksitet vil hemme rapportering av kategoriene (3) - (5), (7) og (8), og fremme adopsjon av kategori (1) og (13).

I stedet for å imitere andre kan selskaper gjenbruke egen informasjon som egentlig er utarbeidet for andre formål. For eksempel er selskapene pålagt å ha rutiner for eierstyring og selskapsledelse. Prosessen med klargjøring av ansvarsforhold kan og bør inkludere



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miljøforhold. Rapportering om miljøorganisasjon blir dermed et biprodukt av pålagt avklaring og rapportering knyttet til eierstyring og selskapsledelse. Informasjonen finnes allerede og er lett å prøve ut i forbindelse med miljørapporteringen. Dette vil gjelde kategori (5).

Det er enklere å eksperimentere med rapportering om forhold som selskapet opplever selv, som er lett å forutsi og som det har informasjon om. Enkelte typer rapportering er ikke aktuell før selskapet har opplevd en hendelse. Det er relativt få norske foretak som har pålegg fra miljømyndighetene, opplever miljøulykker etc. hvert år, og det er derfor ikke så lett å teste ut rapportering før noe har skjedd. Adopsjon av kategoriene (7) og (8) kan bli hemmet av mangel på prøvbarhet. På den annen side vil et hvert selskap påvirke miljøet, i stor eller liten grad, og de fleste informasjonskategoriene kan prøves ut i mindre målestokk ved at selskaper rapporterer eksempler i stedet for fullstendige oversikter over vesentlige miljøforhold. I tillegg reflekterer mange av kategoriene handlinger som foretaket selv kan beslutte. De er enklere å planlegge for og prøve ut i liten skala. Slik sett forventes en høyere adopsjonsrate for alle kategorier, noe som dermed ikke er til hjelp i prediksjonsøyemed.

Samlet vil konklusjonen være at prøvbarhet fremmer adopsjon av kategoriene (1), (5) og (13), mens det hemmer adopsjon av (2) – (4), (6) – (12).

### **Kompleksitet**

Kompleksitet forteller i hvilken grad en innovasjon oppfattes som vanskelig å forstå eller bruke når den er på plass, hvor tilgjengelig den er da. Sannsynligheten for adopsjon reduseres med kompleksiteten.

Finansiell informasjon, for eksempel et årsregnskap, er basert på en rekke prinsipper, vurderingsregler og andre forutsetninger. Opplyst bruk av informasjonen krever derfor kunnskap om regnskapsteori. Lover og standarder forenkler bruken ved å sikre felles regler, samtidig som folk møter regnskapsinformasjon hele tiden. Enkel bruk regnes for å være relativt allment tilgjengelig. Finansiell miljøinformasjon er derimot ikke dagligdags, det finnes ikke noen felles, allmenn regnskapsstandard og mange avgrensingsproblemer er svært utfordrende. Et annet moment er at kjernen i miljøspørsmål inkluderer overordnede samfunnsøkonomiske hensyn i tillegg til de rent bedriftsøkonomiske perspektivene som belyses i finansregnskap. Hvor ansvarlig er foretaket i forhold til bruk og påvirkning av fellesgoder som det slipper å betale for? Brukerne må forstå forskjellen mellom

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bedriftsøkonomiske og samfunnsøkonomiske regnskap. Produsentene vil sannsynligvis oppfatte informasjon i kategoriene (9) – (12) som så vanskelig å bruke at adopsjonen hemmes.

### **Synlighet**

*Synlighet* forteller i hvilken grad resultatene av innovasjonen er observerbare for andre: jo enklere det er å se eller kommunisere resultatene, desto større er sannsynligheten for adopsjon. Ekstern rapportering er spesiell i så henseende, siden innovasjonen handler om kommunikasjon.

Det er ikke tilfeldig hvilken informasjon som kreves i Regnskapsloven. Lovgiver anser informasjonen i kategoriene (3) og (4) som så viktig at de har valgt lovkrav som virkemiddel for å sikre tilbudet. Det samme gjelder utslippskrav som forurensningsmyndighetene har fastsatt i medhold av Forurensningsloven, jf. kategori (7). De samme kategoriene vil også støttes av Miljøinformasjonsloven, men denne loven er mer overordnet og diffus, og anses ikke å gi nye momenter til diskusjonen. Produsentene er oppmerksomme på disse kravene, og vil sannsynligvis oppfatte disse kategoriene som mest synlige for andre.

### **Relativ fordel**

*Relativ fordel* forteller i hvilken grad en innovasjon oppfattes som bedre enn ideen den avløser (som kan være ingenting). Relativ fordel kan måles i økonomiske vilkår, men også for eksempel i prestisje, komfort, tilfredsstillelse etc. Det er naturlig å knytte attributtet til kostnad-nytte vurderinger. Sannsynligheten for adopsjon av en innovasjon, adopsjonsraten, øker med høyere oppfattet relativ fordel av innovasjonen, alt annet likt.

Foretak vurderer både forventede fordeler og ulemper ved rapportering av ulike typer informasjon. Fordelene må knyttes til overholdelse av lovkrav eller strategisk bruk av miljøinformasjon. Miljørapportering kan brukes som et verktøy for å legitimere virksomheten og produktene eller å oppnå konkurransefordeler gjennom å posisjonere seg og sine produkter som miljøvennlige.

Det vil variere hvor ressurskrevende det er å fremskaffe ulike typer informasjon. Brammer og Pavelin (2008) kobler rapporteringens kvalitet og tilknyttede kostnader. Rapportering med egenskaper som indikerer høy kvalitet (ekstern verifisering, kvantitativ og/eller svært foretaksspesifikk informasjon) koster mer enn rapportering av lav kvalitet (generell retorikk, policystatements osv.): både direkte ved utvikling, rapporteringssystemer, datainnsamling,

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bearbeiding, presentasjon, verifisering etc., og indirekte ved at rapporteringen forplikter selskapet til fremtidige tiltak og resultater og dermed reduserer selskapets fleksibilitet. Hasseldine *et al.* (2005) foretar samme kobling, og argumenterer med at informasjon assosiert med høy kvalitet som kvantitativ informasjon, eventuelt svært spesifikk, ikke-kvantitativ informasjon, er vanskelig å imitere uten ekte forpliktelse til miljøarbeid. Mer retorisk, ikkekvantitativ rapportering er billigere og kan dermed lett produseres som stor mengde tekst. De hevder at ytterligere informasjon av lavere kvalitet, hvor imitasjon er mulig, sannsynligvis ikke tilfører mer verdi. Betyr det at fordeler (kvalitet) og ulemper (ressursbruk) ved henholdsvis avansert og enkel rapportering vil oppveie hverandre, slik at det er likegyldig for foretaket hvilken type informasjon det rapporterer? Empiriske funn i tidligere forskning tyder på at dette er feil, at det å rapportere noe av begrenset kvalitet oppfattes som bedre enn ingenting. Legitimitetsteorien peker på foretaks behov for å opptre i samsvar med normene i samfunnet, for eksempel på miljøområdet. Forurensende foretak kan bruke miljørapportering som et instrument for å gi sin egen versjon av miljøpåvirkningen og de tiltak som settes i verk, eller eventuelt peke på at selskapet bidrar positivt til samfunnet på andre måter, for å legitimere sin virksomhet. Islam og Deegan (2010) viser at selskaper som opplever negative medieoppslag knyttet til samfunnsansvar (inkl. ytre miljø), rapporterer mer positiv og mindre negativ informasjon. Faktisk består selskapers miljørapportering i hovedsak av positiv informasjon (Niskanen og Nieminen, 2001), og selv regulering får ikke selskaper som rapporterer til å rapportere negativ informasjon (Larrinaga *et al.*, 2002). Ljungdahl (1999) mener at kategori (8) representerer "negativ" informasjon. På den andre siden vil kategoriene (1) miljøpolicy og (13) ingen miljøpåvirkning bli oppfattet som positiv informasjon. De andre kategoriene vil i større grad innholde både positiv, nøytral og negativ informasjon. Attributtet relativ fordel predikerer lav adopsjonsrate for kategori (8) og høye adopsjonsrater for kategoriene (1) og (13).

Det kan være en utfordring for selskaper å vise eller dokumentere for eksterne interessenter at de tar ansvar for det ytre miljø. Et viktig eksempel er kvalifiseringskrav for selskaper i anskaffelsesprosesser. Miljøsertifisering har vokst fram som en mulig løsning på denne utfordringen, både for selskaper og produkter. Det samme har medlemskap eller tilknytning til retningslinjer eller handlingsprogrammer som UN Global Compact. Å informere om slike

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sertifiseringer og medlemskap vil sannsynligvis oppfattes som økonomisk betydningsfullt.

Dette fremmer adopsjon av kategoriene (1), (4) og (5).

Manglende lovoverholdelse kan virke illegitimt for selskapers virksomhet. Man skulle tro at lovkrav medfører at nytten, og dermed oppfattet relativ fordel, ved rapportering av de lovpålagte informasjonskategoriene øker. Adopsjon av kategori (3) og (4) fremmes. Det samme burde gjelde for kravene i NRS 16, både skal-kravene knyttet til kategoriene (3), (4) og (13) og bør-anbefalingene knyttet til kategoriene (1), (2) og (7). Spørsmålet er imidlertid om foretakene oppfatter at Regnskapslovens og NRS 16, særlig bør-bestemmelsene, har den statusen som er skissert under attributtet «kompatibilitet». Tidligere forskning, både Fallan & Fallan (2009) og Vormedal & Ruud (2009), viser manglende samsvar mellom rapporteringspraksis og kravene i regnskapsloven. Intervjuene som er foretatt med personer som utarbeider miljørapportering bidrar ytterligere til å trekke standardens betydning i tvil: ingen av personene hadde hørt om NRS 16. Personen fra selskap A uttalte følgende på spørsmål om kravene i regnskapsloven og regnskapsstandarden: *"Jeg er ikke kjent med at det er noen spesielle krav der i det hele tatt annet enn at du må si noe om miljø i årsrapporten din. Men jeg er ikke kjent med noe mere detaljerte krav. Det [slike krav] er jo nettopp noe som må på plass tenker jeg."* Personen i selskap B svarte følgende: *"Jeg kjenner til Regnskapsloven, men jeg kjenner ikke til den [NRS 16]."* Det er heller ikke kjent at myndighetene noengang har reagert eller at revisorer har gitt merknader i revisjonsberetningen på grunn av manglende overholdelse av kravene til miljørapportering. Risikoen knyttet til manglende overholdelse av kravene oppfattes derfor sannsynligvis som liten, hvis selskapene overhodet vet at det finnes rapporteringskrav. For prediksjonsformål er det vanskelig å legge til grunn at iallfall NRS 16, særlig bør-anbefalingene, oppfattes å påvirke den relative fordelene ved rapportering i særlig grad. Men det antas fortsatt at lovens krav vil ha betydning for mange selskaper, om ikke alle.

Hva så med andre rapporteringsstandarder enn NRS 16, kan det argumenteres på samme måte for informasjonskategorier der? Å bli identifisert med en frivillig standard kan gi inntrykk av dedikasjon til miljøarbeid. Miljørapportering er imidlertid noe nytt, og det er lite som tyder på at slike standarder har vunnet allmenn hevd i Norge ennå, verken blant rapporterende selskaper eller i brukernes forventninger. Global Reporting Initiative (GRI) hevder de er

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verdens mest brukte frivillige rapporteringsstandard. Men det er kun 20 norske virksomheter som rapporterte etter hele eller deler av standarden i 2010, og kun 10 av disse er notert på Oslo børs (GRI, 2011). Som intervjuobjektet fra selskap C uttrykte det: «Norge er så gjennomregulert at behovet for spesialrapportering i henhold til GRI er egentlig ikke tilstede her som i en del andre land.» Enn så lenge antas det derfor at andre standarder som GRI ikke oppfattes å gi noen vesentlig relativ fordel i prediksjonen av adopsjonsrater.

#### *Oppsummering av prediksjonene knyttet til de ulike attributtene*

Sammenhengene mellom informasjonskategoriene og de aktuelle attributtene er oppsummert i tabell 3. Prediksjonen er at relativt mange selskaper vil rapportere kategoriene (1), (3), (5), (7) og (13). Relativt få selskaper vil adoptere kategoriene (6) og (8) - (12). Det er ikke noen klar prediksjon for kategori (2). Ved å se hen til argumentasjonen under attributtet relativ fordel, og regnskapsstandardens uklare stilling, velger jeg å legge mest vekt på attributtet prøvbarhet i prediksjonen for kategori (2).

*Tabell 3: Oppsummering av modell for å predikere adopsjonsraten for hvilken informasjon som rapporteres*

#### **4. Metode**

##### Populasjon og utvalg

Forskningsspørsmålene besvares med bruk av tverrsnittsdata for miljøinformasjon i foretaks årsrapporter for 2008. Populasjonen er norske selskaper notert på Oslo Børs. Ultimo 2008 var dette 183 selskaper. Børsnoterte selskaper er i regnskapslovens forstand store foretak og dermed underlagt samme lovkrav. Det antas også at samfunnets interesse og medias fokus er større for disse selskapene enn et gjennomsnittlig regnskapspliktig foretak, samt at de har større ressurser til å adoptere nye rapporteringsinnovasjoner. Datainnhenting er omfattende, med en nøye gjennomgang av årsrapportene til 62 selskaper fordelt på 15 bransjer, jf. bransjeinndelingen til Oslo børs. Som kommentert innledningsvis i del 2 har attributter som bransje og størrelse generelt sett betydning for rapporteringen. En nærmere undersøkelse viser imidlertid at artikkelens resultater er robuste i forhold til de to attributtene<sup>4</sup>. En nærmere beskrivelse av datasettet finnes i Støllander og Jørgensen (2010).

##### Måling av begreper

Beskrivelser av miljørapportering er som regel basert på måling av informasjonsvolum (antall

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sider, antall ord etc.) og/eller informasjonsinnhold. Milne og Adler (1999) og Unerman (2000)

har beskrevet og kritisert metodikken, og sistnevnte gir en oversikt over mange studier.

Trenden har pekt i retning av innholdsmåling, som omtalt i del 3 ovenfor. Målemetodene i

denne artikkelen er forankret i denne forskningstradisjonen. Innholdet i en tekst er i

utgangspunktet en kvalitativ variabel, men er konvertert for å kunne måles kvantitativt.

Betydningen kodes fra teksten, og miljøinformasjon klassifiseres i en av de 13

informasjonskategoriene. Kategoriene er gjensidig utelukkende og lista er uttømmende.

4 Dette resultatet vises i en separat artikkel, work-in-progress.

Kategoriseringen er utviklet av et FN-organ (UNCTC, 1991), og brukt blant annet i Ljungdahl

(1999). Fallan (2007) har tilpasset kategoriseringen til norske forhold, jf. tabell 1. Målingen

og informasjonsinnhentingen er nært sammenknyttet. Gruppering av svært heterogen

informasjon i 13 kategorier er en krevende oppgave hvor gråsoner tidvis oppstår. En velprøvd

kategoriseringsmetodikk sikrer at viktige tema dekkes, samt at gråsoner er vurdert og

kommentert av flere. I tillegg brukes dikotome variabler: enten rapporteres informasjon innen

en kategori (1) eller ikke (0). Innholdsvariabelen forteller hvor mange og hvilke kategorier et

selskap har rapportert. Vi mister noe informasjon med dikotome variabler, men samtidig øker

reliabiliteten på grunn av enklere skjønsmessige vurderinger. Ved å bruke hele 13

informasjonskategorier, flere enn mange andre studier (f. eks. Halme og Huse, 1997;

Vormedal og Ruud, 2009), fanger denne studien opp ekstra nyanser og egenskaper til tross for

bruken av dikotome variabler. Reliabiliteten utfordres blant annet av at ulike personer kan

klassifisere forskjellig. Dette er adressert gjennom beskrivelsen av kategoriene i tabell 1,

gjennom bruk av eksempler som videre konkretiserer gråsoner i Fallan (2007) og ved felles

kategorisering i starten av datainnsamlingen. En nærmere vurdering av validitet og reliabilitet

knyttet til datainnsamlingen og bruken av informasjonskategorier finnes hos Stellander og

Jørgensen (2010).

Årsrapporten har en særegen status, og har vært en viktig kommunikasjonskanal for

miljøinformasjon. Det er også den mest brukte kilden i forskning på miljørapportering, jf. for

eksempel Unerman (2000). De siste årene har hjemmesidene på internett blitt en sentral

lagringsplass for informasjon, som årsrapporter, miljørapporter, notiser om aktuelle hendelser,

policydokumenter og børsmeldinger. Selv om det finnes mer informasjon på hjemmesiden

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målt i volum, er innholdsvariasjonen, målt i antall rapporterte informasjonskategorier, like stor i årsrapporten (Stellander og Jørgensen, 2010). Det er sannsynlig at årsrapporten iallfall gir et sammendrag av totalt rapportert informasjon. Årsrapporten er valgt som eneste kilde for denne artikkelen, på bakgrunn av at den er relevant og for å konsentrere fokuset om den valgte problemstillingen.

### Referanser

- Adams, C.A., Hill, W.-Y., Roberts, C.B. (1998). Corporate social reporting practices in western Europe: legitimating corporate behaviour? *British Accounting Review* 30 (1), 1-21.
- Adams, A. S., Soumerai, S. B., Lomas, J. og Ross-Degnan, D. (1999). Evidence of self-report bias in assessing adherence to guidelines. *International Journal for Quality in Health Care*, 1999, pp. 187-192.
- Brammer, S. og Pavlin, S. (2006). Voluntary Environmental Disclosures by Large UK Companies. *Journal of Business Finance & Accounting*. 33 (7) & (8), 1168-1188.
- Brammer, S. og Pavlin, S. (2008). Factors Influencing the Quality of Corporate Environmental Disclosure. *Business Strategy and the Environment*, 17, 120-136.
- Brown, D. L., Guidry, R. P. og Patten, D. M. (2010). Sustainability reporting and perceptions of corporate reputation: an analysis using fortune most admired scores. *Sustainability, Environmental Performance and Disclosures Advances in Environmental Accounting and Management*, Vol. 4, pp. 83-104.
- Campbell, D. (2004). A longitudinal and cross-sectional analysis of environmental disclosure in UK companies – a research note. *The British Accounting Review* 36, 107-117
- Campbell, D., Craven, B., Shrivs, P. (2003). Voluntary social reporting in three FTSE sectors: a comment on perception and legitimacy. *Accounting, Auditing & Accountability Journal* 16 (4), 558-581
- Cormier, D., Magnan, M. og Van Velthoven, B. (2005). Environmental Disclosure Quality in Large German Companies: Economic Incentives, Public Pressures or Institutional Conditions? *European Accounting Review*, Vol. 14, No. 1, 3-39.
- Deegan, C. og Rankin, M. (1996). Do Australian companies report environmental news objectively? *Accounting, Auditing and Accountability Journal* 9 (2), 50-67.
- Fallan, E. (2007). *Miljørapportering i norske selskaper 1987 – 2005. En empirisk*

---

*undersøkelse av rapporteringspraksis i et innovasjonsteoretisk perspektiv*. HAS-utredning.

