Models and Meaning
On management models and systems of meaning when implementing change

Jacob Hallencreutz
Models and Meaning

On management models and systems of meaning

when implementing change

Luleå University of Technology
Department of Business Administration and Social Sciences
Division of Quality Management
October 2009
ABSTRACT

Change has become a vital business partner for many organizations. Survival of most organizations depends on their ability to implement adequate changes to support the organization. This thesis deals with questions about measurement systems, process based system models and organizational change with a specific focus on implementation challenges.

The purpose of this research is to explore the relationship between management models and systems of meaning in change implementation processes and hopefully contribute to the understanding of organizational change through empirical research based on practical experience. To be able to accomplish the purpose, the following research questions have been formulated:

1. How can a measurement system act as a driver for organizational change?
2. How can business excellence models be designed to focus on stakeholder demands and organizational sustainability?
3. How can the implementation of a process based system model help organizations to accelerate change?
4. What is the role of management models when implementing change?

The theoretical frame of reference is focusing on aspects of organizational change and systems thinking. Three papers, based on three case studies, are appended to the thesis. The first study deals with performance management systems, the second study is assessing the use of business excellence models and the third study is tracking the implementation of a process based system model in three organizations.

The indications from Study 1 are that there could be easy gains to be realized in focusing on the measurement system and by adopting a process based approach focused on stakeholder satisfaction. Study 2 indicates that successful use of business excellence models requires effective deployment of basic quality-related values within the organization. However, organizations considering the use of BEMs need to have strong long-term commitment. The results from study 3 indicate that implementation of a system model focusing on processes, resources and a multiple stakeholder perspective aids management to accelerate change. The results also indicate that there are other more crucial success factors than the model as such. Key success factors seem to be: Strategic clarity, management decisiveness and perseverance.

Finally, the network of gaps between change theory (meaning different theoretical and methodological considerations written in textbooks and articles) and change practice (meaning organizations trying to accomplish things based on interpreting textbooks and articles) is discussed.
SAMMANFATTNING

För många organisationer har förändring blivit en viktig följeslagare. De flesta organisationers överlevnad är beroende av förmågan att genomföra nödvändiga förändringar. Denna uppsats behandlar frågor om organisatorisk förändring med särskilt fokus på mätsystem, processbaserade systemmodeller och implementeringsutmaningar.

Syftet med de studier som presenteras i denna uppsats är att utforska relationen mellan ledningsmodeller och meningssystem vid genomförande av förändring och förhoppningsvis, med hjälp av empiriska studier baserade på praktisk erfarenhet, bidra till ökad förståelse för området organisatorisk förändring. För att uppnå detta syfte har fyra forskningsfrågor formulerats:

1. Hur kan ett mätsystem fungera som drivkraft vid organisatorisk förändring?
2. Hur kan "business excellence"-modeller utformas för fokus på intressenter och organisatorisk hållbarhet?
3. Hur kan implementeringen av en processbaserad systemmodell hjälpa organisationer att accelerera förändring?
4. Vilken roll har ledningsmodeller vid genomförande av förändring?

Den teoretiska referensramen i denna uppsats fokuserar på olika aspekter av organisatorisk förändring och systemtänkande. Tre artiklar, baserade på tre studier, ingår i uppsatsen. Den första studien handlar om mätsystem, den andra studien utvärderar "business excellence"-modeller och den tredje studien följer implementeringen av en processbaserad systemmodell i tre organisationer.


Slutligen diskuteras nätverket av gap mellan förändringsteorier (i betydelsen teoretiska aspekter på förändring framlagda i böcker och artiklar) och förändringspraktiker (i betydelsen organisationer som försöker åstadkomma praktisk förändring genom att tolka teoretiska aspekter framlagda i böcker och artiklar).
ACKNOWLEDGEMENTS

There are a number of people who have contributed to make this research journey possible. To start with, I wish to thank my supervisor Raine Isaksson who encouraged me to take on this challenge. You have supported me along the way with your good spirit and never-ending energy. I also want to thank my co-supervisor Rickard Garvare for believing in this project. Thank you, friends, for your generosity, patience and profound knowledge. I am grateful for all your support.

This work would not have been possible without the participating organizations. I would like to thank them for letting me use our business relationships for research purposes. Many thanks also to Anders and all other colleagues at Implement MP AB for support, encouragement and fruitful discussions on organizational change.

I would like to thank Bjarne, Erik L, Erik V, Björn and all other fellows at Luleå University of Technology. Klara, thanks for our research lunches. An extra thought of gratitude to Fredrik Backlund for valuable comments on earlier drafts of the thesis as well as to Fredrik Sjöstrand and Per Bäckius at Gotland University for that eye-opening seminar in May. Thanks to Dawn-Marie in Canada for our Skype-sessions, to Stefan for our “hunting seminars” and to Anna and Mats for guiding me into the world of sociology.

Finally, I wish to thank my family for love, support and encouragement. A very special warm and loving thank to Jeanette, my best supporter, criticizer, friend and lifelong companion. Without you, nothing of this would have happened.

Stockholm, October 2009
APPENDED PAPERS


OTHER PAPERS PUBLISHED BY THE AUTHOR


1 PREFACE

“What’s the meaning of all this?” The man looked sceptically at me and frowned. I had once again tried to explain the need for change and the benefits of process management and filled the whiteboard with boxes and arrows. Once again I had failed to reach him and the question remained unanswered. The models made no sense. There seemed to be a gap between my theory and his practice and we both left the conference room displeased.

I am raised in a truly academic family in Uppsala, an academic city with a University founded in 1477. When I graduated from high school, the majority of my friends went straight on to the University. I did not. Instead, I wanted to “make a buck”, so I completed my military service and steered myself to a job as a clerk at an insurance company in Stockholm from where I progressed to a career as project leader and manager in both service and manufacturing companies. Two decades later, I put myself together and completed a bachelor’s degree in business administration.

Along the years, it has been obvious to me that academic theories and management models are one thing while the actual realization of these is another thing. Textbooks and management literature introduce various models, concepts and ideas in a clean and objectified manner. The reality, where I have been involved, has always been less clear cut. To me, this has served as a proof of my deep prejudice about academics and bookworms whom appear cut off from reality. Since 2002 I have worked as a management consultant in the field of quality and change management. During these last years it has become apparent to me that a theoretical frame of reference assists me to comprehend the challenges in the real word. This evolved into something more serious in 2005, when I completed an online course in Quality Management at Gotland University. From that point in time, I started to reflect on my work in a more academic way. So, now being a PhD student one can say that my journey has taken me “back to the academic roots” – although I am doing my research together with my fellows in Luleå and not in my birth town of Uppsala.

In the summer of 1995 I was the Information Manager at Agria Animal Insurances1 and had nothing but a vague idea about organizational change. The theory was unknown. At that time, Anders Mellberg, CEO of Agria, found the SIQ business excellence model and decided to use it as a stepping stone for a long term investment in quality management2. He involved me in his thoughts through a series of messages from his fax machine, sent from his summer house in Medelpad in the northern part of Sweden. I was sitting at our head office in Stockholm and used the fax messages to cut and paste guidelines for the forthcoming business planning process. The result of this summer session was a 47 page document which was distributed to the whole management team in mid July, when everyone except for me was on vacation. I will never forget the shaken reaction from the Chief Veterinarian, calling from his summer house in Öland, when the envelope hit his mailbox; “Jacob, 47 pages about quality management, what’s going on?” I spoke enthusiastically about TQM and the need for improved quality but, to be honest, there was very little substance behind the words. Nevertheless, in August Anders Mellberg launched “Agria -99” – a three year quality improvement program with the slogan “increased customer loyalty to a lower cost” and the main objective to achieve “25 up and 25 down” (meaning 25% increase in sales and 25%

---

1The only organization, so far, that has received the Swedish Quality Award twice, in 1999 and 2003.
2 For further information about Agria and business excellence models, see Paper 2
decrease in handling cost). I was assigned as the project leader. There and then, this journey begun.

Despite challenging TQM projects I left Agria in February 1999. After almost twelve years in the insurance business I wanted to try something else. My new address was Fagerdala World Foams, a Swedish based international group specializing in the development, manufacture and marketing of polymer foams. I was assigned as vice president for the branch in Sweden, with a specific mission to introduce a “modern” business oriented quality culture, tailored especially for the plants and lines producing parts for the car industry. Very soon I realised that this was a different scenario. The methodologies and tools successfully used at Agria were to some extent applicable on a conceptual level in the management team, but failed to work in practice in this new environment without at great deal of modification. The sketches, models and discussions of quality management were simply not enough. The hard way I learnt to cope with internal contradictions between white and blue collars, regional differences in company culture, a very active owner and in general a much rougher business environment. I remained with Fagerdala for almost three years. After a brief visit in an IT company in the end of 2001 (handling crisis for six months) I embarked on my career as a management consultant. From that point in time I also began to grow a profound interest in theoretical considerations on organizational change, with a specific focus on implementation challenges. In other words: I started to read books and reflect on my practice.

This thesis can be seen as a narrative document of this journey – from the early stages at Agria in 1995 to where I am today.
2 INTRODUCTION

This chapter presents the research background, the purpose, the research questions and the structure of this thesis.

2.1 Background

It is fair to say that my research interest is mainly driven by an urge to better understand problems and challenges in a real life context and hopefully contribute to a broader understanding of management in practice. This thesis evolves around the journey of my professional life and experiences I have gained along the way. It deals with questions about measurement systems, process based system models and organizational change with a specific focus on implementation challenges. But above all, it tries to explore the chemistry that seems to occur when theory meets practice, and vice versa.

Change has become a vital business partner for many organizations. Survival of most organizations depends on their ability to implement adequate changes to support the organization (Armenakis & Harris, 2009). Being a management consultant, it is my job to assist management teams to overcome managerial obstacles in the implementation of organizational change. Some years ago I had an assignment at a middle-sized Swedish manufacturing company experiencing ongoing problems "getting the production people to hold the sales peoples promises". For decades, the business had moved on, but now the company was suffering from intense attacks from new low-cost competitors. The margins were gone. Moreover, there was escalating fuzz from several key customers about rigid and slow procedures, old fashioned pricing and a general lack of customer orientation. The management team was frustrated as the dread clouds were gathering. My mission was to assist them refocus from internal battles to customer demands, needs and expectations.

As the assignment proceeded, I thought a lot about the root causes of the companies problems. The Sales manager, a young and ambitious woman, was constantly displeased with late deliveries, high production costs and trashed calculations. She was squeezed from different stakeholders. Where on one side from customer’s demand for flexibility and value for money, while on the other, from the owner’s desire for return on capital invested. The production manager, a senior guy who had worked for the company for some thirty years, had a totally different viewpoint. According to him, the company had abandoned its genuine focus on supreme product quality. Nowadays, the clients were allowed to make late changes and design adjustments, without coordination and very often ”free of charge”. The sales rep’s paperwork was rarely correct. The communication between sales, the engineering department and procurement was a mess despite the ISO 9001 certified quality management system.

The CFO, a loyal clerk, cousin to one of the owners, was disgruntled. He was worried about the new balanced scorecard and the Managing Directors need for facts, figures and control. The Managing Director, a highly skilled man around 40, had also expressed doubts about the future of the company. His mission was to grow the company by all means “modern” and ready for the competition of the 21st century, combined with strong profitability along the way to keep the owners happy. But he doubted the ability of his management team.

This thesis is not about the case above as such although its scenario could be valid for many organizations I have met. But it gives a background to my general research interest; the relationship between theoretical management models and the meaning they make in practice. I
often meet skilled specialists who have qualified for managerial positions, instead of skilled leaders. In an urge to manage and control, I see rigorous operating procedures and performance management systems. I see management teams who try to grasp the whole by measuring and controlling fragments. Meaning making questions such as: For whom do we exist? Which processes create value? How do we measure success? Seem to be tricky to answer in many organizations, despite widely used concepts like ISO 9000, Business Process Reengineering (BPR), Total Quality Management (TQM), Six Sigma, Just In Time (JIT), Lean and Balanced Scorecard.

Alvesson & Svenningsson (2008) discuss these concepts and conclude, based on their own research, that management concepts and models often are too general to mean anything in practice. Foley (2005) comes to the same conclusion having studied quality management literature; “there has been such a gap between its promises and performance” (Foley, 2005, p 32). According to Hansson (2003) there are a great number of examples of failed or badly performed implementation processes of TQM. Success factors like “strong leadership”, “good communication” and “empowerment” are hard to argue against in theory, yet difficult to achieve in practice (Alvesson & Svenningsson, 2008, Helms Mills et al, 2009). To be able to capture, describe and understand the complexity of a contemporary organization, we – academics as well as practitioners – simplify reality into easy-to-understand models and step-by-step transition processes (Turner et al, 2009). By doing so, we find means to codify and visualize abstractions such as systems, cultural phenomena and values. But my experience is that something often seems to get lost in the process. These findings, no matter how accurate and relevant they might be, seem to be difficult to take from the drawing board back to reality again. I call this phenomenon “the gap between theory and practice”.

Thus, the general management challenge that I would like to discuss in this thesis is how the understanding of organizational change can be developed so that we can fill the gap between theory and practice and more effectively clarify, communicate, improve and control the value creating activities in the organization in terms of fulfilling different stakeholders’ demands, needs and expectations. And hopefully help organizations like the one in this introduction to strengthen their ability to survive.

2.2 Problem discussion

“Oh no, not processes again. Our company tried that in the 90:s. We produced piles of flowcharts but nothing got any better…”

Client

My journey starts at Agria in the quality management discourse of the 90:s. Being a “process management guy” I have often used model based approaches in my change assignments – sometimes, but not always, with a successful outcome. Learning more about process management from a scientific standpoint, it seems to me that the academic way of defining business processes in theory has turned out to be problematic to apply in practice. Schonberger (1996) called process management a paradigm shift and the management of processes the one big idea for the last 15 years. This was said in comparison with TQM, BPR, JIT and some other popular management concepts used to achieve organizational change. With around one million ISO 9000 certificates in the world requiring mapping of the main processes, it is fair to say that many companies have been introduced to process management. It is also reasonable to assume that process management is needed in organizational management and improvement. Focus on processes is for instance a core value in TQM
(Bergman & Klefsjö, 2003). But the outcome of this “big one idea” is not very encouraging. Though process management is said to be used in many organizations, it has not become as widely spread as could have been expected and often the use of process management has not had any major impact on how the organization operates as a whole (Forsberg et al, 1999, Garvare, 2002, Hansson, 2003, Harrington, 1991, Hellström & Peterson, 2005, Isaksson, 2004, Palmberg, 2009, Rentzhog, 1996).

The contemporary business enterprise should be seen as a living social organism whose focus and output is determined by the needs and expectations of stakeholders, according to Foley (2005). Why and to what extent could process management improve how this “living organism” works? The idea is that a wider systems view on an organizational level could possibly lead to an increased management focus on the horizontal multifunctional processes, which deliver value to customers and other stakeholders, for instance product development, customer service, manufacturing, sales, procurement or business control, instead of vertical functions of a hierarchical organization (Ljungberg & Larsson, 2001). Fifteen years of field work tell me that most organizations still run their business through functionally oriented structures which I believe is a heritage from the era of industrialization. But in a time when speed and flexibility are success factors in a complex global competition, my experience is that these kinds of vertical structures are becoming more and more dysfunctional and inefficient. These structures seem to lead to lack of holistic thinking, “departmentalization” and internal focus instead of customer and stakeholder orientation. Other possible consequences are constraints in internal information flows, lack of mutual understanding and lack of shared views which can lead to conflicts and “us and them”-thinking (Stigendahl & Johansson, 2003). The reason for this, according to Hackett (2006), is that many leaders are stuck in strategic and structural thinking from a time when competition and market conditions were different. He calls for a new organizational paradigm, where survivability, flexibility and systems thinking are key success factors.

According to my own experience and a study by Palmberg (2009), there seems to be a widespread confusion of strategic and operational perspectives on processes. Palmberg finds two different movements in the descriptions of process management:

(A) Process management for single process improvements – a structured approach to analyze and continually improve individual processes.
(B) Process management for systems management – a holistic way to manage several aspects of the business and as a valuable perspective to adopt in determining organizational effectiveness.

This strengthens my belief that process management contains elements of organizational strategy and culture, which need to be understood and addressed. According to Foley (2005) the organization must create value for many stakeholders such as customers (satisfaction and value for money) investors (return on capital invested), employees (work environment, safety, incentives), subcontractors (mutual beneficial business relations) and the society as a whole, while respecting nature and sustainable development. The organization must also be managed and controlled, based on facts (Bergman & Klefsjö, 2003). However, internal driving forces such as power, position, prestige and other human aspects seem to hinder successful process management initiatives (Alvesson & Svenningsson, 2008). These underlying mechanisms of behavioural and sociocultural aspects of organizational change must not be underestimated (Turner et al, 2009).
A change towards process management requires not just the use of a set of tools and techniques, but a change in management style and way of thinking (DeToro & McCabe, 1997). According to Rentzhog (1996), the implementation of process management includes both structural and cultural changes to the organization, which leads to the insight that a process management challenge in fact is a general change management challenge. And it is undoubtedly the case that many change initiatives fail to reach intended objectives (Alvesson & Svenningsson, 2008, Beer & Eisenstat, 1996, Beer & Nohria, 2000, Fay & Lührmann, 2004, Helms Mills et al, 2009, Kotter, 1996, 2008, The Economist Intelligence Unit, 2008).

“Anecdotal evidence, decades of experience in the change field, smaller research studies and numerous conversations with other prominent consultants and writers suggest our staggering belief that approximately 75% of all major change initiatives fail to fully meet their initial objectives” (Haines et al, 2005, p 19-20).

There are probably many reasons for this poor outcome. According to Alvesson & Svenningsson (2008), the failures are often explained by implementation problems. Other reasons cited include the lack of attention given to the human dynamics of change and a lack of knowledge of the underlying processes of change (Armenakis et al, 1993, Burns, 1996, 2004). Kotter claims after decades of research that the single one crucial reason for failure is the lack of a sense of urgency among senior executives and middle management (Kotter, 2008). Organizations simply do not think they have to change. Other reasons could be that Senior Executives launch too many parallel change projects and seem to have unrealistic expectations about the outcome (Alvesson & Svenningsson, 2008). Yet other reasons are that management fails to win over the hearts and minds of the people in the organization (The Economist Intelligence Unit, 2008).

A search of Amazon.com identifies some 4 000 results for books on change management models. A quick Google search on “Organizational change” gives a figure of 90 000 000 hits. A search on “Change Management” results in 230 000 000 hits. What new can possibly be added to this subject? My belief, based on visits in the trenches of practical management, is that there might be fundamental weaknesses in the plethora of models and tools used by management consultants, executives and academics. Moreover, there seems to be no clear definition of change management best practice (Turner et al, 2009). My contention is that an improved system based set of models and tools, facilitating a better understanding of how organizations and individuals seek meaning, balance and stability to secure survival, could possibly improve the outcome of organizational change projects, such as the implementation of process management.

This boils down to my specific research focus in this thesis: the use of management models and the meaning they make. I assess the use of measurement systems, business excellence models and a process based system model. The findings lead to a discussion on the complex reality of organizational change and the perceived gap between theory and practice.

2.3 Purpose

Traditionally, researchers start with a research problem which guides a number of choices starting with the problem definition and including choices for the research approach (Wallén, 1996). In this case, the starting point has been a wide research problem in shape of a general interest in organizational change challenges. Thus, the purpose of this research is to explore the relationship between management models and systems of meaning in change implementation processes and hopefully, through empirical research based on practical experience, contribute to the understanding of organizational change.
2.4 Research questions
To be able to accomplish the purpose, the following research questions have been formulated:
1. How can a measurement system act as a driver for organizational change?
2. How can business excellence models be designed to focus on stakeholder demands and organizational sustainability?
3. How can the implementation of a process based system model help organizations to accelerate change?
4. What is the role of management models when implementing change?

2.5 Delimitations
The following delimitations have been made: The studies in this thesis comprise only business oriented organizations in a Swedish context.

2.6 Thesis structure

Figure 1. The structure of this thesis and the appended papers.
Research Purpose
to explore the relationship between management models and systems of meaning in change implementation processes

Research question 1:
How can a measurement system act as a driver for organizational change?

Research question 2:
How can business excellence models be designed to focus on stakeholder demands and organizational sustainability?

Research question 3:
How can the implementation of a process based system model help organizations to accelerate change?

Research question 4:
What is the role of management models in change implementation processes?

Figure 2. An illustration of the hierarchy of the research purpose, research questions and how the questions have been investigated in three studies presented in three papers.
3 THEORETICAL FRAME OF REFERENCE

This chapter links my journey to some general concepts and definitions within the theoretical framework of the research. As mentioned in the background, I started as a practitioner in the field of quality management with a specific interest in process management. Experiencing organizational change and implementation challenges I extended the range of my theoretical frame of reference to general theory on organizational change. Learning about the importance of human aspects of organizational change made me interested in theory about hard and soft systems thinking.

3.1 Total Quality management as a driver for change

The quality movement has a long and complex history, and its evolution from the industrial revolution to present day has been interpreted in many different ways and stages, from Quality Control to Total Quality Management (Bergqvist et al, 2007). The intention here is not to make another summary of the subject, merely state that quality management was my first professional contact with management theory. Different aspects of quality management have been thoroughly covered in the literature, see for instance Bergman & Klefsjö (2003), Crosby (1979), Deming (1986, 1993), Feigenbaum (1951), Foley (2005), Juran (1999) and Oakland (1999).

TQM is often referred to as a planned approach to organizational change, see for instance Helms Mills et al (2009) and Oakland & Tanner (2007). There are many definitions of TQM (Isaksson, 2004). Looking at these definitions there seems to be no precise description of what TQM actually is (Bergqvist et al, 2007). According to Foley (2004) it has for a long time been unclear whether TQM is simply a collection of essentially independent techniques, a management philosophy, a coherent management method, a strategy, a theory for managing only the quality and service process, or a master theory for managing the entire enterprise – or all of the above. Bergman & Klefsjö (2003, p 34) interpret TQM as: “A constant endeavor to fulfill and preferably exceed, customer needs and expectations at the lowest cost, by continuous improvement work, to which all involved are committed, focusing on the processes in the organization”. Despite this relative fuzziness, TQM became the label of the organizational change at Agria. Many years later I asked Anders Mellberg about the origin of his interest in total quality management. What was his spark? He has never given a precise answer, but my interpretation is that he was naturally attracted to and driven by the values of TQM. According to Bergman & Klefsjö (2003) the most important values of TQM can be summarized as follows: Focus on customers, Focus on processes, Improve continuously, Let everybody be committed, Base decisions on fact and Committed leadership. These values can be visualized in the cornerstone model:

---

3 Se also Paper 2
TQM is sometimes accused of being programmatic and technical, see for instance Alvesson & Svenningsson (2008) and Helms Mills et al (2009). According to Helms Mills et al (2009) statistics suggest that 75% of all studied American TQM initiatives during the last decade failed. Hansson (2003) arrives at a similar conclusion having studied Swedish TQM projects in middle-sized organizations. But in many successful organizations TQM is more than the very narrow set of tools and techniques often associated with failed change programmes in various parts of the world. It is rather a part of a broad-based approach used by companies to achieve organizational excellence (Oakland & Tanner, 2007). Some studies also indicate that TQM improves economic performance, see for instance Hansson & Eriksson (2002) and Wrolstad & Krueger (2001). Self-assessment based on Business Excellence Model criteria can exemplify a methodology for the deployment of TQM (Bergman & Klefsjö, 2003). The Malcolm Baldrige National Quality Award (MBNQA) Program, the European Foundation for Quality Management (EFQM) Excellence Model and the Swedish Institute for Quality (SIQ) Model for Performance Excellence can all be said to include TQM values (Isaksson, 2004).

