Vaasan yliopisto
UNIVERSITY OF VAASA

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Construction of an Institutionally Aware Process-Oriented Performance Measurement System

A Case Study of a Finnish Local Government

ACTA WASAENSIA 294

BUSINESS ADMINISTRATION 118
ACCOUNTING AND FINANCE

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Julkaisija	**Julkaisupäivämäärä**	
Vaasan yliopisto	Helmikuu 2014	
Tekijä(t) Lars E. Palmroos	**Julkaisun tyyppi** Monografia	
	Julkaisusarjan nimi, osan numero Acta Wasaensia, 294	
Yhteystiedot Vaasan yliopisto Kauppatieteellinen tiedekunta Laskentatoimi ja rahoitus PL 700 65101 Vaasa	**ISBN** 978–952–476–512–1 (nid.) 978–952–476–513–8 (pdf)	
	ISSN 0355–2667 (Acta Wasaensia 294, painettu) 2323–9123 (Acta Wasaensia 294, verkkojulkaisu) 1235–7871 (Acta Wasaensia. Liiketaloustiede 118, painettu) 2323–9735 (Acta Wasaensia. Liiketaloustiede 118, verkkojulkaisu)	
	Sivumäärä 225	**Kieli** Englanti

Julkaisun nimike
Prosessisuuntautuneen ohjausjärjestelmän rakentaminen institutionaalisesta näkökulmasta – Tapaustutkimus eräässä suomalaisessa kunnassa

Tiivistelmä

Väitöskirjan tavoitteena on tutkia ja rakentaa uusi suorituksen ohjausjärjestelmä julkisen sektorin käyttöön ja testata sitä tieteellisesti. Tutkimuksessa pyritään erityisesti esittämään millaisia ongelmia ja paineita tutkimuskohteessa ilmenee ohjausjärjestelmän rakentamisen ja testauksen yhteydessä. Missä määrin on mahdollista rakentaa prosessijohtamisen, toimintokohtaisen kustannuslaskennan ja tasapainotetun tuloskortin sisältävä ohjausjärjestelmä? Mitkä olisivat sellaisen kolmen ohjausjärjestelmän yhdistelmän edut ja haitat?

Empiirinen osa tutkimuksesta käsittää laajan konstruktiivisen tapaustutkimuksen eräässä suomalaisessa kunnassa. Tutkimuksessa rakennettiin ohjausjärjestelmä mainitulle kunnalle ja samaan aikaan arvioitiin organisaatiota ja muutosprosesseja institutionaalisesta näkökulmasta. Tutkimuksen kohteena olleessa kunnassa kehitetty malli sisältää taloushallinnon funktiot neljällä eri osastolla: rahatoimisto, sosiaali- ja terveydenhuollon osasto, tekninen osasto ja opetusviraston osasto.

Tutkimuksen tulokset ja mallit avaavat uusia näkökohtia tämän alan tutkimukselle ja saattavat myös lisätä ymmärrystä niistä sisäisistä ja ulkoisista institutionaalisista paineista, joilla on merkitystä, kun rakennetaan yhdistettyjä suorituksen ohjausjärjestelmiä julkisen sektorin kontekstissa. Tutkimus osoittaa, että käytännön parannuksia voidaan myös tehdä teoreettisin keinoin ja luotettavalla tavalla yksittäisessä tapaustutkimuksessa, mikäli prosessi hoidetaan huolellisesti. Täten käyttämällä konstruktiivista lähestymistapaa laskentatoimen tutkimuksessa voidaan pienentää aukkoja teorian ja käytännön välillä ja saada aikaan kehitystä johdon strategisessa laskentatoimessa.

Asiasanat
Prosessijohtaminen, toimintokohtainen kustannuslaskenta, tasapainotettu tuloskortti, kunta, implementointi ja institutionaalinen teoria.

Utgivare	**Utgivningstid**	
Vaasan yliopisto	Februari 2014	
Författare Lars E. Palmroos	**Typ av publikation** Monografi	
	Publikationsserie, -nummer Acta Wasaensia, 294	
Kontaktuppgifter Vasa universitet Handelsvetenskapliga fakulteten Redovisning och finansiering PB 700 FI–65101 Vasa, Finland	**ISBN** 978–952–476–512–1 (print) 978–952–476–513–8 (pdf)	
	ISSN 0355–2667 (Acta Wasaensia 294, print) 2323–9123 (Acta Wasaensia 294, online) 1235–7871 (Acta Wasaensia. Företagsekonomi 118, print) 2323–9735 (Acta Wasaensia. Företagsekonomi 118, online)	
	Sidoantal 225	**Språk** English