Bergen: Norges Handelshøyskole.

Fallan, E. og Fallan, L. (2007). "A longitudinal and cross-sectional analysis of volume and content of corporate environmental disclosure in Norwegian companies: a research note on innovativeness and adoption", working paper, TØH-serien No. 5/2007, Trondheim Business School, Trondheim.

Fallan, E. og Fallan, L. (2009). Voluntarism versus regulation: Lessons from public disclosure of environmental performance information in Norwegian companies. *Journal of Accounting & Organizational Change*, Vol. 5 Issue 4, 2009.

Gray, R., Kouhy, R., Lavers, S. (1995). Methodological themes: Constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing & Accountability Journal*, 8 (2), 78-101

GRI (2002). *Sustainability Reporting Guidelines*, Global Reporting Initiative, Boston, MA.

GRI (2006). *RG Sustainability Reporting Guidelines*, Global Reporting Initiative, Amsterdam.

GRI (2011). [www.globalreporting.org/ReportServices/GRIReportsList](http://www.globalreporting.org/ReportServices/GRIReportsList). Excelark med oversikt over alle selskaper som har rapportert etter GRI fra 1999-2011.

Guidry, R. P. og Patten, D. M. (2010). Market reactions to the first-time issuance of corporate sustainability reports. Evidence that quality matters. *Sustainability Accounting, Management and Policy Journal*, Vol. 1 No.1, pp. 33-50.

Halme, M. og Huse, M. (1997). The influence of corporate governance, industry and country factors on environmental reporting. *Scandinavian Journal of Management*, Vol. 13, Issue 2.

Hasseldine, J., Salama, A. I. og Toms, J. S. (2005). Quantity versus quality: the impact of environmental disclosures on the reputations of UK Plcs. *The British Accounting Review*, 37 (2005) 231-248.

Islam, M. A. og Deegan, C. (2010). Media pressures and corporate disclosure of social responsibility performance information: a study of two global clothing and sports retail companies. *Accounting and Business Research*, Vol. 40, No. 2, pp. 131-148.

Larrinaga, C., Carracasco, F., Correa, C., Llena, F., Moneva, J.M. (2002). Accountability and accounting regulation: the case of the Spanish environmental disclosure standard. *The*



---

*European Accounting Review* 11 (4), 723-740.

Ljungdahl, F. (1999). *Utveckling av miljöredovisning i svenska börsbolag – praxis, begrepp, orsaker*. Lund Studies in Economics and Management, No. 50. The Institute of Economic Research, Lund University. Lund University Press.

Milne, M.J., Adler, R.W. (1999). Exploring the reliability of social and environmental disclosures content analysis. *Accounting, Auditing & Accountability Journal*, Vol. 12 No. 2, 1999, pp. 237-256

Milne, M.J., Patten, D.M. (2002). Securing organizational legitimacy. An experimental decision case examining the impact of environmental disclosures. *Accounting, Auditing & Accountability Journal* 15 (3), 372-405

Niskanen, J. og Nieminen, T. (2001). The objectivity of corporate environmental reporting: a study of Finnish listed firms' environmental disclosures. *Business Strategy and the Environment* 10 (1), 29-37

NRS 16. NRS 16 Årsberetning (januar 2010), endelig regnskapsstandard, Norsk RegnskapsStiftelse.

Nyquist, S. (2003). The legislation of environmental disclosures in three Nordic countries – A comparison. *Business Strategy and the Environment* 12, 12-25.

O'Donovan, G. (2002). Environmental disclosures in the annual report. Extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing & Accountability Journal* 15 (3), 344-371

Revisors Håndbok 2011 (2011). Den norske revisorforening. 32. Utgave, 2011.

Rogers, E. M. (1995). *Diffusion of innovations*. 4th ed. New York: Free Press.

Rogers, E. M. (2003). *Diffusion of innovations*. 5th ed. New York: Free Press

Stellander, T. G. og Jørgensen, L. K. (2010). *Hvordan rapporterer norske selskaper på Oslo Børs miljøinformasjon? En sammenligning av årsrapporter og hjemmesider*. Trondheim Økonomiske Høgskole, masteroppgave, Master of Science. Trondheim, mai 2010.

Suchman, M. C. (1995). Managing legitimacy: strategic and institutional approaches. *Academy of Management Review*, Vol. 20 Issue 3, pp. 571-610.

Toms, J. S. (2002). Firm resources, quality signals and the determinants of corporate environmental reputation: some UK evidence. *British Accounting Review*, 34, 257-282.

- 
- UNCTC (1991). *Accounting for environmental protection measures*. UN Commission on Transnational Corporations. Report of the Secretary-General. Document E/C.10/AC.3/1991/5.
- Unerman, J. (2000). Methodological issues. Reflections on quantification in corporate social reporting content analysis. *Accounting, Auditing & Accountability Journal*, Vol. 13 No. 5, 2000, pp. 667-680.
- Vormedal, I. og Ruud, A. (2009). Sustainability reporting in Norway – an assessment of performance in the context of legal demands and socio-political drivers. *Business Strategy & the Environment*, May2009, Vol. 18 Issue 4.
- Wilmhurst, T.D., Frost, G.R. (2000). Corporate environmental reporting. A test of legitimacy theory. *Accounting, Auditing & Accountability Journal* 13 (1), 10-21

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## Short Paper Workshop Management Accounting and Control

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### King of the Corridor?

#### A case study

### The introduction of Speech Recognizer in a Norwegian University Hospital, focusing on intended versus unintended use.

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#### Introduction

Norwegian hospitals are continuously presented to several efficiency demands from the Norwegian Government. A new technology, Speech Recognizer (SR), was introduced by the management at a Norwegian University hospital in autumn 2009 and spring 2010 as a response to the demands for efficiency. The principle of SR is to record the doctor's voice directly to digital text, so that patient records are always updated with the correct content. The technology will ensure that there is less follow-up work associated with document and records management, enables the secretarial staff to be reduced. In this way, the technology holds a great implication for efficiency in its function and artifacts.

The functions and artifacts of the SR technology implies that former secretary tasks will be added to the doctor's daily work practice, and implies a change in the work practice for both doctors and secretaries. The doctor is still given an option to use earlier technology for dictation, and can still decide in what way the technology can be used in practical day to day situations. Which implications do demands for efficiency inscribed in the SR have on the daily decision-making in the corridors at the hospital? Are doctors as well committed to the same goals and ideologies as the management when it comes to the potential benefits for efficiency in the function and artifacts of the SR?

The focus in this short paper is directed towards various practices at the hospital, where meaning of the function and artifacts of the SR are interpreted and translated. Can different interpretations and translations help to transform the function and use of SR, and lead to unintended consequences of management's goals for efficiency? This can be formulated in a research question:

How are the demands of the ministry translated and implemented in specific established local practices at the University Hospital?

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The study will examine how ideas such as efficiency is translated from a managements view through local practices by the practitioners use of the SR. Focus is to understand the introduction both from a management as well from a doctors view. The approach is actor-network theory (ANT).

#### Theoretical discussion

Our research focus is to understand the local practices where SR is “designed”, introduced and adopted. Our focuses on practice constitute the translation of meaning of function and artifacts in the technology. Practice is evolving due to task and situation by the negotiation of meaning that take place in each practice (Wenger 1998). To understand this negotiation, it is important to see both human and technology as real actors who participate in local meaning translation processes. Established patterns of behavior, interaction between actors and interpretations will exist in any social practice which technology is introduced to (DeSantics & Poole 1994). Introducing technology has the possibilities to change social structures in local practice (Barley 1986), but the social structures can influence the artifacts and function of the technology depended on how it is used by the practitioners (Orlikowski 1992). This duality of technology is the main focus in this short paper, and implication this have on intended and unintended use if the SR.

Studies of the interaction between technology, people and organizations, mentioned as Science and Technology Studies (STS), gives a contribution to understand the interplay between organizational structures, man and technology. Recognized STS approaches are actor-network theory (Latour 1990, Monteiro 2000) and theory of structuration (Barley 1986, Orlikowski 1992/2000). An actor-network is a network of human and non-human components, where people and technology are assumed to mutually influence each other's patterns of action (Latour 1990). The actors interact in order to gain support for policy (program). Wants and needs for what technology can “do” is translated into a technical solution, and an expected pattern of use is inscribed in the technology. The inscriptions are not always followed because the artifact and function of technology may contain an interpretive flexibility that enable it to be used differently (Orlikowski 1992). Implication this gives to practical use of technology, is that the technology can be adapted to support a task or policy, instead of changing the way the task is done. The interpretive flexibility varies depending on how strongly desired patterns of use is inscribed in the technology, and the extent to which it is given the opportunity to go back to previous solutions (Monteiro 2000). Orlikowski (1992) has studied why it is often a clear distinction between the intended design of the technology, with its ideas of function and artifacts, and the practical use of the technology. Design is often understood as a rational process based on assumptions about how the task is carried out and ideas about the environment and the appropriate actors involving the technology. A contradiction to this approach is explained by the interpretative flexibility. DeSanctis and Poole (1994) refers to an understanding of technology as potentially modifiable through the entire technology life cycle. The inscriptions may therefore not be assumed to be constant and unchanging, but translated through the design and use phases depending on the different actors who are involved in the technology and the social structures that then evolve (Orlikowski 1992, DeSantic & Poole 1994). Inscription and translation is therefore thought to be an ongoing process in which actors negotiate their opinions and perceptions about the technology that contributes to the transforming of use and the understanding of the functions and artifacts of the technology.

#### Methodology

The method is to follow the actors in their daily decision-making, according to the actor network theories approach. The method used in this study is to get insight into the intended use of the SR

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from a management view. This includes in depth-interview with management representative, and to get hold on strategic documents where the goals for the introduction of the SR is outlined. The main focus has still been to get insight into the work practices of physicians in two selected departments to get insight to how the SR is used by the practitioners. Methodological tools are in depth interviews, observation and document analysis over a period of approx. 6 months in the spring of 2010. To sort things out, the management referred to in this study is the one responsible to introduce the SR in the hospital, and also two representatives from the management board members. The doctors are working at two representative departments at the university hospital, and are selected across gender, age and nationality. This study is to be seen as a preparation to go deeper into the practice of both management and doctors in decision-making process concerning design and use of tools to measure and stern goals for efficiency, like the introduction of SR. The limited selection of both doctors and management representation, and also a lack of observation studies set limitations to this part of the study. Further the study want to extend by going deeper in the practice of use of the SR. This will extend the timeframe and focus in the study, from focusing on the introduction-phase, to include the user-phase to.

#### Discussion and main findings

The discussion is separated in two parts, one part to outline the intended use of the SR from a management view, the second part to investigate the practical use of the SR by the doctors. Main findings are summarized in model (Figure 1) that wants to highlight some practical consequences the practical use can have to the goals inscribed in the intended use.

To get a better understanding on the design of the SR, we have included the producer, Max Manus, in our study. Information is taken from the webpage to get hold on Max Manus ideas about the SR. The SR is further developed in relation to both management and a group of five doctors that have been included to help with designing practical choices about what to do with the journal after the dictation is done. Max Manus visions about the SR is described on web:

#### Max Manus' visions of the SR

Imagine a system where the doctor starts a dictation after the patient leaves the examination room in a hospital. Using speech recognition and his customised auto texts the doctor is able to finish and approve the patient record in good time before the patient has left the hospital. The patient record is already available for further processing.

Another scenario is the emergency room. A doctor can dictate critical findings while he examines the patient. His findings are transcribed automatically while he dictates and are available for the surgical team when the patient is in the elevator, saving precious preparation time

([www.maxmanus.com](http://www.maxmanus.com))

Max Manus obviously sees high potential in the SR. We have tried to understand the management's goals and intentions for inducing SR. This mapping can be illustrated in the following quotes from our study:

#### Management's expectations

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From the management SR was considered a measure to increase the quality and safety of patient care, and the electronic medical record (EMR). System around the SR should be cost saving by freeing labor to secretarial service.

(Management representative)

It is clear that the management have three main goals for inducing speech recognizer: To improve quality of the patient' journal, increased safety in patient care and better economics at the Norwegian Hospital. This goals are visible in the development of the SR. Patient security is concerned about the executive time it takes from a patient is visiting the hospital to the patient record is up to date on the newest information. When the secretaries are no longer necessary, the reduction of one link of the chain of person handling the journals disappear, and one source of errors is removed. The reduction of the secretaries also reduces costs, and will have direct impact to the demands of efficiency. Some of the secretaries will still work at the hospital, but is given a new role: They are supposed to assist the doctors in their use of the SR. The secretaries are given a course in the use of the SR, and are given a title: Super user that would mark their new position in relation to the doctors. The SR is expected to function well after approximately three weeks, if the doctors use the SR in 8 hour.

The doctors have been told about the potential benefits from the introduction of the SR, and have been through a training course where the intended use and potential benefits from using the SR has been outlined. On the training course, Super-users teach the doctor's in the practical use of the SR. All doctors are expected to come to the training course, and a high numbers of doctors came. The doctors got time on the training course to try out the SR, and to start to record directly in the SR. The training course lasted for three days, during nine hours. After the training course, the doctors were expected to know the technology well enough to use it in daily situations. If trouble was coming, they could make contact to the Super-user that was named to assist that specific department.

The doctor's use of the SR

Some times after the training course, and after the doctors have started to use the SR, we visited them at the departments, and asked how the use of the SR was going. The answers were mostly negative, and practitioners have stated:

I think nearly all of us use the SR to enter information about the patients in the emergency department records. I will simply not risk it when the tempo is high.

SR is very good on technical terms, but when it comes to everyday prose the technology understands little.

The technology seems immature and unstable.

After the doctors have used the SR for about 6 months, it still would not work as the doctors were told in the beginning of the introduction phase. We got an impression that the doctors still have troubles to adjust to the new technology, and still do not see the same potential in the technology that the management outlined from the start of the introduction phase. Interesting is the lack of initiative to use the Super-users when the doctors are faced with problems using the SR. Many doctors have outlined that they did not use the Super-users because they did not know how they were, and some had sad that they did not think the Super-users could be at good help. This can be

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understood as a rejection of the management inscription to get the doctors to use the SR. Even though the doctors all experience problems when they use the SR, and some consider the problems to be in high impact to reduce patient security, they seldom made contact to the Super-users. One doctor had also outlined that he tried to get in contact with a Super-user, but did not get any response.

One of the greatest problems with the SR seems to be that the SR does not recognize everyday prose very well. This could be word as 0.1 and 1 that easily can be mixed up by the SR. If a doctor is describing a medical prescription and do not pay fully attention to what the SR write, this could have a high impact on reduced patient safety, and could in worse case be deadly if the mistake is not discover by human agents. Many doctors outside the hospital who treat the patient after he or she has been at the hospital, has noted: "Were the doctor drunk when he/she wrote the patient journal?" because the patient journal could contain many wrong words, definitions and sentences. The hospital had to send out a letter to the doctors outside the hospital to outline the situation with the SR, that the new system had trouble to recognize words, and therefore the journal can contain mistakes.

The doctors were told at the introduction course that the SR need about 8 hour of speech time to function as planned. This shows how the SR is depending on the doctor to use the technology in a specific way to function as planned. Eight hour of speech would in average mean approximately three weeks of daily use. In practice this means that if the doctors use the SR as planned for three week, then first the SR will function well. Even though the SR would take more time from the doctors to use and get used to in these three weeks than the earlier dictation methods, the doctors got minimum extra time in their daily work practice to adjust to the SR. This was not priority from the management in a sufficient way based on the need from the doctors. Some doctors have outlined that it takes approximately 20 more minutes to record an average patient journal by using the SR than it would take to dictate the journal with the digital dictation technology. Doctors complain about having a tight time schedule. The time consuming aspect of the SR did over time turned out to be a legitimized argument not to use the SR. This is a negative circle: The doctors do not want to use the SR because it is time consuming and do not function well at the beginning, which result in that the SR do not got adjusted to the doctor' voice and therefor will not be a sufficient tool. After the first introduction phase when most of the doctors at the two departments had "used" the SR for several months, the doctors did not use the SR the way the management had planned. Most doctors did not use the SR in a recommended way, and were not satisfied with the new work practice the SR implied.

#### Unintended consequences

The doctors showed trends to still go back to the digital dictation technology, and hold on to earlier patterns of use. The earlier dictation technology was still available for the doctors to use. This was intended as an alternative for doctors who did not use the SR in their daily practice. This could be doctors who was at the hospital only for a shorter period or doctors who were old and did not participate in the training course for the SR. The digital dictation technology should also be in reach for the doctors if there should be an emergency where the SR would not work, or if the system around the SR would hang up. This shows that the irreversibility in the SR was low, indicating that the doctors still can go back to earlier technologies and patterns of use (Latour 1990). Still if the management did not planned for the doctors to use the earlier dictation technology, many doctors turned to digital dictation technology when they experienced the SR to be time consuming, immature and unstable, and not function as well as the doctors had hoped for. This can indicate that the inscriptions from the management in the SR not have been strong enough, given the doctors initiative

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to use the SR in another way than the management intended, that indicate an interpretive flexibility in the inscriptions in the SR.

The irreversibility and the interpretive inscriptions in the SR may point out some reflections about a distinction between management' intentions and the doctors expectations for the functions and artifact the SR represent, and the consequences the introduction will have on efficiency and change in work practice at the departments. Many doctors have told us that they do not see the same potential and benefits in the technology that the managers do. They do see how the hospital have reduced the secretaries, but do not understand why the secretaries have to be reduced since the doctors still need them (mostly because many doctors still use digital dictation method and therefore are in need of the secretaries to do the follow up work). The doctors experience the SR to be a threat to the patient safety, which seems to make the legitimizing process of the SR hard. The purpose and function with the SR can be understood different according to what practice management and doctors belong to and behave after (Orlikowski 1992, Wenger 1998). The management seems to have other goals for efficiency than the doctors, and vice versa.

This distinction between management and doctors intentions and expectations of the potential use and consequences of the SR can be outlined in the following model (figure 1). Orlikowski (1992) have focused on the distinction between designer and user of technology, referring to that management tries to make rational decisions about what the users wants and need. Management, together with the supplier and manufacturer, participate in the design of the SR and set economic and strategic conditions for the introduction of the SR. The intentions to reduce secretaries cost can be seen as a driver for the introduction of the SR. Doctors are generally the primary user of the SR. The SR has inscriptions to change the work practice for the doctors, at the same time Norwegian research has pointed out that doctors do have a great influence in the corridors where operational decisions are taken (Torjesen i Vigsnes 2008). The model (figure 1) shows that the unintended use of the SR can explain the unintended consequences for the introduction of the SR.