**Focus on processes**
Process management has been a vital part of quality management, see for instance Bergman & Klefsjö (2003), Deming (1982), Foley (2005). Process focus is also highlighted as an important feature of TQM (Isaksson, 2004). The basic idea is that all activities in an organization should be seen as a network of activities which deliver value to customers and other stakeholders, for instance product development, customer service, manufacturing, sales, procurement or business control. The horizontal multifunctional processes should be in focus instead of vertical functions of a hierarchical organization. Unlike many other management trends, the interest in process management has remained high (Hellström, 2006). Current research indicates that management focus on the organization’s processes is needed to execute successful organizational change (Isaksson, 2004, Oakland & Tanner, 2007). Several similar process definitions have been proposed through the years. Still – just like TQM in general – the field seems to lack a common view regarding process management (Isaksson, 2006, Palmberg, 2009). When it comes to managing processes on a system level the notions and definitions used varies widely (Palmberg, 2009). In addition, the tools and approaches for process management varies both in the literature and in practice and give no precise direction on how to deploy process management (Hellström & Eriksson, 2007). As mentioned in Chapter 2, process management is said to be used in many organizations, but it has not become as widely spread as could have been expected. A change towards process management requires a change in management style and way of thinking (DeToro & McCabe,
Implementation of TQM with a specific focus on processes includes both structural and cultural changes to the organization (Rentzhog, 1996, Oakland & Tanner, 2007). Thus, to succeed when implementing concepts like TQM we must learn to understand the complex reality of organizational change.

3.2 Understanding change

Organizational change can be defined as an alteration of a core aspect of an organization’s operation (Helms Mills et al, 2009). Contemporary organizations are experiencing change of great complexity and rate (By Todnem 2005, Helms Mills et al, 2009, Kotter 2008). Survival of most organizations depends on their ability to implement change (Turner et al, 2009). For most organizations implementing change is a risky endeavor (Stebbins & Braganza, 2009) and there seems to be a general consensus that most organizations have not been successful when implementing change (Alvesson & Svenningsson, 2008, Beer & Nohria, 2000, Haines et al, 2005, Kotter, 1996, 2008). This is a paradox - organizations must continually change in order to survive but the very nature of organizational change itself means inherent risks (Klarner et al, 2008).

In many cases organizational change can be seen as a direct result of external cultural, political, technological and economical forces (Child, 2005). External driving forces for change can be new legislation, globalization and new market demand for transparency, flexibility and standardization (Alvesson & Svenningsson, 2008). New technology affects organizations. During the industrial revolution, the importance of craftsmen was replaced by mass production and repetitive work procedures. The objective was to produce large numbers of similar products, as cost-efficient as possible. Recent “revolutions” could be the emergence of internet affecting for instance banking and retail trade. According to Dawson (2003), organizational change can also be triggered by internal driving forces such as new key players with new ideas in managerial positions, new products and services or internal demand for reengineering or reorganization. There is no clear cut between external and internal driving forces for change (Alvesson & Svenningsson, 2008). However, contextual driving forces based on rational decisions do not solely govern the change process. There is always room for people to act according to their own interpretations and understanding of the real life context around them. There seem to be general agreement that without careful attention to the people or human dynamics, organizational change cannot be successful (Armenakis & Harris, 2009).

Two underlying beliefs about how organizational change occurs have shaped much of the development of change management theory, see for instance Alvesson & Svenningsson (2008), Burke (2002), Burnes (2004), By Todnem (2005), Collins (1998), Helms Mills et al (2009), Kezar (2001), Kotter (1996, 2008), Lewin (1951), Weick & Quinn (1999) and Turner et al (2009). The first belief is that organizational change can be planned and managed through an understanding of a set of sequential steps, see for instance Burns (2004), Dawson (2003), Lewin (1951) and Kotter (1996). According to this belief, change management can be described as a structured approach to transitioning individuals, teams, and organizations from a current state to a desired future state. The planned change belief, emerged from the tradition of Organizational Development (OD), views change as externally driven and episodic and attempts to explain the stages or steps an organization must go through in order to effect the necessary or desired outcome (Burnes, 1996, By Todnem, 2005, Porras & Silvers, 1991). The second belief, mainly evolved due to the criticisms of planned change, has been the belief that change is an organic process which cannot be managed (Alvesson & Svenningsson 2008, Burns, 1996, 2004). Emergent organic change, or the process approach, reflects an understanding of change as an ongoing learning process that emphasizes the analytical,
evolutionary nature of change rather than a pre-defined series of steps (Alvesson & Svenningsson, 2008, Burnes, 1996, Shanley, 2007.). Both beliefs includes organizational change management processes and individual change management methodology, which together are used to manage both the “softer” systems, such as people and culture and the “harder” systems such as strategy, structure and technology (Beer & Eisenstat, 1996). According to Doyle (2002) change management in many organizations has shifted from being the responsibility of an internal or external change agent dedicated to its implementation and management, to increasingly being identified as a core competency for most organizational leaders. As such the skills required to lead, manage and implement change are being incorporated into the existing expectations, roles and responsibilities of managers together with other employees.

Organizational changes can be categorized and visualized depending on speed and scope. Changes can also be experienced differently depending on the organizational context (Palmer et al 2006). The following model is adapted from Marshak (2002) and Nadler & Nadler (1998) and describes four dimensions of organizational change:

![Four dimensions of organizational change](image)

Figure 4. Four dimensions of organizational change, depending on timing and degree, adapted from Marshak (2002) and Nadler & Nadler (1998).

### 3.3 Change can be planned

I first read Kotter’s *Leading Change* in 2002. Kotter (1996, 2008) continues the Lewinian tradition and claims whenever human communities are forced to adjust to shifting conditions, resistance is ever present – something I had experienced in a real life context. Some of the most common mistakes when transforming an organization are, according to Kotter (1996):

1. Allowing too much complacency,
2. Failing to create a sufficiently powerful guiding coalition,
3. Underestimating the power of vision,
4. Under communicating the vision by a factor of 10x-100x,
5. Permitting obstacles to block the new vision,
(6) Failing to create short-term wins,
(7) Declaring victory too soon,
(8) Neglecting to anchor changes firmly in the corporate culture.

Kotter (1996) argues that these errors can be handled and possibly avoided. He breaks down the approach of creating and leading change within an organization into an eight-stage process, which can serve as an example of the planned or programmatic change tradition (Alvesson & Svenningsson, 2008).

Table 1. Kotter’s (1996) eight-stage change process

1. Establishing a sense of urgency
   - Examining the market and competitive realities
   - Identifying and discussing crises, potential crises, or major opportunities.

2. Creating the guiding coalition
   - Forming a group with enough power to lead the change.
   - Getting the group to work together like a team.

3. Developing a vision and a strategy
   - Creating a vision to help direct the change effort.
   - Developing strategies for achieving that vision.

4. Communicating the change vision
   - Using all possible ways to constantly communicate the new vision and strategies.
   - The guiding coalition acting as role models for the behaviours expected of employees.

5. Empowering broad-based action in the organization.
   - Getting rid of obstacles for the change process
   - Changing systems or structures that undermine the change vision
   - Encouraging risk taking and new ideas, activities and actions.

6. Generating short-term wins
   - Planning and creating visible improvements in performance, or “wins”
   - Visibly recognizing and rewarding people who make the wins possible

7. Consolidating gains and producing more change
   - Using increased credibility to change all systems, structures and policies that don’t fit together and that don’t fit the change vision
   - Recruiting, promoting and developing people who can implement the change vision.
   - Strengthening the process with new projects, themes and change agents.

8. Anchoring new approaches in the culture
   - Creating better performance through customer- and productivity-oriented behaviour, more and better leadership and more effective management.
   - Clarifying the connections between new behaviors and organizational success.
   - Developing means to ensure leadership development and succession.

Reading Kotter brought new insight to my practice. I noticed patterns and relations that I had not seen before, for instance the importance of a sense of urgency, committed leadership and clear change objectives. His theories on change management felt like an extension of the quality management discourse from Agria and Fagerdala. Later I realized that Kotter’s eight stage process and other similar processes, see for instance Dawson (2003) and Womack & Jones (2003), aligned to a reductionist approach to organizational change which was a heritage from Lewin (1951) and the early tradition of OD (Alvesson & Svenningsson, 2008).
Reductionism can be described as an approach to understand the nature of complex things by reducing them to the interactions of their parts. It is also a philosophical position that complex systems are nothing but the sum of its parts, and can be reduced to accounts of individual constituents (Checkland, 1999). Lewin’s (1951) description of the process of change, from which many modern models are built, involves three steps:

Unfreezing: Faced with a dilemma or disconfirmation, the individual or group becomes aware of a need to change.

Changing: The situation is diagnosed and new models of behavior are explored and tested.

Refreezing: Application of new behavior is evaluated, and if reinforcing, adopted.

The OD tradition can be said to be built on empowerment, open communication, ownership of the change process and a culture of cooperation and continual learning (Hurley et al, 1992). This tradition has the last decades moved closer to an outspoken systems approach to change (Alvesson & Svenningsson, 2008). Another theoretical approach within the turf of planned change, sometimes called “the school of open systems”, can be seen as an extension of OD (Alvesson & Svenningsson, 2008). This school emphasizes the importance of seeing the whole of the organization, not just different groups of people. An organization consists of different, interacting sub-systems which need to be open to each other and to the environment outside the organization. It includes the hierarchy and process flows, but it also includes the attitudes and perceptions as well as the quality of products and the ways in which decisions are made (Senge et al, 1994, Wilson, 1992). According to this school, a planned change process must be system oriented and adapt itself to both “hard” and “soft” systems (Beer & Eisenstat 1996). Katz & Kahn (1978) describe characteristics that define open systems:

- The processing of inputs to yield an output that is exported to outside systems
- Systems as cycles of events: input, throughput and output – the output furnishes new sources of energy for the input so the cycle can start again
- Negative entropy and the importation of energy from the external environment: without continued inputs any system soon runs down
- Information input, feedback and coding: systems gather information about their environments and also about their own activities so that they can take corrective action
- A steady state and dynamic homeostasis: despite continuous inflow and export of energy, the character of systems that survive remains the same
- Inclusion of different system levels and their interrelationships, e.g. hierarchical ordering
- Differentiation and structure elaboration, e.g. greater specialization of functions
- Integration and co-ordination to ensure unified functioning
- Equifinality, the ability to reach the same final state from differing initial conditions.

Many popular change models can be seen as a result of the Lewinian heritage, the OD tradition and the open systems approach (Alvesson & Svenningsson, 2008). An example of a generic model including a change process and resources for leading change is presented by Isaksson (2004). This model is inspired by Kotter (1996), the tradition of planned change and the open systems approach.
Figure 5. A Generic change model developed by Isaksson (2004), inspired by Kotter (1996), the tradition of planned change and the open systems approach.

Yet another approach used by Implement4 to visualize different perspectives of organizational change can serve as an example of how a change management model based on an open systems approach can turn out in practice (Figure 6). This model contains three perspectives: the strategic perspective which clarifies the organizations change challenge and objectives, the structural perspective which addresses the organizational hard systems such as infrastructure, systems and business processes and the human perspective which addresses the soft systems such as culture, values, relations, positions and patterns.

---

4 For further information, see www.implement.se
3.4 Change seen as an organic process

However, it can be argued that organizational change does not occur in steps (Burke, 2002). When the application of change management methodology is approached as a series of steps based on a project scenario, the result is often that the whole becomes disconnected from its parts and the whole ends up looking very little like it was intended (Jackson, 2000). The reductionist approach to implementing organizational change fails to account for the human dynamics of change and purposefulness of people (Jackson, 2003). The lack of contextual knowledge and ability to understand the human response to change results in change leaders who are unable to handle resistance and overcome obstacles (Andrews et al 2008). Wilson (1992) states that empowering managers to plan for change ignores the impact of wider and more determinate forces which lie outside the organization and beyond the boundaries of strategic choices for individual managers. In the organizational leader’s efforts to just “get it done” there has been a tendency to dismiss all the theoretical aspects of organizational change and the underlying assumptions, knowledge and understanding of the change process in favor of using a set of quick prescriptive steps (Burnes, 1996, Sanwal, 2008). The high failure rate has also led to a growing mistrust against popular management books containing superficial clichés based on anecdotal evidence (Alvesson & Svenningsson, 2008, Collins 1998). There is also a criticism against traditional quality management concepts (such as TQM) failing to keep in pace with the rapidly changing social and organizational environment, see for instance Bergqvist et al (2007) and Foley (2005). Responding to all this, there seem to be an interest in the conception of organizational change as an organic, emerging process (Burnes, 1996, Shanley, 2007, Weick & Quinn, 1999).

According to the organic, emergent viewpoint, change is not about following a series of predesigned steps. It is about acknowledging local, emerging interpretations and constructions of meaning through series of dialogue (Balogun, 2006). This approach to organizational change deals with questions about diffusion and translation of ideas or objects such as change programs, see for instance Latour (1986, 1988, 2005). It should be seen as a sense-making approach which allows exploration of how people in a specific social system create for themselves the systems of meaning of their world (Geertz, 1973). Thus, an organic approach to organizational change requires a deeper understanding of social systems, i.e. interactions,
organizations (formal organized social systems) and societies (Checkland & Scholes, 1990). As mentioned, Kotter (1996, 2008) claims whenever human communities are forced to adjust to shifting conditions, resistance is ever present. Resistance to change can be seen as a result of major changes in work environment (new demands and expectations, changed social structures), reduced job security, threat or status shifts (Dawson, 2003). Organizational change through diffusion and adoption of new ideas requires an organizational climate of trust and empowerment together with an engaged leadership (Burnes, 2004, Collins, 2001).

3.5 Understanding systems

It could be argued that a systems approach is ever present in the last century’s theories on management and organizational sociology, see for instance Barnard (1938) and Churchman (1968, 1971). Deming (1993) calls for a systems approach in his “System of Profound Knowledge”. Some authors have suggested a systems approach to TQM, see for instance Hansson (2003) and Isaksson (2004). With the publication of Wiener’s work on cybernetics (1948) and von Bertalanfly’s on general system theory (1950, 1968) the systems approach began developing into a more distinctive area of research. Contemporary cybernetics began as an interdisciplinary study connecting the fields of control systems, electrical network theory, mechanical engineering, logic modeling, evolutionary biology and neuroscience in the early 1940s. Wiener found just the word he wanted in the function of the steersman of the long ships of ancient Greece. As far back as Homer, the Greek word for steersman was kubernetes, which transliterates into English as cybernetes. Via Rome, the same word in Latin transformed into gubernator, which in English is governor. Cybernetics studies the flow of information around a system and the way in which that information is used by the system as a mean of controlling itself. It is fair to say that Stafford Beer with his Cybernetics and management in 1959 got managers and management scientists interested in the field of Cybernetics. According to Beer (1959) by then several attempts had been made to give a systematic exposition of the science of cybernetics, and had drawn attention to the relevance to various orthodox fields. Management cybernetics can be defined as the concrete application of natural cybernetic laws to all types of organizations and institutions created by human beings, and to the interactions within them and between them. It is an interdisciplinary science, owing as much to biology as to physics, as much as the study of the brain as to the study of computers, and owing also a great deal to the formal languages of science for providing tools with which the behavior of all systems can be objectively described (Checkland, 1999). In short, this management theory relates to the management of all types of organizations and institutions in the profit and non-profit sectors. Thus, Beer was the first to apply cybernetics to management, defining management as the “science of an effective organization” (Jackson, 2000). Throughout the 1960s and 70s Beer was an influential writer and practitioner.

A system (from Latin systēma) is a set of interacting or interdependent entities, real or abstract, forming an integrated whole (Checkland, 1999). The concept of an integrated whole can also be stated in terms of a system embodying a set of relationships, which are differentiated from relationships of the set to other elements, and from relationships between an element of the set and elements not a part of the relational regime. Systems thinking is according to Haines et al (2005) a shift from seeing elements, functions and events to seeing processes, structures, relationships and outcomes, based on a holistic process approach to reality. As discussed by Jackson (2000) the functionalist (positivistic), interpretive, emancipatory and post-modern approaches are key types of social systems theory (see also the discussion on research paradigms in Chapter 4). Jackson (2000) argues that three core system notions still remain and are held in common by the different tendencies in system thinking:
– Holism – to look at the world in terms of larger wholes rather than reducing it into its fundamental elements
– Knowledge is organized into cognitive systems, i.e. structured frameworks that links various elements of our knowledge into cohesive wholes
– Systems approaches have a strong resonance with real-world problems and practice.

The idea of systems practice implies according to Checkland (1999) a desire to find out how to use systems concepts in trying to solve problems. Checkland has also drawn attention to two alternative viewpoints, which explain the nature and significance of systems thinking. In the first, the world is considered to be systemic (made up of systems) and is studied systematically. In the second, we consider the world to be problematic (it makes little sense in a unitary way, admitting many interpretations) and we study it systemically. This ontological difference is also reflected in the notion of hard systems thinking on the one hand and soft systems thinking on the other. In the literature, it is often stated that hard systems thinking is appropriate in well defined technical problems and soft systems thinking is more appropriate in fuzzy situations concerning human and cultural interactions.

**Hard Systems thinking**
In hard system approaches an objective or end-to-be-achieved can be taken as given. A system is engineered to achieve the stated objective. According to Ackoff (1958) all problems ultimately reduce to the evaluation of the efficiency of alternative means for a designated set of objectives. This is in line with the traditional positivistic scientific paradigm (see also Chapter 3). Hard systems thinking is also sometimes labeled as “the engineers’ contribution” (Checkland, 1999). As the name suggests, Hard Systems Engineering is deeply rooted in a more general engineering tradition. Although large-scale engineering projects have been undertaken throughout the history of mankind, it is only relatively recently that the methodological principles for carrying out such projects have been codified. The need for this codification can be seen in the increasing complexity of the projects undertaken and hence in the Engineers task. The following problem-solving sequence of the System Engineering approach developed as a result of years of experience within the Bell Telephone Laboratories (Hall, 1962, 1969). This is one classic example of the Hard Systems Thinking discourse.

1. Problem Definition
   - Define needs (‘Needs research’)
   - Search environment (‘environmental research’)
   - List system inputs, outputs and their relationships.
   - Define system boundary and constraints.

2. Choice of Objectives
   - List objectives
   - Optimize value system

3. Systems Synthesis
   - Collect alternatives
   - List system functions
   - Delineate subsystems
   - Use creativity

4. Systems Analysis
   - Decide what to analyze
   - Select analytical tools - analyze
   - Deduce uncertain consequences
   - Compare system performance with objectives

5. Systems selection
   - Define decision criteria
   - Evaluate consequences - rank alternatives
   - Select the most promising alternative

6. System Development
   - Promote system plan
   - Develop prototype

7. Current Engineering
   - System realization beyond prototype
   - Monitoring and feedback.

According to Checkland (1999), a “hard systems thinker” observes the world, looking for systems which he can engineer. Thus, the observer’s perception of the world is that it can be described in a systemic manner which is very much in line with the predominant research tradition of quantitative, empirical nature. This “hard” research tradition and approach, based on the statistical analysis of data collected by means of descriptive and comparative studies is usually termed positivistic. As further discussed in chapter 3, the reductionist view that this logical empiricism provides the only true basis for explanation and general theory has occasionally come into conflict with a hermeneutic, interpretive approach. A positivist seems, according to the sociologist Appiah (2006), draw to hasty conclusions based on hard facts without considering such which cannot be proven.

Soft Systems thinking

Soft systems thinking is a field that utilizes foundation methodological work developed by Peter Checkland, Brian Wilson and their colleagues at Lancaster University. Soft systems thinking is relevant for systems that cannot be easily quantified, especially those involving people holding multiple and conflicting frames of reference. The “soft systems thinker” uses an interpretive lens and sees the world as a complex, organic web full of sociocultural phenomena (Checkland, 1999). However, this blurry reality can be observed in a systemic manner. In 1981, Checkland presented an engineering-like seven stage sequence which then developed to a soft systems methodology, useful for understanding motivations, viewpoints,
and interactions and addressing qualitative as well as quantitative dimensions of problem situations. The seven stages are, in brief:

1. Investigate the unstructured problem
2. Express the problem situation through “rich pictures”
3. Root definitions of relevant problems
4. Conceptual models
5. Comparison of 4 and 2
6. Feasible, desirable changes
7. Action to improve the problem situation

According to Checkland and Scholes (1990) the use of a more mature Soft Systems Methodology should be seen as a sense-making approach which allows exploration of how people in a specific social system create for themselves the meaning of their world. Not far from Geertz (1973) theories about cultures as systems of meaning and his method of “thick descriptions”. Thus, the soft systems approach is close to the interpretive research tradition in the social and behavioral sciences, for instance the use of ethnography by sociologists and anthropologists. Johnson (2000) defines ethnography as a descriptive account of social life and culture in a particular social system based on detailed observations of what people actually do. This research method is founded on the idea that a system’s properties cannot necessarily be accurately understood independently of each other.

Critical systems thinking
Critical systems thinking (CST) is a recent systems thinking framework emerged from the increasing criticism of traditional systems thinking during the 70s and 80s (Jackson, 2000, Ulrich, 1987). This branch aims to combine systems thinking and participatory methods to address the challenges of problems characterized by large scale, complexity, uncertainty, impermanence, and imperfection. It allows nonlinear relationships, feedback loops, hierarchies and emergent properties to be taken into account. CST has particularly focused on the issue of boundaries and their consequences for inclusion, exclusion and marginalization (Ulrich, 2003). CST sets out a variety of methods and models often used in an unstructured manner for intervention in complex organizations and applications to societal problems.

Models describing systems
In science, a model can be described as set of relating concepts, describing the context we want to understand in a simplified manner (Andersen, 1998). An organizational change model can help organizations understand why change occurs, how it will occur and what will occur (Kezar, 2001). Jackson (2003, p 13) states that “systems language has proven itself more useful for getting grips on real world management problems than that of any other single discipline”. Stafford Beer can be seen as the first to apply cybernetics to management, defining management as the “science of an effective organization” (Jackson, 2000). Throughout the 1960s and 70s Beer developed The Viable System Model (VSM), to diagnose the faults in any existing organizational system. The VSM can be seen as a descriptive and diagnostic tool to map management capacities to promote viability (Beer, 1972). A viable system is any system organized in such a way as to maintain its identity in a changing environment. One of the prime features of systems that survive is that they are adaptive. Many applications of the VSM have been undertaken, by Beer and others, in business, government, non-profit organizations and non-organizational systems (Espejo & Harnden, 1989). The VSM labels these management functions Systems One through Five, and they are repeated at different levels: the individual, the work group, and on to each successive category as long as
it remains relevant (Leonard, 1999). The VSM has been used to both diagnose existing organizational structures and to design new ones. It also provides a template against which to consider alternative structures and new challenges the system is facing.