Publikationens titel
Processorienterad verksamhetsstyrning samt dess utveckling och implementering från ett institutionellt perspektiv – En case-studie i en finsk kommun

Sammandrag
Det övergripande syftet med studien är att forska, utveckla och implementera ett nytt strategiskt styrsystem för den kommunala sektorn samt testa systemet vetenskapligt. Studiens målsättning är framförallt att visa hurudana problem och tryck som uppstår i case-organisationen i samband med utvecklandet och implementeringen av styrsystemet. I vilken utsträckning är det möjligt att implementera ett styrsystem som baserar sig på processtyrning, aktivitetsbaserad kostnadskalkylering och balanced scorecard i en kommun? Vilka fördelar och nackdelar finns med ett styrsystem som består av dessa tre delar?

Den empiriska delen av studien består av en omfattande konstruktiv case-studie i en finsk kommun. I studien utvecklades ett styrsystem för kommunen och samtidigt evaluerades förändringsprocesserna i organisationen från det institutionella perspektivet. I studien utvecklades modeller för de finansiella funktionerna på fyra olika avdelningar: drätselkontoret, social- och hälsovårdssektorn, tekniska sektorn och utbildningssektorn.

Studiens resultat och modeller öppnar nya perspektiv för denna typ av forskningsansats och kan även möjliggöra en bättre förståelse för de institutionella externa och interna tryck som är av betydelse vid utvecklingen av kombinerade strategiska styrsystem inom den kommunala sektorn. Forskningen visar att förbättringar av metoder som används i praktiken kan göras med teoretiska metoder som utgångspunkt, såvida forskningsprocessen görs på ett omsorgsfullt sätt. Genom att använda en konstruktiv forskningsansats kan gapet mellan teori och empiri minskas och det är möjligt att få tillstånd en utveckling av ledningens strategiska interna redovisning.

Nyckelord
Processtyrning, aktivitetsbaserad kostnadskalkylering, balanced scorecard, kommun, implementering och institutionell teori

Publisher	**Date of publication**	
Vaasan yliopisto	February 2014	
Author(s) Lars E. Palmroos	**Type of publication** Monograph	
	Name and number of series Acta Wasaensia, 294	
Contact information University of Vaasa Faculty of Business Studies Accounting and Finance P.O. Box 700 FI–65101 Vaasa, Finland	**ISBN** 978–952–476–512–1 (nid.) 978–952–476–513–8 (pdf)	
	ISSN 0355–2667 (Acta Wasaensia 294, print) 2323–9123 (Acta Wasaensia 294, online) 1235–7871 (Acta Wasaensia. Business Administration 118, print) 2323–9735 (Acta Wasaensia. Business Administration 118, online)	
	Number of pages 225	**Language** English

Title of publication

Construction of an institutionally aware process-oriented performance measurement system – A case study of a Finnish local government

Abstract

The primary aim of this study is to explore and construct a new performance management system for use in a public sector organisation, and to test it. In addition this study is to present the kinds of problems that appear in the construction and testing of the system in a public organisation, and also to examine the possibility of building a seamless connection between three different management accounting tools, *Process Management (PMT), Activity-Based Costing (ABC)* and *Balanced Scorecard (BSC).* Furthermore, the study aims to discover the advantages and disadvantages of such a developed steering system.

The empirical work consists of a constructive longitudinal case study in a Finnish local government. The researcher constructed a steering model in the cited case-study organisation and at the same time, evaluated the organisation and changes in processes from the institutional perspective. The developed model in the case study includes the economic functions in four departments: Finance, Social Services and Health Care, Technical and Education.

The findings and models discussed in this study will open a new path of research that may increase our understanding about the internal and external institutional pressures that play a role in the design of combined performance measurement systems in a public sector context. The study demonstrates that the improvement of praxis can be combined with theoretical development in a credible manner within a single case study, if the research process is handled with care. In this way, using the constructive research approach to research management accounting practices can help to close gap between theory and practice and bring action into management accounting.

Keywords

process management, activity-based costing, balanced scorecard, local government, implementation, and institutional theory

ACKNOWLEDGEMENTS

A doctorate is not only the work of an individual, but is to a great extent a co-operation between other people, working in various organisations connected with the research in question. I have been fortunate in having around me exactly this kind of people, who have encouraged me to realise this "long-term contract". Without their support, completing this project would have been impossible. I am grateful for the opportunities to progress in my research that the University of Vaasa has given me. I want to express my gratitude to everyone who has contributed to creating this text.