Figur 1 Consequences of the introduction of the SR

#### Early conclusions

Our study has focused on how the management can set the limits, both strategically and economically with the desire to control the behavior of doctors in a desired direction. The doctors attributed to an alternative use of the SR which differed from management's desired use, and led to unintended consequences of the goal of improved quality, economy and security. Doctors interpret the inscriptions in the technology, which refers to technology modifiable character even after the introduction process. The patterns of use after this interpretation may differ from management's intentions and purposes of the new technology. It appears that management's goal of increased efficiency, quality and safety is not enough harmonized with the doctors' goal to provide good patient care. Here we see that the economy and quality goal from the management can seem to be misinterpreted by the doctors as a positive conflict to patient security. This misunderstanding can create a distinctive separation between the different practices. It appears that management's goals in the short term may be perceived as a threat to the doctors' goals. The fact that doctors have the ability to customize the use of SR to their own practice, points to the balance of power between the doctors and the management.

#### Abbreviations



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SR	Speech Recognizer
ANT	Actor Network Theory
STS	Science and Technology Studies

#### References

Barley S. R. (1986). Technology as an Occasion for Structuring: Evidence from Observations of CT scanners and the Social Order of Radiology Departments. *Administrative Science Quarterly*. (31) (1) 78-108.

DeSanctis, G. & Poole, M. S. (1994) Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory. *Organization Science*. Vol. 5, No. 2 (May, 1994), pp. 121-147.

Latour, B. (1991). *Technology is Society made durable*. I J. Law (ed.) *A sociology of monsters*. Routledge, London.

Monteiro, E. (2000). Actor-network theory. In C. Ciborra (ed.), *From control to drift. The dynamics of corporate information infrastructure*, Oxford Univ. Press, pp. 71-83.

Orlikowski, W. J. (1992). The Duality of Technology: Rethinking the Concept of Technology in Organizations. *Organization Science*. (3) (3). pp. 398-427

Orlikowski, W. J. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. *Organization Science*. (11) (4). pp. 404-428

Vigsnes, E. (2008). Riktig diagnose – Feil medisin. *Teft*. (2). 18-20.

Wenger, E. (1998). *Communities of Practice, Learning, Meaning and Identity*. Cambridge.

Internett:

<http://www.maxmanus.com/uk/technologies/speech-recognition/>

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## The adoption of management accounting innovations in the Norwegian public sector: Investigating contingencies and the role of the CFO

- Findings from health entities and institutions within higher education

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### Abstract

The management of public sector organizations has been subject to much debate, greatly inspired by the ideas inherent to New Public Management. The transformation that public sector institutions have been subject to can in turn have challenged some of the more traditional management tools and consequently increased the relevance of more innovative tools and techniques including ABC and the BSC. This article uses an online survey (questionnaire) targeted at public sector CFOs to identify the extent to which institutions within higher education and health entities in Norway have adopted different management accounting innovations.

Drawing on contingency theory and greatly inspired by Naranjo-Gil et al. (2009) we investigate why some institutions adopt new management tools while others do not. Although, many variables have been tested in a contingency framework, in a similar vein to Naranjo-Gil et al. (2009) we propose that CFO characteristics are predictive of institutions' use of innovative tools. As such, we draw on age, organizational tenure and employment background. We have also included a composite measure reflecting the extent to which CFOs have embraced the critique against budgeting and hypothesize that CFOs that agree with the rhetoric's in *Beyond Budgeting* will make more extensive use of innovative tools.

In addition, we also argue that organizational and environmental contingencies determine the extent to which institutions use innovative tools. More specifically, we look at strategy along with uncertainty as well as two measures of size, the number of employees and the number of employees in the accounting department with a background from the private sector. Overall, our results are mixed. Moreover, there is limited support for the new hypothesis, although the number of employees in the accounting department with a private sector background is significant at the 0.10 level.

### 1. Introduction

The management of public sector institutions has been subject to much debate and attention in recent decades and from a diverse set of stakeholders, including regulatory bodies, politicians and mass media. Institutions within higher education and health entities in Norway are certainly not exceptions in this respect. The transformation that these sectors have been subject to can easily be observed by the large number of reforms and other modifications to existing practices. Equally important, and not only related to public sector institutions, there has been other important changes as well. The economic landscape as we know it today is different than 20 years ago and characterized by fierce competition, a greater product diversity, a larger degree of uncertainty, and a new and different cost structure just to mention a few. For instance, in their promotion of ABC, Cooper and Kaplan (1988) based their rhetoric on several of these. For one, they claimed that institutions had to adapt to the major changes in cost structure in that indirect costs had replaced direct costs as the dominating cost. As such, it was no longer adequate to rely on traditional costing systems because

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these were developed under different conditions where direct costs counted for the majority of costs. Thus, traditional costing methods were not able to allocate the increasing indirect costs in a sufficient manner, leading to misleading information and ultimately wrong decisions. Not only had the cost structure changed, but competition was far more intense, further fuelling the need for accurate cost information. At the same time, companies were producing a greater diversity of products, causing additional problems and challenges for traditional costing systems.

Like most other innovations in management accounting, ABC has been subject to much debate and criticism (e.g., Noreen, 1991; Noreen and Soderstrom, 1994) and the validity of the antecedents of ABC adoption has been questioned<sup>1</sup>. Moreover, despite the many anecdotal evidences of the superiority of new management accounting tools, studies have frequently revealed disappointing adoption rates. In other words, there is a large body of evidence that suggests that innovations are being insufficiently utilized throughout institutions, given that they in fact are of a superior character. Still, despite the large interest devoted to innovations and the adoption of innovations, we still know little about adopters and non-adopters, and consequently the characteristics of these. However, contingency theory has been important in this respect and there is a substantial body of empirical research in this genre. However, studies using a contingency perspective have taken on several different forms. Relevant to this study is the distinction between those arguing that organizational and environmental contingencies determine the adoption of innovations. As such, a host of environmental contingencies have been studied, including uncertainty, risk, competition (hostility), diversity and complexity (e.g., Naranjo-Gil et al., 2009).

Others again, argue in favor of institutional and managerial factors to determine the adoption of innovations. As for the latter, we may refer to this as CFOs (or other layers of top management) being determinants for the ability and willingness of institutions to adopt and implement innovations.

This study is positioned in both of these as we focus on organizational and environmental contingencies as well as managerial factors by addressing the role of the CFO. Drawing on the former, we test the association between the use of innovative management tools and strategy along with uncertainty. As for the managerial factors, we investigate the association between the use of innovative management tools and CFO characteristics drawing on age, organizational tenure and employment background. We have also included a composite measure of the critique against budgeting, referred to as the extent to which CFOs have embraced the rhetoric's in *Beyond Budgeting*. Also, two measures of size are taken into consideration. The first deals with the size of institutions, measured as the total number of employees whereas the second gives an account for the total number of employees in the accounting department having a private sector background.

Our hypotheses are tested using a survey (questionnaire) targeted at CFOs in higher education and health entities. This data and the collection of this data is part of a bigger research project that deals with the diffusion of the balanced scorecard and the extent to which CFOs agree with the critique against budgeting.

In terms of prior research, this study contributes to the existing management accounting literature in several different ways. First of all, we build on the promising findings in Naranjo-Gil et al. (2009) regarding CFO characteristics and try to extend the credentials of individual differences to explain the use of innovative tools. Second, we have included a new CFO feature in employment background, arguing that CFOs that have a background from the private sector are more likely to have been exposed to innovative tools and are therefore more likely to draw on these and ultimately adopt them. To our knowledge, this variable has not been empirically tested although some researchers

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have argued for its potential importance (e.g., Bjørnenak, 1997). In a similar vein, we also argue that the extent to which CFOs agree with the critique against budgeting; alternatively the extent to which they have embraced the rhetoric's in *Beyond Budgeting*, will influence on the use of innovative tools. The transformation of the public sector is likely to have challenged some of the traditional management tools such as the budget. In turn, this is something that potentially might have triggered the need for more innovative tools.

Further, this study goes far in the composite measure of use of innovative (management accounting) tools as we have included a total of 10 innovations. In addition, as we rely on two sectors/industries it is plausible that we are able to avoid the potential noise caused by a diversity of industries, a common approach in contingency-based research. To control for industry we have included a dummy-variable to separate the two sectors from each other. Finally, the current study extends the growing interest and body of empirical research addressing public sector institutions and use of innovative tools (e.g., Lapsley and Wright, 2004; Naranjo-Gil et al., 2009), an interest that has increased proportionally with the New Public Management wave that has swept across European countries.

Moreover, the aims of the study are to investigate:

- to what extent the different innovations are being used in health entities and institutions within higher education
- the relationship between the use of innovative tools and CFO characteristics
- the relationship between the use of innovative tools and organizational and environmental contingencies

The remainder of the paper is organized as follows. First, a short literature review is given along with the development of our hypotheses as we draw on CFO characteristics, strategy and uncertainty in relation to the use of innovative management tools. Next, the research methodology is thoroughly described before the results are presented. In the final section our results are discussed and conclusions are given. Limitations and suggestions for future research are also addresses in this section.

## **2. Hypothesis Development**

Our definition of what constitutes an innovation is based on Rogers (1995, p.11) in which he defines it as 'an idea, practice, or object that is perceived as new by an individual or other unit of adoption.' According to Askarany et al. (2007) the common criterion in any definition of innovation is newness. Thus, we are not talking about innovations per se. This would be somewhat misleading as some of the management tools have their origins from the 1980s (e.g., ABC). Rather we argue that in certain contexts or settings, such as the one in this study, these management accounting tools may still be regarded as innovations because they are perceived as new.

As for the management accounting innovations targeted in this study, we focus on eight management accounting tools and two concepts. The eight tools are the BSC (e.g., Kaplan and Norton, 1996; Ax and Bjørnenak, 2005), Activity-Based Costing (e.g., Malmi, 1999; Innes and Mitchell, 1995; Bjørnenak, 1997; Bjørnenak and Mitchell, 2002), Activity-Based Management (e.g., Cinquini and Mitchell, 2005; Foster and Swenson, 1997), Target Costing, Total Quality Management (e.g., Young et

al., 2001), benchmarking (e.g., Elnathan et al., 1996), rolling forecasts (e.g., Hope and Fraser, 1999), non-financial performance measures whereas the two concepts are Beyond Budgeting (e.g., Hope and Fraser, 2003; Bogsnes, 2009) and Strategic Management Accounting. Common to all innovations are that they have received considerable academic interest during the last decades. This is in particular the case for ABC and the BSC. More importantly, most of these innovations are one way or the other relevant to the management of institutions within higher education and health entities.

To illustrate this a few examples are presented. Given the extensive reporting regime that institutions in both sectors are subject to (from regulatory bodies) and the inherent focus on non-financial indicators or measures is likely to have made the BSC and non-financial performance measures topical. Also, the increased transparency and the availability of data, has given incentives for benchmarking and benchmarking activities as a useful practice. This is in particular the case in higher education where the DBH database<sup>i</sup> is widely used. In addition, the increased freedom in recent years can in turn have made some of the costing practices more appealing. Moreover, it is likely that the transformation of these two sectors on a more general basis has made most of these innovations topical, at least to some extent in that reforms and other modifications to existing practices have somewhat challenged the more traditional management tools.

All innovations are described in detail in extant management accounting literature and no further presentation is given. In the following subsections the hypotheses are presented.

### **Strategy and innovative management tools**

According to Chenhall (2003), strategy is somewhat different from other contingency variables in the sense that it is not part of the context. In line with Naranjo-Gil et al. (2009) we draw on Miles and Snow's typology (1978) concerning strategy. As such, we draw on the continuum between prospectors on one side and defenders on the other side. While prospector institutions are characterized by seeking new and unearthed opportunities in the market as well as drawing on their creativeness in developing new products and services to satisfy the needs of customers, defender institutions are more inclined towards keeping the status quo in the sense that they are reactive and focus on predictability building on stable market segments. Prospectors are often seen as those initiating change. Further, rather than trying to extend the number of products, for defenders resource efficiency along with the improvement of processes are both seen as important exercises to keep costs down.

We recognize that the straightforward manner in which strategy is measured has its weaknesses. Chenhall (2003) suggests that these archetypes or more precisely the existence of these archetypes are questionable given that they were developed in the 1970s. Coupled with the ever-changing business landscape, there is an imminent danger that measuring strategy using this approach can be inadequate. Then again measuring strategy is not an easy task; however, the approach taken in this study is similar to that of others (e.g., Naranjo-Gil et al., 2009). Other and more comprehensive approaches have been taken using a more refined scale (e.g., Desarbo et al., 2004).

Nonetheless, the inclusion of strategy and the reliance on the typology developed by Miles and Snow (1978) has generated promising findings. In the case of activity-based management (ABM), Gosselin (1997) found that prospectors were more likely to adopt ABM. In general, there are many plausible reasons as to why prospectors are expected to make more use of innovative tools. For one, they are dependent upon management accounting systems that give them easy access to information. In addition, their focus on developing products and services to meet customer demands, calls for

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advanced management tools. As such, findings in Gosselin (1997) also suggest that prospectors are more receptive for innovative tools due to their focus on amongst others product innovation.

Moreover, based on the discussion above we set forth the following hypothesis:

*H1: Institutions that pursue a prospector strategy will make more extensive use of innovative management tools.*

### **Uncertainty and innovative management tools**

According to Chenhall (2003), uncertainty is the most widely researched aspect of the environment. Chenhall (ibid.) further elaborates the importance of distinguishing uncertainty from risk where the latter is 'concerned with situations in which probabilities can be attached to particular events occurring (Chenhall, 2003, p. 137), whereas uncertainty refers to situations in which probabilities cannot be attached.

Drawing on our measure of uncertainty, we make no attempts in capturing the entire environmental uncertainty. As such, we do not address uncertainty related to issues such as competition, technology, complexity or diversity. Rather we focus on some aspects thought to be of importance to the context of the study in question, more specifically our measure of uncertainty is related to the uncertainty in the two sectors drawing on amongst others the predictability of government regulation. Further, it is important to stress that we are measuring the perceived uncertainty - uncertainty as perceived by the CFOs. This distinction is important because each sector can be regarded as being a relatively homogeneous group, implying that uncertainty can be quite similar.

We argue that institutions that perceive their environmental uncertainty to be relatively high will turn their attention towards more advanced management tools and innovations as a way to cope with this uncertainty. For institutions to be able to respond to different unforeseen and sudden changes, management accounting innovations have the potential to help institutions to deal with the uncertainty. Thus, uncertainty imposes challenges upon institutions; however what is important is that these challenges often can be counter-acted for.

Overall, this leads to the following hypothesis:

*H2: Institutions that perceive their uncertainty to be relatively high will make more extensive use of innovative management tools.*

### **Size and private sector background in accounting department**

Size of organizations is a well-recognized antecedent for the adoption of advanced management tools such as ABC (e.g., Cobb et al., 1993; Armitage and Nicholson, 1993; Bjørnenak, 1997). There are several reasons as to the importance of size. First of all, adopting and implementing management accounting tools such as ABC will drain on an organization's resources, implying that larger organizations are more likely to have the necessary resources to deal with the implementation. Also, Clarke et al. (1997) argue that large organizations often have more complex operations, greater product diversity and less traceable costs something that can fuel the need for innovative tools (in this particular case ABC).

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In this study size is primarily included as a control variable. As for the second measure of size this deals with the total number of employees in the accounting with a professional background from the private sector. This variable is included primarily for two reasons. First, it is likely (as discussed in the next section) that employees that have a background from the private sector are more likely to have been exposed to contemporary management tools. More importantly, they may have the knowledge and competence necessary to evaluate the alternatives in the different situations). Secondly, the number of employees will give an indication of the infrastructure and hence the resources at disposal as well as the capacity to deal with innovative tools.

In line with this, we set out to test the following hypothesis:

*H3: Institutions that have a relatively high number of employees in the accounting with a background from the private sector will make more extensive use of innovative management tools.*

### **CFO characteristics**

While issues such as uncertainty and strategy are important when it comes to determining institutions' need for innovations, the actual decision to adopt or not is taken by the institutions' board of management in which the CFO plays an important role. Like Naranjo-Gil et al. (2009), our reasoning is that the CFO and the CFO characteristics influence on the willingness to embrace the innovations in question and actively promote these. Moreover, it is the CFO's innovativeness and the variables indicative of this that we are interested in. Inspired by the Upper Echelon literature and the promising findings in Naranjo-Gil et al. (2009), our starting point is that age, organizational tenure and employment background are indicative of the innovativeness of the CFO.

As for age, studies have shown a negative relationship between age and innovativeness. This negative association between age and innovativeness has been justified on the basis of dynamic lifestyle and equally important, age's declining effect on cognitive capability and energy levels (Naranjo-Gil et al., 2009). As such, older managers may prefer security and thus be more inclined with keeping status quo rather than engaging in uncertain and time-consuming projects (i.e., introducing innovations) whereas younger managers are more energetic and also eager to take on new projects that have the potential to advance their careers.

In a similar vein to age, studies have reported on a negative relationship between organizational tenure and innovativeness (e.g., Young et al., 2001). According to Naranjo-Gil et al. (2009) managers that have spent a substantial part of their career in institutions are likely to have developed a power basis along with social networks and routines that they do not want to put at risk. Again, we see that the wish to preserve the status quo is important in this respect. In addition, older CFOs are also less likely (compared to younger CFOs) to have been exposed to contemporary management tools and innovations. Thus, it is likely that they are more accustomed to traditional tools due to their traditional accounting education. On the other hand, younger CFOs are more likely to have been exposed to contemporary management accounting tools during their education.

As for the role of the CFO, we have also taken employment background into consideration. Although there is limited empirical evidence in favor of this variable, the public sector setting in this study along with the transformation of public sector institutions, often referred to as New Public Management where ideas are taken from private sector institutions and applied in new settings, provides an ideal opportunity to investigate the effect of employment background more detailed. The background for the inclusion of this variable is straightforward in that managers having a private sector background

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are more likely to have been exposed to cutting-edge techniques such as the BSC and ABC. However, the inclusion of this variable might be problematic as it can counter-act for the effects of age and organizational tenure as those exhibiting many years of private sector experience also are likely to be older managers (CFOs).

In addition to the three CFO characteristics described above, we also suggest that the CFOs attitude towards budgeting can be important to the use of innovative management tools. As such, we argue that CFOs that agree with the critique against budgeting and thus have embraced the rhetoric's in Beyond Budgeting as more likely to be willing to invest time and resources in innovative management tools. However, as this measure primarily is related to the alternatives to budgeting and the ideas inherent to Beyond Budgeting, the effect is most prominently related to the BSC, benchmarking, rolling forecasts and non-financial performance measures. Thus, as our dependent variable consists of an additional five innovations, the effect derived from this measure on the use of innovative tools is highly uncertain. However, this does not mean that it is not interesting to investigate further.