![Figure 7. The viable System model (based on Leonard, 1999)](image)

**System 1 (A-D)** in a viable system contains several primary activities. Each System 1 primary activity is itself a viable system due to the recursive nature of systems as described above. These are concerned with performing a function that implements at least part of the key transformation of the organization. **System 2** represents the information channels and bodies that allow the primary activities in System 1 to communicate between each other and which allow System 3 to monitor and co-ordinate the activities within System 1. **System 3** represents the structures and controls that are put into place to establish the rules, resources, rights and responsibilities of System 1 and to provide an interface with Systems 4/5. **System 4** - The bodies that make up System 4 are responsible for looking outwards to the environment to monitor how the organization needs to adapt to remain viable. **System 5** is responsible for policy decisions within the organization as a whole to balance demands from different parts of the organization and steer the organization as a whole.

A conclusion made by Isaksson (2004, 2006) supported by systems thinking theory (Beer, 1959, 1972, Checkland, 1999 and Jackson, 2000, 2003) is that a process based system model (Figure 8) could possibly be a suitable tool for visualizing an organizational context, facilitate dialogue and interpretation, assess systems maturity and strengthen both hard and soft systems thinking in organizations.
The importance of a systems perspective is also mentioned in business excellence models such as the EFQM and MBNQA-program (Isaksson, 2004). Moreover, a systems approach to management is visualized in the quality management standard EN ISO 9001 (2000).

**3.6 Reflections regarding the theoretical frame of reference**

As seems to be the case in many scientific fields, a debate between schools develops and alternative standpoints emerge – the fields of quality management, organizational change and systems thinking are no exceptions. Beer & Nohria (2000) identify two typical approaches to change which they defined as theory E and theory O. Theory E approaches change from the perspective of the hard systems while theory O focuses on the soft systems of the
organization. According to Beer & Nohria a combination of the two theoretical approaches provides greatest potential for success;

“Companies that effectively combine hard and soft approaches to change can reap the big payoffs in profitability and productivity, those companies are more likely to achieve a sustainable competitive advantage and … reduce the anxiety that grips whole societies in the face of corporate restructuring” (Beer and Nohria, 2000, p 134-135).

But reality seems to be less clear cut. Organizations have a vast number of management models and methods to choose from, se for instance The Change Handbook containing “over 60 methods from founders and leaders in the field” (Holman et al, 2007). However, according to Turner et al (2009) there does not appear to be one best way to implement change. Even organizations acknowledged for their best practice in change management use different and unique change management methods (Carter et al. 2001). Models can also be misused and should perhaps be labeled with a text of warning: leadership not included. Graetz et al (2002) suggest that in practice, managers need to understand the limitations of general models and apply them with common sense. Kezar (2001) noted in his review of organizational change models more similarities among the models in different categories than differences and I believe two overarching model applications can be seen, based on this theoretical overview. Firstly, a system model can be used to visualize an organization’s stakeholders, functions, processes and resources, see for instance Beer (1972), Checkland (1999) and Isaksson (2004). Secondly a (step-) model can be used to describe a planned change process, se for instance Isaksson (2004), Levin (1951), Kotter (1996), Womack & Jones (2003). There also appears to be consensus on six elements necessary for successful organizational change (Burnes, 2004, Carnall, 2007, Heracleous & Langham 1996, Isaksson, 2004, Kotter, 1996, Mento et al, 2002). These elements are: A defined need for change, a defined outcome, an effective leadership, a change plan, an enabled commitment, a created environment.

Moreover, change models describing implementation processes can be said to start from an outspoken need for change and include the generic steps definition, planning, implementation and reflection. My contention, inspired by Beer & Nohria (2000), is that the interaction and meaning-making processes between a generic planned (hard systems) approach to implementing change and an organic (soft systems) approach to implementing change could be visualized in Figure 9.

Figure 9. My interpretation of the interaction between planned and organic change processes. 

25
It could be argued that a wider theoretical frame of reference would have been needed to cover all the subjects discussed in this thesis. Such areas include for instance a deeper understanding of leadership, psychology and sociology. Current research in the area of quality management, process management and sustainable development could also have been a possible selection of my theoretical frame. Concepts like Six Sigma and Lean could have been described in detail. Nevertheless, I have chosen to limit my frame of reference to mainly include aspects of organizational change and theoretical considerations based on my own experiences from Agria and onwards. Since this has been an emerging research process, I made a deliberate choice not to conduct a full literature review of the research area prior to the compilation of this thesis. Moreover, specific theory linked to each study is commented in respective paper. In Chapter 1 a short background to the development of process management is provided in order to put my professional background in a theory context. In addition, the two final chapters of the thesis include some examples of previous results of experiences of organizational change. Examples of which are used to highlight some of my findings.
4 METHODOLOGY

In this chapter I present the research approach and paradigms in which the research has been conducted with a specific focus on qualitative methods in management research. The research strategy and tools that have been used are also outlined.

“Science is a journey, not a destination” (Gummesson, 2000, p 22).

Epistemology is the philosophy of knowledge or how we come to know (Trochim, 2000). The term epistemology comes from the Greek word epistêmê, meaning knowledge. Epistemology poses the following questions: What is the relationship between the knower and what is known? How do we know what we know? What counts as knowledge? Epistemology is related to ontology and methodology; as ontology involves the philosophy of reality, epistemology addresses how we come to know that reality, while methodology identifies the particular practices used to attain knowledge of it (Krauss, 2005). The term paradigm comes from the Greek paradeiknyai - to show side by side – and is a pattern or example of something. A research paradigm can be defined as the “basic belief system or world view that guides the investigation” (Guba & Lincoln, 1994, p. 105). Understanding the differences in epistemology among research paradigms begins primarily as a philosophical exercise since the question of whether there is one knowable reality or that there are multiple realities of which some individual knowledge can be acquired is more a question of faith (Krauss, 2005). To show my faith up front, I choose to cite Gummesson (2000, p 7): “I will have to take the existence of a fuzzy phenomenon called knowledge for granted. Even if this fuzziness is somewhat frustrating, we will probably keep working whether we are academic researchers or consultants – not in the least to pay telephone bills and mortgages; those are certainly for real.”

4.1 Research paradigms in social science

There has been considerable interest in recent years in the role of philosophical assumptions and paradigms in doing research (Gephart, 1999). Three paradigms or worldviews seem to be prominent in contemporary social research: positivism – a safe and exact science, interpretivism – an empathic and interpreting science (sometimes referred to as hermeneutic) and critical postmodernism – a critical and deconstructive science, see for instance Gephart (1999), Guba & Lincoln (1994), Gummesson (2000), Gustavsson (2003), Krauss (2005) and Yin (2003). Guba & Lincoln (1994) state that the basic beliefs that define a particular research paradigm may be summarized by the responses given to three fundamental questions:

1. The ontological question i.e. what is the form and nature of reality and humans
2. The epistemological question i.e. what is the basic belief about knowledge (i.e. what can be known)
3. The methodological question i.e. how can the researcher go about finding out whatever s/he believes can be known.

The three predominant research paradigms can be summarized as follows (adapted from Guba & Lincoln, 1994, Gummesson, 2000, Yin, 2003, Gustavsson, 2003):
Table 3. The three predominant research paradigms summarized

<table>
<thead>
<tr>
<th>Ontological question:</th>
<th>Positivism</th>
<th>Interpretivism</th>
<th>Critical Postmodernism</th>
</tr>
</thead>
</table>
| Nature of reality    | - An objective, true reality exists which is governed by unchangeable natural cause-effect laws  
- Consists of stable pre-existing patterns or order that can be discovered  
- Reality is not time- nor context-bound  
- Reality can be generalised | - The world is complex and dynamic and is constructed, interpreted and experienced by people in their interactions with each other and with wider social systems  
- Reality is subjective. People experience reality in different ways. Subjective reality is important  
- Reality can only be imperfectly grasped  
- The use of language defines a particular reality | - Governed by conflicting, underlying structures – social, political, cultural, economic, ethnic, gender |
| Nature of humans     | - Rational  
- Shaped by external factors (same cause has the same effect on everyone) i.e. mechanical model / behaviourist approach. | - Social beings who create meaning and who constantly make sense of their worlds  
- People possess an internally experienced sense of reality | - People can design / reconstruct their own world through action and critical reflection |
| Epistemological question: | Positivism | Interpretivism | Critical Postmodernism |
| Nature of knowledge | - Knowledge can be described in a systematic way  
- Knowledge consists of verified hypotheses that can be regarded as facts or laws.  
- Probabilistic – i.e. holds true for large groups of people or occurs in many situations  
- Knowledge is accurate and certain | - Knowledge is based not only on observable phenomena, but also on subjective beliefs, values, reasons, and understandings  
- Knowledge is constructed  
- Knowledge is about the way in which people make meaning in their lives, not just that they make meaning, and what meaning they make. | - Knowledge is dispersed and distributed  
- Knowledge is a source of power  
- Knowledge is constituted by the lived experience and the social relations that structure these experiences  
- Events are understood with social and economic contexts |
| Role of theory       | Theories are:  
- Normative  
- Present ‘models’  
- General propositions explaining causal relationships between variables | Theories:  
- Are revisable  
- Approximate truth  
- Are sensitive to context | Theories:  
- Are constructed in the act of critique in a dialectical process of deconstructing and reconstructing the world. |
| Theory building/testing | - Postulate a theories that can be tested in order to confirm or reject  
- Prove a theory from observable phenomena / behaviour  
- Test theories in a controlled setting, empirically supporting or falsifying hypotheses through process of experimentation | - Theories are built / constructed from multiple realities – the researcher has to look at different things in order to understand a phenomenon  
- Theory is shaped by social and cultural context | - Theories are built from deconstructing the world, from analyzing power relationships |
|---|---|---|---|
| Role of research | - Uncover reality i.e. natural laws  
- Scientifically explain / describe, predict and control phenomena  
- Study mental, social, cultural phenomena – in an endeavor to understand why people behave in a certain way.  
- Grasp the ‘meaning’ of phenomena  
- Describe multiple realities | - Research has been a communal process, informed by participants, and scrutinized and endorsed by others. | - Promoting critical consciousness  
- Breaking down institutional structures and arrangements that produce oppressive ideologies and social inequalities  
- Shift the balance of power so that it may be more equitably distributed  
- Address social issues  
- Political emancipation and increasing critical consciousness |
| Research findings are true if | - Can be observed and measured  
- Can be replicated and generalized | - Can solve problems within a specific context.  
- Solutions may be applied in other contexts, but as hypotheses to be tested.  
- Unveil illusions | - False beliefs that hide power and objective conditions |
| Role of common sense | - None – only deductive reasoning i.e seeking evidence | - Common sense reflects powerful everyday theories held by ordinary people  
- Iterative and inductive reasoning used i.e. discovering new knowledge | |
| Methodological question | Positivism | Interpretivism | Critical Postmodernism |
| Role of researcher | - Objective, independent from the subject  
- Investigator often controls the investigated | - Co-creator of meaning  
- Brings own subjective experience to the research  
- Tries to develop an understanding of the whole and a deep understanding of how each part relates and is connected to the whole | - Adopts role of facilitator, encouraging the participation and involvement of the ‘subjects’ who become partners in the research process |
Role of values
- Science is value-free
- Values have no place in research – must eliminate all bias
- Values are an integral part of social life – no values are wrong, only different
- Facts can never be isolated from values
- Values of the researcher influence the research

Methods
- Empirical
  - Structured and replicable observation
  - Quantification / measurement
  - Experimental – directly manipulate variables
- Unstructured observation
  - Open interviewing
  - Discourse analysis
  - Try to capture “insider” knowledge
- Participatory action research
  - Dialogical methods – which encourage dialogue between researcher and researched

Type of studies
- Survey studies
  - Verification of hypotheses
  - Statistical analysis
  - Quantitative descriptive studies
- Case studies
  - Field research, conducted in natural settings in order to collect substantial situational information
- Field research
  - Projects

4.2 My research approach

Academic researchers and management consultants are both “knowledge workers”, but from different perspectives (Gummesson, 2000). A core question that I have asked myself is: can a pragmatic consultant also be a truthful scientist? The traditional role of the scientist has been thoroughly discussed and questioned. The scientific tradition of producing neutral and general knowledge is also abandoned by some researchers, in some cases on demand from the studied organizations (Andersen, 1998). In the management consultancy world, the deal is more about practice and less about theory as such. Thus, the scientist and the consultant approach their task from different viewpoints. The differences in these two views can be summarized in the table below adapted from Gummesson (2000).

Table 4. Differences between research paradigms and the consultant paradigm, adapted from Gummesson (2000).

<table>
<thead>
<tr>
<th>The research paradigms affect:</th>
<th>The consultant paradigm affects:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The researcher’s goals, such as a desire to obtain new knowledge, to have an article published in a refereed journal, to be cited, or to be promoted.</td>
<td>The consultant’s goals, such as completing an assignment to the satisfaction of the client, and being offered new assignments.</td>
</tr>
<tr>
<td>The researcher’s preunderstanding and understanding, with focus on theory and support from practice.</td>
<td>The consultant’s preunderstanding and understanding, with focus on practice and support from theory.</td>
</tr>
<tr>
<td>Choice of research territory and within this, research projects.</td>
<td>Choice of a specific field of consultancy such as change management, and securing assignments in that field.</td>
</tr>
<tr>
<td>Choice of methods and researcher roles for gaining access.</td>
<td>Choice of methods and consultancy roles for gaining access.</td>
</tr>
<tr>
<td>Choice of quality criteria: the assessment of good and bad research by the scientific community.</td>
<td>Choice of quality criteria: the client’s assessment of consultant’s work.</td>
</tr>
</tbody>
</table>

The consultancy process is pragmatic. The main objective is to fulfil the client’s needs, demands and expectations and hopefully gain trust and extended assignments. Being a management consultant and a researcher, I have thought a lot about how these two viewpoints can be combined. I will have to be cautious about the risk of producing material of little
practical value and, on the other hand I will also have to handle the risk of being affected by commercial considerations. The researchers’ pre-understanding and paradigm, experiences and research approach always directs the research (Gummesson, 2003). That is why the background stories that encompass my journey are vital parts in my choice of research approach and paradigms in which this research is being conducted. Being a practitioner and a management consultant, my academic interest ignited by an urge to better understand problems and challenges in my professional life and hopefully contribute to a broader understanding in the field of organizational change. Traditionally, researchers start with a research problem which guides a number of choices starting with the problem definition and including choices for the research approach, see for instance Wallén (1996). In my case, there was no concrete well defined “problem” to start with, more of a curious wish to see if my journey could be captured and described in an academic way. To be honest, when my supervisor asked if I would be interested in submitting a paper and go to a conference in London my very first thought was “great, now can I validate my home made methods and tools”. As a result of this academic immaturity the research that laid the foundations for this thesis now reveals two faces. The appended papers originate in the positivistic paradigm although the methods used are mainly qualitative and to some extent action oriented. All three studies reflect the early stages of my research, influenced by my background and I dare to say by the current discourse at the Division of quality and environmental management at Luleå University of Thechnology. Learning more about the world of science, I begin to discover patterns beyond the different cases described in the papers. Thus, during the compilation of this thesis, I experience that I am slowly shifting research paradigm to a more interpretivistic approach.

4.3 Research strategy and design

Despite many proposed differences between quantitative (positivistic) and qualitative (interpretive) epistemologies, ultimately, the heart of the quantitative-qualitative “debate” is philosophical, not methodological, according to Krauss (2005). Thus, even if the studies in this thesis can be said to start from mainly positivistic ontological and epistemological assumptions, they are mainly based on qualitative methodology and case studies. An alternative research approach could have been to move on towards the direction of positivism and use more quantitative tools, like surveys, to ask the same set of questions, fewer in number, to a larger number of people. One example of a population to study could be employees at organizations which have undergone major changes. This would have resulted in a detailed set of findings, but as the purpose of my work has been to explore and get a deeper understanding of contemporary phenomenon within its real-life context, without clear and evident boundaries the choices made seem reasonable. Moreover, according to Gummesson (2000) case studies can be of particular value in social sciences when research often aims to provide practitioners with tools.

According to Yin (2003), there are two questions that one should ask oneself when choosing a research strategy: Does the inquiry require control over behavioural events and does the inquiry focus on contemporary events? Yin (2003) presents five alternative types of study: Experiment, Survey, Archival analysis, History and Case study. The other issue that Yin (2003) stresses is the type of research question posed. My general strategy has been to build my research on case studies based on empirical experience from my field work as a practitioner in both service and manufacturing organizations. Yin (2003, p. 13) defines that “a case study is a empirical inquiry that (1) investigates a contemporary phenomenon within its real-life context, especially when (2) the boundaries are not clearly evident”. Case study research is about seeking answers to the questions how and why from a reality context. Thus,
there are many similarities between case study research and other qualitative methods (Yin, 2003). Yin’s definition also strengthens the suitability of choosing case study as my main research methodology. The use of the case study is also becoming increasingly widespread in management research, according to Gummesson (2000).

Another critical choice is the way of producing knowledge; by seeking evidence – deduction, or by discovering new knowledge – induction (Andersen, 1998). Conclusions are deductive when they are drawn from general principles about specific events, such as testing existing change management theories in practice. Inductive conclusions, on the other hand, can be drawn and new knowledge produced, based on empirical observations and experience from specific events. Abduction, or inference to the best explanation, is a third method of reasoning in which one chooses the hypothesis that would, if true, best explain the relevant evidence. Abductive reasoning starts from a set of accepted facts and infers their most likely, or best, explanations. It can be described as an ongoing interchange between theory and empirical evidence (Alvesson & Sköldberg, 1994).

This thesis is based on three studies, which in turn are the foundation for the three appended papers. The study behind the Paper 1 is deductive. The questions to be answered are if a process based system model helps to define the level of measurement maturity in an organization and if it can be used to improve the measurement system maturity. To answer these questions we used a multiple case study methodology (Yin, 2003) to look at two cases from a service organization and a from process industry. The work was carried out in parallel with consultancy work in the organizations. The study is a pilot test of a system model based on certain criteria.

The study behind paper 2 is inductive. This paper argues that there is a need for Business Excellence models to be reviewed in relation to the requirements of both organizational and global sustainability. A brief literature review of the chosen areas was followed by minor case studies of two Swedish organizations that made use of Business Excellence Models (BEMs).

The third paper, also based on a deductive study, explores if a general process based system model helps to implement a process approach and accelerate change. To answer these questions I used multiple case study methodology looking at three cases from different areas: a state authority case, a case from the construction industry and case from the food industry. The work was performed as a result of several years of consultancy work in the organizations and is a follow up on an earlier study (Hallencreutz et al, 2007).

In Figure 10 a model adapted from Palmberg (2005) is presented to frame how the research has been designed and performed. The starting point is the belief system or world view that guided the research purpose and research questions. The research process then proceeds through an iterative loop of purposeful selection of cases, data collection and data analysis as many times as required in order to reach results and fulfil the purpose of the research. The three studies in this thesis can be seen as three “laps” in the model.
Purposeful selection
The selection of organizations for Study 1 was adopted with the purpose of achieving an understanding of how these organizations use their performance management systems. The selection was strategic in the sense that we (the researchers) had some knowledge and pre-understanding of these organizations and easy access to senior executives. We also selected organizations representing both service and manufacturing industry. As to the second study, the selection and execution of the case studies were made in collaboration with my fellow authors. This time, we chose organizations that were using the SIQ Model for Performance Excellence (2004) as a tool for quality improvement. We had, via our professional network, defined a number of organizations that were successful in their quality efforts.

From 2002 to 2006 I worked with the organizations studied in Study 3 on implementing a process based system model in order to improve systems thinking and assist management to reach their change objectives. This multiple case study grew from the earlier studies where a process based system model was used and the elements of business excellence models were discussed. The criteria for choosing these organizations were:
- Representation from different areas (public and private, service and manufacturing)
- Similar change objectives and process based approach
- Management interest in change management
- Long term consultant-client relationships (3-6 years)

In Study 1 and 2 senior managers been chosen as informants. In Study 3 both managers and employees have been chosen as informants. The employees have been selected based on recommendation from their managers. It could be argued that these selection processes could have been more thorough to minimize risk for bias. However, since the interviews were complemented with other sources of evidence, the researchers viewed that risk as negligible.

Data collection
Since a case study is based on empirical real-life observations, it is wise to use parallel sources of information to minimize bias and blurry boundaries between the researcher and the studied phenomenon (Andersen, 1998). Sources of evidence in all three studies have been...
semi-structured interviews, documentation, archival records, direct observations as well as physical artifacts.

Before each study the organizations were contacted and agreed to participate in the study. Dates were set for interviews and the organizations received verbal information on the areas that would be investigated. The semi-structured interviews were prepared through tests and discussion among the authors. The choice to use semi-structured interviews made the analysis of and comparison between the studied organizations easier. It also facilitated the interviews, making them more of a conversation rather than running through a long list of pre-set questions. In Study 3, where three organizations were included, case study protocols were used to ensure that the same procedures were followed at all the sites, which strengthens the reliability of the study (Yin, 2003).

At Study 1 interviews were made based on certain criteria, primarily with persons working with performance management and measurement. These people were identified by the authors. The interviews in the studies were documented through notes and were triangulated with archival records together with our own observations and relevant theory. In Study 2 and 3 the same approach was used. However, in Study 3, the interviews involving the employees were less structured and rather took the form of conversations. This resulted in a more constructive dialogue but required thorough preparations and detailed notes.

Sources of evidence in all three studies were also our own observations. Andersen (1998) describes different kinds of observation techniques (my translation):
- Open or closed/hidden
- Observatory or participatory
- Structured or unstructured
- Direct or indirect

In Study 1 and 2, the observations can be categorized as open, observatory, structured and direct given that we did not intervene at all. In Study 3, my role was somewhat different. Parallel to the research, I was working as a consultant in two of the three studied organizations. This situation made me more of a participant and provided access to a vast amount of information. Inevitably I made hidden, unstructured and indirect observations in these organizations along with the open, structured and direct ones. According to Yin (2003), the advantage of being both a participant and observer is that it provides the researcher with access to events that otherwise would have been inaccessible. The implications of this dualism are further discussed in Chapter 5 and 6.

Data analysis
"Empeiria” is Greek and means experience. When the researcher talks about empirical observations he refers to his own practical experiences and observations from the studied object. These empirical observations should then be categorized, valued and analysed based on existing theories or be input to the development of new academic theory. The interpretation and analyzing process in qualitative research is not separated from the data collection (Andersen, 1998, Strauss & Corbin, 1998). It is an ongoing iterative process which includes reading, rereading, creative dialogue with fellow researchers and informants, grasping the whole, searching for patterns as well as affinity in the data, more reading and so on. Glaser (1992) stresses how professional and private experience, combined with in depth knowledge of the area under study, truly helps to strengthen the researcher’s sensitivity for handling the data. For the analysis in Study 1, fully presented in Paper 1, data collected was compared with criteria based on theory from earlier studies (Isaksson & Wiklund, 2000,
Garvare & Isaksson, 2005). In Study 2, presented in Paper 2, data from interviews and observations from the two cases were challenged against theory from a literature search and discussed among the authors through a series of iterations. The data gathered in Study 3, presented in Paper 3, was analyzed by means of a simplified assessment model, based on the SIQ Business Excellence model. The outcome was also discussed with management representatives of all cases.

Results
The results from the studies are reported in the appended papers. A summary of the appended papers is presented in Chapter 4. The analysis presented in Chapter 5 is made on the basis of the case descriptions, the findings and the theoretical frame of reference. Which in its turn is emerged from my journey presented in previous Chapters.