Foremost, I would like to thank my head supervisor, Professor Erkki K. Laitinen, the University of Vaasa, and my secondary supervisor, Acting Professor Stefan Sundgren, the University of Vaasa. Both have patiently guided me and shared their knowledge, expertise and advice throughout the work on this thesis. The support that both supervisors have given me is difficult to describe in words. I want especially to thank the pre-examiners of this thesis Professor Lili Kihn from the University of Tampere and Professor Antti Paasio from the University of Turku. I am also grateful to Dr. Antti Rautiainen from the University of Jyväskylä for reading my drafts and suggesting fine ideas at different phases throughout the dissertation work.

I also wish to thank other people who have contributed to the work on this thesis. I am grateful for the time that Professor Sören Kock from the Swedish School of Economics and Business Administration has taken to read through the text and give valuable suggestions regarding its presentation. Professor Tauno Kekäle from the University of Vaasa has by long discussions and positive manner increased my motivation in my work and also helped me to acquire greater understanding of the phenomena in the research process. Above all I want to address particular thanks to Professor Timo Salmi of the University of Vaasa and Professor Marko Järvenpää of the University of Jyväskylä, who both have helped me pick and follow the right course as well as making me thinking academically. I have also received particular good advice and suggestions from the following academics in Finland and other European countries through international conferences: Pentti Meklin, Salmi Näsi, Frode Mellemvik, Erkki Kytönen, Erno Tornikoski, Janne Järvinen, Pauli Juuti etc. Moreover I would like to thank warmly everyone else involved in this research project, who unfortunately cannot be named here due to lack of space and confidentiality, such as the staff in the case of Swemu, who have participated in constructing the new steering system. I hope

that I hope that everyone else who has not been mentioned by name will be able to share in my extensive and warm gratitude.

I also want to give special thanks to Ethan Jordan for a succession of brilliant inputs, revising and translating parts of my manuscript.

Realising this thesis would not have been possible were it not for external financing, provided by the following grants and funds: The Fund of Ostrobothnia Chamber of Commerce, The Fund for Swedish Culture, The Foundation for Economic Education, Jenny & Antti Wihuris Fund and The Finnish Work Environment Fund.

Finally I want with all my heart to express the most important thanks to my wife Paula and son Patrick for their understanding, patience and strong support throughout the research process. Without you, there would be no finished thesis. Without you, there would have been no doctoral studies. Without you there would not have been…anything at all…

"*Progressus Incitat*"

Vaasa, February 2014

Lars E. Palmroos

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Abbreviations

ABC	=	Activity-based Costing
ABM	=	Activity-based Management
BPR	=	Business Processes of Re-engineering
BSC	=	Balanced Scorecard
CIFA	=	Chartered Institute of Public Finance and Accountancy
CRA	=	Constructive Research Approach
CSF	=	Critical Success Factor
FPLG	=	Finnish Public Local Government
GFOA	=	Government Finance Officers Association
IT	=	Information Technology
KPI	=	Key Performance Indicator
LG	=	Local Government
LGL	=	Local Government Law
MAS	=	Management Accounting Systems
MBR	=	Management by Results
MCS	=	Management Control Systems
NC	=	Nordic Countries
NIE	=	New Institutional Economics
NIS	=	New Institutional Sociology
NFPM	=	Non-financial Performance Measurement
NPM	=	New Public Management
NPFM	=	New Public Financial Management
OIE	=	Old Institutional Economics
PLG	=	Public Local Government
PI	=	Process Improvement
PIS	=	Performance Indicators
PM	=	Performance Measurement
PMS	=	Performance Measurement Systems
PMT	=	Process Management
PSA	=	Public Sector Accounting
PSMAR	=	Public Sector Management Accounting Research
PSMSS	=	Public Sector Management Steering System
PSS	=	Process-Oriented Steering System
TB	=	Town Board
TC	=	Town Council
TPA	=	Traditional Public Administration
TQM	=	Total Quality Management
SWEMU	=	Swedish Speaking Municipality

1 INTRODUCTION

1.1 Background of the Study

A number of new management accounting techniques were developed about two decades ago; for example activity-based costing (ABC), Process Management (PMT) and balanced scorecard (BSC). The empirical evidences stresses (see Cooper and Kaplan et al. 1992; Kaplan and Norton 1992) that organisations have benefits to implement these new management techniques to obtain improved information for better decision making. Globally, there has not been any research regarding the combination of PMT, ABC and BSC for the public sector. Although combined accounting techniques have been understudied, there are some exceptions (Kihn 2007a, 2007b, 2008, 2010 and 2011). In the private sector, one can find much more research in this area separately, but again there is little research on the implementation of ABC and BSC interactively.