Based on the discussions above, we propose the following hypotheses:

*H4a: Institutions that have a relatively young CFO will make more extensive use of innovative management tools.*

*H4b: Institutions that have a relatively short tenured CFO will make more extensive use of innovative management tools.*

*H4c: Institutions that have a CFO with relatively much experience from private sector will make more extensive use of innovative management tools.*

*H4d: Institutions that have a CFO that have embraced the critique against budgeting will make more extensive use of innovative management tools.*

### **3. Research Design and measurement of variables**

Our hypotheses are tested drawing on data from institutions within higher education and health entities in Norway. We have chosen to focus on these two sectors due to the many reforms and other modifications to existing practices in recent years. Inspired by New Public Management, these have been subject to a transformation that has put management accounting on the agenda in a new and probably more comprehensive way. All else equal, this transformation is likely to have triggered a need for contemporary management tools such as those included in this survey.

Data was collected using an electronic survey that addressed all CFOs in the two sectors. The choice of CFOs as key respondents rests on several issues. First of all, inspired by the promising findings in Naranjo-Gil et al. (2009) we set out to test the association between selected CFO characteristics and use of innovative tools. Secondly, CFOs are chosen due to their role in institutions. For one, it is the organization's board of management that makes the actual adoption (or rejection) decision. In addition, the CFO often plays a pivotal role in the setting up, development and ultimately also the use of innovative tools (Naranjo-Gil et al., 2009).

The questionnaire was originally developed early in 2010 and pre-tested thoroughly before being administered to the CFOs. It is important to note that even though we refer to one questionnaire, two were developed, one for each sector. This was necessary to ensure that it was adapted to the specific context in question.



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The pre-testing was conducted in two separate steps. The first dealt with the construct validity as well as the structure of the questionnaire and was administered to one CFO in each sector. Interviews were also conducted with the same CFOs. These interviews had two purposes. First of all, attention was devoted to potential problems or weaknesses inherent to the questionnaire(s). Also, as the interviews were a part of a bigger project it was decided that some of the questions originally devoted to the interview were to be included in the questionnaire. In addition, colleagues with a special interest in the topics were also subject to the pre-testing. The second step in the pre-testing involved using colleagues experienced in designing questionnaires. These were targeted to make sure that the layout and other issues related to the general presentation of the questionnaire were satisfactorily developed<sup>1</sup>.

Overall, the pre-testing resulted in the inclusion of ten additional questions (these were pre-tested once more, however, they were not related to the study in question). However, other changes made were only of a minor character (e.g., rephrasing and framing of questions as well as layout). Once the questionnaire was complete, the process in getting hold of the CFOs started. At first, e-mails were sent to each CFO (both sectors) where a short presentation of the researcher and the aims of the study were given. Attached to this e-mail, a more thorough description was available as a Word-document. This process was initiated in September 2010 and resulted in 25 returned questionnaires. However, it proved problematic to get in contact with the majority of CFOs for several reasons. First of all, many web-sites (homepages) were outdated in the sense that e-mail addresses were incorrect, alternatively that the incorrect CFO was listed. Further, it proved problematic to find all e-mail addresses, and in some cases it was not possible to find out who the CFO was. This was in particular the case in health entities. Thus, it was essential to contact the remaining CFOs by telephone. As such, starting in February 2011, phone calls were made and agreements were reached with individual CFOs that the questionnaire would be completed. Basically, the process was the same as in the e-mails. In the phone-calls, a short presentation of the researcher and the study was given. Then, an e-mail was sent containing contact information and a richer description of the study was attached. This process resulted in an additional 32 respondents.

Overall, the data collection period spanned from late September 2010 until late June 2011<sup>1</sup>. The total number of CFOs relevant to this study was equal to 77. The total number of institutions within higher education and health entities is higher than this; however, some were excluded from the survey as they did not fulfill the threshold decided in terms of number of students and/or employees. Only two CFOs turned down the opportunity to participate in the study. In both cases the reason for non-participation was down to a lack of time. In addition, two of the CFOs turned out to be practically impossible to get in contact with. Overall, this resulted in a total number of 57 returned and completed questionnaires. Of the remaining CFOs that originally had agreed to participate in the study, only three cancelled the electronic invitation. Unfortunately, the reasons for this non-participation are unknown.

Moreover, this yields a response rate equal to 74 %. Taking the two respondents that could not be reached, leaves us with an active response rate of 76 %. This is relatively high and satisfactorily. Table 1 contains a specified distribution of responses. It is interesting to note that response rates are practically the same in both sectors implying that both sectors are well covered.

#### *Measurement of variables*

The variables included in this study were measured in the following way.

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Use of innovative tools was measured the same way as in Chenhall and Langfield-Smith (1998) and Naranjo Gil et al. (2009). As such, CFOs had to indicate on a Likert scale ranging from 1 (not at all) to 5 (to a very great extent) to what extent each innovative tool was being used in their institution. In total 10 innovations were included which in turn were used to make a latent construct called use of innovative management tools.

Relying on self-reporting has proven to be quite problematic in management accounting (Dugdale and Jones, 1997). The use of self-reporting relies on several conditions. For one, respondents must have knowledge, at least some, about the innovation in question to answer whether or not and equally important to what extent it is used. This is to some extent controlled for as CFOs also were asked to indicate on a Likert scale from 1 (no familiarity) to 5 (very good familiarity) their familiarity to each innovative tool/concept. Not surprisingly, there was a strong positive association between use and familiarity. Secondly, innovations must be distinguishable from others. This is not necessarily easy given that some innovations are quite flexible (e.g., the BSC), something that in turn gives room for interpretative viability. Alternatively a number of other approaches could have been chosen. The simplest one would be to view the adoption of innovations as dichotomous assuming that innovations are adopted or not adopted. A more demanding task would be to operationalize innovations more detailed and measure the extent of use in a more indirect manner. However, this was not feasible given the large number of innovative tools and concepts included in the survey. Rather we rely on a continuum ranging from 1 to 5 to capture the diversity in use of innovative tools. Thus, an ordinal scale is adopted.

As for strategy, this was measured on the basis of the instrument developed by Miles and Snow's typology of strategy (1978). This typology distinguishes between defender and prospector institutions. In a similar vein to Naranjo-Gil et al. (2009), Johansen (2010) and Eriksrud & McKeown (2010) CFOs were given descriptions of two institutions (adjusted to the specific sector) where one of these descriptions were of a defender institution and the other was of a prospector institution. Thus, CFOs were asked to give an indication of their perception of the institution's strategic position at current. To capture strategy, a five-point Likert scale was employed ranging from 1 (indicating complete defender) to 5 (indicating complete prospector).

Uncertainty is measured using four different "dimensions". CFOs were asked to indicate how easy it was to foresee changes in the following parameters in the year to come drawing on i) the supply of resources, ii) activity level, iii) governmental regulation and iv) sector-specific changes. A Likert scale ranging from 1 (very easy) to 5 (practically impossible) was adopted. These measures were pooled and generated our measure of uncertainty.

All CFO characteristics were measured as demographics. Age, organizational tenure and employment background were measured in a straightforward manner. Hence, age, organizational tenure and employment background naturally refer to the CFO's age, number of years in the organization, and number of years in private sector.

For analysis purposes size of the institution, measured as the number of employees, was included as a control variable. We also included the number of employees in the accounting department having a private sector background. This variable was measured in a straightforward manner.

#### **4. Results**

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The first aim of this study was to give a description of the extent to which the different management accounting innovations are being used in health entities and institutions within higher education. Results are shown in table 1.

On average, health entities use the different management accounting tools to a larger extent than institutions within higher education. Numbers in brackets in table 1 are the results for health entities. There is one exception though as institutions within higher education, on average, use ABC to a larger extent. For the remaining innovations, we see that health entities exhibit a more extensive use in all cases. It is also noteworthy, although not necessarily surprising, that very few of the innovations are used to a large extent. However, for health entities non-financial measures (3.95), the BSC (3.30) and benchmarking (3.25) are the most widely used whereas the two concepts Beyond Budgeting (1.35) and Strategic Management Accounting (1.55) generate the lowest average scores. Further, ABM, Target Costing, TQM and Activity-Based Costing also portray a low extent of use.

As for institutions within higher education, the trend is similar. Non-financial measures (2.65), benchmarking (2.65) and ABC (2.24) are the innovations that are most widely used whereas Strategic Management Accounting and Beyond Budgeting along with Target Costing and ABM have the lowest scores for the extent of use.

Moreover, results indicate that there is some degree of innovation in the two sectors. However, only a limited number of the innovations are being used to a (very) large extent while at the same time quite a few are often not used at all.

Table 1: Actual percentages for extent of use of innovations (numbers in brackets are taken from health entities)

As for the hypotheses, these were tested using Multiple Regression Analysis (OLS). Table 2 contains the descriptive statistics of the variables included in the model while the correlations between these variables are given in table 3. Looking closer at table 2 we see that due to the limited number of respondents, many variables have a high standard deviation. This is in particular the case for size of institutions as it varies from 35 employees to in excess of 12 000 employees. The CFO characteristics (age, organizational tenure and background) also have relatively high standard deviations.

Table 2: Descriptive statistics for variables (numbers in brackets are the corresponding numbers for health entities). N = 52.

Looking at the correlations in table 3, there are several correlations that are relatively high, indicating problems related to multicollinearity. One example is the correlation of 0.487 between age and organizational tenure. However, this is not unexpected and the same goes for the high correlation between size (measures in the number of employees) and the number of employees in the accounting department with a private sector background. More importantly, in the main effects only model (in table 4) most VIF scores are well below 2.5 although there is one in slightly in excess of 3. However, all tolerance values are well above 0.20. This indicates that multicollinearity is not necessarily a problem.

Table 3: Correlations

\* Correlation is significant at the 0.05 level

\*\* Correlation is significant at the 0.01 level

The main effects only model is shown in table 4 and shows that there is strong support for organizational tenure as results show that organizational tenure (-0.035,  $p = 0.046$ ) have a significantly negative effect (at the 0.05 level) on the use of innovative management accounting tools. This is in line with hypothesis H4b, suggesting that institutions that have relatively short tenured CFOs will make more (extensive) use of innovative management tools. As for remaining three hypotheses tested there is no support for H4a, H4c or H4d. As such, CFO age (0.008,  $p = 0.594$ ), employment background (-0.014,  $p = 0.149$ ), and the extent to which the critique against budgeting has been embraced (0.033,  $p = 0.818$ ) do not have a significant effect on the use of innovative management accounting innovations. For age and employment background we also observe unexpected signs.

Looking closer at the organizational and environmental contingencies, results show that there is support for hypotheses H1 at the 0.10 level indicating that institutions that pursue a prospector strategy (0.181,  $p = 0.051$ ) make more extensive use of innovative management accounting innovations. Further, the results for hypothesis H2 are somewhat surprising given the sign. Results indicate that institutions that perceive the uncertainty to be relatively high will make less extensive use of innovative management tools. A priori it was expected that it was the other way around, implying that relatively high perceived uncertainty would lead to a more extensive use of innovative tools. Although, caution should be taken given that H2 only is significant at the 0.10 level, this might indicate that the use of innovative tools are not necessarily means to deal with this uncertainty, as one would expect. Rather, it may be that the perceived uncertainty is of a character that does not allow for the time and resources necessary to embark on the innovations. Alternatively, it may be that uncertainty (at least our measure of it) is not relevant to the two sectors in that they operate in relatively stable and predictable conditions. Nonetheless, it is still noteworthy to observe the unexpected sign.

As for the measure of the accounting department, there is some support for H3 as the number of employees in the accounting department having a private sector background (0.028,  $p = 0.079$ ) have a significantly positive effect, at the 0.10 level, on the use of innovative management tools.

Size of the institution was included as a control variable; however, results indicate that size (-0.000,  $p = 0.492$ ) does not have an effect on the use of innovative tools. As such the inclusion of the other control variable, the dummy variable, has a significantly positive effect on the use of innovative management tools. It is worth noting that the reference group is that of higher education. Thus, interpretation of the results in table 3 support the results from table 1 in that health entities make more extensive use of innovative management accounting tools. Although this was expected it is still an important that in turn justifies the reliance on only two sectors. Hence, this illustrates the importance of industry or sector which often is an undermined research area. Consequently, this can also help explain the insignificance of the size of institutions. As health entities, on average, are much larger than institutions within higher education, this difference is reflected in the dummy variable

Main effects only model

## References

Anderson, S. 1995. A framework for assessing cost management system changes: The case of activity based costing implementation at General Motors, 1986-1993. *Journal of Management Accounting Research* (7): 1-51.

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- Armitage, H., and Nicholson, R. (1993) 'Activity-based costing: A Survey of Canadian practice.' Supplement to CMA Magazine.
- Askarany, D., Smith, M., and Yazdifar, H. (2007) 'Technological Innovations, Activity Based Costing And Satisfaction', *Journal of Accounting – Business & Management*, 14, p. 53-63.
- Ax, C., and Bjørnenak, T. (2005) 'Bundling and diffusion of management accounting innovations – the case of the balanced scorecard in Sweden', *Management Accounting Research*, 16, p. 1-20.
- Bjørnenak, T. (1997) 'Diffusion and accounting: the case of ABC in Norway', *Management Accounting Research*, 8, p. 3-17.
- Bjørnenak, T., and Mitchell, F. (2002) 'The development of activity-based costing journal literature 1987-2000', *European Accounting Review*, 11, p. 481-508.
- Boer, G., and Jeter, D. (1993). What's New About Modern Manufacturing? Empirical Evidence on Manufacturing Cost Changes. *Journal of Management Accounting Research*, Fall: 62-83.
- Bogsnes, B. (2009) 'Implementing Beyond Budgeting – Unlocking the Performance Potential. New Jersey, USA, John Wiley & Sons, Inc.
- Brierley, J.A., Cowton, C.J., Dury, C. 2001. Research into product costing practice: a European perspective. *European Accounting Review*, 10: 215-256.
- 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*, 28, p. 127-168.
- Chenhall, R. H. and Langfield-Smith, K. (1998) 'Adoption and benefits of management accounting practices: An Australian study', *Management Accounting Research*, March, p.1-19.
- Cinquini, L. and Mitchell, F. (2005) Success in management accounting: lessons from the activity-based costing/management experience. *Journal of Accounting & Organizational change*, p. 63-78.
- Clarke, P., Hill, N. and Stevens, K. (1999) 'Activity-Based Costing in Ireland: Barriers to, and Opportunities for Change', *Critical Perspectives on Accounting*, 10, p. 443-468.
- Cobb, I., Innes, J., and Michell, F. (1993) 'Activity-based costing problems: The British experience', *Advances In Management Accounting*, 2, p. 63-83.
- Cooper, R. and R. Kaplan 1988. How Cost accounting distorts product costs *Management Accounting* (April): 20-27.
- Desarbo, W.S., Di Benedetto, C.A., Song, M., and Sinha, I. (2004) 'Revisiting the Miles and Snow Strategic Framework: Uncovering Interrelationships between Strategic Types, Capabilities, Environmental Uncertainty, and Firm Performance', *Strategic Management Journal*, p. 431-459.
- Dugdale, D., and Jones, T.C. (1997) 'How many companies use ABC for stock valuation? A comment on Innes and Mitchell's questionnaire findings', *Management Accounting Research*, June, p. 233-240.
- Elnathan, D., Lin, T.W., and Young, S.M. (1996) 'Benchmarking and management accounting: a framework for research', *Journal of Management Accounting Research*, 8, p. 37-54.

---

Eriksrud, M.S., & McKeown, M.B. (2010) 'Budsjettrevolusjonen lar vente på seg: Norske bedrifter kritiserer budsjettet, men er ennå ikke klare for budsjettløs styring. Masterutredning, NHH.

Foster, G. and D. W. Swenson. 1997 Measuring the success of activity-based cost management and its determinants. *Journal of Management Accounting Research* (9): 109-141.

Hope, J., & Fraser, R. (1999) 'Beyond Budgeting – building a new management model for the information age, *Management Accounting*, Vol. 77 (11), p. 20-23.

Gosselin, M. (1997) 'The effect of strategy and organizational structure on the adoption and implementation of activity-based costing', *Accounting, Organizations and Society*, 22(2), p. 105-122.

Hope, J., & Fraser, R. (1999) 'Beyond Budgeting – building a new management model for the information age, *Management Accounting*, Vol. 77 (11), p. 20-23.

Hope, J., & Fraser, R. (2003) 'Beyond Budgeting – How Managers Can Break Free from the Annual Performance Trap'. Harvard Business School Press, Boston, MA.

Innes, J., and Mitchell, F. (1995) 'A survey of activity-based costing in the U.K.'s largest companies', *Management Accounting Research*, June, p. 137-153.

Johansen, M. (2010) 'Beyond Budgeting – noe som passer for meg? En studie av spredningen av Beyond Budgeting i Norge'. Masterutredning, NHH.

Kaplan, R.S., and Norton, D.P. (1996) 'The Balanced Scorecard: Translating Strategy into Action.' Harvard Business School Press, Boston, MA.

Khalid, A. (2005) 'Activity-Based Costing in Saudi Arabia's Largest 100 Firms in 2003', *Journal of American Academy of Business*, Cambridge, 2, p. 285-292.

Krumwiede, K. R. 1998. The implementation stages of activity-based costing and the impact of contextual and organizational factors. *Journal of Management Accounting Research* (10): 239-277.

Lapsley, I., and Wright, E. (2004) 'The diffusion of management accounting innovations in the public sector: a research agenda, *Management Accounting Research*, 15, p. 355-374.

Malmi, T. 1999. Activity-based costing diffusion across organizations: An exploratory empirical analysis of Finish firms. *Accounting, Organizations and Society* 24(8): 649-672.

Miles, R.E., and Snow, C.C. (1978) 'Organizational Strategy, Structure, and Process'. New York: McGraw-Hill.

Naranjo-Gil, D., Maas, V.S., and Hartmann, F.G.H. (2009) 'How CFOs Determine Management Accounting Innovation: An Examination of Direct and Indirect Effects', *European Accounting Review*, Vol. 18 (4), p. 667-695.

Noreen, E. 1991. Conditions under which activity-based cost systems provide relevant costs. *Journal of Management Accounting Research* (3): 159-168.

Noreen, E. and N. Soderstrom. 1994. Are overhead costs strictly proportional to activity?: Evidence from hospital departments. *Journal of Accounting and Economics* (January): 255-278.

---

Rogers, E.M. (1995) 'Diffusion of Innovations', 4th ed., The Free Press: New York.

Young, G.J., Charns, M.P., and Shortell, S.M. (2001) 'Top manager and network effects on the adoption of innovative management practices: a study of TQM in a public hospital system', *Strategic Management Journal*, 22 (10), p. 935-951.

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**Profitability in small accounting firms – the importance of the type and usage of the pricing models**

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**Introduction**

Profitability is often heralded as the overall objective of private enterprises. Management control is frequently assumed to facilitate firms in achieving their profitability objectives – both in the way resources are obtained and used (see e.g. Anthony, 1965). In technical terms, profitability can be boiled down to (the difference between) revenues and expenses (or more broadly speaking, costs), and thereafter made into a return on capital measure. Management control literature – especially in relation to a pursuit for improved efficiency – appears to have paid most attention to the expense/cost side of the equation. The revenue side has to a larger extent been taken for granted. Some illustrative examples include the following organization and management control trends: Business process reengineering, Total quality management, introduction or abandonment of various costing systems, inventory control systems (such as the Just-In-Time philosophy), activity based management and the use of financial accounting for management control purposes. As such, the revenue side of profitability seems under-researched from a management control perspective.