Emergent design
The design and methodology of the research performed has evolved along the loops in the study sequence displayed in Figure 6, beginning with the first two studies were I was a co-author and ending with the third multiple-case study. The description of the purposeful selection of the cases, the data collection and analysis explains how the choices of the cases have emerged and the development of the studies. I would also see the compilation of the three papers to a whole as an “extra loop” in the study sequence, which made me revert to the three questions asked by Guba & Lincoln (1994) and critically assess my earlier work in order to elaborate on the chosen research design from ontological, epistemological and methodological perspectives.

4.4 Validity and reliability
According to Gummesson (2000) validity means that a theory, model or concept describes the reality with a good fit. If two or more researchers would study the same phenomenon with similar purposes and come to approximately the same conclusion, the study also shows high reliability. However, Gummesson (2000, s 25) also claims that "access to reality is the researchers number one problem". Thus, it is vital to differ between hard facts and the researcher’s subjective interpretation of his empirical observations (Andersen, 1998). The quality of collected data is also depending on aspects such as the researcher’s and the informant’s relationship, background, position, competence, feeling, interests etc. In a case where the researcher also is an external advisor, the need for multiple sources is obvious. Triangulation is an approach to data analysis that synthesizes data from multiple sources. Patton (1987) presents four types of triangulation:
- Data triangulation – of data sources
- Investigator triangulation – among different evaluators
- Theory triangulation – of perspectives on the same data set
- Methodological triangulation – of methods

The output from all three studies has been data, investigator and theory triangulated to strengthen its validity and reliability. It has been vital to apply an open minded yet critical approach to my own empirical observations. While it could also be argued that a combination of quantitative and qualitative research methods may have strengthened the validity of the studies. However, it is possible but not given to draw general conclusions from single or multiple case studies (Yin, 2003). Multiple cases enforce the possibility to generate general conclusions and knowledge (Andersen, 1998). Yin (2003, p 34) has defined four crucial quality aspects in case study research: Construct validity, Internal validity, External validity and Reliability.
Construct validity: establishing correct operational measures for the concepts being studied.

Internal validity: establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.

External validity: establishing the domain to which a study’s findings can be generalized.

Reliability: demonstrating that the operations of a study – such as the data collection procedures – can be repeated, with the same results. In table 5 I have tried to outline how the quality aspects have been adopted in my research.

Table 5. Crucial quality aspects according to Yin (2003), and my adoption.

<table>
<thead>
<tr>
<th>Crucial quality aspect</th>
<th>My adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct validity: establishing correct operational measures for the concepts being studied.</td>
<td>The manner in which the studies have been executed and the analysis has been made is described in this chapter. The selection-collection-analysis sequence has been described, and multiple sources of evidence presented. The informants have had the opportunity to review drafts and discuss output. Furthermore, all the original data, in the form of notes from interviews and our own observations can be reclaimed. Archival data such as business plans, company presentations, annual reports etc have been filed.</td>
</tr>
<tr>
<td>Internal validity: establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.</td>
<td>According to Yin (2003) internal validity is only a concern for causal (or explanatory) case studies. In Study 3 I used pattern-making and explanation building.</td>
</tr>
<tr>
<td>External validity: establishing the domain to which a study’s findings can be generalized.</td>
<td>It is possible, but not given to draw general conclusions from case studies (Yin, 2003). All studies contain a theoretical frame of reference based on relevant literature, which makes an analytical generalization possible.</td>
</tr>
<tr>
<td>Reliability: demonstrating that the operations of a study – such as the data collection procedures – can be repeated, with the same results.</td>
<td>To accomplish trustworthy reliability, we have used documented data collection procedures that can be repeated.</td>
</tr>
</tbody>
</table>

Some academics oppose to the traditional argumentation, presented for example by Yin, that previous research and theory should guide the formulation of research problems, selection of cases and serve as a basis for data collection, see for instance Gummesson (2000) and Strauss & Corbin (1998). In addition, many qualitative researchers also operate under different ontological assumptions about the world and do not assume that there is a single unitary reality apart from our perceptions. Since each of us experiences from our own point of view, each of us experiences a different reality (Krauss, 2005). It can also be argued that the researcher is a unique individual and that all research is essentially biased by each researcher’s individual perceptions. Thus, there is no point in trying to establish validity in any external or objective sense (Trochim, 2000). Gummesson (2000 p 97) resumes this discussion on Case study research by stating that “As long as you keep searching for new knowledge and do not believe you have found the ultimate truth but, rather, the best available for the moment, the traditional demand for generalization becomes less urgent.

4.5 The second face – a shift of paradigm?

Looking back at this research journey from a helicopter view, it is obvious that this thesis shows two faces or, rather, two different – sometimes mixed – research paradigms. To understand this dualism we have to understand that this journey is organic and has emerged through a series of events and coincidences. The sequential description just presented is
maybe not entirely true. Secondly, as mentioned, we must understand that my research journey began from my interest in the development of models and tools for my profession. By then, I had no profound independent academic standpoints or objectives. A positivistic and normative science presenting models and general propositions explaining causal relationships between variables made a great deal of sense to me. That is the background to the research paradigm in which the three studies have been performed.

However, upon resuming the years from 1995 and reflecting on all the shifting environments I have met including the academic, I now think it is wiser to say that there are multiple realities constructed by human beings who experience a phenomenon of interest rather than one objective reality. Thus, I align with the ontology and epistemology of the interpretivistic paradigm. Positivism assumes that science measures independent facts about a single apprehensible reality - researchers view the world through a “one-way mirror” (Healy & Perry, 2000). In its broadest sense, positivism can be said to be a rejection of metaphysics (Krauss, 2005). But, that is not how reality works, is it? The most fundamental aspect of a human social setting is that of meanings or sources of illumination (Geertz, 1973). Meanings are also referred to by social analysts as culture, norms, understandings, social reality, and definitions of the situation, typifications, ideology, beliefs, worldview, perspective or stereotypes (Loftland & Loftland, 1996). We impose order on the world perceived by introducing models and structures in an effort to construct meaning; meaning lies in cognition not in elements external to us (Lythcott & Duschl, 1990).

Science is indeed a journey. Having undergone this reflection, an alternative description of my journey, comprehending both the work on the three appended papers and the compilation of the thesis as a whole, could be the one of a long term experimental learning process. The most commonly used experimental framework was proposed by Kolb et al (1971) as a four-step cycle of learning; doing, reflecting, understanding and applying. It can be visualized in a learning cycle described by Kolb (1984) emerged from Lewin’s (1946) action research models.

![Lewinian action research model](image)

Figure 11. The Lewinian action research model as described by Kolb (1984), which comprehends both faces – and phases – of this research journey.
5 SUMMARY OF APPENDED PAPERS

5.1 Paper 1


Background and purpose
The purpose of the study behind this paper is to explore how measurement systems can act as drivers for organizational change. The questions to be answered in this paper include if a process based system model helps to define the level of measurement maturity in an organization and if it can be used to improve the measurement system maturity.

Methodology
To answer these questions we used case study methodology to analyze two cases, one from a service organization and one from a process industry. The work was carried out in parallel with consultancy work in the organizations.

Results and conclusions
The results, based on our experience and the two cases presented, indicated that there could be simple gains to be realized in focusing on the measurement system. We believed that one of the reasons for finding this improvement potential related to measurement systems was that measuring performance is abstract. Both the system and the different measurement processes seem to be hard to visualize. Using a model with templates for measurements enables a top down definition of main performance indicators. Using the proposed 6-point criteria for a measurement system presented a simple and feasible way of a qualitative assessment of the measurement system maturity and a guideline for improving the system. Another reflection we made was that a performance measurement system is by no means “automatic” – it has to be accurate but lean and managed by a dedicated internal ownership. We also saw a challenge in transforming facts and figures to tangible and relevant business issues – to create knowledge out of the data. The performance follow-up should also be integrated in the traditional budget and business planning process. Out of these two cases, we draw some general conclusions:

- A process based approach focused on stakeholder satisfaction is needed
- A multi dimensional measurement system is preferable
- The performance measurement system needs a dedicated ownership
- The management team should focus on a few critical performance indicators

5.2 Paper 2:


Background and purpose
The purpose of this study is to discuss how business excellence models could be improved to better support stakeholder demands and organizational sustainability. This paper argues that
there is a need for Business Excellence models to be reviewed in relation to the requirements of both organizational and global sustainability.

**Methodology**

A brief literature review of the chosen areas was followed by case studies of two Swedish organizations that made use of Business Excellence Models (BEMs). Drawing on management theory, the case studies and our own experience, the paper offers several suggestions on how BEMs could be changed to better suit multiple stakeholder demands. The paper also critically reviews the self assessment construct and the ISO 9004 guidelines for self assessment and discusses options for adapting it to different levels of organizational performance.

**Results and conclusions**

The results indicated that the successful use of BEMs requires effective deployment of basic quality-related values within the organization. On the basis of these values, methodologies and tools a commitment to improvement can be developed and implemented. Every organization needs to find methodologies and tools that support its values when working at different levels of change. The study found that the BEMs are used internationally, but culture, norms and values differ considerably between countries and over time regarding, for example, decision making, organizational hierarchy, transparency, individualism vs. collectivism, empowerment vs. control and standardization vs. innovation.

Another finding was that organizations considering the use of BEMs need to have strong long-term commitment. Participating in a quality award process only once seems to be ineffective use of resources. From the first time one participates in an award process one mainly learns the craft. Often benefits cannot be measured until a second participation. Of vital importance is the completion of as many as possible of the improvement projects soon after the application.

### 5.3 Paper 3:


**Background and purpose**

This paper is based on a longitudinal study which explored if a general process based system model helped to implement a process approach and accelerate change in three different organizations. The paper discusses the outcome of the implementation of a system model, based on results from a self assessment process using BEM criteria.

**Methodology**

To answer these questions a case study methodology was used, looking at three cases from different areas: a state authority case, a case from the construction industry and case from the food industry. A self assessment framework was used to follow up the outcome of the system model implementation. The work was performed as a result of several years of consultancy work in the organizations.

**Results and conclusions**

The findings did not unambiguously show that the adoption of a process based system model as such helped top management to accelerate change initiatives. Empirical data as well as
internal and external assessments indicated that one case out of three could be seen as successful in executing change. A general conclusion could be that the model itself presented may provide enough thrust to accelerate change, but there were not enough empirical evidence in this study to prove it. Other aspects such as a dedicated top management and clear strategic objectives seemed to be more vital success factors. The assessment of the used model also indicated that there are areas to be improved in the model as such.
6 ANALYSIS

This chapter can be seen as a meta analysis based on the research process described in Chapter 4 overarching the research paradigms, findings from the three studies, reflections from my own research journey and the theoretical frame of reference.

6.1 Patterns from the three studies

As described, the three studies emerged organically and were not governed by a well defined research process to begin with. The studies reflect the early stages of my research. By looking at the questions raised by Guba & Lincoln (1994) in Chapter 4, the basic beliefs that defined the particular research paradigm in the three studies can be analyzed.

The underlying ontological assumption in all three studies is that there is an objective, true reality which is governed by unchangeable natural cause-effect laws that reality can be generalized, understood and visualized by models and structures. The epistemological assumption in the studies is that knowledge consists of verified hypotheses that can be regarded as facts or laws and can be described in a systematic way via structures, processes and models. Research results are valid if they can be observed, measured, replicated and generalized. However, looking at the methodological question we find that it is answered by the use of case studies. Thus, there appears to be a gap between the ontological and epistemological standpoints along with the choice of research methodology in the three studies.

Having made this observation, it is expected that a common pattern in the three studies is the use of models as a means of description and interpretation. Linking back to the theoretical frame of reference, my contention is that all three studies can be seen as a result of the Lewinian tradition of planned change (Lewin, 1951) from where both TQM and other quality concepts have emerged (Helms Mills et al, 2009). There seems to be an open systems approach in the studies. Bearing this in mind, it is not surprising that the three studies conclude that a systems approach is relevant and that models could be used to guide change implementation. A process based system model based on Isaksson (2006) is a reference in all three studies. The concept of Triple Bottom Line (TBL) and Business excellence models (BEMs) are vital in two cases. A stakeholder perspective aligning to the discussions by Foley (2005) is advocated. There is no reason to question the relevance of a model based approach to organizational change based on the three studies. The conclusions are in line with systems thinking theory, contemporary quality management theory and the planned change discourse, see for instance Checkland (1999), Foley (2005), Haines et al (2005), Kotter (1996, 2008) and Womack & Jones (2003).

As discussed in Chapter 3, Kezar (2001) noted in his review of organizational change models more similarities among the models in different categories than differences. There also appears to be consensus on six elements necessary for successful organizational change (Burnes, 2004, Carnall, 2007, Heracleous & Langham 1996, Kotter, 1996, Mento et al, 2002). These elements are: A defined need for change, a defined outcome, an effective leadership, a change plan, an enabled commitment, a created environment. These elements seem to appear more or less evident in all three studies.
Table 6. Critical change elements in the literature matched with the study findings.

<table>
<thead>
<tr>
<th>Change elements</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A defined need for change</td>
<td>High improvement potential – poor systems</td>
<td>Focus on improvement potential and organizational sustainability</td>
<td>Improvement potential defined in all three cases</td>
</tr>
<tr>
<td>A defined outcome</td>
<td>“Knowledge not figures”</td>
<td>Achieve business excellence</td>
<td>Clear strategic objectives</td>
</tr>
<tr>
<td>An effective leadership</td>
<td>Measurement systems need to be managed</td>
<td>“Leadership is 90%” Long term commitment</td>
<td>Committed management needed</td>
</tr>
<tr>
<td>A change plan</td>
<td>Focus on few critical performance indicators</td>
<td>Linked to business planning process</td>
<td>Clear strategic objectives needed</td>
</tr>
<tr>
<td>An enabled commitment</td>
<td>Dedicated Ownership</td>
<td>Long term commitment Quality related values</td>
<td>Multifunctional involvement needed</td>
</tr>
<tr>
<td>A created environment</td>
<td>A process approach, stakeholder focus</td>
<td>Simplified BEMs needed</td>
<td>System model. Down-to-earth methodologies</td>
</tr>
</tbody>
</table>

All studies also carry messages which address the theories of organizational change as a more complex, organic process. Study 1 states that a process based approach focused on stakeholder satisfaction is needed and a multi dimensional measurement system is preferable when it comes to performance management. But the study also reveals the need for “dedicated ownership” and the importance of “creating knowledge out of the data”. Thus, the implementation of a measurement system seems to need something fluffier to succeed, such as interpretation and sense-making (Alvesson & Svenningsson, 2008). Study 2 also states that a stakeholder and system oriented BEM can be useful and outlines new model features, but emphasizes the need for “quality related values”, “leadership” and “long term commitment” for an implementation to be successful. It also states that culture, norms and values (i.e. systems of meaning) differ between organizations and highlights the risk that award models move focus to scoring points instead of business improvement. Study 3 is fuzzy and reflects the beginning of an ontological and epistemological break in the research process. The intention in Study 3 is to follow up the use of a process based system model. The findings are scattered, since other aspects than the model as such seem to dictate the outcome. “Dedicated top management” and “clear change objectives” seem to be more important than the use of a certain model. The study states that models can be used to support implementation processes, but the outcome of the actual change processes studied is not encouraging – just one out of three seems to have succeeded with their change efforts which is in line with other witnesses, see for instance Alvesson & Svenningsson (2008), Beer & Nohria (2000), Kotter, (2008).
7 CONCLUSION

In this chapter the intention is to draw conclusions based on the analysis in Chapter 6 and answer the research questions posed in Chapter 1.

7.1 Answering research questions

1. How can a measurement system act as a driver for organizational change?

The results based on study 1 indicate that there could be simple gains to be realized in focusing on the measurement system. According to a study by Longenecker & Fink (2001), organizations which do not integrate performance measurement and feedback into their management development programs tend to experience lower than expected performance improvement and higher dissatisfaction among managers. Using the model presented in Paper 1, with the templates for measurements enables a top down definition of main performance indicators. Using the proposed 6-point criteria for a measurement system presents a simple and feasible way to create management awareness of the measurement system maturity. Out of these two cases, some conclusions could be drawn:

- A process based approach focused on stakeholder satisfaction is needed
- A multi dimensional measurement system is preferable
- The performance measurement system needs a dedicated ownership
- The management team should focus on a few critical performance indicators

Thus, our study indicates that a performance measurement system can act as a driver for change if:

- It is managed by a dedicated internal ownership.
- It is accurate but lean.
- It is integrated in the traditional budget and business planning process.

As discussed in Chapter 6, the study also reveals the need for “dedicated ownership” and the importance of “creating knowledge out of the data”. Thus, the implementation of a measurement system needs elements of interpretation and sense-making to succeed.

2. How can business excellence models be designed to focus on stakeholder demands and organizational sustainability?

Study 2 indicates that the successful adoption of business excellence models requires effective deployment of basic quality-related values within the organization. On the basis of these values a commitment to improvement can be developed. Every organization needs to find methodologies and tools that support its values when working at different levels of change. Another finding is that business excellence models are used internationally, but culture, norms and values differ considerably between countries and over time regarding, for example, decision making, organizational hierarchy, transparency, individualism vs. collectivism, empowerment vs. control and standardization vs. innovation. This finding supports the discussion by Graetz et al (2002), suggesting that in practice, managers need to understand the limitations of general models and apply them with common sense. Organizations considering the use of BEMs need to have focused internal resources and a strong long-term commitment, especially if the objective is to participate in quality award processes.
The study indicates that the existing BEM frameworks need to be redesigned. By reframing overly secretive and resource consuming award winning processes, the use of BEMs could possibly be revitalized.

A business excellence model focusing on stakeholder demands and organizational sustainability should:

- Be built from a model based open systems approach
- Assess the organization’s stakeholders, functions, processes, resources and outcomes.
- Extend criteria focusing on customer value to cover multiple stakeholder demands, needs and expectations.
- Strengthen criteria assessing organizational sustainability
- Consist of pragmatic criteria and maturity levels
- Focus on the self assessment process

3. How can the implementation of a process based system model help organizations to accelerate change?

As discussed in Chapter 6, Study 3 states that a process based system model could possibly be a suitable tool for:

- Visualizing the interaction between an organization’s stakeholders, functions, processes, resources and outcomes
- Facilitate dialogue and interpretation when implementing change.

As such, a process based system model could assist organizations to accelerate change by reducing uncertainty and resistance. But the outcome of the actual change processes studied is that just one out of three seems to have succeeded with their change efforts. The findings did not unambiguously show that the adoption of a process based system model as such helped top management to accelerate change initiatives. Thus, other aspects than the process based system model seem to have dictated the outcome in the studied cases. “Dedicated top management” and “clear change objectives” seem to have been more important than the use of a certain model, which is in line with the theoretical frame of reference in Chapter 3 and the problem discussion in Chapter 1. The study indicates, just like earlier studies by DeToro & McCabe (1997) and Rentzhog (1996), that a change towards process management requires not just the use of a set of tools and techniques, but a change in management style and way of thinking which includes both structural and cultural changes to the organization.

The theoretical frame of reference and the conclusions based on the three studies triggers the fourth research question:

**What is the role of management models in change implementation processes?**

### 7.2 The role of management models

According to Andersen (1998) a model can be described as set of relating concepts, describing the context we want to understand in a simplified manner. As such, an organizational change model can help organizations understand why change occurs, how it will occur and what will occur (Kezar, 2001). We introduce models and structures in an effort to impose order on the world and construct meaning; meaning lies in cognition not in elements external to us (Lythcott & Duschl, 1990). However, there seems to be a lack of crystal-clear descriptions of the differences between a management model, a methodology, an idea, a concept, a technique or a tool, see for instance Foley’s (2004, 2005) discussion on TQM and Hellström’s (2006) discussion on the diffusion and adoption of management ideas.
My conclusion is that the use of management models (meaning a set of relating concepts) in change implementation processes should have two main purposes: Models of and models for. Firstly, a system model of an organization should be used to visualize the interactions between the organization’s stakeholders, functions, processes and resources, see for instance Beer (1972), Checkland (1999) and Isaksson (2004). To that, I would like to add the organization’s systems of meaning. Meanings are referred to by social analysts as culture, norms, understandings, social reality, and definitions of the situation, typifications, ideology, beliefs, worldview, perspective or stereotypes (Lofland & Lofland, 1996). Secondly a (step-) model can be used for describing contents of a planned change process, see for instance Isaksson (2004), Levin (1951), Kotter (1996), Womack & Jones (2003), to secure a defined need for change, a defined outcome, an effective leadership, a change plan, an enabled commitment and a created environment.

A management model of a system
In the studies reported in this thesis, it is shown that a measurement system can be seen as a systems resource and the use of rigorous business excellence models can be questioned. It is also shown that a system model based on business processes can provide a framework as well as contribute to the visualization of organization boundaries and relations to stakeholders, if other change elements are in place. The studies show that models should be used as means to facilitate dialogue and interpretation and as such possibly reduce uncertainty and resistance. Jackson (2003) argues that systems language has proven itself more useful for getting grips on real world management problems, which advocates an open systems approach. Deming (1993) argues that all managers need to understand the overall processes involving suppliers, producers, and customers (or recipients) of goods and services as well as the concepts of human nature. A conclusion based on the studies supported by systems thinking theory (Beer 1959, 1972, Checkland, 1999 and Jackson, 2000, 2003) could be that a process based system model could possibly be a suitable tool for visualizing an organizational context, facilitate dialogue and interpretation, assess systems maturity and strengthen both hard and soft systems thinking in organizations. It would appear there is not a need for additional models – organizations have a vast number of management models to choose from – so, instead of inventing a new model I advocate the use of the Isaksson system model of an organization, visualizing vital system components. However, I would add an extra “M” to the internal enablers: “Meaning”.

![Figure 12. A generic process based system model of an organization, adapted from Isaksson (2004, 2006).](image-url)
A management model for implementing change

Once again, having stated that the field of change management is crammed with step-models, I challenge the risk of being “shot down in flames” by proposing yet another planned approach to change implementation integrating a combination of planned (hard) and organic (soft) approaches to organizational change, in line with Beer & Nohria (2000) and findings from the studies in this thesis.

A planned process can be seen as an elaboration on Kotter’s (1996) eight-stage model and the similar approach described by Isaksson (2004). The idea is to highlight activities directed to the emerging interpretation and sense-making processes taking place during the planned process. By addressing the need for interaction and dialogue around the need for change, the change objectives and the change implementation, a parallel organic change process can emerge which construct meaning. By emphasizing the definition, planning and sense-making stages, implementation obstacles could possibly be avoided. According to Andersen (1998) a model can be described as set of relating concepts, describing the context we want to understand in a simplified manner. As such, an organizational change model can help organizations understand why change occurs, how it will occur and what will occur (Kezar, 2001). The model presented in Figure 13 is one way of visualizing these why, what and how questions and provide a framework for an integrated change planning process based on an open systems approach. This model needs further investigation and can be seen as a first step of a development process. And, once again, managers need to understand the limitations of general models and apply them with common sense. Models can never replace leadership.

![Figure 13. A proposed change model, integrating a planned and organic approach and addressing strategic, structural and human perspectives of organizational change. Based on theories and findings presented in this thesis and inspired by concepts used at Implement MP AB.](image)

Why? An outspoken need for change

Current System
- Stakeholders
- Functions
- Processes
- Resources
- Meanings
- Outcomes

Future System
- Stakeholders
- Functions
- Processes
- Resources
- Meanings
- Outcomes

What? Change objectives
- Strategic, structural and human

How?
- Define
- Plan
- Implement
- Reflect

Sense-making
8 DISCUSSION

In this chapter the intention is to discuss success factors in change implementation. A suggestion of a possible gap theory is discussed. To resume I reflect on the journey behind this thesis and possible areas for future study.