Furthermore, despite potentially making a dramatic impact on profitability, discussions about price models are even more rarely found in management control literature (than discussions over revenue). Price models seem to be more discussed by economists. However, it is time to position pricing models at “the margin of accounting” (see, Miller, 1998) and thus also management control. This is especially the case if it is possible to imagine that different pricing models may assist a firm in boosting its profitability, but also if firms differ in the way they put pricing models into practice or the extent to which they adhere to their defined pricing models. Baker (2011, p. 119) stated:

*“Why is it that intelligent members of various professions have continued to apply the wrong theory to the value of their services?”*

Baker (2011) reference to the value of their services points to pricing models. If prices and price models are pivotal, yet misunderstood or applied in suboptimal manners, as indicated by Baker (2011), it is an area in need of more studies.

Thus, the purpose of this study is to learn more about how pricing models work in practice, especially by learning more about the ways in which pricing model relate to profitability and management control. More specifically, three research questions have been defined: 1) with respect to profitability, what experiences have accounting firms had with different pricing models? 2) What factors impinge on the way in which accounting firms choose and practice their pricing models? 3) How do accounting firms’ management control practices relate to their pricing model?

This study reports about instances from accounting firms where the firms rely on diverse pricing models and cope with them differently. Their profitability also varies considerably. Accounting firms in Norway serve as the empirical setting for this study. Data collection methods relied on in this study include a questionnaire distributed to Norwegian accounting firms, document studies of accounting



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firms' specific data – including their financial statements, but also interviews and informal conversations.

### **Frame of reference**

Management control, although greatly expanded in recent years, is still in many ways centering primarily on seeking ways to improve profitability or other objectives by cutting costs and thereby reaping efficiency gains. Various elements of cost accounting and management accounting suggest this. Albeit there is only a small leap from traditional cost accounting and strategic cost accounting, like activity based costing (ABC), to a discussion about setting prices and price models, the latter has often received little attention in management control related literature. Contingency theory is applied here to shed light on why accounting firms rely on different models. To enable a discussion about the broader, holistic picture, the notion of management control as a package is introduced.

### ***Management control as a package***

*"The term package is employed because in most temporary organizations there are a number of MCS. If all those were designed and coordinated intentionally, we might call the whole system a MCS. However, the concept of a package points to the fact that different systems are introduced by different interest groups at different times, so the controls in their entirety should not be defined holistically as a single system, but instead as a package of systems."* (Malmi & Brown, 2008, p. 291)

This led Malmi & Brown (2008) to suggest the following approach to studying MC(S), namely to study it as a package, consisting of the following elements:

- Planning
- Cybernetic
- Reward/compensation
- Administrative
- Culture

On the basis of the package metaphor it is possible to make inferences about the way in which accounting firms' price models relate to their (traditional) management control and profit seeking. To illuminate differences across accounting firms, contingency theory is relied upon.

### ***Contingency theory***

Different inventory and management accounting systems (MAS) exist. This invites questions and discussions concerning whether some systems or models are generally better than others. Some researchers have argued against this viewpoint and pointed out that there is no universal and one

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preferred management accounting and control system. This viewpoints is at the core of contingency theory, as discussed e.g. by Otley (1980) and Chenall (2003). They argued that the question of finding as well as implementing different management accounting and control systems is mostly about considering certain factors that form the particular organization in question. They present different factors which have been found in different studies to be important when considering the design of management accounting and control systems. Frequently discussed contingency factors or contingent variables include organizational structure, strategy, technology, culture and the particular environment faced by the organization.

### **Pricing theory**

Different pricing models exist including:

1. Hourly billing method
2. Fixed price/contract
3. Piece rate
4. Combined models (1-3)
5. Value pricing

Baker (2011) argued that although the hourly billing method is very common, for instance because it is easy, its disadvantages are greater than the benefits of using the model. Baker (2011) furthermore pointed out that pricing psychology is an important element of price setting and even included prospect theory, as advocated by Kahneman and Tversky (1979).

Kahneman and Tversky (1979) pointed out that people seldom acts as rational as often assumed in many traditional theories, leading them to suggest for instance that the way in which certain decisions are framed often lead people to reach different decisions even though the expected outcome may be the same. I.e. people discard prospects shared by all prospects under consideration. They refer to this as the isolation effect. Another tendency observed by Kahrenman and Tversky (1979) is the way in which people tend to put greater value on losses than on gains, i.e. the regret and "pain" associated with a loss of a certain amount far outweighs the joy of gaining the same amount. Moreover, *"people underweight outcomes that are merely probable in comparison with outcomes that are obtained with certainty. This tendency, called the certainty effect, contributes to risk aversion in choices of involving sure gains and to risk seeking in choices involving sure losses"* (Kahneman and Tversky, 1979, p. 263). This led Kahneman and Tversky (1979, p. 263) to propose a value function that is *"concave for gains, commonly convex for losses, and is generally steeper for losses than for gains."*

### **Method**

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Data collection methods relied on in this study include document studies of accounting firm specific data – including their financial statements, but also interviews and informal conversations. Additionally, a questionnaire was distributed to all accounting firms in Norway, being a member of the profession's member organization (NARF). This amounts to about 2 500 firms. We received answers from about 900 firms, thus equaling a response rate of about 36 %. The questionnaire was sent online, using the Questback software program. The firms were reminded three times to fill out the form. The questionnaire and accounting numbers primarily serve to portray an overview of the accounting firm industry in Norway. The main data section in this study is based on interviews. Initially two informal unstructured interviews were carried out, followed by twelve formal, semi-structured interviews. Each of the semi-structured interviews lasted for about one hour, was tape-recorded, transcribed and sent to the interviewee for feedback. The CEO in each of the accounting firms served as the interviewee. The twelve interviewees therefore cover twelve firms. The cases were selected on the basis of profitability, geographical location, size and chain (or no-chain) affiliation.

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**Hybridisation of functions and systems-  
-the diverse paths of management control changes in public sector**

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## INTRODUCTION

This paper explores some aspects of the huge differences in the recent changes which have taken place within public sector management control practices. It goes into detailed descriptions of one change process and one system in practice by offering empirical data based on longitudinal studies. More precisely, the paper describes how models within the management control frame change from idea to practice in the public hospital sector. During the last decade several states – including the Nordic countries - underwent extensive reforms in their state administration and state bodies. These reforms include their structure, their systems of control and the way they account for their activities. The reform initiatives have been put under one umbrella called the New Public Management reforms. However, reforms have shown a variety as to aim, scope and processes (Hood, 1998).

The vital reform movements have swept internationally in a speedy way. And following these reform initiatives, it becomes striking that the reforms has been driven by general ideas, ideals and principles (wishful thinking) rather than by practical experiences and evaluation. The “wrapping” of the ideas has been based on the same rhetorics, often addressed as necessary modernisation of public sector. And here is my point: Because these prescriptions were expressed as general recipes such as those described by Hood (1995), the reform processes’ ideal prescriptions were met by change agents through diverse pathways characterised by steps forward and backwards, reforms and counter reforms which mixed different organisational structures, control mechanisms, incentives and accountability relations. Reformers have tried to increase rationality by introducing clear objectives, management by objectives, advanced management accounting systems for evaluation, clear authority lines and incentive systems. But what have we got?

Hybridisation has turned up to become one answer to this question as to the effects of management reforms. It embraces the perspective that reform packages being introduced as ideals change on their

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way towards implementation- which create new organisational forms with diverse characteristics.

This paper I first discuss the concept of hybridisation and thereafter, two empirical studies are presented to illuminate the theoretical arguments. Last, some concluding reflections are offered to join theory and practice.

## HYBRIDISATION

The term hybridisation suggests a deep and fundamental change such as the offspring of two animals, plants or species. Hybrids can take the form of organisational arrangements that do not readily fit ideal/traditional models of hierarchies or markets. They can also take the form of hybrid processes, practices and /or expertises: New phenomena produced out of two or more elements normally found separately. Here I first describe the nature of hybrid management control practices, and thereafter I go into a brief discussion on perspectives which enlighten why hybrids develop

### Hybrid management control practices

The concept hybrid organisations was used by Williamson (1991) to cover the organising between hierarchies and markets. His work was basically theoretical, so the more practical view on hybrids was not very clear. In fact, all organisations can be said to have some hybrid aspects, since we find conflicting interests among participants and stakeholders. There are departments within organisations that have different cultures and competing logics and goals, and professional workers with different norms and values. However, this view on hybridisation as organisational forms does not capture the practises and processes which create hybrid organisation (Miller et al., 2008).

In this paper hybridisation is based on Miller et al. (2008) who point out that hybridisation takes the form of processes, practices or expertises which constitute new phenomena produced out of two or more elements normally found separately (Miller et al, 2008:943). Consequently, actors, entities, objects and bodies can all be seen as hybrids. The literature on hybridisation offers a variety of approaches. One focus has been on hybrid management practices in expert organisations such as hospitals. Here a special focus has been on the role of doctors as managers (Ferlie et al, 1996; Doolin, 2001; Llewellyn, 2001). In these works, hybrid management was seen as a role on the border between clinical work and management work, a kind of boundary spanning role. In her study Kurunmäki (2004) claimed that accounting had been incorporated into the competencies of being a doctor in Finland, and she used the term hybridisation. Jacobs (2005) extends that view on hybridisation, as he introduces the notion of polarisation in order to underline that the phenomenon of including accounting in their professional roles only apply to sub-groups of doctors who have financial and administrative responsibilities.

Instead of defining hybridisation of roles, we can also look at the functions of managers as hybrids. Llewellyn (2001) uses the term "Two-way-windows" which is a metaphor to illuminate that doctors as managers can act in two worlds; the clinical and the managerial. We notice here that Llewellyn's (2001) focus differs from those views on hybridisation of roles. This implies that hybridisation can take multiple forms and definitions. Further, hybridisation of processes can be associated with the term accountingisation (Hood, 1998; Power and Laughlin, 1992). Accountingisation features the growth in the power and influence of accounting practices in the management of public organisations. Accounting measures and controls have been introduced as central parts of the production parts in public services such as hospitals and higher education. However, few studies have shown how this transformation takes place and how management control practices hybridise, and this paper aims at contributing to fill this knowledge gap as to how practices and systems hybridise.

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In their article Miller et al. (2008) show that hybridisation as a process takes variable forms. Once formed, a hybrid can revert, or the recently formed hybrid can stabilise for a while and then be termed an “institution” or organisational form. Once a hybrid is formed, it can take new forms as it is affected by contextual elements. Because of the interrelation between organisations/hybrids and their contexts, hybrids often emerge on the organisational borders – they develop due to interrelations between organisations and institutions. Here management control practices may evolve as accounting systems and accounting information (more or less) are devices by which transparency can be developed across organisational entities. Thus, accounting practises take the form of hybrids in the processes of organisational changes- as part of reforms. Accounting is constantly taking part in dual hybridisation processes; seeking to make visible and calculable the hybrids that it encounters, while at the same time hybridising itself through encounters with a range of other practices (Miller et al., 2008:945).

Especially, hybrids may be most prevalent at the intersection with calculative practices and the experts in producing services and knowledge such as curing, caring and education. Here, one might say that calculating is a hybrid, as management tools change and evolve. As earlier noted by Hopwood (1996) budgeting, planning and performance evaluation have traditionally been conducted in vertical terms, and accounting practices have continued to focus on hierarchical relationships and vertical information flows. Lateral information flows have been neglected, and thus, lateral processing of information had to be considered as networking and inter-organisational cooperation developed as organisational forms.

Thus, the strategic aspects of management control became focused as the conventional accounting information was considered not to give managers relevant information in decision situations. Accounting extended the boundaries of organisations, and recipes such as balanced scorecard, EVA, supply chain management were introduced and implemented – and became hybrids of practices and calculations. Gradually, management practices were changing to include integration of actions within networks of organisations- and hybrid practices were emerging. In these interactions of calculative practices and different professional expertise, professions also may hybridise under certain conditions (Kurunmäki, 2004).

#### Balancing the constructed organisations and politics

Several theoretical perspectives have tried to explain why hybrids develop. One branch of literature focuses on the relationship between management and professions and hybrid organisation identities (Branden, et al., 2005; Llewellyn, 2001; Kragh Jespersen, 2005). The other main theoretical frame is new-institutional theory, which considers the hybrids as means to balance different institutional logics and to balance the diverse interests and goals in the interaction between the organisations and their contexts. For example, Doolin (2001) considers hospitals as loosely coupled systems. Some authors also connect hybridisation with actor network theory (Miller et al., 2008), and Latour (1993) points out that the contexts of organisations consist of hybrids in constant change by culture and nature combining into new forms. In an overview article on hybridity in management of hospitals, Nordstrand Berg et al. (2010) conclude that there exists no clear definition as to what constitute hybrid management forms. However, their conclusion is that different expertises are mixing together and interpret reality in order to constitute divers patterns of competences in the processes of producing health care in hospitals.

An important question is then under what conditions hybrids arise and develop. Some authors show that hybridisation has to be developed from the actors that define the main functions,

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roles and practices. In expert organisations these are the professional workers who have to adapt to a kind of collective understanding and acceptance of the changes (implicitly or explicitly). According to this view, professionals in these organisations are the main actors that have to translate and adapt to the new requirements, as most impulses to change come from outside. Organisations have to respond to these changes, and the adaptation/ implementation towards external pressures are the impulses towards hybrids. These hybrids may enable organisations to construct diversity and ambiguity in order to cope with diverse expectations from society. In other words; complexity in contextual demands can be met by complexity in implementation processes (Kraatz and Block, 2008).

Hybridisation is very close to the concept of constructing organisations, as researchers have argued that reforms in public sector can be interpreted as attempts at constructing and changing social systems like organisations (Brunsson and Sahlin-Andersson, 2000). Reforms can thus be described as a way of turning public services into organisations. An organisation can be defined by its conceptual boundaries, and the ability to coordinate action is often viewed as the main function of organisations (Mintzberg, 1979). Coordination takes place in hierarchies, and managing hierarchies also presupposes control. This implies that changes in boundaries affect coordination – and changes in coordination affect means of controlling activities. And here is the main function of accounting, namely to give relevant information to managers in managing organisations. This is why accounting plays vital roles in hybridising organisations.

Constructing organisations imply introducing aspects of identity, hierarchy and rationality to constitute an organisation. And if some of these aspects are lacking, it can be questioned whether we can call it a fully-fledged organisation. Thus, organizations may not exhibit all aspects of being organisations. And reforms in public sector have often aimed at making more complete organisations by creating rational units and bodies. Here various systems of management-by objectives have been implemented by introducing accounting systems to permit evaluation and transparency. Further, performance measurement and management systems have been introduced and units and sub units have been constructed to be managed based on contracts. The main point here is that hybrids develop since the construction of organisations in public sector most often do not have the most common/ideal characteristics of organisations such as clear autonomy structures and clear boundaries to the environment (Brunsson and Sahlin Andersson, 2000, among others). In other words, ambiguity fosters hybridisation

Especially, state subunits have been transformed into formal independent organisations, such as state enterprises like hospitals in Norway and self governing universities and other state bodies. But still, they remain incomplete organisations, since these state units/bodies do not have a high degree of autonomy, but act within a network of state owned subsidiaries and have to adjust to ministries' and politicians' shifting views and agendas. Further, public agencies such as hospitals have multiple objectives and stakeholders, which blur the concept of a complete organisation. Because of this incompleteness as to the constructs of organisation there will be discrepancy between the idea of the reforms and practice following after changes (Brunsson and Sahlin Andersson 2000). The construction and reconstruction of public organisations take different pathways, and hybridisation characterises the processes. And organizational reforms attempt to re-construct organisations, by making new governing models, new accounting systems, new lines of reporting and ownership, by merging organisational units and dividing organisations into new sub units with new lines of responsibilities

FUNCTIONS AND SYSTEMS AS HYBRIDS

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Hybridisation should be studied by longitudinal empirical research, allowing for the changes to emerge, being implemented and to be reconstructed again. The empirical data in this paper is based on two different cases building on the Norwegian enterprise reform launched in 2001. I will illustrate my points here as to reforms and counter reforms which generate a hybridisation instead of idealised organisational forms, by two distinct elements in the Norwegian Hospital Enterprise Reform: These cases are:

a. The boards of Hospital enterprises are established according to formal functions based on rational organisational models, but they are acting in political environments. The functions of the boards are gradually changing to also be legitimacy seeking.

In other words, we here find a functional model based on a notion of rational organisations in a political context. By discussing this case, we trace the hybrid functions that turned out to be the situation in these boards.

b. The accrual accounting system was introduced into the hospital sector according to the normative model. The implementation process itself became hybridised, and the accounting system is implemented and turning out to be a hybrid.

Consequently, the accrual accounting system (radical model) which was introduced into organisations under public ownership turns out to become a hybrid system

The Boards of the local hospital enterprises –

“The enterprise organization is built upon a clearly defined role as to ownership control, which has to be implemented through the legal contracts, through budget decisions or through decisions made in the enterprise meeting (the general assembly). ....[T]he hospital enterprises must have real responsibility in their operating activities.” Minister of Health, Speech 1st August 2000.

Over the last three decenniums the governance of Norwegian hospitals has been changed several times. In the middle of the 1970s the state transferred the hospital ownership to the county councils. From that time and until the Hospital Enterprise Act (2001) there were recurring large challenges with long waiting lists and increasing costs in the hospital sector. This situation motivated the Parliament to change the governance structure and to transfer the hospital ownership directly to the state by the Hospital Enterprise Act (2001). A main part of this act was the introduction of the regional hospital enterprises as purchasers and the local hospital enterprises as providers of health services.

It is not the introduction of the state ownership as such, but the implementation of hospitals as autonomous enterprises which is supposed to enhance more efficient hospital management.

(The Ministry of Health, White Paper 2001: State ownership of hospitals)

The hospital enterprise reform is heavily based on the functions of the hospital enterprises' boards, and the politicians had no longer any direct role in the strategic decisions at hospital levels. The Hospital Enterprise Act prescribed the main criterions as to the composition of the hospital boards and the responsibilities given to these boards:

The board's mission is to manage the hospitals on behalf of the State as owner. – this is to say the state by the Ministry as to the boards of regional health enterprises and the state by the regional



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health enterprises as to the boards in local health enterprises. (White paper 2001, Ot.prp.nr.66 (2000-2001), pp 106).

These regulations implied that the boards had an overall responsibility for the hospital enterprises to fulfil the goals set by the Ministry and that the hospital enterprises "in all levels are managed adequately and that the activity is kept within the economic frames and other frames that have been set." (White Paper 2001, Ot.Prp.66 (2000-2001), pp 106). Implicitly, this includes making budgets and plans and making of long term plans. The minister at the time the hospital enterprise reform was implemented, argued that professional and autonomous boards with only a limited number of participants were necessary to implement the functions of the boards. At that time, board members with experience from the private business sector were preferred by the Ministry, and according to the law, only 1/3 of the members should be employed in the health enterprises. After a couple of years, the Government wanted to regain some of the political dominance in the boards, and in 2006 it decided that politicians also should be nominated to these boards. The motive was to include a broader stakeholder representation into the boards.

When considering the hospital boards as the highest decision making body, the board is expected to be the owner's (the state's) main strategic instrument; setting goals and supervising the activities and performance of the hospital enterprises. Consequently, the strategic role of the board should be overruling the control functions and the role as taking care of stakeholders' interests. This is to say that the Hospital Enterprise Act (2001) painted a picture of the hospital enterprises' boards as top management boards to decide on strategies and secure strategies and budgets to be linked together.

The introduction of the hospital enterprise reform in 2002 underlines the strategic role of the "enterprise meeting" between the Ministry and the board leader as the main strategic device, where the contract requirements were formulated. This meeting has the same formal function as the general assembly. Further, the Ministry developed an annual strategic document including the detailed number of performance indicators and main objectives for the next budgetary year – the steering documents, where the economic and organisational performance measures are formulated. Together with the laws and regulations these tools are aiming at establishing vertical governance structures with clear authority lines and hierarchical responsibility patterns all through the hospital enterprises from the top and down to the clinical departments.

In sum, these routines and procedures were considered by the Ministry to establish the boards according to some rules of good hospital governance. In line with the Scandinavian tradition, the boards were composed by including the employees' representatives (1/3). By including politicians (a majority) in the boards from 2006, the roles of the hospital boards were changing more towards the stakeholder perspective on the functions of the boards.

The Board is the formal link between the owner (the Ministry) and the management of the hospitals. According to normative perspectives, the boards have the strategic function of these enterprises.

The implementation of the Norwegian hospital enterprise reform can be mapped and analysed against the decision space left to the hospital boards. The decision space characterises the relationship between the centre (the Ministry of Health) and the local level by the hospital boards. The decision space is defined for the various functions where the boards have the influence of real choice. Functions may be disaggregated into the areas where the boards have a real range of discretion, instead of treating decentralisation as one block of authority line. The main functions empirically derived are according to Bossert (1998:1518-1519). Based on the reform initiatives in the

Norwegian hospital sector and changes during 2002-2008, the decision space have been reduced (Nyland, Pettersen and Østergren, 2010). The legitimating function of the boards has increased, as politicians now have been introduced into the boards. The following functions are described by empirical indicators:

Function	Indicator	Range of choice
<b>Finance</b>		Narrow
Sources of revenue	Mainly from the state	
Contracts	40% activity based	
Operation maintainance	Strictly regulations of investment levels, regulated supply of loans	
<b>Service organisation</b>		Narrow
Hospital autonomy	Formal autonomy	
Governance structures	Strictly regulated	
Payment mechanisms	Detailed regulated	
Service distribution	Regulated by patient rights and norms for waiting time.	
<b>Human resources</b>		Narrow
Salaries	Sentral negotiations	
Contracts	Standardised	
Civil service	National	
<b>Governance rules</b>	Detailed regulations	

Table 1: Map of decision space (applied from Bossert, 1998). (Nyland, Pettersen and Østergren, 2010)

The aim of the Hospital enterprise reform (2002) was to establish a governance model with professional and autonomous boards which could secure the State's efficient management of the hospitals. The hospital boards were expected to have a main function as acting on behalf of the state. Our findings indicate that according to a principal agency (PA) approach, the reform has not been implemented according to its motives. On the other hand, we may conclude that the boards have a legitimating function since it has a composition which is based on some democratic principles.

#### Accounting systems changes

“One of the most important aims of the hospital enterprise reform is to enhance a better maintenance of the values that are tied up in invested capital, and also to ensure better resource management by giving the hospital enterprises the overall responsibility both as to the running costs and as to maintain the values of invested capital resources.”

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(The Ministry of Health and Social Affairs, 2000-2001, pp. 57)

Accounting practices are central to the issues of implementing purchaser–provider organisations in the Norwegian public hospital sector, because accounting is engaged in the process to make the organisations visible and calculable (Miller et al., 2008). To make hospital activity visible, attempts to calculate medicine and clinical activity have formed a part of the international managerial reforms since the early 1980s. The encounters between clinicians and the New Public Management (NPM) reforms (Hood, 1995) have been observed in a diversity of financing systems and accounting regulations (Nyland and Pettersen, 2006; Nyland et al., 2009).

When hospitals are transformed into self-governing enterprises with the role as providers and the state takes the role of purchaser, the contracts between these bodies are changed to inter-firm transactional relationships. A main element in the hospital enterprise reform in Norway was the introduction of this logic of the purchaser–provider split based on the contractual principles from the economic theory of PA relationships. By that reform, the Norwegian government established autonomous entities that had to be governed differently from the former public agency organisation of the hospitals. The principal is expected to define the professional activities of the agents, and these contractual expectations are translated into accounting-type output measures linked to input resources-

In order to analyze this topic, an investigation was done based on documentary sources to evaluate the formal layers of the financial management reform in the public hospital sector (Pettersen and Nyland, 2011). The formal layers of the accounting practices are the conceptual instruments either found in the documents or as the technical instruments which are developed by procedures and key actors' practices. Accordingly, our research focus is the formal documents and the corresponding practices as these emerge in accounting and other relevant reports. By our investigation, we were able to illuminate the **milestones** of the accounting system changes:

1997 The financing system was changed from fixed grants to a combination of fixed grants and activity-based financing (The Ministry of Health and Social Affairs, 1995–1996). The activity-based share of the funding was changed in the years to come.

1999 A new act on patients' rights was approved in the parliament (The Ministry of Health and Social Affairs, 1998-1999). Patients were given the right to choose in which hospital they wanted to be treated.

2001 A group of external accounting professionals was hired to issue an opening balance sheet and accounting guidelines. They recommended the replacement costs with a deduction for wear and tear (The Ministry of Health and Social Affairs, 2002). This provided a total valuation of capital assets of 15 billion Euros (model 1). The valuation caused higher capital costs than budget allocations could cover.

2002 Ownership of all public hospitals was transferred to the state and five RHEs were established. Accrual accounting is introduced (The Ministry of Health and Social Affairs, 2000-2001).

Funding is set to cover about 60% of depreciation costs based on the average investment budgets in the 1990s (The Ministry of Health and Social Affairs, 2002). This caused increasing accounting deficits in the hospital enterprises.

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All long-term loans had to be obtained by ministry approval. Cash credit loans can be obtained from private banks.

2003 The Ministry of Health recommends that the valuation of capital assets is adjusted to match revenues allocated to cover capital costs (5.6 billion Euros; model 2) (The Ministry of Health and Social Affairs, 2002–2003. The annual state budget).

Model 1 is still being used, and the ministry introduces a separate income measure including corrections to compensate for a proportion of the depreciation costs (and later also increases in pension costs) that are not covered by the state (The Ministry of Finance, 2003-2004).

2004 The ministry recommends a compromise whereby capital assets are valued to three-quarters of replacement cost (model 3) up to 10.6 billion Euros (The Ministry of Health and Social Affairs, 2003–2004. The annual state budget).

Model 1 is still being used. Two separate income measures are used.

2005 A new compromise is suggested; now two-thirds of the original valuation (model 4) (The Ministry of Health and Social Affairs, 2004-2005 c). This demands a change in how the health enterprises act. A suggestion of such a change is put forward and sent on a consulting round to different accounting organisations in Norway. All comments from the accounting professionals are negative, and the act is not passed (The Ministry of Health and Social Affairs, 2004-2005 b).

2006 A new model for calculating pension costs is introduced, causing increasing pension costs that are not covered by the state. Corrections to compensate for the proportion of the depreciation costs are made in a separate income measure.

2007 Revenues to cover depreciation costs are increased by 125 million Euros (The Ministry of Health and Social Affairs, 2006-2007. The annual state budget).

2008 Revenues to cover depreciation costs are increased by 210 million Euros. Increased grants tied to pension costs (The Ministry of Health and Social Affairs, 2007-2008. The annual state budget). Depreciation costs are now fully covered, but not the full pension costs.

Still two separate income measures are used.

2009 Increased grants to cover full pension costs (The Ministry of Health and Social Affairs, 2008-2009. The annual state budget)

Instruction from the ministry to use liquidity surplus from the pension grants to pay off cash credits.

The health enterprises can no longer obtain cash credit loans from private banks. All loans have to be obtained from the state from now on.

Table 2: Milestones and key events in the change process (Source Pettersen and Nyland, 2011).

The cash accounting system was considered at the end of the 1990s by the Ministry not to be an efficient information system, and accrual accounting was introduced to visualize “capital costs in the hospital enterprises’ annual reports”. In the political debate on these matters, it was claimed to be a problem that within the budgetary system presented above, the hospitals had no incentives as to efficient use of capital resources.

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“The hospital organizations have no incentives as to balance the use of capital with the use of other input resources”

The Ministry of Health and Social Affairs, 2000-2001, pp. 43

By providing information on ex ante basis, which includes both current operating costs and capital costs, the Government hoped for the accounting reports to indicate what kind of liabilities that were transferred to future generations. There was a widespread expectation among the parliament politicians that the new system would produce more relevant information as to long-term resource consumption and financial situation:

“As the regional health authorities’ reports on economic performance are based on the accrual system..... the Ministry is supposed to have the necessary control in the evaluation of the hospitals performance indicators and the hospitals’ ability to comply with the main health policy goals.”

The Ministry of Health and Social Affairs, 2000-2001, pp. 45

But the Government did not state explicitly what consequences the agents (the hospitals) had to expect if they did not behave according to the principles behind the accounting system changes. On the contrary, the principal’s (the Ministry’s) specifications were ambiguous, and they were incrementally changed.

Further, the most important challenge in the implementation process from 2002 and onwards was the validation of capital assets and the setting of depreciation time. Due to the arguments from accountants, the Ministry decided to use a full replacement cost model for calculation depreciation rates in the funding of the hospitals from 2006 – 2008. Four different validation models were developed between 2001 and 2006, please see Table 2.

The accrual accounting information indicated to the Government the consequences of capital decisions and investments. But these ex ante reported consequences did not fit into the frames of the state budgets as these were decided on in the Parliament. In order to match the information in the accrual accounting numbers on long term consequences with the one-year short-term conditions in the State budgets, the Ministry of Health introduced different performance measures, and it changed the contract specifications with the hospital enterprises.

As the Ministry excluded parts of the capital and pension costs from the performance measures in the contracts with the hospital enterprises, the agents could keep on acting according to a cash accounting logic. The cash accounting logic was even strengthened as the State (2009) increased cash management control. The aim of the reform was to create lateral relationships between the State and the hospitals, but the State regained even more hierarchical control by also centralizing asset management. Although the accounting system was changed, the accountability bases were still built upon cash accounting logics.

#### CONCLUDING DISCUSSION - Preliminary

I have here illuminated hybridisation by discussing two longitudinal studies in the reforming Norwegian hospital. Especially, the studies have shown how functions and systems change over time and how ideal models are incrementally constructed and reconstructed. In these cases, we see that the initiatives for these steps forward and back-ward tend to take place on the borders between the

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organisations and the important stakeholders (such as the Ministry and politicians as key decision makers).

Hybrids can take the form of arrangements that do not readily fit ideal/traditional models of functions and systems. And here it is visualised that the hospital boards which at the beginning were planned like rational governing models transformed into legitimating bodies. Further, the accrual accounting system introduced into the hospital enterprises turned out to become a modified system – which had other qualities and effects than one could expect from the textbooks. A lesson to be learned is that when ideal models are introduced into a landscape which is governed by political actors, the outcome might easily turn out to become – hybrids.

#### References (not complete)

- Bossert, T. (1998), Analyzing the decentralization of health systems in developing countries: decision space, innovation and performance. *Social Science and Medicine*, Vol. 47 No. 10, pp. 1513-1527.
- Brandsen, T., Donk, W. van de and K Putters (2005), Griffins or Camelons? Hybridity as a Permanent and Inevitable Characteristic of the Third Sector. *International Journal of Public Administration*, Vol. 28: 749-765.
- Broadbent, J. and Laughlin, R. (2009), Performance management systems: A conceptual 228 model, *Management Accounting Research*,
- Brunsson, N. and Sahlin-Andersson, K. (2000). Constructing Organizations: The Example of Public Sector Reform, *Organization Studies*, 21 (4): 721-746.229-
- Doolin, B. (2001), Doctors as managers. *New Public Management in a New Zealand Hospital*. *Public Management Review*, 3(2): 231-254.
- Ferlie, E., Ashburner, L., Fitzgerald, L. and Pettigrew, A. (1996), *The new public management in action*. Oxford University Press
- Hood, C. (1995), The New Public Management in the 1980's: variation on a theme, *Accounting, Organisation and Society* Vol. 20, No 2/3, pp. 93-100.
- Hood, C. (1998). *The art of the state: Culture, rhetoric, and public management*. Oxford: Clarendon Press.
- Hopwood, A. (1996), Looking across rather than up and down: On the need to explore the lateral processing of information. *Accounting, Organizations and Society*, Vol. 21, 589-590.
- Jacobs, K. (2005), 'Hybridisation or Polarisation: Doctors and Accounting in the UK, Germany and Italy', *Financial Accountability & Management*, 21 (2), 135-162.
- Kraatz, M.S. and E.S. Block, (2008), Organizational Implications of Institutional Pluralism. In R. Suddaby, R. Greenwood and K. Sahlin (Eds.), *Handbook of Organizational Institutionalism*. New York: Sage.
- Kragh Jespersen, P. (2005), *Mellom profession og management*. København: Handelshøyskolens forlag.

---

Kurunmäki, L. (2004), A Hybrid profession – The Acquisition of Management Accounting Expertise by medical Professionals, *Accounting, Organizations and Society*, Vol. 29 No 3/4, pp. 327-347.

Latour, B. (1993), *We have never been modern*. Cambridge: MA Harvard Business Press. Nordstrand Berg, L., Byrkjeflot, H. and Kvåle, G. (2010), Hybridledelse i sykehus – en gjennomgang av litteraturen. *Nordiske Organisasjonsstudier*, Vol 12, No. 3: 30-49.

Llewellyn S. (2001), “Two-way-windows: Clinicians as medical managers”, *Organization Studies*, vol. 22, pp. 593-623.

Miller, P., Kurunmäki, L. and O’Leary, T. (2008), Accounting, hybrids and the management of risk, *Accounting, Organizations and Society*, Vol. 33 No 7-8, pp. 942- 967.

Mintzberg, H. (1979), *The structure of organizations*. Englewood Cliffs, NJ: Prentice-Hall.

Nyland, K. and Pettersen, I.J. (2006), “Management and control of public hospitals - The use of performance measures in Norwegian hospitals”, *The International Journal of Health Planning and Management*, Vol. 21 No.1, pp.1-17.

Nyland; K., Pettersen, I.J. and Østergren, K. (2009), “Same reform – different practices? How regional health enterprises adjust to management control reforms”, *Journal of Accounting & Organizational Change*, Vol. 5 No.1, pp. 35-61.

Nyland, Pettersen and Østergren (2010) Corporate governance and hospital governance-

- dilemmas in the implementation of the governance reforms An empirical study of the boards Norwegian Hospital enterprises Paper presented to the 6TH INTERNATIONAL CONFERENCE ON ACCOUNTING, AUDITING AND MANAGEMENT IN PUBLIC SECTOR REFORMS in Copenhagen 1-3 September 2010

Pettersen, I.J and Nyland, K. (2011) (in press) Reforms and accounting system changes. *Journal of Accounting and Organisational changes*

The Ministry of Health and Social Affairs, 2000-2001. Lov om helseforetak m.m. Ot.prp. nr. 66, 2000-01. Oslo. (Act on state owned hospital enterprises).

The Ministry of Health and Social Affairs, 2001. The Norwegian Hospital Reform - Central government assumes responsibility for hospitals. <http://odin.dep.no/shd/sykehusreformen>

Williamson, O.E. (1991), *Comparative Economic Organization: The analysis of discrete structural alternatives*. *Administrative Science Quarterly*, 36, 269-296.

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**Managerialism and profession-based logics-**  
**A study of management roles in changing hospitals<sup>i</sup>**

Draft of paper to Workshop

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&

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**Abstract**

The hospital sector is one of the areas where large management reforms have been implemented during the last decades. These reforms include features such as resource allocation linked to performance measurement and payment systems, and increased emphasis on managerialism, giving managers a power and right to take an increasing range of decisions

at department levels. This paper focuses on the performance management practices expressed by clinical managers as they coordinate their work on the edge between the instrumental prescriptions in the management reforms and the profession-based logics in medical practices.

A pilot study was done in 2007, which was broad in scope in order to generate a more general understanding of the managerial control processes. On this background, a survey study was undertaken in 2008. In order to understand systems in practice and to analyze the operation of management control, the empirical study was completed in 2008 by interviews with clinical managers in order to have a closer look at the management control processes in three large hospitals in the Middle - and Northern parts of Norway. The aim of the semi-structured interviews was to describe the respondents' reflections and attitudes towards conditions and consequences of their involvement in managerial tasks concerning budget and control activities.

**Introduction**

The hospital sector is one of the areas where large management reforms have been implemented during the last decades. These reforms include features such as resource allocation linked to performance measurement and payment systems, and increased emphasis on managerialism, giving managers a power and right to take an increasing range of decisions at department levels. However, this rationalistic view expressed in the reform initiatives may conflict with the identities of the health professions. These professions are distinguished from other occupations by their members having the exclusive right to determine how their professional knowledge is practised; who can legitimately



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perform its work; how the work should be done and if and when it should be evaluated and by what kind of evaluation criteria.

On this background, this paper focuses on the performance management practices expressed by clinical managers as they coordinate their work on the edge between the instrumental prescriptions in the management reforms and the profession-based logics in medical practices (Weber, 1978). More precisely, we raise the question as to what kind of logics that characterise clinical managers' practices when managing hospitals departments. The motivation for this question lies in the potential trade off between traditional professional autonomy and the rationalistic view on management expressed in the recent management reforms.

Historically, the delivery of health care has been based on concepts of functional autonomy of professionals, whereas the management reforms taking place now indicate a move towards the use of more explicit performance measures (Mo, 2008). Earlier research have, however, questioned to what extent these management reforms in the hospital sector have penetrated at the clinical levels (Jacobs et.al., 2004). Findings also indicate that medical management and the professional logic still have a strong standing in hospitals even several years after implementation of national management reforms (Torjesen, 2007). Other strands of research have shown a variety of practices at the clinical levels (Kurunmäki et.al., 2003; Kurunmäki, 2004, Llewellyn, 2001; Lehtonen, 2007, Model et xxxx), and some researchers have introduced hybrid management to describe managerial practises at clinical levels (ref...)