8.1 Success patterns in change implementation

Is it even meaningful to discuss some type of change management best practice? Referring back to Chapter 4 and Gummesson (2000) I do not believe I have found the ultimate truth but, perhaps, some findings which can contribute to a truth best available for the moment. As displayed in Chapter 2, Figure 4, organizational change according to Marshak (2002) and Nadler & Nadler (1998) can be divided into four types, which need different approaches and change strategies depending on the speed and scope of the change. Speaking the tongue of Lean; If the change scenario is about fine tuning an organic “Kaizen” approach could be relevant, in other cases a radical “Kaikaku” might be needed (Womack & Jones 2003). However, according to Turner et al (2009) there does not appear to be one best way to implement change. Even organizations acknowledged for their best practice in change management use different and unique change management methods (Carter et al, 2001). If there are success stories to be found, the originator often lacks the discipline to fully document and communicate all the variables that contributed to the success of the practice (Karn & Highfill, 2004, Szulanski & Winter, 2002). Many so called best practices seem to lack any form of empirical evidence (Karn & Highfill, 2004). According to Sanwal (2008) it is not uncommon to have competing practices even within the same discipline both identified as best practices. Todaro (2002) discusses three possible definitions of best practice. First “as a practice that is award winning” which could advocate the use of BEMs as benchmarks for best practice. Second “a practice that has industry wide acceptance” which would imply that the most popular and wide spread practice is the best. Finally “practices implemented by admired companies and shown to have helped them” which would promote anecdotal evidence and success stories as best practice. Carter et al (2001) include return on investment and money invested for the change as well as openness to learning, collaboration, humility, innovation, creativity, integrity, a regard for people’s needs and perspectives and a passion for change as criteria for defining best practice in change management.

Thus, the area of organizational change seems to be in a tangled state without clear boundaries. Some researchers also criticize the change management industry for being driven by consultants, see for instance Alvesson & Svenningsson (2008) and Helms Mills et al (2009). They find the offered solutions general, simplistic, shallow, not evidence based and therefore misleading. Even academics who try to explain abstractions with simplified models, for instance Collins (2001), seem to meet the same acrid criticism. I believe the same critique could be directed to the findings in this thesis. However, as mentioned in Chapter 3, there appears to be consensus on six elements necessary for successful organizational change: A defined need for change, a defined outcome, an effective leadership, a change plan, an enabled commitment, a created environment. Based on the studied literature, the three studies behind this thesis, my own change experiences from Agria, Fagerdala and onwards and countless discussions with clients, colleagues and fellow researchers, I dare to think that two fundamental success factors – elements which are necessary for an organization or project to achieve intended objectives – can be identified. These Organizational change fundamentals can be described as follows.
The first fundamental condition vital for a change implementation to reach intended objectives is an outspoken and communicated need for change. Surprisingly often, change initiatives are launched without a sense of urgency (Kotter, 2008). I could present loads of anecdotal evidence from change assignments, where I have left management meetings with a dull feeling of “this project is not for real… why are they doing it”. Without a trustworthy lever for change, championed by top management and transformed into a vision of a desired future state, people will question the need and resistance is likely to emerge. Questions concerning how the decision was made, why it was made, what alternatives were considered, how it impacts the organization and how it impacts employees must always be answered in a frank and honest way.

The second fundamental condition vital for a change implementation to reach intended objectives is the presence of persistent leadership and long term commitment in top management. Without adequate leadership, every change initiative – no matter school or model chosen – seems to be bound to fail. According to research by Collins (2001) successful leaders are humble, disciplined, result oriented and equipped with enormous will power. These leaders also have a profound interest in understanding the complex, organic social system within the organization. They possess a natural ability to combine “hard” structured approaches with a “soft” participative management style. The most successful leaders are not extrovert guru types (Collins, 2001). Deming (1993) argues that a skilled leader should have profound knowledge of systems, variation, epistemology and psychology.

Other success factors such as planning, control, communication, dialogue, involvement, certain methods or tools mentioned both in this thesis and in the wide variety of books and articles, come in third place. My contention is that these factors can be seen as extensions of the two fundamentals and will not be viable without a persistent leadership or an outspoken need for change.

8.2 Bridging gaps

During the iterative compilation of this thesis a number of gaps between theory and practice stand out. My experienced gap between change theory (meaning different theoretical and methodological considerations written in books and articles) and change practice (meaning organizations trying to accomplish things based on interpreting the stuff written in the books and articles) in fact is a network of gaps. If we manage to understand and hopefully minimize these gaps, my belief is that obstacles could be dismantled. I believe the following gaps should be discussed:

The Planning-Action Gap. Reports from the field indicate that most problems seem to occur during the implementation, when the need for change should be transformed into new core aspects of the organization’s operation. Poor management commitment combined with the lack of attention given to the human dynamics of change and a lack of knowledge of the underlying processes of change seems to hamper the implementation process (Alvesson & Svenningsson 2008, Armenakis et al, 1993, Burns, 1996, 2004, Kotter 2008). Instead of action the organization turns into a state of “wait-and-see-if-this-change-is-for-real” were literally no sustainable change takes place (Alvesson & Svenningsson, 2008, Kotter, 2008). It can be argued that this breakdown is an effect of a failed planning process and that the root causes of the implementation problems are to be found in earlier stages of a change process. It can also be a sign of an underestimation of the emerging processes that occur when things are about to change. Once again, to close this gap, we (academics as well as practitioners) must
learn to understand the complexity of organizational change and take action to prevent implementation problems.

*The Research Paradigm Gap.* My contention is that current research on organizational change, including my own, suffers from a gap between traditional epistemological assumptions about objective research and the need for interpretive methodologies to fully understand the complexity of organizational change. The heart of the quantitative-qualitative “debate” is philosophical, not methodological, according to Krauss (2005). The bridge over this metaphysical gap contains a deeper discussion on research philosophy, among academics within schools of management, engineering and economics – where a majority of our future executives will be raised. The scientific community should be able to combine all relevant entities needed in contemporary organizational change such as economy, quality, engineering, leadership, sociology and psychology instead of debating ontological, epistemological and methodological differences between schools of organizational change. This debate might be academically interesting, but does not make it easier for practitioners to crack the code. To be able to produce knowledge relevant for future practitioners, my contention is that these scientific fields should be inspired by other fields of social science such as anthropology and sociology to fully grasp the complexity of organizational change. For instance, according to Goldthorpe (2000) *ethnography* can serve as an important complement to other qualitative research methods in mapping and analyzing social processes on the ground.

*The Hard-Soft Gap.* The predominant approach among practitioners seems to be that of planned change based on a hard systems thinking approach (Alvesson & Svenningsson, 2008, Helms Mills et al, 2009). This gap can be seen as a consequence of the research paradigm gap. As discussed in this thesis, this tends to result in too much focus on hard aspects such as strategy and structure and an underestimation of soft aspects such as people and culture, which leads to problems winning over the hearts and minds of the people in the organization (The Economist Intelligence Unit, 2008). This gap can possibly be bridged by a combination of management training, a complete change model addressing both soft and hard aspects of change, and an iterative implementation process containing space for interpretation, understanding and dialogue.

*The Success-Failure Gap.* What is a failure and what is a success? Academics as well as consultants seem to agree on the fact that approximately 70% of all change initiatives fail. However, there seem to be no clear standards or performance indicators to define “failure” and “success”. Moreover, there seems to be no clear definition of what would be “best practice” in change management (Burns, 1996, Todaro, 2002). My reflection is that this might be another indicator of the weak empirical evidence behind certain “truths” in the change management discourse. Moreover, how would you address success and failure during an organic change process? It can hardly fail, since it is constantly growing and adapting to new circumstances. Likewise, you can hardly proclaim success since you have no outspoken objectives or plans. The discussion about success and failure in organizational change needs to be reframed.

*The Academic-Practitioner Gap.* Some academics dismiss literature written by managers and consultants as biased, superficial and based on anecdotal evidence, see for instance Collins (1998) and Alvesson & Svenningsson (2008). But it can be argued that interpretive field research in a reality context also consists of anecdotes and storytelling, see for instant Collins (2001) and Gummesson (2000). Academic researchers and management consultants are both “knowledge workers”, but from different perspectives (Gummesson, 2000). Thus, both
professions should have a lot of common ground. A bridge between the islands of science and practice requires research that provides trustworthy evidence of the effectiveness or ineffectiveness of current change management practices. Instead of blaming each other there should be an intensified cooperation. I believe that the newly founded Process Management Forum (PMF) at the Division of quality and environmental management at Luleå University of Technology is one example of an arena where practitioners and academics could meet.

**The Research-Consultant Gap.** The researchers’ quest for a description of reality in a clean and objectified manner can come into conflict with the consultants’ mission to change reality, get pay and gain trust and more assignments, see Gummesson (2000). Combining management consultancy and research is a risky business, and I believe some of the critique against current management literature is relevant. Some management handbooks are said to be based on extensive research, but seldom findings are presented in a trustworthy manner. There is also a critique against the blending of the academic and business community, allowing legitimization of “management gurus” (Helms Mills et al, 2009). However, a senior consultant carries years of empirical experience and the two paradigms should be combined, but with some caution. Once again, I refer to PMF at Luleå University of Technology.

**The Consultant-Manager Gap.** This gap can be seen as a reflection of the Research-Consultant Gap. The consultant may visualize a change process as a set of quick prescriptive steps in order to present an easy-to-read proposal. Managers are often informed of the benefits of change programs through business publications promoting certain models or “gurus” (Helms Mills et al, 2009). In managers’ efforts to just get it done there has been a tendency to dismiss theoretical aspects of organizational change in favor of using a set of quick prescriptive steps (Burnes, 1996, Sanwal, 2008). To close this gap, a manager purchasing consultancy services should critically examine the consultants’ abilities and track record and should not by default follow management trends or fashionable concepts. A change management consultant needs to fully understand the complexity of organizational change to be able to offer appropriate services.

**The Management-Staff Gap.** Persistent leadership, planning and communication seem to be general success factors. But the predominant reductionist approach to implementing organizational change fails to account for the human dynamics of change (Jackson, 2003). The lack of contextual knowledge and ability to understand the human response to change results in change leaders who are unable to modify or overcome this gap (Andrews et al, 2008). My contention is that this circumstance is related to the two change fundamentals persistent leadership and need for change. Managers’ ability to handle questions concerning how and why decisions are made, what alternatives are considered and how the change process impacts the employees affects the width of this gap. Closing this gap demands room for dialogue and interpretation and a thorough planning and meaning making process, adapted to the scope and speed of the change to come.

### 8.3 Future research and final reflections

Gummesson (2000) states that science is a journey and not a destination – thus, this work could continue forever. The learning process is ongoing and new thoughts emerge every day. There are still several areas that need further investigation related to the findings. The research questions posed in this thesis have been of descriptive nature, and this thesis could be seen as a “feasibility study” prior to my doctoral thesis. I believe that this research area – the complex interaction between the use of management models and the construction of meaning when implementing change – is relevant for future deepened studies.
Possible areas for future research could be:
- Further analysis of identified change elements and success patterns
- Further analysis of different gaps between theory and practice
- The exploration of criteria for evidence based change management practice
- Development of evidenced based models and methods based on integrated systems thinking

To change our behaviour within systems, we have to change the way we think about the systems themselves, the way new knowledge is created and how we become involved in the process of knowledge translation (Kitson, 2009). Instead of implicitly accepting the traditional notion that organizations are rational, logical places, we should perhaps consider wider evidence from other domains which reflect a different reality. I believe that is exactly what I have experienced during this journey. My hope is that this thesis has shed some light on the relationship between constructions of models, interpretations and constructions of meaning in a real life context and thus contributed to the process of knowledge translation among academics and practitioners in the field of organizational change.

Epilogue: The reader might wonder what happened to the people in the cases mentioned in the background? Well, I never reached out to the man in the conference room in the Preface. I was too stuck in my paradigm and lost the assignment. The middle sized manufacturing company managed to implement some changes, for instance an improved quality management system and some common ground in the management team, but the managing director left the company in the middle of the assignment. As far as I know, they are still struggling with fundamental problems. Such is life in the trenches of practical change management.
9 REFERENCES


Foley, K.J. (2005) Meta Management, Standards Australia, Sydney


management ideas: findings from six empirical studies in the quality field, Doctoral thesis, Chalmers School of Technology, Gothenburg


Longenecker & Fink (2001),


Marshak, R.J. (2002). Changing the language of change: how the new contexts and concepts are challenging the ways we talk about organizational change. *Strategic Change*. 11:279-286


The Economist Intelligence Unit (2008). A change for the better – Steps for successful business transformation, The Economist Intelligence Unit Ltd


PAPER 1

"CREATE KNOWLEDGE – NOT FIGURES"
THE IMPORTANCE OF MEASUREMENT SYSTEM MANAGEMENT

J. Hallencreutz¹ and R. Isaksson²

¹Senior Partner, CMC, Implement Management Partner, Sweden
²Lecturer and process consultant, Gotland University, Sweden

Abstract
Measurement systems are used in all organisations, at least they should be. Still, they are seldom managed properly. We believe that identifying the measurement system as a resource for a process-based system will help to improve performance. There are two main areas of contribution in this paper. The first is to demonstrate the potential that exists in improving measurement system management by applying a process-based approach. The second is to develop a procedure for introducing a measurement management system.

Introduction
The problem discussed is the generally high improvement potential of measurement systems. These systems almost by definition go from simple to complicated, often including a high number of performance indicators. It seems that it always is easier to add a measurement than to take them away. With most systems being computerised, the amount of data can explode and it might be hard to find the vital information among all the trivia. With too much data and without systematic data analysis the resulting information is often not useful for day-to-day operations. In spite of this, it is common that these measurements are continued without too much further reflection. One of the reasons for this is that only in specific areas, like economic follow up, there normally is somebody who is responsible for the measurement system and its development. All organisations need to make an ever-increasing number of decisions and it is important that these are based on as relevant facts as possible. Consequently, it is important to focus on well-managed measurement system that ensures this by providing the needed data easily. Since the human brain is limited one of the keys is to pick the critical (few) indicators. Using a top-down approach based on process models and measurement templates, we can identify the critical few indicators.

Process model
Measurement should be related to some kind of a model that visualises what is measured. Commonly this is done against some kind of functionally based budget. With an increased focus on process management, it is essential that measurements relate to processes with specific focus on the value adding business processes. By some definitions, processes create a value for customers, but another interpretation is that they also create an output to other stakeholders, such as employees, owners, the society and suppliers. Here, we use the concept of stakeholders. Process charts describe organisations differently from the functional organisational chart and focus more clearly, on what is being delivered to internal or external customers and stakeholders. Key Performance Indicators (KPI) can be chosen based on process models. We have been working with generic process charts used for describing organisational performance and that have formed a base for measurement systems. (Isaksson,
proposes to categorise measurements in measurement types (drivers, input, output, outcome and resources). Each type can be divided into the dimensions of the Triple Bottom Line, which means recording performance in the economic, environmental and social dimensions. Here, resources are described widely and include, apart from personnel equipment and finance, such entities as organisational methodology and the measurement system. The five types and three dimensions form a matrix that is applied on an organisation or on an individual process. This matrix enables starting with a top down scoreboard. The matrix should be seen as a checklist and focus should be on the vital few measurements.

The reporting matrix in combination with a generic system based process chart forms a process model that can be used to gauge performance in any organisation or process, see Figure 1.

![Diagram](image)

Figure 1. Generic process based system model, adapted from (Isaksson 2004, 2006).

In order to assess how well a current organisational measurement system is working we need to know which the vital few measurements are and how they are being addressed. One way of identifying the KPI is to focus on the main stakeholders and their needs expressed in what is here called outcome measurements. Examples of outcome measurement are such as customer satisfaction and personnel satisfaction. Have these been identified and how are they measured and related to the organisational output measurements? The result of this assessment is what we call the assessed level of the measurement system maturity based on what should have been the main KPI. Priority should be given to areas with identified improvement potential. A combination of a significant improvement potential and low measurement system maturity is normally a signal for action.

**Output measurements**

We use The Triple Bottom Line (TBL) structure to identify the main dimensions and sub-dimension of measurements that concern the different stakeholders. The Global Reporting Initiative (GRI) guidelines give a good base for the structure, (GRI, 2002). This structure can be simplified and completed with some quality and productivity indicators, see Table 1.
<table>
<thead>
<tr>
<th>TBL Dimension</th>
<th>Sub-dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Process Cost</td>
<td>Full process cost or choice of main cost drivers</td>
</tr>
<tr>
<td></td>
<td>Process Capacity</td>
<td>Absolute or relative figure compared to system capability</td>
</tr>
<tr>
<td></td>
<td>Technical Quality</td>
<td>What the product can do</td>
</tr>
<tr>
<td></td>
<td>Service Quality</td>
<td>Functional quality or how the delivery is done</td>
</tr>
<tr>
<td></td>
<td>Product Sales Value</td>
<td>Total value of sales</td>
</tr>
<tr>
<td></td>
<td>Specific Product Value</td>
<td>Customer value for cost of product</td>
</tr>
<tr>
<td>Environmental</td>
<td>Environment</td>
<td>Emissions to air, water and land</td>
</tr>
<tr>
<td>Ethical</td>
<td>Safety &amp; Health</td>
<td>Number of incidents and accidents</td>
</tr>
<tr>
<td></td>
<td>Social responsibility</td>
<td>Efforts to improve the organisational sustainability</td>
</tr>
</tbody>
</table>

Table 1. The Triple Bottom Line (TBL) with chosen main indicators for Output, adapted from (Garvare and Isaksson, 2005)

The model in Figure 1 can be used as a framework to support assessment of the process measurement maturity. A Process Control and Information System (PCIS), Isaksson and Wiklund (2000), could be seen as part of the Measurement resource. Different criteria for a good Measurement resource are defined as:

1. Ownership of the system
2. Identification of main Key Performance Indicators
3. Target values
4. Follow up with control limits
5. Clear actions when outside of control limits
6. Adequate recording showing average, variation and trends

These criteria can be used both to assess the current performance level and to guide the introduction of a system. Managing measurements could, in the process model presented in Figure 1, be seen as a generic sub-process and the measurement system itself as a resource.

**Methodology**

The questions to be answered are if the model helps to define the level of measurement maturity in an organisation and if it can be used to improve the measurement system maturity. To answer these questions we have used case study methodology looking at two cases, one from a service organisations and one from process industry. This work has been done in parallel with consultancy work in the organisations. The organisations studied need to remain anonymous and are only described as a service organisation and cement manufacturing. The cement manufacturing study consists of two parts dealing with the process of clinker production and cement milling separately. Since clinker can also be sold as a product these two processes can be seen as two different organisations.

**Service organisation case**

The studied organisation is a Swedish state agency in the field of pharmaceutical and medicinal products. The main stakeholders are the pharmaceutical industry, the Swedish
government, the Swedish and EU healthcare system, other Swedish and EU authorities, personnel and the environment. Based on information from the state agency the general template in Table 1, taking into consideration the limitations, has been converted to the area specific indicators presented in Table 2.

<table>
<thead>
<tr>
<th>TBL Dimension</th>
<th>Scorecard Perspectives</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Financial</td>
<td>Economic performance indicators</td>
</tr>
<tr>
<td></td>
<td>Production</td>
<td>Process productivity indicators</td>
</tr>
<tr>
<td></td>
<td>Quality</td>
<td>Scientific and operational performance indicators</td>
</tr>
<tr>
<td>Environmental</td>
<td>Environment</td>
<td>Emissions to air, water and land</td>
</tr>
<tr>
<td>Ethical</td>
<td>Competence</td>
<td>HR-related indicators</td>
</tr>
<tr>
<td></td>
<td>Social responsibility</td>
<td>Efforts to improve the health care system</td>
</tr>
</tbody>
</table>

Table 2. The balanced scorecard perspectives of the state agency converted into the Triple Bottom Line (TBL) with chosen main indicators for output, based on Table 1.

The studied agency has developed a balanced scorecard based on the following perspectives: financial, production, competence and quality. Here, the assumption is that improving the chosen output perspectives will also affect the outcome of the stakeholders in a positive way. The outcome would be a more efficient performance with more satisfied external stakeholders (industry, health care system and government). The measurement system criteria defined above have been applied on the organisation and results are presented in Table 3.

The state agency has applied a process based approach, using the system model presented in Figure 1. The management team of this highly scientific agency has not been used to apply industrial and “commercial” approaches to the agency’s processes. However, the introduction of a more modern and balanced performance measurement system is required to meet new competition in the EU system. The system has gradually matured, but has suffered from a lack of dedicated ownership.

The general impression is that the measurement system has a low level of maturity, and no dedicated ownership. The management team has discussed the need of a multidimensional approach to performance measurement, but focus is still on legally based accounting, budgeting and costing run by the economy department. There has been much “talk” about processes and productivity, but yet few performance indicators. Another big debate is whether a customer focus is needed – and who would in that case be the customer? Here, a broader stakeholder definition has been very useful.

The proposed measurement system guidelines are going to be further discussed in the management team. From the outlook of the presented results in Table 3 the simple process based frameworks presents good guidelines and the multidimensional stakeholder approach is seems to be a key success factor.
<table>
<thead>
<tr>
<th>Measurement system elements</th>
<th>Financial perspective</th>
<th>Production perspective</th>
<th>Competence perspective</th>
<th>Quality perspective</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ownership of the system</td>
<td>Owner: CFO</td>
<td>Does not exist</td>
<td>Owner: HR-director</td>
<td>Does not exist</td>
<td>Lack of ownership of an overall measurement system</td>
</tr>
<tr>
<td>2. Identification of main Key Performance Indicators</td>
<td>Balance between application fees and costs</td>
<td>Process productivity (cost/application)</td>
<td>Recruitment Staff turnover Sick leave</td>
<td>Not defined</td>
<td>Based on output indicators in Table 2.</td>
</tr>
<tr>
<td>3. Target values</td>
<td>Not official</td>
<td>Not set</td>
<td>Not set</td>
<td>Not set</td>
<td>Many important target values discussed but not decided.</td>
</tr>
<tr>
<td>3. Follow up with control limits</td>
<td>Classical accounting, budgeting and costing</td>
<td>Follow up but no control limits</td>
<td>Follow up but no control limits</td>
<td>No follow up</td>
<td>Objectives with some follow up</td>
</tr>
<tr>
<td>5. Actions when outside of control limits</td>
<td>Not specified</td>
<td>Not specified</td>
<td>Not specified</td>
<td>Not specified</td>
<td></td>
</tr>
<tr>
<td>6. Adequate recording showing average, variation and trends</td>
<td>Accurate monthly reports</td>
<td>To some extent</td>
<td>To some extent</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Assessment of measurement system maturity and management of main indicators.