In this paper we focus mainly on two concepts; the logics behind the performance management as managerial forms in hospitals and the notion of accountability. Performance management in the normative approach is heavily linked to structural modes of accountability, with the emphasis on clear lines of authority. However, accountability is not a clear-cut word (Jacobs, 2004; Sinclair, 1995; Stewart, 1984). Accountability as a part of a management control system is different from accountability towards patients and professions (Jacobs, 2004). We therefore first present the theoretical framework which discusses these two main conceptual frameworks. The research method is thereafter presented, and the empirical findings are discussed. In the last part of the paper, some main implications and conclusions are discussed.

### **Theoretical framework**

In this chapter we first discuss the different logics which may guide professional actions in hospitals. Thereafter the concept of accountability is analysed . We close this part of the paper by summing up the challenges .....

### ***Competing or multiple logics?***

The concern with the logic behind management practices stems from the key arguments in the normative performance management thinking. Here, the basic assumption is a process linking action to results and the determinants of these results, in order to make transparent this linking and to explain action. This "discourse of rationalisation" assumes that actions have an intentionality rather than being random (Broadbent & Laughlin, 2009). This rationalisation assumption falls within what March and Olsen (1989) called "the logic of consequentiality", implying that performance management expresses a kind of tool-sets against which the actions are measured, judged and evaluated. In the opposite dimension we find the "logic of appropriateness", where actions are guided

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by quite another logic, where professional norms and values are internalised into the professionals decisions in the clinical day-to-day activities. These logics may be combined in different patterns and in different situations, and create multi logics.

Several studies have focused on how hospitals have been considered mainly as an arena for conducting medical treatment more than a working place for production of services (Brunsson and Sahlin-Andersson, 2000; Mo, 2008; Pettersen, 2009). Since these professional practices have been considered by key actors in hospitals as overruling the performance measurement systems, changes towards more managed hospitals are characterised as ambiguous with unclear outcomes (Sahlin-Andersson, 2003). These arguments are in line with the studies implying that health care professionals may include several logics sequentially or partly in their daily work, and that managers also behave in this way (Llewellyn, 2001). The professional norms and values are included in the professional logics, whereas an enterprise kind of logic is based on the instrumental approach called "the logic of managerial authority and corporative control" (Scott et al., 2000:219). Torjusen, (2007) also includes a third logic, which covers the political dimension incorporated in the hospitals' context. Multiple logics can exist and be adapted in the organisations in different patterns, and they may not necessarily conflict as they can be de-coupled and sequential (Røvik, 1998).

Recent works on the roles of management control in public sector organisations point in the same direction, as it emphasises how instrumental rationalities guiding action are not necessarily inconsistent with the values that motivate symbolic actions and decoupling in such organizations (Modell, 2009; Lounsbury, 2008; Scott 2008). Public sector agencies might maintain legitimacy towards ambiguous measures and at the same time act according to efficiency-seeking rationalities (Siverbo and Johansson, 2006; Helden and Tillerma, 2005). These findings illustrate that some institutionally conditioned management control changes (like the introduction of performance management systems available to clinical departments) may be embedded in logics which reflect instrumental rationalities and at the same time give rise to diverse practices due to different strategies expressed by key actors.

#### ***Different logics and management control***

The term performance management is widely used and includes substantial differences of meaning. The term includes tools to enhance planning work and setting expectations, monitoring performance, developing the capacity to perform, rating performance in a summary fashion, and rewarding good performance (Broadbent and Laughlin, 2009). Otley (1999: 364) links performance management to 'overall control systems' which is '...beyond the *measurement* of performance to the *management* of performance'. Performance management is – due to the focus on management - heavily linked with the different forms of instrumental logics which are built into the management models.

According to a functionalist approach, the management control process in public sector organizations is expected to follow instrumental phases which describe strategic planning, budget preparation, operating and measuring, and the last phase is reporting and evaluation (the ideal control circle)(Anthony and Young, 2003). The last phase; reporting and evaluation, should according to management principles inspired by the New Public Management (NPM) prescriptions be based on quantitative measures provided from the operation and activity phase (Groot and Budding, 2008; Hood, 1995).

Institutional theory, on the other hand, points to values, norms and history in public organizations like hospitals as important frames of accountability and management practices (Modell, 2009a;

Modell et al., 2007; Pettersen REF), and clinical managers may have institutional rights to exercise medical and ethical judgments which are not necessarily included in the contracts with the top managers. These institutional rights might have budgetary consequences which are not accounted for in the plans. Earlier studies of the use of performance measurements – such as accounting information and indicators – in hospitals support that such measures are used for explanations, reporting and negotiations (Nyland and Pettersen, 2004; 2006; Scarparo, 2006; Chang, 2006; Kurunmäki et al., 2004). These studies indicate that hospital managers also understand their accountability regarding cost-control as a responsibility for explanations and reporting, and to a less extent as a responsibility for strategic planning and actions.

### **Logics and accountability**

The general managerial reforms motivating this research fall within the transactional forms of performance management (Lapsley, 2007). These transactional forms have a high level of specification of ends to be achieved through performance measures, targets etc, and often a clear specification of the means which are needed to obtain these defined ends. In other words, these management forms guide the exchange between means and ends by specific prescriptions heavily built on instrumental logic. At the other extreme we find relational performance measures, which can be less specific as to the ends to achieve by what means. Relational contracts between parties are characterised by mutual trust (Lapsley, 2007), long term relationships and performance guided by tacit knowledge and common values and norms. These two ideal-types of performance management forms are based on different kinds of logics.

The transactional performance management form is typically guided by instrumentality. As an alternative to the instrumental approach, a quite another logic has been introduced as guiding action based on discourse and involvement. The communicative rationality as defined by Habermas (1987), states that the definition of ends to achieve should come out of systematic discourses between participants leading to consensus on ends and consequently, lead to performance (Broadbent and Laughlin, 1997; Pettersen, 1995). Communicative rationality can be close to the notion of relational performance management forms.

The logic of consequentiality, or also defined as the enterprise logics, is based on an instrumental view of the relation between the purposes and the actions of actors, and this normative view is also mirrored in the concepts of accountability. The term accountability can imply instrumentality and external control, based on individual responsibility and adherence to rules. An important assumption in the classic notion of management control is that plans and ideas come before actions, and that plans control action. But if plans change rapidly or when ideas and goals are inconsistent, plans and actions cannot be consistent. So if consistency is to be achieved, plans/ideas can either be adjusted to action (justification), or decisions can be produced which balance the difference between plans and actions (hypocrisy) (Brunsson, 1993).

*“Consistency is difficult to achieve when what can be done cannot be said and vice versa, and control is difficult to combine with consistency when ideas change more rapidly than action. The difficulty of achieving consistency and control can be partially overcome by combining ideas and actions in two other ways. One combination involves justification and the other hypocrisy” (Brunsson, 1993:489).*

Hospitals exist in contexts with inconsistent goals and ambiguous measures. Consequently, it is difficult to control actions, and the deviations between plans and actions will often occur. Institutional theory has pointed at legitimating adjustments which aim at producing talk and rhetoric, which

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compensate for action rather than controlling action. Hospitals can use different strategies to deal with these internal inconsistencies. As Brunsson (1986; 2006) has put it: *“Organisations may reflect inconsistent norms by systematically creating inconsistencies between talk, decisions and products. They can talk in consistence with one group of norms, decide according to another and produce according to a third. Organisations dealing with inconsistencies have reasons to be hypocritical”* (Brunsson, 1986:171).

This loose coupling between plans/talk, decisions and actions has been studied as having important external legitimating functions (Meyer and Scott, 1992). However, we need to go further into the understanding of hypocritical action by decomposing the accounts given as to why hypocrisy is observed. When deviations between plans and actions; between budgets and actuals, are to be explained by the relevant actors, accounts have to be given. To give accounts is fundamentally tied up with talk, and as such, the feature of talk involves the giving and receiving of accounts. According to Scott and Lyman (1968) we find two general types of accounts. These are excuses and justifications, which both are relevant when a person is accused of having done something “bad, wrong, inept, unwelcome, or in some other of the numerous possible ways, untoward” (Austin, 1961: 123-152, referred in Scot and Lyman, 1968:47).

Justification implies that actions are defended in order to justify that the deviations from plans are the right ones. If actors are experts in their field (as clinicians are in hospitals) there might be strong incentives for these to convince others (their executives) of the advantages of their actions taken. *“They will often consider themselves to be right, believing that their expert opinions based on profound insights are superior and more firmly based on the facts than the irrelevant and oversimplified ideas and whims produced by other people”* (Brunsson, 1993: 500).

This kind of consistency produced by justification does not imply that the lack of control becomes evident. Plans (like budgets) are made in a complex interaction process so that it is difficult to understand what/who is controlling whom. Very often this complex process can create an illusion that plans are controlling action, while the opposite can be the case.

Under situations where actors' intentions are questioned, the claiming of failures to foresee the consequences may be a socially accepted account of action, which we call excuses. *“Excuses are socially approved vocabularies for mitigating or relieving responsibility when conduct is questioned.”* (Scott and Lyman, 1968:47). This implies that actions come before explanations of intentions, due to some complex mixtures of cause and effects. Excuses can be attached with the lack of information as to cost of treating patients. Mainly, arguments can be that it is impossible to calculate the consequences of admitting patients to the hospitals. According to Scott and Lyman (1968:49) some kinds of “fatalistic” forces are often observed in this category of actions. These “fatalistic forces” are accepted as drivers that more or less control the effects of actions. This is to say that actors may call on such factors as impossible to manage and to control, and therefore actions deviate from decisions.

### ***Hospitals and managerial challenges***

In general, large hospitals are complex organisations with high-technological equipment, complicated processes of service production and interrelated organisational elements and structures. All these organisational characteristics picture the hospitals as organisations that are difficult to understand, with activities which are difficult to describe and consequently, organisational behaviour is perceived to be unpredictable. Planning, co-ordination and evaluation are in such organisations challenging tasks. While the management of other organisations can demand their employees to account for

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their performance, the primary accountability of the clinician is not to the administrative manager, but to the patient. Professionals such as the physicians have therefore tended to opt for management practices like collective control and representational management, which can be labelled as examples of clan control (Ouchi, 1977). Consequently, the making of performance management and measurement systems to facilitate the relations between the managers and the professionals in these organisations is a special topic when discussing management practices in these contexts.

The clinical managers in hospitals should according to the normative approach plan the activity within budget limits. This can be viewed as a contract between top management of the hospital and the clinical managers. These contracts may include ambiguous performance measures, and they can be based on general relational specifications. Accordingly, institutional theory points to values, norms and history in hospitals as important frames of management practices (Modell et al, 2007), and clinical managers may have institutional rights to exercise medical and ethical judgments which are not necessarily included in the contracts with the top managers. These institutional rights might have budgetary consequences which are not accounted for in the plans. These diversities in rationalities picture dilemmas in the management practices.

## **Research methods**

### ***Introduction***

This paper focuses on performance management with a wider understanding of what constitutes performance management than what is included in the “Balanced Scorecard” (Kaplan and Norton, 1992, 1996). We are concerned with the management of ‘results’ (outcomes or ends to achieve) *and* the nature and functioning of the ‘determinants’ of these results (the means used to achieve these results) at a more individual level (Fitzgerald et al., 1991; Otley, 1999; Broadbent and Laughlin, 2009). A somewhat narrow definition of performance management is applied, since we only include the use of accounting information as a key element in performance measures given to the managers.

We use both survey data and interviews in order to strengthened our analyses and to increase the validity of the results from the study (Modell, 200x, Tengblad et al, 2005; Yin, 2003).. Before we conducted the empirical study, the researchers made a thorough analysis of relevant documents from the government and from the case hospitals in order to get a broad and deep knowledge of the context we were studying. These documents included the years from the main hospital reform was implemented in Norway in 2002. The survey study in 2008 aimed at getting a broad picture of the performance management practices expressed by clinical managers. Based on these findings, interviews were thereafter undertaken to get at deeper understanding of the research question. The interviews aimed at understanding systems in practice and to analyse the operation of performance management as respondents themselves perceive their practices.

### ***The survey study***

The survey was distributed to managers of clinical departments in 5 out of 25 health enterprises in Norway during the autumn 2008. 29 respondents’ gives a response rate of 58%. These five enterprises in the sample were chosen because they are situated in the middle- and the northern Norway, and they are therefore not closely linked with the central parts of Norway. This implies that the reforms also geographically had to travel a long distance. To analyze the data from the survey descriptive statistics are used. The five health enterprises are distributed in two different health regions. Although the population in this survey is too small to generalize, findings may generate

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knowledge relevant to understand management practices as perceived by the managers themselves. The scales used in the survey are between 1- not used at all and up to 4 - used in an extensive degree, please see chapter on empirical findings.

**Table 1 about here**

### ***The interview study***

The aim of the semi-structured interviews was to describe the respondents' reflections and attitudes towards conditions and consequences of their involvement in managerial tasks concerning budget and control activities. The research design was qualitative, and it focused on the accounts given by clinical managers. We used a normative approach to management control (Anthony and Young, 2003) and asked the respondents questions on how they perceived the links between strategy and plans like budgets; links between budgets and actions, links between action (defined as clinical activities) and accounting information (as evaluation and reports). At last, we asked about the links between these reports and the future strategies. Nine managers of clinical departments in three different hospitals were included. The hospitals were spread across the Northern part of Norway. The interview statistics can be found in table 2.

The semi-structured interviews lasted one and a half to two hours. These interviews were guided conversations, where the respondents discussed themes of interest and relevance to the questions. The interviews were transcribed, and the transcriptions were returned to the respondents for comments. The quotes were translated from Norwegian to English. This may bring some biases into the wording of the quotes. In order to secure an authenticity into the empirical description, we chose to refer directly to the respondents.

**Table 2 about here**

### **Empirical findings**

#### ***Accounting information as performance management tools***

The department managers' use of management accounting information for different purposes is shown in table 3. These purposes reflect the hospital managers' strategies on how such information can be relevant in performing their administrative tasks. There are three main findings in table 3. First, accounting information, which is an important element in the performance management tools, is to a large extent used as a basis for explaining budgetary deviations, but also as a basis for discussions in the department. The second finding is that accounting information to some extent is used to explain activity deviations, as a background for argumentations and negotiations to obtain a more realistic budget, and as a background for adjustment of costs and planning of day to day activities. However, the third finding indicates that accounting information is only to a modest degree used for planning next year's activity.

**Table 3 about here**

Table 4 presents the degree to which clinical managers use accounting information in the budgetary process. The main finding is that clinical managers to an extensive degree use budgets from earlier years, last year's financial statements and activity plans in the budgetary process. Further, long term plans and strategies and different analysis of cost-levels, capacity and medical practice respectively

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are in some degree used. We also notice that the use of accounting information only to a modest degree is used for planning future medical activity or analyzing medical practices.

**Table 4 about here**

Table 5 presents the picture of the managers' use of accounting information in the day to day management control. Managers perceive that they have an extensive use of regular accounting reports and analysis of deviations between budgets and actual costs. This information is used as a basis for the operational management control in the departments. Next, analyses of activity deviations and capacity are marginally less used compared with accounting reports and analysis of budgetary deviations. Further, analysis of respectively wage levels/systems, personnel composition, medical practice, cost-levels and capacity are only in a modest degree used by managers as basis for management control.

**Table 5 about here**

The main findings in the survey data presented above, indicate that accounting information plays an extensive part of performance management in order to explain and justify deviations between budgets and actual spending. Managers also to some extent use such information as background for negotiating for more resources to the clinics. Budgets are mostly based on last year's budgets, and not based on accounting information. General accounting information is used for day-to-day management control. However, managers do not use accounting information as input into long term plans such as strategic decisions and capacity analyses.

Further, managers do not use accounting information for analysing medical practices. Consequently, accounting information as a part of management practises seem s to be used for ex post accounts on activity and not as input into future decisions. Here we find signs of decoupling between plans and actions, as budgets are not input when planning medical activity. Accounts are given after action has taken place, and as such accounts act as justification of earlier actions (Brunsson, 1993; 2006).

***Developing the ends to be achieved***

As shown in the survey study, managers only to a modest degree use accounting information for planning future activity. Medical practices and accounting reports are loosely coupled. How then are the ends that are defined for the clinics derived at; what processes are behind the ends that are developed for the clinical activity?

*"The budgets are mostly based on historical figures.. .. only money ."* (Person 1)

*"As for 2008, we used the budget from 2007 and compared the budget with the accounts..."* (Person 4)

These two clinical managers state that accounting information is based on historical data, which are not coupled with clinical activity. Accounting information (and calculation) is among the key elements in the transactional management modes, which are applied to the administrative tasks of the managers and not included into the clinical governance. The clinical ends defined within these clinics are not based on accounting data.

*"The healthcare professionals should not focus on the economic perspective. You must act on the basis of ethics and professional knowledge."* (Person 5)

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*"... the plan for the department does not contain any particular economic objectives. The focus is on the professional activity. We're in a situation where the employees to a large extent try to distance themselves from the economic issues."* (Person 3)

The respondents indicate that action is governed by professional norms and values. Economic goals are not specified, and accounting acts as ex post reporting on economic consequences that are not guiding future clinical action. Further, clinical activity is based on professional guidelines, which are developed through discussions and experience in the clinics, similar to the discourses found in the logic of appropriateness and professional logics. These clinical discourses are decoupled from the economic and administrative parts of the hospitals, which indicate some parallel sets of logics:

*"... Thus, I don't discuss financial worries in the morning meetings. Never. ... It is my responsibility and it will be my concern. The professionals should be concentrating on the subject, and not be saddled with financial worries."* (Person 6)

*"... the financial controller is central in the budget process. In the clinics the medical directors are central. The administrative staff is not. For the clinical people finances are not so important really."* (Person 8)

The last two managers separate administrative tasks from the clinical part of hospital activity. The accounting information is generated from clinical activity, but this link is not transparent because connections are not visualized here. All six managers' statements indicate the same direction, namely that two logics exist; one guided by accounting information and one guided by professional ethics and norms. These logics are in some way intertwined, as will be discussed below.

The respondents express viewpoints which indicate that future plans and goals are mostly considered as externally given. Economic ends are not discussed in the clinical departments, and little focus is observed on these matters. We notice that professional freedom is high, and that activity is governed by professional logic. Fundamentally, professional activity in clinical work is based on another logic than economic transactions. Clinical activity is governed by professional logics and discourses which is based within communicative rationality, whereas the administrative logic is based on consequentiality which is found within instrumental rationality. In the hospital clinics these logics exist side by side, and where the middle managers play the role of "two-way windows" and binding these two logics together. Consequently, the competences of these managers are important, as most of them are physicians themselves.

### ***Performance measures and different logics***

The survey data indicate a variety of practices as to using performance measures. The interviews also indicate such picture. The respondents focus heavily on reports and reporting. Key indicators are DiagnosesRelated Group (DRG)- indexes, lengths of stays, waiting lists, number of ambulant patients. We notice many measures on clinical activity, but these are not connected with accounting information or used in such calculation.