**Cement industry case**

The studied organisation manufactures clinker from mainly limestone as raw material. The clinker forms the main raw material for cement milling and the product is bagged cement. The main stakeholders for cement manufacturing are customers, owners, authorities, personnel and nature. Focus in this study is on customers and owners as stakeholders. The indicators chosen for more detailed studies are Process Cost, Process Capacity, Product Sales Value, Technical Quality and Specific Product Value. The Product Sales Value and Specific Product Value are mainly studied indirectly as functions of Process Cost, Process Capacity and Technical Quality. Here, the assumption is that improving the chosen output figures will also
affect the outcome of the stakeholders in a positive way. The outcomes would be a more profitable performance with more satisfied customers. Based on a general knowledge of cement manufacturing the general template in Table 1 has been converted to the area specific indicators presented in Table 3. The L-value used in is the chosen quality parameter and describes both the average cement strength and its variability. It is based on the EN 197-1 standard specifying cement requirements. The L-value is calculated as the average strength value for a chosen period reduced with a factor that is calculated as the standard deviation of the results times a factor depending of the number of values used. This value can be used as a single indicator for the technical quality performance. Increased cement strength variability results in a lower L-value as does a lower average. With a higher L-value the cement has a higher customer value.

<table>
<thead>
<tr>
<th>Indicator type</th>
<th>Clinker production indicators</th>
<th>Cement milling indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Cost</td>
<td>Fuel cost (Euro/tonne)</td>
<td>Raw mix (% limestone); Cost of raw materials (Euro/tonne)</td>
</tr>
<tr>
<td>Process Capacity</td>
<td>Operational Efficiency (OE) in % (the product of Run Factor and the Capacity Efficiency) – describes the system utilisation</td>
<td></td>
</tr>
<tr>
<td>Technical Quality</td>
<td>% clinker according to specification</td>
<td>28 days strength in Mpa (L-value)</td>
</tr>
<tr>
<td>Product Sales Value</td>
<td>Contribution (Euro/year)</td>
<td>Contribution (Euro/year)</td>
</tr>
<tr>
<td>Specific Product Value</td>
<td>% according to specification/price</td>
<td>MPa as L-value/price</td>
</tr>
</tbody>
</table>

Table 4. Specification of indicators that should be used for Output.

The general impression based on the results from Table 5 is that the measurement system has a very low level of maturity. What you cannot measure you cannot improve and lack of KPI would indicate that there is some hidden potential. However, not everything can be measured and the question is if all of the proposed indicators in Table 4 really are important. As an example, there is practically a monopoly and therefore little competitive pressure. The market is demand driven. In such a situation it could be claimed that quality is not that important since there is no competition and customers line up to buy anything that they can get. However, the detailed study of this situation revealed that with relatively simple actions, the variability could be significantly reduced and the L-value improved. In practical terms, this would mean that the cement could be made to correspond to standards while simultaneously reducing the costs. The lower variability resulting from process improvement would facilitate both an increased capacity and reduced cost of production, which confirms the oft-quoted statement that quality is for free. Furthermore, these gains were approaching the order of 2 Million Euros per year, showing a reasonably good saving potential. The measures needed to realise the potential were so called low hanging fruit, with little capital investments needed. The improvements could have been realised by focus on competence and routine upgrading in a period less than 6 months.

However, there seems to be an inverse relationship between process improvement potential and the ability to change. The cement manufacturing case is an example of this. Some improvements are worked with, but it looks unlikely that the full potential will be realised in the short term.
<table>
<thead>
<tr>
<th>Measurement system elements</th>
<th>Clinker production indicators</th>
<th>Cement milling Indicators</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ownership of the system</td>
<td>Does not exist</td>
<td>Does not exist</td>
<td>Refers to ownership of an overall measurement system</td>
</tr>
<tr>
<td>2. Identification of main Key Performance Indicators</td>
<td>Fuel cost OE Contribution</td>
<td>Raw mix -not continuously 28 days -no L-value Contribution</td>
<td>Based on output indicators in Table 4.</td>
</tr>
<tr>
<td>3. Target values</td>
<td>3/5</td>
<td>2/5</td>
<td>Many important target values such as the one for quality are missing</td>
</tr>
<tr>
<td>4. Follow up with control limits</td>
<td>Follow up but no control limits</td>
<td>Practically no follow up</td>
<td>Budget figures with some follow up</td>
</tr>
<tr>
<td>5. Actions when outside of control limits</td>
<td>Not specified</td>
<td>Not specified</td>
<td>The concept does not exist in the organisation</td>
</tr>
<tr>
<td>6. Adequate recording showing average, variation and trends</td>
<td>To some extent for fuel cost and OE</td>
<td>No</td>
<td>Situation particularly unsatisfactory in cement milling</td>
</tr>
</tbody>
</table>

Table 5. Assessment of measurement system maturity and management of main indicators in the cement manufacturing case.

The concept of responsibility for measurement systems and creating a proper Process Control and Information System has not been taken up with the organisation. The situation of acute fire fighting and unclear responsibilities makes this premature. Still, it is obvious that creating a basic scorecard for the main output parameters should be of substantial help in improving performance of both clinker production and cement milling.

**Conclusions and lessons learnt**

The results based on our experience and the two cases presented indicate that there could be simple gains to be realised in focusing on the measurement system. We believe that one of the reasons for finding this improvement potential related to measurement systems is that measuring performance is a rather abstract concept. Both the system and the different measurement processes seem to be hard to visualise. Using the model in Figure 1 with the templates for measurements enables a top down definition of main performance indicators. Using the proposed 6-point criteria for a measurement system presents a simple and feasible way of a qualitative assessment of the measurement system maturity. It can also be used as a guideline for improving the system. Another reflection is that a performance measurement system is by no means “automatic” – it has to be managed by a dedicated internal ownership. We believe that good measurement management systems should be accurate but lean. We also see a challenge in transforming facts and figures to tangible and relevant business issues – to create knowledge out of the data. The performance follow-up should also be integrated in the traditional budget and business planning process.
Out of these two quite different cases, we can draw some general conclusions:

- A process based approach focused on stakeholder satisfaction is needed
- A multi dimensional measurement system is preferable
- The performance measurement system needs a dedicated ownership
- The management team should focus on a few critical performance indicators

References


PAPER 2

CHAPTER TWO

BUSINESS EXCELLENCE MODELS: SCOPE AND CUSTOMIZATION – MAKING BEST
USE OF RESOURCES

Rickard Garvare
Luleå University of Technology, Sweden

Jacob Hallencrutz
Implement Management Partner, Sweden

Raine Isaksson
Gotland University, Sweden

How the work was done

A brief literature review of the chosen areas is followed by case studies of two Swedish organizations that made use of Business Excellence Models (BEMs). Drawing on management theory, the case studies and our own experience this paper offers several suggestions on how BEMs might be changed to better suit multiple stakeholder demands. We critically review the self-assessment construct and discuss options for adapting it to different levels of organization performance. The ISO 9004 guidelines for self assessment are also reviewed.

What the literature tells us

The heyday of BEMs is over and quality management does not create the enthusiasm it did in the 1990s. The number of certified ISO-based management systems is increasing [ISO, 2005] but the interest in self assessment based on BEMs seems to be losing ground.

Recent studies indicate that if the aim is business improvement, participation in a quality award process is not always the most appropriate methodology for achieving that aim.- see Loomba and Johannessen [1997] and Conti [2001]. Following a study of organizations that participated in the Swedish Quality Award process, Eriksson [2004] concluded that many organizations do not have sufficient resources to carry out the improvement work that is required by the award process. Based on a multiple case study Meers and Samson [2003] found that BEMs fail to identify the priorities associated with the improvement opportunities presented. Foley [2005, p.xii] argues that “The Excellence models use evaluation weighting schemes that are arbitrary, i.e., not determined by the model or empirical research”. Dale et al., [2000, p.9] state that “The emphasis of many organizations (mainly those with a lack of experience of continuous improvement) is now on scoring points against the criteria of award models and away from the fundamental basics of the technical essence of quality. Quality management, TQM, business excellence, or excellence; or however it might be badged – has become yet another organization control system which has to be manipulated and beaten, with high scores attained and improved
upon." Hermel and Ramis-Pujol [2003] describe the evolution of excellence in five stages with BEMs placed in the fourth stage.

**Content of BEMs - from customers to stakeholders**

BEMs are often viewed as benchmarks for good management practice and therefore used for organization self assessment. Most of these models are also frameworks for different quality awards (e.g., the European Quality Award and the Malcolm Baldrige National Quality Award) and thereby have a strong customer focus and conformity with major constituents of Quality Management. But if Quality Management is seen as a constrained optimization subject to meeting the needs and expectations of non-customer stakeholders [Foley, 2005], then obviously customer focus is not enough for long-term success of the organization (i.e., business excellence) and a stakeholder approach needs to be introduced.

Shifting focus from customers to a larger group of stakeholders has been an ongoing trend for some time within the quality movement - see Foster and Jonker [2003]. The institutions behind a large part of the national and international quality awards now claim to have moved from a narrow focus on quality toward broader perspectives such as those of "business excellence" or "performance excellence", hence the name Business Excellence Models. However, the foundations of most model frameworks still remain. At their center are criteria for organization assessment based on values which can usually be traced back to those of TQM. Over time many of these models have been influenced by stakeholder theory and, as a result, issues such as social responsibility and environmental protection have been added to the criteria, or become more emphasized.

One reason for this shift of focus is a perception that sustainable organization success requires more than satisfied customers. Depending on the context it could involve focus on actors such as employees, neighbors, society, suppliers, competitors, nature, media and financial institutions. Another reason for shifting toward a stakeholder approach is the ongoing movement from firm-centered to system-centered thinking [Lozano, 2005]. In order to have a global sustainable development the role and responsibility of business has to change from that of "doing no harm" to "demonstrating positive benefits," or in other words being a good corporate citizen - one way to enlarge the perspective is to use Morton and Kaplan’s Triple Bottom Line (TBL) [Warhurst, 2001].

This paper argues that there is a need for BEMs to be reviewed in relation to the requirements of both organization and global sustainability - see Garvare and Isaksson [2001], Hermel and Ramis-Pujol [2003], Lozano [2005] and Garvare and Johansson [2006]. As a result of the increasing influence of stakeholder theory, current BEMs reflect only partly the requirements of excellence in the context of sustainable development. For example, the criteria of "social engagement" and "environmental management" represent 4.5 percent of the total score in the Swedish Quality Award, while "customer satisfaction" represents 30 percent.

**Values, methodologies and tools**

A BEM relies on its core values. Even though TQM clearly acknowledges the concept of interested parties, focus is still largely placed on strong customer orientation. When combining TQM with stakeholder theory and issues of Sustainable Development (SD) the values should reflect all areas. Garvare and Isaksson [2001] propose five core values for SD - sustainable stakeholder balance, learning excellence, process performance excellence, stakeholderocracy and transparency.
Edgeman and Hensler [2004] underline the importance of a perspective on stakeholder needs that extends beyond a limited zero-sum game and into a win-win scenario. The emphasis on transparency is also an important value that aids the focus on methodologies and tools that counteract corruption and distortion of market mechanisms. Central values for the discussion in this paper are the focus on stakeholder needs, process orientation and transparency. These values support the use of process management and measurements based on the TBL as well as BEMs.

In order for a BEM to be effective stakeholder interests need to be interpreted and balanced according to factors such as norms and values of legitimacy and rights [Lozano, 2005]. The different criteria rely on a set of values that should permeate the organization - which suggests that the value base of the traditional BEMs needs to be extended to accommodate the change from customer to stakeholder focus - Isaksson [2004]. Stakeholders are not a fixed set of actors but differ between organizations and over time. Moreover, the diversity of interests and priorities within and between different stakeholder groups appears to be increasing. It could therefore be argued that Business Excellence is dependant on a systematic monitoring of who the current stakeholders are and what are their needs and expectations. Which suggests that TBL could be used as a guideline for identifying stakeholders and stakeholder needs.

TQM can be seen as a management system based on values, methodologies and tools - see Hellsten and Klefsjö [2000] and Bergman and Klefsjö [2003]. Using this definition and including values of global sustainability provides a framework that combines theory from TQM and SD. Isaksson [2004] presents an example of how this could be viewed - see Figure 1.

Figure 1 Examples of values that guide the selection of methodologies and tools within an organization. IMS refers to Integrated Management Sub-systems and GRI refers to the Global Reporting Initiative; Isaksson [2004]. Inspired by Hellsten & Klefsjö [2000].
An important part of reviewing the contents of a BEM is an examination of the values on which the model is said to be based. These values should of course strongly influence the criteria of the model, i.e., the tools used within the methodology, as proposed in the study of extended BEM by Garvare and Isaksson [2001]. In our view the fundamental structure of a BEM self-assessment process, built on the phases of analyzing organization approaches, the actual deployment of these approaches and the results and improvements obtained, would not necessarily have to change as a result of modifications made in the values and criteria of a BEM. On the other hand, changes could be envisaged in the magnitude and depth of selected criteria as a function of needs within the specific organization.

The self assessment process

BEMs are usually based on a methodology of self-assessment. According to EFQM [1996], self-assessment is “a comprehensive, systematic and regular review of an organization’s activities and results referenced against a model of business excellence”. During both a quality award process and a self-assessment the organization is supposed to pass through the four phases of the improvement cycle (plan, do, study and act) - see Svensson and Klefsjö [2000].

A principal difference between a quality award process and self-assessment is the ownership. The owner of a quality award process is not the evaluated organization, while in the case of self-assessment the evaluated organization is the process owner. During participation in a national quality award process, an external organization administers the quality award. This organization supports the quality award applicants with the planning, e.g., describing the formalities for the application and setting dates for handing in the application. The administrator also trains external examiners and supports them in their evaluation of the applicants’ description (the study phase). The administrator might also support the applicants with their plan for improvement (the action phase).

Self assessment based on BEMs such as the evaluation criteria of the European Quality Award or the Malcolm Baldrige Quality Award, is very resource demanding and most companies in the world are small to medium sized. Meers and Samson [2003, p75] conclude that “the award frameworks are primarily designed to identify ‘top’ organizations and do little to assist mediocre organizations in identifying the most appropriate steps toward excellence.” Well performing First World companies seem to have resources to test all improvement tools as they emerge. Consequently there are many examples of well known companies that have used BEMs. However, if BEMs are to become widespread and influential tools for sustainable development it is essential that they can be included in sustainability based improvement work, and be able to be used by small and medium sized organizations.

There is currently a shift of focus of many BEMs from customers to a larger group of stakeholders. Indications are also that the general BEM self assessment process could be further improved by simplification; by being given a process based structure and further aligned with the business planning process.

Simplification

There are many proposals for simplified BEMs available, but how does one decide which one to use? The challenge is to find a balance between efforts and results. A simplistic way of stating this is that the chosen self assessment process should be relevant to the level of actual performance and improvement needs. An iterative approach that couples the performance level with the depth of the BEM used could be a feasible way to achieve that objective. There are a
number of simplified models such as the Swedish Springboard, Hellsten [1997]. A problem here is the lack of standardization when there is a choice of models. Another way of simplifying the use of established BEMs such as the MBNQA is to use an iterative approach for the self assessment. Both choice of criteria and the depth of analysis could be a function of a first quick assessment that sets the approximate level.

One suggestion for minimizing the work involved with BEMs is that of Garvare and Isaksson [2005]. That proposal is based on an iterative approach, starting with assessment of the improvement potential based on the Triple Bottom Line dimensions. Sub-dimensions are then adapted from the Global Reporting Initiative guidelines with the addition of quality indicators as described in Table 1.

<table>
<thead>
<tr>
<th>TBL Dimension</th>
<th>Sub-dimension</th>
<th>Description and comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Process Cost</td>
<td>Full process cost. All costs for the product at the organization interface</td>
</tr>
<tr>
<td></td>
<td>Process Capacity</td>
<td>Relative figure relating to system capacity</td>
</tr>
<tr>
<td></td>
<td>Technical Quality</td>
<td>Technical quality, often related to product specifications</td>
</tr>
<tr>
<td></td>
<td>Service Quality</td>
<td>Functional quality or how the delivery is done. Typical examples are delivery time</td>
</tr>
<tr>
<td></td>
<td>Product Sales Value</td>
<td>Total value of sales. This indicator corresponds to the indicator of Net sales value in the GRI guidelines.</td>
</tr>
<tr>
<td>Environmental</td>
<td>Environment (missions)</td>
<td>Emissions to air, water and land. These include the impacts caused by input material</td>
</tr>
<tr>
<td>Ethical</td>
<td>Safety and Health</td>
<td>Number of incidents and accidents. Mainly related to the stakeholder employees</td>
</tr>
<tr>
<td></td>
<td>Social Responsibility</td>
<td>How the organization demonstrates social responsibility</td>
</tr>
</tbody>
</table>

Initially, the performance potential is viewed in the different dimensions. The size and urgency of the process improvement potential then directs focus to a particular process dimension. The analysis of resources is carried out in relation to how they relate to the detected potential. The analysis is based on nine criteria - the nine Ms in Table 2. Many of the proposed Ms are the same as the main criteria in BEMs. Garvare and Isaksson [2005] provide a conceptual proposal for carrying out an M-assessment and suggest that in many cases this may be all that is necessary to ensure that resources are focused on those processes that most need to be improved.
Table 2   Proposed resource performance assessment criteria based on 9Ms. For each M the importance and the rating should be assessed; Garvare and Isaksson [2005].

<table>
<thead>
<tr>
<th>Ms</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>Policies, goals and strategies for improving TBL performance</td>
</tr>
<tr>
<td>Method</td>
<td>Structure for carrying out strategies and achieving goals. Management systems for TBL. Process maturity.</td>
</tr>
<tr>
<td>Man</td>
<td>How is relevant competency for the different work tasks assured</td>
</tr>
<tr>
<td>Measurement</td>
<td>How is TBL performance measured and results communicated</td>
</tr>
<tr>
<td>Machine</td>
<td>Describe how the equipment including all premises is made to perform to the required standards</td>
</tr>
<tr>
<td>Material</td>
<td>Describe how the material used is monitored and controlled</td>
</tr>
<tr>
<td>Milieu</td>
<td>Describe how the working environment supports the personnel and the equipment used</td>
</tr>
<tr>
<td>Market</td>
<td>Describe market information such as customer base, market perspectives, competition and important stakeholder needs</td>
</tr>
<tr>
<td>Money</td>
<td>Describe availability of funds for operations and investments</td>
</tr>
</tbody>
</table>

All Ms are considered as organization resources. This facilitates an understanding of the role of the different Ms in a process framework.

The organization should set priorities and weights for the different Ms based on the actual situation. Management is normally the most important of the Ms and should therefore be in early focus. The purpose of using this model for assessing organization sustainability should be internal comparison over time, rather than comparison with other organizations. Therefore the choice of priorities should be made by the organization itself; focusing on what is relevant reduces the work load. If some of the Ms are considered unimportant after an initial review they should be omitted. When the M, or Ms that require attention have been identified improvements can be commenced.

The model framework proposed by Garvare and Isaksson [2005] includes assessment of organizations in terms of both process performance and resource utilization; see Figure 2.
Figure 2  Generic process based system model with the 9Ms defined as process resources; adapted from Isaksson and Garvare [2005]

By designing models based on stakeholder needs it is proposed that time lost in non-value adding activity of the one-size-fits-all approach can be reduced. Moreover, the content of the Ms could be further developed by improving the descriptions and by relating them more closely to the text in criteria in BEMs.

Alignment with ISO 9004

Kroslid [1999] describes self assessment through the use of BEMs as being within one of two major paths of quality management, and the implementation of quality management systems with third party audit of compliance to standard within the other. In comparison, the number of ISO 9001 certified companies is very large. According to ISO there are more than 670 000 certificates worldwide and ISO 9001 is an official standard in more than 150 countries - see ISO [2005].

The debate over which is best has raged for a long time and there are many cases to prove that an ISO 9001 certificate may have little value. Karapetrovic and Willborn [2001] present a comparison of BEM-based self-assessment and third party audit of management systems. Although they find numerous differences between the two, their conclusion is that audits and self-assessment are compatible and could have a potential for alignment. The revised ISO 9000-standard is now closer to the ideas of total quality management. ISO 9004 also provides a simple questionnaire to establish “maturity levels” of the quality management system and could as such also form a basis for self assessment. ISO 9004 could also provide support for the Ms discussed above. For example Ms such as Management (responsibilities), Method (management systems) and Measurement (measurement systems) are relevant. A customized self assessment process based on the fundamentals of both ISO 9004 and a BEM such as the MBNQA could form a useful basis for improvements in quality management.

Views from practitioners

To establish how practitioners view BEMs and identify the ideas they contribute to the process several case studies (including successful and not so successful applications) have been conducted; two of those case studies are presented below.
Agria

Agria is a wholly owned subsidiary of the Swedish insurance company Länsförsäkringar AB and has specialized in the provision of animal and crop insurance. Agria has about 150 employees, who serve some 360,000 customers. The turnover in 2004 was approximately 90 million Euros and the market share about 60 per cent of the total market in the animal and crop insurance segment in Sweden.

In 1992 a new CEO was appointed at Agria. Three years later he announced that the company should grow by 25 percent while saving 25 percent on total costs per item. As a part of the strategy to reach this goal, and to evaluate its operations on a yearly basis, Agria began to work with the SIQ Model for Performance Excellence [SIQ, 2004]. In 1998 Agria became the first insurance company in Sweden to receive ISO 9001 certification. One year later the Swedish Quality award was received for the first time, and in December 2003 Agria became the first company ever to receive the Swedish Quality Award twice - see result levels in Figure 3. This apparent success was the result of a change process that had begun in the early 1990s and the driving force behind this change had been Agria’s CEO Anders Mellberg.

Figure 3  Agria’s achieved levels on a seven graded scale in the Swedish Quality Award; from feedback reports [1998-1999 and 2002-2003]. The different ways in which Agria has been working are also described in the diagram. The surveys in 1996 and 1997 were “light-versions” of the instrument, developed by an external consultant. In 2000 and 2001 Agria used consultants for evaluation and feedback: From Palmberg and Garvare [2006].
The CEO of Agria was clearly a supporter of BEMs. However, although enthusiastic about the SIQ model and a member of the board of the Swedish Institute of Quality (SIQ) the Agria CEO was alert to limitations of the model: “A BEM is nothing but a toolbox, 90 percent is about leadership.” According to Mellberg, Agria’s use of BEMs gave the organization a set of core values, a common language, a corporate change culture and a focus on improvement and creativity. He identified several reasons for the limited use of BEMs in Sweden. BEMs take time; it takes at least two years to become good at using the model; there is generally a short term perspective in the Swedish trade and industry; lack of skills in basic change management.

Mellberg argued that a major factor in the success of Agria has been the integration of the BEM-process and the company’s business planning process: “It is no longer about the Quality Award. Agria runs the BEM-process every year as a complement to its SWOT-analysis.” Most resources were spent on the Swedish Quality Award in 1998-99. Each year eight to ten people have formed multifunctional groups, each spending 30-40 hours plus management time in updating the organization description (a total of between 250-500 hours per year), not including external audits.

Why did it work so well? “It didn’t in the beginning. We spent half a year on understanding the criteria. A door-opener was when two consultants told us that we should focus on building a process based quality management system, which we did in 96-97. In -98 we certified our system according to ISO 9000 and also participated in Swedish Quality Award (SQA) for the first time. We applied a multifunctional approach and did not just play around with this in the management team. That gave us a link to day-to-day operations…. Dialogue, communication and anchoring. And, once again, the importance of being stubborn and focus on the long term perspective”.

**Case analysis**

There can be little doubt about Agria’s success in their use of a BEM. However, the study of Agria’s experience indicates on one hand the usefulness of the SIQ model (which is a typical BEM, formed on the basis of MBNQA); on the other hand it has taken vast amounts of time and energy to reach this far. It took the organization at least two years to get things right. Without an unusually persistent leadership, strong support from the Board and a stable business environment the outcome probably would have been different.