*"At least, we focused enormously on coding, and that it should be correct."* (Person 7)

*"Yes, we register capacity utilization and the DRG-production and occupancy rate, and the preoperative length, and the absence due to illness. And of course, budget and accounts from month to month- in separate systems."* (Person 8)



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The performance measures are collected automatically in the computer systems in the hospitals, and there is a heavy focus on coding of diagnoses into the DRG-system. The reason is that these DRGs are used as basis for the payment system, which in Norway is made up of two main elements: A frame budget (60%) and a per case system (40%). All these indicators can be classified under the umbrella of enterprise logic based on economic instrumentality.

*“We are quite concerned with the DRG-weighting.... So both DRG production, number of days and nights stayed at the hospital and outpatient consultations. These we followed very carefully...”* (Person 1)

*“Number of DRG is important, as this affects the income side to some degree. .. Yes- I am concerned about this. Low occupation rate means less income here in the clinic...”* (Person 6)

The indicators are closely watched, but as noted above, activity numbers are not reported by the respondents to be included in the clinical decisions. On the other hand, the incentives behind the activity indicators (such as DRGs) motivate managers to increase activity, as is mentioned by one respondent. In this case, the different logics meet in this managers' reflections. This manager is a physician himself, and combines the different logics in his arguments. The following manager did not explicitly connect the diversity of performance measures with the accounting data and income system:

*“There will be patient care, activity, occupancy rate ... doctors and the number of consultations, the absence due to illness..... a lot of data for reporting.”* (Person 3)

The respondents did not explicate how or for what these reports are used, but the general statements were that someone or an agency outside the clinics had demanded these reports to be made:

*“The administration also sends us a questionnaire where I'm to answer in relation to the development of the monthly work, how we are in relation to our efforts, the saving measures, and how the forecast is for the rest of the year. ....”* (Person 9)

*We report on budgets and the number of days and nights stayed at the hospital, discharges and occupancy rate. We report on activity and on budget, and absence due to illness has focus. And we have such a deviation system, where we shall register if there are injuries on personnel and in clinical activity.”* (Person 4)

The general picture being painted here is that there is a lot of reporting from the clinics to external administrative units in the hospitals. The separation between the clinical and the administrative “world” is manifest. On the other hand, we also note the managers who link these “worlds” by participating in both of them; are clinicians and also managers who express accountabilities to budgets and plans

### ***The link between means and performance measures***

We have described a decoupling between the accounting information, reporting of activity and the professional decisions in the hospital departments, as expressed by managers in these departments. But we have also found the connecting links expressed by manager combining the different logics. Now the question is what kind of logics that can be observed in the process between the choice of means to be used in order to achieve the departments' objectives as these are defined by performance measures. This is a question of the means-ends relationships.

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According to the normative view on the relations between means-ends, the mental understanding indicates a clear and well defined link between what means to choose in order to achieve what ends. This world-view is based on a logic of clear consequences, whereas the daily life in hospitals implies ambiguous relations between means and ends.

*“As I know the staff they are not as individuals negative in terms of having professional objectives. They are completely “starving” for professional objectives. But in the cross line between the different objectives such as budget objectives and professional objectives, the doctors’ integrity is in the professional objectives.”* (Person 9)

This statement shows a strong link between the professionals’ objectives based on norms and values and their treatment of patients and the clinical activities. But the link between these professional objectives and the other performance measures and indicators are ambiguous:

*“I follow the doctors very closely. I participate in the morning meetings, and I participate in discussions concerning demanding patients. I understand that they must do what they have to do from a professional perspective. The economy should never be in focus when you need to take professional medical decisions.”* (Person 5)

The clinical activity is guided by the professionals’ values, and these values are buffered from the other indicators.

*“We cannot sit and talk about the budget when there are patients who need treatment. So that’s very important - try to protect the professional work.”* (Person 8)

*“Strategic plans and indicators – these are made in cooperation with controllers - not discussed in the clinic.”* (Person 6)

If there are conflicting goals, the respondents share the view that the professional goals always will be prioritised:

*“Professional integrity... that is what I thought was very difficult at the beginning. But now I have some mentors - in other words, other clinic directors, in similar disciplines, with whom I discuss. And we support one another, at least when I started in my position. So it is clear to me how much I'm willing to cut costs at the expense of the professional values. If I have to cut more, I cannot do that due to my professional standards.”* (Person 7)

*“So, if you decide to run a hospital you must know what you are doing... because we talk about a hospital, not an accounting agency.”* (Person 2)

The focus is entirely on clinical activity in the process of developing objectives and plans for the future. These objectives and measures are based on professional logics. The relation with the economic consequences of clinical activity is ambiguous. This observation leads to the assumption that the discourse which ends up in performance measures is not based on communicative rationalities, but based on an enterprise logic and instrumental rationality. The links to the clinical world go through the middle managers, and their perceptions are as noted above, quite diverse.

### **Stakeholders and their owning means and ends**

If the resulting performance measures have not been subject to extensive discourses between the different stakeholders in the clinics, the ownership among these parts to the ends and means is likely

to be low. And opposite, if the stakeholders have participated in the development of ends (objectives) in their clinic and also in making performance indicators to evaluate activity, these stakeholders are expected to acknowledge these measures. In organisations which produce services that are based upon professional knowledge, we can expect that the motivation elements to link performance and outcome depend upon the acceptance of performance indicators.

*"We don't use the strategy document. It's only a document fulfilled with fine words." (Person 6).*

*"We had a meeting about the strategy document with the director. And it was actually because I asked for it. The document has been posted at the web, but for some years nobody has done anything with the content of the document." (Person 1)*

The respondents illuminate here the decoupling between plans (strategy) and action in the clinical part of the hospital. Consequently, we do not observe the consistency which is proclaimed within the instrumental view on action. The strategy processes may have legitimating functions.

*"It feels like the document is only delivered. It's not a document we use." (Person 5)*

As noted here, the clinical manager here express very low degree of ownership to the strategy/budget document- and the manager has not participated in the process; a view that is shared by the other respondents.

*"We could read in the steering document that our department was prioritized. But when it comes to the budget and the decisions to cut resources available, this priority is not worth the paper it is written on." (Person 9)*

Decisions in one document- the strategy – is changed as plans are made in another document – the budget. Plans and decisions are inconsistent, which might lead to "hypocritical" actions (Brunsson, 2006).

*"The problem is that the steering document from the Ministry or from the Regional Health Enterprise to our hospital - it comes in February or March. It comes too late ..." (Person 1)*

Further, the plans come after actions have been taken; this is to say that the strategic documents and the budget are decided on three months after the beginning of the year. This delay in planning might motivate towards justification of actions and excuses after budgets have been overspent.

*"... I'm quite sure that if you asked a random selection of the staff in our department, they would say: "Oh yes, we have something called that [steering document]?" It's my experience. It's something that the top managers deal with." (Person 3)*

As middle managers in hospitals the respondents have little engagement in the planning procedures. As to the externally imposed measures from the top level management to the department managers (the overall strategic measures) - we observe low degree of ownership to these means and ends. On the other hand, the clinical activity ends are developed in the departments, and these measures are highly integrated in the clinical departments.

#### ***Underlying authority structures and accountability***

The authority structures in hospitals follow the medical decision lines, and authority is intertwined with medical/professional authorities. In our sample we notice that the managers being doctors

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themselves (6 of the 9 respondents), tend to explicitly state that their authority is based on their clinical knowledge. Thus, authority structures are built on professional education and tacit knowledge giving the legitimate authority bases.

The nurses, on the other hand, express that they base their authority more on formal rules and formal authority lines. The strong medical authority structures are underlined by the fact that all the clinical managers being doctors also performed clinical work while having managerial responsibilities. Nurses being clinical managers, on the other hand, did not participate in clinical activities themselves.

*"We are not here just to control the money or move money. Our main activity is to treat patients. .... I don't think we should spend most of our time on calculations and accounts."* (Person 4- doctor)

This manager participates actively in the ambulant care activities and in some periods she also takes on-call duties. The following manager is an active researcher within his field, and this activity is affecting his role as manager:

*"We are asked to focus on money and to cut costs. While the quality of our treatment of patients or research is not focused. There's something wrong about what is important in hospitals- the clinic counts."* (Person 2- doctor)

The managers' authority is based on the clinical values, accountability towards clinical standards. Further, the physicians have strong power position within the clinical part of the hospital as managers:

*"But I hope I could participate more in the morning meetings and take part in the professional discussions, or at least listen to the discussions."* (Person 1- doctor)

This physician has been an active clinician, but as he became manager, he had to reduce his commitment to clinical practice; a situation which he regrets. The following manager in, on the other hand, active in his clinical duty as well as he manages a large clinic. This engagement is one important power basis for his managerial tasks:

*"I am also very close to the clinical activity as I am active myself in treating patients and being on call duty."* (Person 6- doctor)

The physicians being managers, express that it is important to be close to the clinical discussions, which they tend to prioritise. The nurses being managers give another picture of their activities. They use energy on reporting, giving accounts and to follow up activity.

*"I have good control. I used much of my energy in managing the accounts."* (Person 9- nurse)

This manager does not mention anything about her professional engagement as a nurse in performing her managerial activities. The following citations express the same focus on the formal part of the management tasks:

*"It is day by day in relation to follow up the accounts."* (Person 5- nurse)

*"I follow up the accounts continuously."* (Person 3- nurse)

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These statements from the nurses imply a focus on more legal authority lines, where the administrative tasks are more in focus. The physicians, on the other hand, express their managing tasks more intertwined with their professional work as doctors.

In general, the respondents express accountability towards patients and the clinical activities. However, there is a somewhat interesting finding here as the physicians being managers tend to express more relational forms of performance management (Lapsley, 2007) in the way that they actively participate and involve themselves in the day-to-day activities. They do so without expressing active use of reports and measures. This implies that they personally relate to the colleagues and include their tacit knowledge actively in the clinical processes- in close interaction. Nurses in our sample, although they represent a small number, show a more transactional approach to performance management, as they rely on reports and standards

### **Very Preliminary Discussion**

#### ***Dual structures of logics***

We have here discussed more in detail what kind of logics that characterise clinical managers' perception of their practices in hospitals. We have used a survey study, and we have interviewed clinical managers in fairly large Norwegian hospitals. Especially, we have focused on hospitals as organisations that are dominated by professional norms and values in the production of health care services.

One general picture is that the middle managers – clinical managers – perform their management practices according to different logics along the instrumental – communicative continuum. They balance the instrumental rationality expressed in the hospital owner's (the State's) strategic steering letters with the professional norms and values expressed in the medical practices.

There are signs of strong focus on the developing of clinical performance indicators and reporting among the managers. This indicate a kind of enterprise logic (ref) in the planning of clinical activities. This instrumentality supports the more transactional approach to management based on the assumption that there is a connection between the measures and the clinical activity. However, in the next step, the linking between measures and clinical activity, the managers rely on a more relational approach as most of them personally involve themselves and operate in close cooperation with the clinical staff.

However, as clinical activity is characterised by continuous discourses among the health care workers and the clinical manager, these discourses seem to be decoupled from the measures aggregated in the management control systems and accounting reports. Means and ends are expressed in clinical terms, and future economic consequences (ex ante) are not expressed in the same degree. In other words, we find (according to earlier studies..) dual logics in the clinics: Medical staffs are required to account to their medical peers for their clinical activities and to the department management for their use of resources.

Clinical accountability is a kind of collective accountability towards professional moral and norms (Jacobs, 2004). There are however circumstances where accountability cannot be assigned either to persons or to collectivises, because causality may not be established within clinical work. And where it is unclear as to whether any agent is accountable, accountability given to a "situation". As budget holders, in our case, do not think of themselves as "producers of effects", they may attribute the accountability for the budgets to the ambiguous situation (Llewellyn, 1998, p 303).

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### **Mixed patterns of logics**

The process of developing the ends to be achieved in the clinical departments is split into two parts; the clinical objectives are well integrated with the activities in the clinics, whereas the other objectives (administrative and economic) are based on instrumental logics and governed from outside the clinics.

This picture is also in line with the professionals freedom to choose the means which are necessary (and optimal) in performing clinical tasks. Consequently, the main stakeholders (the professionals) have a high ownership to the means-ends relations within the clinical world. On the other hand, the administrative and economic means and ends have little legitimate standing among the clinical managers. In turn, this split between the administrative/economic performance measures and the clinical measures is found in the performance management in the clinics. Here, clinical action is based on professional and legitimate authority structures.

Due to the inconsistencies found in the measures guiding clinical departments we find signs of hypocritical actions (Brunsson, 2006), where plans, decisions and actions may take different directions. Further, as the performance measures (to a large degree) are decided on outside the clinics, managers also express attitudes like justification of deviation between plans and actions and excuse attitudes, as plans do not have the legitimate positions in the clinical decision space. Here there can be some differences as to the managers' professional background, as physicians express a stronger focus on their professional norms and values in running hospital departments.

Our study is based on the respondents' perception of their roles as managers. This research design brings in some biases to the findings, as these are not manifest actions. Further, our cases are a minor part of the Norwegian hospital population, and the national context is also affecting the respondents' reflections during interviews. In future studies our findings can be generalised by comparative analyses in other national settings and by using different analytic frameworks.

### **References (not complete)**

- Abbott, A. (1988). *The System of Profession. An Essay on the Division of Expert Labor*, University of Chicago Press, Chicago.
- Anthony, R.N. & Young, D.W. 2003. *Management Control in nonprofit organisations*. Seventh edition. McGraw-Hill, Irwin.
- Austin, (1961).
- Brignall, S. & Modell, S. 2000. An Institutional Perspective on Performance Measurement and Management in the 'New Public Sector'. [\*Management Accounting Research\*, 11 \(3\), September 2000.](#)
- Broadbent, J. & Laughlin, R. (2009). "Performance management systems: A conceptual model", *Management Accounting Research*, 20 (4), pp. 283 – 295.
- Broadbent, J & Guthrie, J. (2007). "Public sector to public services: 20 years of "contextual" accounting research", *Accounting, Auditing and Accountability Journal*, 21 (2), pp. 129-169.
- Broadbent, J. & Laughlin, R. (2005). "The role of PFI in the UK Government's Modernisation Agenda", *Financial Accountability and Management*, 21 (1), pp. 75 – 97.

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- Broadbent, J. & Laughlin, R. (1997). "Developing empirical research in accounting: an example informed by a habermasian approach", *Accounting, Auditing and Accountability Journal*, 10 (5), pp. 622 – 648.
- Brunsson, N. (2006), *The organisation of hypocrisy: Talk, decisions and actions in organisations*, 3<sup>rd</sup> edition, Universitetsforlaget, Oslo.
- Brunsson, N. (1993), 'Ideas and Actions: Justification and hypocrisy as alternatives to control', *Accounting, Organisations and Society*, Vol 18, No 6, pp. 489-506.
- Brunsson, N. (1986).
- Fitzgerald, L., Johnston, R., Brignall, T.J., Sivestro, R. & Voss, C. (1991). *Performance Measurement in Service Business*, CIMA, London.
- Habermas, J. (1987). *The theory of communicative action volume 2: The critique of functional reason*, (transl.) Heinemann, London.
- Hofstede, G., B. Neuijen, D.D. Ohayv, og G. Sanders (1990). "Measuring Organisational Cultures: A Qualitative and Quantitative Study Across Twenty Cases", *Administrative Science Quarterly*, 35, pp. 286-316
- Hood, C. (1998).
- Hood, C. (1995). "The New Public Management in the 1980's: variation on a theme", *Accounting, Organisation and Society*, 20 (2/3), pp. 93-100.
- Hood, C. (1991). A public management for all seasons? *Public Administration*, (spring), pp. 3 – 19.
- Kaplan, R. & Norton, D. (1996). *The Balanced Scorecard*, Harvard Business Review Press. Boston, Mass.
- Kaplan, R. & Norton, D. (1992). "The balanced scorecard – measures that drive performance", *Harvard Business review*, (January/February), pp. 71 - 79.
- Lapsley, I. (2007). "Accountingization, Trust and Medical Dilemmas", *Journal of Health Organisation and Management*, 21 (4/5), pp. 368-419.
- Llewellyn, S. (1998).
- Lipsky, M. (1980). *Street-Level Bureaucracy*, Russel Saga, New York.
- March, J.G. and Olsen, J.P. (1976). *Ambiguity and choice in organizations*, Universitetsforlaget, Bergen
- Meyer J.W. and Scott, W.R. (1992). *Organisational environment; ritual and rationality*, Sage, Newbury Park, Calif.
- Mintzberg, H. (1979). *The structuring of organisations a synthesis of theresearch*, Prentice-Hall, Englewood Cliffs, N.J.
- Mo Opdahl, T. (2008). "Doctors as managers: Moving towards general management? The case of unitary management reform in Norwegian hospitals" [\*Journal of Health, Organisation and Management\* 22 \(4\)](#), pp. 400-415.

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Modell, S., Jacobs, K. & Wiesel, F. (2007). „A process (re)turn? Path dependencies, institutions and performance management in Swedish central government”, *Management Accounting Research*, 18, pp. 453-475.

Nyland, K. and Pettersen, I.J. (2004). “The control gap: The role of budgets, accounting information and (non-)decisions in hospital settings”, *Financial Accountability & Management*, 20 (1), pp. 77-102

Olson, O., J. Guthrie & Humphrey, C. (1998). *Global Warning! Debating International Developments in New Public Financial Management*, Cappelen Akademisk Forlag, Oslo.

Otley, (1999). “Performance management: a framework for management control system research”, *Management Accounting Research*, 10 (4), pp 363 – 382.

Ouchi, W. (1977). “The Relationship between Organisational Structure and Organisational Control”, *Administrative Science Quarterly*, 22, pp. 95-113.

Pettersen, I.J. (2009). “Trust-based or performance-based management – a study of employment contracting in hospitals”, *International Journal of Health Planning and Management*, Published Online: Mar 25 2009 6:28AM, DOI: 10.1002/hpm.981

Pettersen, I.J. (1995). “Budgetary control of hospitals: Ritual rhetorics and rationalized myths?”, *Financial Accountability and Management*, 11 (3), pp. 207-22.

Ryan, B., Scapens, R.W. & Theobald, M. (2002). *Research Method & Methodology in Finance and Accounting*, London: Thompson.

Scapens, R.W. (2004). “Doing Case Study Research”, in Humphrey, C. and Lee, B. (Eds), *The real life guide to accounting research. A Behind-the-Scenes View of Using Qualitative Research Methods*, Elsevier Ltd, London.

Scott and Lyman (1968).

Tengblad, S., Solli, R. & Czarniawska (red). (2005). *The art of science*. København, Liber & Copenhagen Business School Press.

Weber, M. (1978). *Economy and society. An outline of interpretive sociology*, University of California Press, Berkeley

Yin, R.K. (2003), *Case Study Research: Design and Methods*, Sage, Thousand Oaks, CA