In a longitudinal study of five large Australian organizations van der Wiele and Brown [2002] found a number of factors that had an impact on the development of quality management within these organizations. Some of these factors could also be identified at Agria:

*The role of top management* – The charismatic CEO could be described as a strong driving force that has united the management team as agents of change. Another factor connected to the role of top management is the deployment of organization values. The role of the top management has been significant in the early stages of TQM implementation. One of the top managers said that, “If the CEO had left after the award of 1999, I’m not sure if the work would have continued like it has. But if he would leave now the work would probably keep on going.”

---

49 See Palmberg and Garvare [2006] for a more detailed description.
The driving force behind the quality management implementation over a long term — A primary driving force behind the implementation of quality management at Agria has been the persistent will of several leaders in the organization not to become satisfied but to continuously strive to improve with new initiatives for change. According to the interviews, external pressure to implement quality management has been negligible.

The phases connected to the Swedish Quality Award have been used as a framework to direct and review the quality management implementation process. Audits and assessments due to the ISO 9000 and ISO 14 000 certifications have also provided inputs to the improvement work.

van der Wiele and Brown [2002] have argued that every organization “needs to discover and work out for themselves how to apply the core principles behind such concepts in ways which are meaningful to their business operations.” That is probably one of the most important explanations of the success of Agria. Methodologies and tools have been selected by their end users on the basis of their opinion of what was needed, and have also been adjusted to fit the operations of the company. On the basis of a study of three Slovene companies, Ambroz [2004] concludes that corporate culture and self-image play important roles when implementing TQM. Through their value focused leadership the managers at Agria have effectively changed the norms and basic values of the organization. The corporate culture has also been affected by the recruitment policy of the company, which has favored applicants with a strong interest in animals and animal care.

The self-image of the company has been strengthened significantly by the two quality awards. Employees at all levels have been acknowledged for the success and improvements are described as results of all efforts made by everyone in the organization.

Euroc Research

A slightly simplified version of the SIQ-model was used as the basis for a regional quality award called the Gotland Quality Award (UGK). This award ran for a few years in the middle of the 1990s. Euroc Research (ER), a service organization with technical services and R&D as products, participated in 1994, 1995 and 1996. The entire organization, comprising of some 50 persons, was actively involved in the work during the first rounds in which ER took part. The process was evaluated by a team of auditors but ER never received the quality award. The director at that time, Claes-Göran Nilsson, was interviewed and his opinion was sought on the pros and cons of working with the BEM. Sten Abrahamssom, who was responsible for the quality system at the time of participating in the UGK, now works as quality manager in the same organization. He was also interviewed to give the insider perspective of the effects of the work with the BEM.

According to Nilsson the main advantage of the participation was that the organization started thinking of continuous improvement much more than previously. Sweeping answers were held back by the criteria questions, which forced the organization to make evident what work was done with continuous improvement. The main disadvantage found was that the work took a lot

---

50 This interview has been analysed and commented on by Raine Isaksson, who worked with Euroc Research in 1991-2002 as development engineer. Claes-Göran Nilsson was the managing director of Euroc Research in the period of 1987-1996. Nilsson played a key role and was very active in the work with the UGK. At the time of this case study he worked as Vice President of R&D for the Maxit Group.
of time and required perseverance. In addition, the model did not suit cultures of trouble shooting and quick fixes.

Nilsson claims that it is not necessary to understand continuous improvement and the process view before it is meaningful to start work with a business model: “There is a need for somebody in the management or at least in the organization who understands these issues and pushes them. The entire management must be convinced before you start. If you just go for the award without having the basic understanding this does not work. It is important to allow the time needed starting with process management training, giving this maybe a year and then continuing with the self assessment as an internal exercise. Only thereafter would it be sensible to participate in a formal award process.”

Abrahamsson\(^5\) reported that the people that participated in the work with UGK (which included practically all the 50 employees) had received a very good understanding of quality work. The effects of accreditation of a testing laboratory and work with UGK were perceived differently. “The accreditation work has given us methods, procedures, structure, good traceability and routines for control. The UGK strengthened our customer focus and everybody’s participation. It provided good education and a forum for discussions and insight. It also helped to align the values. The difference can be seen when compared to people employed afterwards where there have been difficulties with differing values.”

Important benefits identified after the work with UGK were: Stronger focus on important things, more discussion regarding basic values, and good working method with the categories of approach, deployment and results. The disadvantages identified were too much administration, too many sub-criteria, and the impression that only by learning how to write can you increase your scoring. Abrahamsson commented that: “Maybe we should have not participated every year, since there was not enough time to do anything with the areas of improvement. This list easily becomes one of ‘the trivial many’. Due to the complexity of the original BEM there have been a lot of simplifications launched. You could ask yourself if the same adjustable spanner can be used for all applications.”

Abrahamsson was asked what he would do differently if he were to use the UGK again. He responded: “There needs to be a good education of everybody. The purpose should not be to compete for the award but to focus on improvement. However, only doing a self assessment for internal purposes is not enough but there needs to be an external evaluation. The feedback should be focused and also indicate priorities. … The award process has become too much of a measurement exercise. You have difficulties in closing the improvement loop since the writing of the criteria takes so much time, which means that time for actions is reduced.”

Preliminary conclusions

Our examination of BEMs and quality management and the information provided by several case studies suggest that leadership, perseverance and a down-to-earth approach are important factors on all levels of self assessment. Also, it seems central to create a structure that allows improvements to be quickly realized and resources used in areas where there is most need.

\(^5\) This interview has also been analysed and commented on by Raine Isaksson. At the time of the study Sten Abrahamsson was quality manager at Cementa Research (previously Euroc Research).
What should BEMs contain? The indication is that they should be extended to cover the interests of all organization stakeholders and harmonized with the aspects of global sustainable development, e.g., Triple Bottom Line.

Which is the target group for BEMs? Our interpretation is that models could be customized to the size and needs of the organization in order to make the BEM suitable for any type of organization, irrespective of maturity.

Integration and alignment of BEMs with ISO 9000, or more precisely, the self assessment methodology of ISO 9004 would be a significant advance.

What needs to be done in the organization? This should be a function of the organization performance level, its culture and values and its needs and ability to change. A hypothesis is that a conditioned approach could be used for directing self assessment into areas with the greatest needs.

Our principal conclusion is that there is a need to critically review the entire concept of BEMs. The remainder of this paper is in two parts. The first deals with the ongoing move from customer focus to stakeholder focus where customers are viewed as one actor within a larger group of stakeholders. The second part deals with customization of the self assessment process.

**BEMs for sustainable development**

Our work suggests that the scope of BEMs should be extended to include the issues of Sustainable Development (SD) expressed using the Triple Bottom Line (TBL). One of the best known applications of the TBL is by the Global Reporting Initiative (GRI).

“Sustainability reporting is the practice of measuring, disclosing and being accountable for organization performance toward the goal of sustainable development,” GRI [2006, p.4]. The reporting principles in the GRI draft guidelines are organized into two groups – principles for determining the issues and indicators on which the organization should report and principles for ensuring the quality and appropriate presentation of reported information. The former indicators could be of interest in identifying general values and principles. Transparency is described as a value that underlies all aspects of sustainability reporting. Reporting values mentioned for defining report content are “inclusivity”, “relevance and materiality” and “sustainability context” with guidance for setting boundaries. Only the value of transparency is considered of sufficient interest to be included into the set of values as presented in Figure 1. The setting of system boundaries is of interest for identifying stakeholders. As a starting point for analysis we set the system boundaries in such a way that they include all stakeholders that are affected in any significant way by the organization performance measured by the Triple Bottom Line. For the work of reviewing the criteria based on sustainability the values from Figure 1 could be used. In Table 3 provide an example of possible criteria.
Table 3  Proposed main criteria based on MBNQA [2006] and Garvare and Isaksson [2001].

<table>
<thead>
<tr>
<th>Proposed main criteria</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leadership for sustainable development</td>
<td>Setting the mission, vision and values corresponding to sustainable development.</td>
</tr>
<tr>
<td>2. Development and deployment of strategy</td>
<td>Strategies are set to comply with economic prosperity, social equity and environmental protection. A systemic thinking is essential.</td>
</tr>
<tr>
<td>3. Stakeholder and stakeholder needs focus</td>
<td>Focus on the most important stakeholders.</td>
</tr>
<tr>
<td>4. Measurement, analysis and knowledge management</td>
<td>Measurement processes track both stakeholder needs and stakeholder satisfaction.</td>
</tr>
<tr>
<td>5. Developing the human resources</td>
<td>Personnel are selected, trained to attain personal excellence.</td>
</tr>
<tr>
<td>6. Process management excellence</td>
<td>Process excellence both in design and results</td>
</tr>
<tr>
<td>7. Organization results</td>
<td>Triple Bottom Line performance measured as the output from the organization process</td>
</tr>
<tr>
<td>8. Stakeholder satisfaction</td>
<td>Triple Bottom Line outcome measured as the stakeholder perception or effects on stakeholders from the output</td>
</tr>
</tbody>
</table>

The further division in the Triple Bottom Line dimensions and possible settings of relative scores are not addressed here. Such an exercise would need to be preceded by a discussion on the principles that should be used, e.g., how the business community currently perceives the importance of different parts of sustainability excellence and should the scores be based on some kind of a consensus process reflecting a compromise of different stakeholder needs – stakeholdercracy?

A customized process of self-assessment and improvement

Self assessment models are generally described by the use of tables and figures of how the different criteria relate - but seldom in relation to any traditional process description. One way of resolving this issue could be to use a process model and relate the different criteria to it. In Figure 4 the main criteria have been located into the process model from Figure 2.
Figure 4  Main criteria from Table 3 related to the generic process model in Figure 2.

Note that criteria No 1 on leadership for sustainable development can refer both to management processes and to management as a resource. The resource component could consist of culture and basic values documented in policies. Similarly the Milieu as resources denotes the resource that the working environment constitutes. The resources described with the nine Ms have been only partly addressed by the main criteria. The question is whether or not these are relevant. The resource of Method could be seen as the management system resource. The Method resource would relate to Chapter 4 in ISO 9001. The M of Material has to do with the systems that guide purchase and the process input, which is section 7.4 in ISO 9001.

The other main chapters of ISO 9001 also fit into the process model; however, the Ms of Machine, Money and Milieu are not evident. The level of the Machine resource consisting of the equipment and premises plays an important role in performance and is quite often in focus during investment discussions. The Money resource applies to financial strength. An organization with good financial resources should have a better chance to assure and improve process performance. Even if there is not a perfect fit with the process model the MBNQA and ISO 9001 criteria all the Ms are included in the model at this stage.

**An iterative self assessment process**

Our work suggests that a self assessment process should be fully integrated with the organizations business planning process, preferably to a stage of SWOT-analysis. In order to make effective use of improvement resources the organization should focus on those areas that are in most need of attention. Therefore, the self assessment could start with an identification of current stakeholders and their needs. Stakeholder needs could be seen as both advocated needs and justified needs. Here, organization policy should serve as guidance. Identifying priorities for different stakeholder needs using outcome indicators should help to identify main output parameters. The parameters identified are then used to detect causes in sub-processes and resources, helping to set stakeholder based priorities for the different criteria.

In our proposal the criteria would be assessed using the five-level maturity scale in ISO 9004 Annex A - see Table 4. Even if this is only a coarse assessment it should give a good first approximation of the level of the criteria. Such an assessment would preferably be conducted in
a consensus meeting to improve accuracy. A high priority area would be indicated by the combination of a low score and an indication of a relation to an identified stakeholder need.

Table 4  The maturity scale of ISO 9004; Annex A.

<table>
<thead>
<tr>
<th>Maturity level</th>
<th>Performance level</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No formal approach</td>
<td>No systematic approach evident, no results, poor or unpredictable results.</td>
</tr>
<tr>
<td>2</td>
<td>Reactive approach</td>
<td>Problem- or corrective-based systematic approach; minimum data on improvement results available.</td>
</tr>
<tr>
<td>3</td>
<td>Stable formal system approach</td>
<td>Systematic process-based approach, early stage of systematic improvements; data available on conformance to objectives and existence of improvement trends.</td>
</tr>
<tr>
<td>4</td>
<td>Continual improvement approach</td>
<td>Improvement process in use; good results and sustained improvement trends.</td>
</tr>
<tr>
<td>5</td>
<td>Best-in-class performance</td>
<td>Strongly integrated improvement process; best-in-class benchmarked results demonstrated.</td>
</tr>
</tbody>
</table>

The suggested five step process of implementation is presented in Figure 5. The intention of this BEM is as a tool for use by management groups in the early stage of their business planning process. Specific aims include quickly placing significant problems high on the agenda, creating a common terminology and creating a unified picture among the persons involved, acting as a prognostic tool, facilitating the prioritization of improvement efforts and assisting analysis and documentation of results.

| Step 1: Individually, define and rank your stakeholders. (1 = most important) | Step 2: Evaluate individually your organization using the process-based criteria-model and the maturity scale. | Step 3: Discuss your findings during a consensus meeting with your management team. | Step 4: Define improvement opportunities based on the maturity-levels and impact on stakeholders. | Step 5: Improve, control and follow up results. |

Figure 5  The suggested process of self-assessment and improvement.
Conclusions and discussion

The successful use of BEMs requires effective deployment of basic quality-related values within the organization. On the basis of these values, methodologies and tools a commitment to improvement can be developed and implemented. Every organization needs to find methodologies and tools that support its values when working at different levels of charge.

We are of the view that one explanation of the problems of disseminating the SIQ-model has been its overly secretive character. This was confirmed by the case studies that revealed that an unnecessary complication had been introduced by making the names of all participants secret; something that seemed to create a gossiping mentality among many of the examiners. This creative curiosity could most probably have been used in a better way.

BEMs are used internationally, but culture, norms and values differ considerably between countries, and over time regarding, for example, decision making, organization hierarchy, transparency, individualism vs. collectivism, empowerment vs. control and standardization vs. innovation - see Harnesk [2006]. A study by Eskildsen et al., [2001] revealed that Danish companies are not at all in alignment with the official weights that EFQM places on different criteria. Whether or not the values of the model coincide with those of the organization is a fundamentally important question that has yet to be satisfactorily addressed.

The methodology used for this study has been that of action research in combination with literature surveys. However, despite its limitations, we believe our study presents both a number of interesting observations on BEMs and offers useful suggestions for their more effective use. The objects of the case studies were selected mainly because of their systematic improvement work and the presence of examples of the application of methodologies and tools to strengthen organization values and performance.

Organizations considering the use of BEMs need to have strong long-term commitment. Participating in a quality award process only once seems to be an ineffective use of resources. From the first time one participates in an award process one mainly learns the craft. Often benefits cannot be measured until a second participation. Of vital importance is the completion of as many as possible of the improvement projects soon after the application.
References


EFQM. 1996, Self-Assessment - Guidelines for companies, Brussels: European Foundation for Quality Management


PAPER 3

Hallencreutz, J. (2008),
Process models for accelerating change.
The International Journal of Knowledge, Culture and Change management, vol 8
Process based System Models for Accelerating Change: Results from an Explanatory Multiple Case Study

Jacob Hallencreutz
Process based System Models for Accelerating Change: Results from an Explanatory Multiple Case Study

Jacob Hallencreutz, Stockholm, Sweden

Abstract: The working hypothesis in this paper is that systems thinking captured in a process based system model can help organisations to accelerate change. To test this hypothesis I have conducted a case study looking at three cases from different areas: a state authority case, a case from the construction industry and a case from the food industry. This work is a result of an academic follow up of several years of consultancy work in the organisations studied. The results indicate that implementation of a system model focusing on processes, resources and a multiple stakeholder perspective aids management to accelerate change. However, the results also indicate that there are other more crucial success factors than the model as such. Key success factors seem to be: Strategic clarity, management decisiveness and perseverance.

Keywords: Change Management, Process Orientation, Systems Thinking

Introduction

In a survey conducted by The Economist Intelligence Unit (2008) 58% of 600 senior executives in Europe and US respond that less than half of their change initiatives have been successful. Haines et al (2005) claim that approximately 75% of all major change initiatives fail to fully meet their objectives - and this is happening in a global environment where the need for rapid change is urgent. The American consultant and researcher Greg Hackett has studied the development of 3 000 companies during 40 years, from 1960 to 2000 (Hackett, 2006). He found that two thirds of these companies had lost their position in the market or disappeared. The reason for this, according to Hackett, is that many leaders are stuck in strategic and structural thinking from a time when competition and market conditions were different. He calls for a new organizational paradigm, where survivability, flexibility and systems thinking are key success factors. Kotter (1996) also asserts the importance of corporate adaptability. A need for change is not always predictable, and in the modern world, it will be necessary for organizations to remain flexible and ready to implement change. However, there are many perspectives in organizational change. Kotter claims that whenever human communities are forced to adjust to shifting conditions, resistance is ever present. He affirms that future organizations must possess certain fundamentals if they intend to survive in the 21st century. One such trait is a distinct sense of urgency. According to Kotter, the organizational structure as such may hamper this sense of urgency by causing employees to focus on narrow functional goals of the department they are involved in, rather than establishing systems thinking and a sense of contribution to the overall performance of the business. An employee may feel successful with their personal work and fail to realize that the performance of the company is declining.

Systems thinking is according to Haines et al (2005) a shift from seeing elements, functions and events to seeing processes, structures, relationships and outcomes, based on a holistic process approach to reality. As seems to be the case with most scientific fields, systems thinking has a very long history. With the publication of Wiener’s work on cybernetics (1948) and von Bertalanffy’s on general system theory (1950, 1968) the systems approach began developing into a more distinctive area of research. Jackson (2000) argues that three core system notions still remain and are held in common by the different tendencies in system thinking:

- Holism – to look at the world in terms of larger wholes rather than reducing it into its fundamental elements
- Knowledge is organized into cognitive systems, i.e. structured frameworks that links various elements of our knowledge into cohesive wholes
- Systems approaches have a strong resonance with real-world problems and practice.

A systems approach on an organizational level could possibly lead to an increased management focus on the horizontal multifunctional processes, which deliver value to customers and other stakeholders, for instance product development, customer service, manufacturing, sales, procurement or business control, instead of vertical functions of a hierarchical organization. But it could be argued that most organ-
izations still run their business through functionally oriented structures—a legacy of the industrialization era in the beginning of the 20th century. In small enterprises few people could manage all tasks and operations without complicated internal structures. When the organizations expanded, it became necessary to delegate roles and responsibilities.

In a time when speed and flexibility are success factors in a global competition, my experience is that this kind of vertical structure is becoming more and more dysfunctional. It can lead to lack of holistic thinking, “departmentalization” and internal focus instead of customer orientation. Other possible consequences are constraints in internal information flows, lack of mutual understanding and lack of shared views which can lead to conflicts and “us-and-them”-thinking (Stigendahl & Johansson, 2003).

Palmberg (2008) finds two different movements in the descriptions of process management in the covered literature:

1. Process management for single process improvements—a structured approach to analyze and continually improve individual processes.
2. Process management for systems management—a holistic way to manage several aspects of the business and as a valuable perspective to adopt in determining organizational effectiveness.

Hellström (2006) argues that the academic way of defining business processes has turned out to be problematic to apply in practice and it could be claimed that deployment of a process approach has been slow. According to Rentzhog (1996), the implementation of process management includes both structural and cultural changes to the organization. Based on a survey, Forsberg et al. (1999) state that the expectations when implementing a process approach are unreasonably high. In a study of quality award recipients in Sweden, Hansson (2003) found that many small organizations perceive work with process management to be problematic. Implementing processes appears to be rather demanding: “In practice, however, the process approach seems difficult to understand and to put into action” (Rentzhog, 1996 p. 13). Why do many change initiatives involving process management run into problems? DeToro & McCabe (1997) state that a change towards process management requires, not just the use of a set of tools and techniques, but a change in management style and way of thinking. Through a literature review of the area of process management, Hellström & Peterson (2005) conclude that the literature is foremost built on theoretical reasoning, resulting in a large number of checklists on how-to-do. Furthermore, they argue that there is a lack of empirical research of the effects of process management. Hellström & Peterson (2005) believe that despite a decade of experience of practicing process oriented management, certain fundamental problems still beset its successful application and causes practitioners concern.

This leads to the idea that improved systems thinking visualized in a process based system model could maybe improve readiness and support management teams in the execution of change.

**Research Methodology**

The working hypothesis in this paper is that systems thinking captured in a process based system model can help organizations to accelerate change. Being a practitioner and a management consultant, it is fair to say that my research interest is mainly driven by an urge to better understand problems and challenges in my professional life and hopefully contribute to a broader understanding in the field of change management and process management based on systems thinking.

From 2002 to 2006 I worked with the studied organizations on implementing a process based system model (presented in Figure 1) in order to improve systems thinking and help management to reach change objectives. In spring 2007 I conducted a first case study (Hallencreutz et al, 2007). One year later I conducted a follow-up to track the long term impact of the adopted process based system model. The outcome of the second study is presented in this paper.

For this research I chose the following three organizations. The criteria for choosing these organizations were:

- Representation from different areas (public and private, service and manufacturing)
- Similar change objectives and process based approach
- Management interest in change management
- Long term relationships (3-6 years)

---

1 The studied organisations need to remain anonymous due to non-disclosure agreements.
Table 1: Studied Organizations

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Staff</th>
<th>Mission</th>
<th>Change Drivers</th>
<th>Change Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case A: State agency</td>
<td>App 500</td>
<td>Responsible for regulation and surveillance of the development, manufacturing and marketing of products (within a certain market).</td>
<td>Need for increased internal efficiency, Competition within the EU-system, New legislation</td>
<td>Implement a process based system model to improve performance. Period: 2002-2004</td>
</tr>
<tr>
<td>Case B: Construction company</td>
<td>App 100</td>
<td>A fast growing company, focusing on acquisition of land and construction of residential buildings</td>
<td>Fast growth, Need for internal structures and procedures</td>
<td>Implement a process based system model to improve performance. Period: 2004-2006</td>
</tr>
<tr>
<td>Case C: Food industry company</td>
<td>App 100</td>
<td>The company is responsible for marketing, selling, producing and delivering certain foodstuffs.</td>
<td>Nr 4 in the market, Need for growth and increased internal efficiency</td>
<td>Implement a process based system model to improve performance. Period: 2004-2006</td>
</tr>
</tbody>
</table>

The change projects in all above presented organizations were based on a commercial process based system model including implementation steps². To understand how the change projects were executed, the model and implementation steps are briefly presented below.

The model is built on process management theory, see for instance Egnell (1995), Isaksson (2006), Bergman & Klefsjö (2003) around the organization’s main processes, management processes and support processes. The model also to some extent complies with the criteria for a formal system presented by Checkland (1985):

1. An on-going purpose or mission
2. A measure of performance
3. A decision making process
4. Components which are themselves systems
5. Components that interact
6. An existence in a wider system with which it interacts
7. A boundary for the decision making process
8. Resources
9. Some guarantee of continuity.

A system implementation process follows six steps (executed in the studied organizations) inspired by Kotter’s (1996) eight-stage process for implementing change.

² For further information, see www.implement.se
Step 1: Set change objectives
The first step is to create a sense of urgency, stakeholder focus and set tangible change objectives in the management team.

Step 2: Define the strategic process map
The defining of the strategic process map is a top-down process. The management team discusses and answers at set of questions around the above presented general process chart (based on the model in Figure 1). The questions are:

1. Do we know our customers? Do we know their demands, needs and expectations? Do we know our other important stakeholders?
2. Which is our most important value creating main process? Input? Outcome? Crucial interactions, activities and events?
3. How do we secure the fulfilment of our stakeholders’ demands, needs and expectations? How do we measure performance?
4. Do we know our management processes? Chain of command? Balance between functions and processes?
5. Support and service to the main processes?

The outcome of the work in the management team is documented in the organization’s “strategic process map” which sets the framework for next step. Another important outcome is a shared view in the management team of the organization as a system.

Step 3: Diagnosis and analysis
Strategically important improvement areas are defined by the management team and a well defined set of process analysis projects are launched. The projects are carried out in multi-functional teams, always linked to the strategic process map and decided change objectives.

Step 4: Set improvement potential
The project analysis projects map the chosen processes in detail and identify bottle-necks, constraints, waste, overlapping, unclear responsibilities, poor communication etc.

Step 5: Implement process management
The defined and analyzed processes are linked to the strategic process map and a process owner is assigned. Identified, prioritized and decided improvement projects are launched.

Step 6: Measure, control and improve
Process performance indicators are linked to the organization’s performance measurement system. The management tracks the process performance and takes action if the change objectives are not reached.

Being a researcher assessing the results of my own consultancy assignments, I have to apply an open minded yet critical approach to my empirical observations. Gummesson claims that (2000, s 25) “access to reality is the researcher’s number one problem”. The quality of collected data depends on the researcher’s and the informant’s relationship, background, position, competence, feeling, interests etc. Yin (2003, p 34) has defined four crucial quality aspects in case study research: Construct validity, Internal validity, External validity and Reliability. In Table 2 I outline how I have adopted these quality aspects.

<table>
<thead>
<tr>
<th>Crucial Quality Aspect</th>
<th>My Adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct validity: establishing correct operational measures for the concepts being studied.</td>
<td>To accomplish trustworthy construct validity, I have adopted a well established business excellence model (the SIQ-model1) as an assessment tool (see Figure 2).</td>
</tr>
<tr>
<td>Internal validity: establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.</td>
<td>To accomplish trustworthy internal validity, I use data, investigator and theory triangulation to secure relationships. For instance, assessment results are compared with management interviews about the use of the process based system model.</td>
</tr>
<tr>
<td>External validity: establishing the domain to which a study’s findings can be generalized.</td>
<td>It is possible, but not certain that case study results can be generalized (Yin, 2003). However, multiple cases enforce the possibility to generate general conclusions and knowledge (Andersen, 1998).</td>
</tr>
<tr>
<td>Reliability: demonstrating that the operations of a study – such as the data collection procedures – can be repeated, with the same results.</td>
<td>To accomplish trustworthy reliability, I have used documented data collection procedures that can be repeated.</td>
</tr>
</tbody>
</table>

1 SIQ, The Swedish Institute for Quality, www.siq.se
The data collection period started in spring 2007 and was completed one year later. The sources of evidence have been documentation, archival records, interviews, direct observations as well as physical artefacts.

To ensure construct validity and minimize risk for bias and subjective conclusions, I chose to use a well established business excellence model based on a set of core values in line with Total Quality Management (TQM)-principles as a means to assess the development of operational excellence in the studied organizations and track if the process based system model has had any tangible impact on the business results. Bergman & Klefsjö (2003) describe TQM as a constant endeavor to fulfill and preferably exceed, customer needs and expectations at the lowest cost, by continuous improvement work, to which all involved are committed, focusing on the processes in the organization. However, how to objectively evaluate operational excellence could well be a topic for future study. Here I lean on the fact that research has shown that Swedish organisations successfully working with TQM-principles, such as customer focus and process orientation, reach better results than the general index (Hansson & Eriksson, 2003).

The business excellence model used in this study is divided in seven criteria, with sub criteria (SIQ, 2007). The seven criteria are internally and externally assessed against a set of developed systems maturity levels (Garvare, et al, 2007).

![Figure 2: SIQ-Model Criteria](image)

![Figure 3: System Maturity Levels](image)

A “Level 5 organization” can be seen as a system operating on a high level of excellence, showing best in class results in every aspect of every criterion, including a high degree of systems thinking. A “Level 1 Organization” is an immature system with great improvement potential. A move from low score to a high score indicates that the organization has improved its performance, and vice versa. A wide spread in scores suggests that the organization is fragmented. By letting representatives from the studied organizations perform a self assessment twice (spring 2007 and 2008), the results indicate how the change initiatives are proceeding. Further longitudinal studies would provide more stable results, and these assessments could well be done again in years to come.
The assessment output has been triangulated with output from other sources of evidence such as interviews with management representatives, archival records and results from other surveys.

Results from Case Studies

The data collection period started in spring 2007 and was completed one year later. The first internal and external assessment was performed in May 2007, the follow-up assessment was done in June 2008. Other sources of evidence used to challenge the assessment output have been documentation, archival records, interviews, direct observations as well as physical artefacts. These sources (and a vast amount of data not displayed in this paper) were individually analyzed and assessed per criterion in spring 2007 (Hallencreutz et al, 2007). The findings are summarized in Table 3.

Table 3: Summary of Findings. All Cases are based on the Seven main Criteria in the SIQ-Model

<table>
<thead>
<tr>
<th>Criterion</th>
<th>State Authority</th>
<th>Construction Company</th>
<th>Food Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leadership</td>
<td>A state authority is governed by legislation and regulations which have influenced the management culture in Case A. A shift towards a more service and process oriented management style is ongoing.</td>
<td>The construction company is driven by an entrepreneurial spirit. The management style is informal and action oriented. New processes for planning, measuring and follow-up have been implemented.</td>
<td>The division director (with background from the car industry) introduced a management style influenced by classic TQM-principles such as customer focus, process orientation, empowerment and holistic thinking.</td>
</tr>
<tr>
<td>2. Performance measurement</td>
<td>The authority has implemented a balanced performance measurement system tracking economy, process efficiency, quality and HR.</td>
<td>The company has worked out what they describe as an “economy handbook”. The measurement system is mainly focusing on economic results, but the implementation of a more balanced measurement system is in process. Staff motivation and satisfaction and customer satisfaction is tracked on a regular basis.</td>
<td>Conceptual work on a new performance measurement system was done, but not implemented. The current performance measurement system was built up around a set of traditional productivity indicators.</td>
</tr>
<tr>
<td>3. Strategic planning</td>
<td>The authority has since many years fully adopted a business planning tool (Lots® - a structured process for customer and stakeholder driven business development).</td>
<td>The company has implemented planning processes including procedures for: • strategy and budget planning • forecasting • strategic and operational business control</td>
<td>The division director launched a new strategic platform and a business planning process was developed and implemented.</td>
</tr>
</tbody>
</table>
### 4. Staff involvement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>The change project was run by a multifunctional approach and well anchored</td>
<td>The company is tracking staff satisfaction. In 2007 the following areas were scored as</td>
</tr>
<tr>
<td>in the organization via several internal conferences.</td>
<td>crucial:</td>
</tr>
<tr>
<td></td>
<td>• The process management system</td>
</tr>
<tr>
<td></td>
<td>• Cooperation with other functions</td>
</tr>
<tr>
<td></td>
<td>• Seeing the whole improvement areas were</td>
</tr>
<tr>
<td></td>
<td>customer focus, leadership and internal order.</td>
</tr>
</tbody>
</table>

4. Staff involvement The authority has since many years carried out internal surveys to keep track of staff satisfaction and motivation. In the year 2006 survey the following areas scored high:  
• I am proud of our organization.  
• I fully understand the authority’s mission.  
• I do my best to contribute to an open cooperative climate.  
• I fully understand the objectives of my department.

### 5. Business processes

<table>
<thead>
<tr>
<th>Statement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>The annual report of 2005 reports a 30% raise in productivity.</td>
<td>The company has defined a strategic process map according to the adopted process based</td>
</tr>
<tr>
<td></td>
<td>system model. Detailed standard operating procedures are accessible to all via the internal</td>
</tr>
<tr>
<td></td>
<td>web. Process owners are assigned and spend 10-50% of their time on process improvement.</td>
</tr>
<tr>
<td>The project defined a strategic process map which was not properly anchored</td>
<td>The process map is the framework of the company's quality management system. Process</td>
</tr>
<tr>
<td></td>
<td>owners are assigned, but do not spend enough time on process improvement. A dedicated</td>
</tr>
<tr>
<td></td>
<td>development manager was recruited in January 2008.</td>
</tr>
</tbody>
</table>

5. Business processes The authority has implemented the process based system model and has defined a strategic process map. Detailed standard operating procedures are accessible to all via the internal web. Process owners are assigned and spend 10-50% of their time on process improvement.

### 6. Business results

<table>
<thead>
<tr>
<th>Statement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>The business has in three years grown from 35 employees to 100.</td>
<td>The business has grown from 35 employees to 100.</td>
</tr>
<tr>
<td></td>
<td>The turnover has during the same period grown from 150 MSEK to 1,000 MSEK (about 100M</td>
</tr>
<tr>
<td></td>
<td>Euro), with stable profitability.</td>
</tr>
<tr>
<td></td>
<td>During 2004-2006 the business result improved, but has now declined.</td>
</tr>
</tbody>
</table>

6. Business results The annual report of 2005 reports a 30% raise in productivity. In May 2006 a peer review was carried out by external auditors from EU. The review concluded that the authority has a “systematic process approach, good results and positive trends”.

### 7. Customer satisfaction

<table>
<thead>
<tr>
<th>Statement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company tracks customer satisfaction through surveys and scores</td>
<td>The company tracks customer satisfaction through surveys and scores stable results.</td>
</tr>
<tr>
<td></td>
<td>results.</td>
</tr>
<tr>
<td></td>
<td>During the period of the change project the division gained market shares in strategically</td>
</tr>
<tr>
<td></td>
<td>important segments. In this case study, I have not had access to customer satisfaction</td>
</tr>
<tr>
<td></td>
<td>surveys.</td>
</tr>
</tbody>
</table>

7. Customer satisfaction Traditional customer satisfaction surveys are not carried out on a regular basis. There is an ongoing formal and informal dialogue with the “Industry”. Other stakeholders report that they are satisfied with the authority’s performance.

Representatives from the organization carried out a self assessment assisted by the author in 2007 and again in 2008. The results of the internal and external assessments of the seven criteria are explicitly resumed and commented below. In Figures 5 to 7, the results are presented based on the scale in Figure 3.
The State Authority assessment results in Figure 5 indicate an even score between the external and internal assessments in 2007 and a mark up in the self assessment score 2008. These results indicate that the organization has put an effort in a broad based systems approach instead of boosting certain areas. An observation is that criteria 4 “Staff Engagement” is the only criteria where no improvement seems to have taken place. This might indicate that the process based system model still is mainly a top management tool and not a widespread part of the culture. The overall improvement suggests that the adopted process based system model has helped the organization to achieve better results.

The construction company assessment in Figure 6 shows a spread of scores both between the external and internal assessments in 2007 and the self assessment score 2008, which could indicate that the organization is still searching for direction and systematic management approaches. Some criteria score higher in 2008, others lower. There is no improvement trend between the years and the overall picture suggests that the adopted process based system model has not significantly helped the organization to achieve better results. The organization seems to be “stuck in the middle”. An interpretation could be that the management team seems to have put some effort in improving performance measurement and strategic planning.
(criteria 2 and 3), which might lead to a better systems impact in the future. Here, further investigations are needed.

The food industry case assessment in Figure 7 shows a gap between our external assessment and the internal assessment carried out in 2007. Here, we might see an example of what according to Kotter (1996) happens when managers measure themselves and the performance of others against low standards: the self assessment score in this case is more positive compared to the external which might indicate that there was no real sense of urgency in this organization. The division director left and I lost contact with the organization in 2007. A renewed self assessment was never done and in this case the adopted process based system model seems to have had no persistent impact.

Taking these findings back to the studied organizations, I have discussed the adoption of the process based system model, the outcome of the change projects and critical success factors in the acceleration of change with management representatives of all cases. The result of these discussions is resumed in the following ranked short list of success factors, based on my earlier study, Hallencreutz et al (2007):

1. Strategic clarity – direction and clear long term objectives
2. Decisiveness in top management – A sense of urgency
3. Perseverance – To stand the distance
4. Multifunctional involvement – Teamwork and horizontal thinking
5. Down-to-earth methodologies – Keep it simple
6. Customer focus (“the mission”) – Remember why we are here
7. Integrated control systems – Focus on the vital few indicators
8. Process measurements – You can’t manage without facts

Conclusion

This multiple case study does not unambiguously show that the adoption of a process based system model as such helps top management to accelerate change initiatives. Empirical data as well as internal and external assessments indicate that Case A – the state agency – has reached “Level 4” in the self assessment model and can be seen as successful in executing change. The assessment score shows a positive mark up between 2007 and 2008. Management representatives claim that the choice of the Implement model was a successful approach. Case B – the construction company – seems to be “stuck in the middle”, struggling with some fundamental problems and shows no clear direction in terms of improved system maturity. A new managing director is in place, and respondents ask for a more decisive and aligned management team. Case C – the food industry company – is a failure due to the absence of management commitment. A major reason was that the division director left his assignment. According to Yin (2003) it is possible, but not certain that case study results can be generalized. However, a general conclusion could be that the Implement model itself presented in Figure 1 could provide enough thrust to accelerate change, but there is not enough empirical evidence in this study to prove it.
The ranking of success factors looks the same in all three cases. Another finding is that the implementation steps in the commercial model as well as above ranked success factors align to some extent to existing change management concepts such as Kotter’s (1996) eight-stage process.

### Table 4: Alignment between Kotter (1996), the Implement Model and Identified Success Factors

<table>
<thead>
<tr>
<th>Kotter’s Eight Stages</th>
<th>The Commercial Implementation Steps used in the Cases</th>
<th>Identified Success Factors</th>
</tr>
</thead>
</table>
| 1. Establishing a sense of urgency | Step 1: Set change objectives | • Strategic clarity – direction and clear long term objectives  
                                 |                           | • Decisiveness in top management – A sense of urgency |
| 2. Creating the guiding coalition | Step 1: Set change objectives | • Decisiveness in top management – A sense of urgency  
                                 |                           | • Perseverance – To stand the distance  
                                 |                           | • Multifunctional involvement – Teamwork and horizontal thinking |
| 3. Developing a vision and a strategy | Step 1: Set change objectives  
                                 | Step 2: Define the strategic process map | • Strategic clarity – direction and clear long term objectives  
                                 |                           | • Customer focus (“the mission”) – Remember why we are here  
                                 |                           | • Integrated control systems – Focus on the vital few indicators |
| 4. Communicating the change vision | Step 2: Define the strategic process map | • Multifunctional involvement – Teamwork and horizontal thinking  
                                 |                           | • Down-to-earth methodologies – Keep it simple |
| 5. Empowering broad-based action in the organisation | Step 3: Diagnosis and analysis  
                                 | Step 4: Set improvement potential  
                                 | Step 5: Implement process management | • Multifunctional involvement – Teamwork and horizontal thinking  
                                 |                           | • Down-to-earth methodologies – Keep it simple |
| 6. Generating short-term wins | Step 3: Diagnosis and analysis  
                                 | Step 4: Set improvement potential  
                                 | Step 5: Implement process management | • Integrated control systems – Focus on the vital few indicators |
7. Consolidating gains and producing more change
Using increased credibility to change all systems, structures and policies that don’t fit together and that don’t fit the change vision.
Recruiting, promoting and developing people who can implement the change vision.
Strengthening the process with new projects, themes and change agents.

Step 5: Implement process management
Step 6: Measure, control and improve

7. Consolidating gains and producing more change
• Integrated control systems – Focus on the vital few indicators
• Process measurements – You can’t manage without facts
• Perseverance – To stand the distance

8. Anchoring new approaches in the culture
Creating better performance through customer- and productivity-oriented behaviour, more and better leadership and more effective management.
Clarifying the connections between new behaviours and organisational success.
Developing means to ensure leadership development and succession.

Step 6: Measure, control and improve

Based on studies on the global cement industry, Isaksson (2006) presents a process based system model that can be used for describing vital organizational elements as well as a critical review of process definitions and definitions for process and systems management. The Isaksson-model complies with the criteria for a formal system presented by Checkland (1985), see Table 8.

Table 5: Compliance with Formal System Criteria

<table>
<thead>
<tr>
<th>Formal System Criteria (Checkland, 1985)</th>
<th>Adopted Process based System Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>An on-going purpose or mission</td>
<td>To transform customer needs to value and results</td>
</tr>
<tr>
<td>A measure of performance</td>
<td>Results (customer, process, finance, HR)</td>
</tr>
<tr>
<td>A decision making process</td>
<td>Strategic processes</td>
</tr>
<tr>
<td>Components which are themselves systems</td>
<td>Sub processes</td>
</tr>
<tr>
<td>Components that interact</td>
<td>Needs, processes and results</td>
</tr>
<tr>
<td>An existence in a wider system with which it interacts</td>
<td>Interacts with customers and other stakeholders</td>
</tr>
<tr>
<td>A boundary for the decision making process</td>
<td>Defined management processes</td>
</tr>
<tr>
<td>Resources</td>
<td>Not clearly defined</td>
</tr>
<tr>
<td>Some guarantee of continuity.</td>
<td>Results give feedback</td>
</tr>
</tbody>
</table>

Discussion
The working hypothesis in this paper has been that systems thinking captured in a process based system model can help organisations to accelerate change. However, my findings indicate that the Implement model and implementation steps itself do not provide enough thrust to accelerate change. This insight raises some questions. Does the model lack vital principles, methodologies and tools? Did I do a poor job as a management consultant? Did top management do a poor job? Are there other crucial economical, cultural and environmental differences between the studied organizations?

An important observation is that the adopted process based system model that could be seen as a tool box comes only in fifth place in the ranking list –
other aspects such as a dedicated top management and clear strategic objectives are more vital success factors in accelerating change. Yet another reflection is that none of the managers in my follow-up discussions talk about the need for “systems thinking”, although some of them stress that the Implement model supported them in “seeing the whole”. Could it be that successful leaders are “systems thinkers” by heart? Could it be that systems thinking is more of a management principle that cannot be captured in an instrumental model? Or could it maybe be captured as a management resource in an improved process based system model?

1. Strategic clarity – management competence as a resource
2. Decisiveness in top management – management competence
3. Perseverance – management competence
4. Multifunctional involvement – organizational structure or the method of management, process focus
5. Down-to-earth methodologies – methods of work as part of the competence resource
6. Customer focus (“the mission”) – clarity of mission which is a result of management communication
7. Integrated control systems – Measurement system as a resource
8. Process measurements – Measurement system as a resource

The assessment of the used model indicates that there are areas to be improved in the model as such.

My research interest is mainly driven by an urge to better understand problems and challenges in my professional life and hopefully contribute to a broader understanding in the field of change management and process management based on systems thinking. This study reflects the early stages of my research journey and might not fully stand a thorough academic scrutiny. Yet, I believe it has uncovered some interesting areas for further research such as:

- Extended longitudinal studies in these three cases to find the root causes
- Conceptual development of process based system models and implementation steps
- Deeper analysis of the indicated success factors in change management

References
Bergman, B. & Klefsjö, B. (2003), *Quality from customer needs to customer satisfaction*, Studentlitteratur


The Economist Intelligence Unit (2008). A change for the better – Steps for successful business transformation, The Economist Intelligence Unit Ltd


About the Author

Jacob Hallencreutz

Sweden
EDITORS
Mary Kalantzis, University of Illinois, Urbana-Champaign, USA.
Bill Cope, University of Illinois, Urbana-Champaign, USA.

EDITORIAL ADVISORY BOARD
Verna Allee, Verna Allee Associates, California, USA.
Zainal Ariffin, Universiti Sains Malaysia, Penang, Malaysia.
Robert Brooks, Monash University, Melbourne, Australia.
Bruce Cronin, University of Greenwich, UK.
Rod Dinnutt, William Bethway and Associates, Melbourne, Australia.
Judith Ellis, Enterprise Knowledge, Melbourne, Australia.
Andrea Fried, Chemnitz University of Technology, Germany.
David Gurteen, Gurteen Knowledge, UK.
David Hakken, University of Indiana, Bloomington, Indiana, USA.
Sabine Hoffmann, Macquarie University, Australia.
Stavros Ioannides, Pantion University, Athens, Greece.
Margaret Jackson, RMIT University, Melbourne, Australia.
Paul James, RMIT University, Melbourne, Australia.
Leslie Johnson, University of Greenwich, UK.
Eleni Karantzola, University of the Aegean, Rhodes, Greece.
Gerasimos Kouzelis, University of Athens, Greece.
Krishan Kumar, University of Virginia, USA.
Martyn Laycock, University of Greenwich and managingtransitions.net, UK.
David Lyon, Queens University, Ontario, Canada.
Bill Martin, RMIT University, Melbourne, Australia.
Pumela Mswell-Mbangi, University of KwaZulu-Natal, South Africa.
Claudia Schmitz, Cenandu Learning Agency, Germany.
Kirpal Singh, Singapore Management University, Singapore.
Dave Snowden, Cynefin Centre for Organisational Complexity, UK.
Chryssi Vitsilakis-Soroniatis, University of the Aegean, Rhodes, Greece.

THE UNIVERSITY PRESS JOURNALS

International Journal of the Arts in Society
Creates a space for dialogue on innovative theories and practices in the arts, and their inter-relationships with society.
ISSN: 1833-1866
http://www.Arts-Journal.com

International Journal of the Book
Explores the past, present and future of books, publishing, libraries, information, literacy and learning in the information society.
ISSN: 1447-9567

Design Principles and Practices: An International Journal
Examines the meaning and purpose of ‘design’ while also speaking in grounded ways about the task of design and the use of designed artefacts and processes.
ISSN: 1833-1874

International Journal of Diversity in Organisations, Communities and Nations
Provides a forum for discussion and builds a body of knowledge on the forms and dynamics of difference and diversity.
ISSN: 1447-9583

International Journal of Environmental, Cultural, Economic and Social Sustainability
Draws from the various fields and perspectives through which we can address fundamental questions of sustainability.
ISSN: 1832-2077
http://www.Sustainability-Journal.com

Global Studies Journal
Maps and interprets new trends and patterns in globalization.
ISSN 1835-4432

International Journal of the Humanities
Discusses the role of the humanities in contemplating the future and the human, in an era otherwise dominated by scientific, technical and economic rationalisms.
ISSN: 1447-9559

International Journal of the Inclusive Museum
Addresses the key question: How can the institution of the museum become more inclusive?
ISSN 1835-2014

International Journal of Interdisciplinary Social Sciences
Discusses disciplinary and interdisciplinary approaches to knowledge creation within and across the various social sciences and between the social, natural and applied sciences.
ISSN: 1833-1882

International Journal of Knowledge, Culture and Change Management
Creates a space for discussion of the nature and future of organisations, in all their forms and manifestations.
ISSN: 1447-9575

International Journal of Learning
Sets out to foster inquiry, invite dialogue and build a body of knowledge on the nature and future of learning.
ISSN: 1447-9540

International Journal of Technology, Knowledge and Society
Focuses on a range of critically important themes in the various fields that address the complex and subtle relationships between technology, knowledge and society.
ISSN: 1832-3669

Journal of the World Universities Forum
Explores the meaning and purpose of the academy in times of striking social transformation.
ISSN 1835-2030

FOR SUBSCRIPTION INFORMATION, PLEASE CONTACT
subscriptions@commonground.com.au