It should be mentioned also that nor has the constructive research approach been conducted among management accounting researchers in the public sector. The scarcity of constructive studies in academic publications can be attributed to the nature of consulting, which is considered non-scientific (Wingren 2005). One argument of support is that constructive research approach (CRA) relies on a pragmatic notion of truth whereby what works is true (Kasanen et al. 1993) and that the intervening role of the researcher in the research process is similar to the consultant in his/her work. Another reason for the scarcity of constructive studies is confidential nature of the information. One important reason for other researchers to conduct constructive research is the lack of understanding the differences between constructive studies and consulting. Labro and Tuomela (2003) have therefore given practical methodological guidance on how to conduct such kind of studies. Lukka and Tuomela (1998) state that the constructive study is researcher-based meaning that the researchers have to find their research project themselves and this could be a problem that results in a small number of CRA published studies.

A large part of the existing empirical studies have had their main focus on management accounting tools separately but not combined. There are numbers of reasons why studying a combined steering system, including several accounting tools, phenomenon is important. In most of the previous studies of management control systems (MCS), the context in which the separate systems operate has not been adequately taken into account (Chenhall 2003). Fisher (1998) has claimed that if the links between various MCS are not identified, then the way in which

the measured MCS components relate to studied contingent variables will lead to inaccurate conclusions. By taking a broader approach to the study of steering systems, researches will be able to develop better theories of the real impact of accounting methods connected in a MCS system (see Malmi & Brown 2008). Therefore it is considered fruitful to study and explore how these accounting methods (*PMT, ABC and BSC)*[1] can be used together in the public sector from both the macro and micro levels of institutional theory perspective (New Institutional Sociology, NIS and Old Institutional Economics, OIE) (Nair 2004: 217). Interest in Performance Measurement (PM) in the public sector has lately come both from the case-level (Hyvönen and Järvinen 2006; Rautiainen 2008) and, more often, from the New Public Management-level (Lapsley 2008). The discussion has been institutional rather than focused on practice, which has been supported by Malmi (1997; 1999). In addition the concept of how to understand the whole of management accounting systems (MAS) as a Management Control Systems (MCS) package, has been of interest (Malmi and Brown 2008). However, there is no research done on how institutional pressures affect implementations of control packages (e.g. ABC and BSC combined) on municipal level. Therefore this dissertation aims at filling this gap in previous research with the analyses of the institutional pressures surrounding a constructive process of control package implementation. This accounting dissertation aims to improve our practical and theoretical knowledge about the construction and adoption of control packages in municipalities.

The institutional theories to be used in this study are new institutional sociology (NIS) and old institutional economics (OIE). These theories will be used to develop a theoretical framework for the study. The above mentioned theories can be seen as supplementing each other and may provide the potential insight into understanding the complex process of steering system construction and implementation. This topic may have a novelty value in the public context but possible in a broader perspective, because the management accounting techniques connected have been understudied in this research area. In that way it also will fill up the gap dominating in most of the management accounting research of so-called 'mainstream'[2] accounting research (particularly in North America, but also elsewhere). Lukka (2010) argues that this increasing narrowness is leading to the ho-

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[1] PMT is a method used to identify the processes for satisfying the organisation's stakeholders by enhancing the performance of the organisation's processes and activities in terms of time, cost and quality. ABC is a method for costing and pricing the activities and processes in the organisation. BSC is a management model which is used to measure an organisation´s performance.

[2] As it is by economics-based empirical financial accounting research using large databases.

mogenisation of accounting research. Scapens and Bromwich (2010) welcome a broad range of management accounting research and encourage researchers to be creative and innovative.

1.1.1 Introduction to Research Area

Since the 1990s business achievement, quality management, efficiency and management by results (MBR) are emphasised in public sector organisations (Hood 1995). An increasing focus has been on 'soft' aspects of management: such as quality models, leadership and organisational culture. Ter Bogt (2004) stated: "Politicians and managers seem to want, not only concise information on core performances, but also broader and more detailed performance information consisting of both quantitative and qualitative information".

In 1997, the public sector in Finland began to use accounting on an accrual basis. After that many municipalities began to develop new and innovative management systems, as well as implement different measurement and management concepts in order to increase the organisation's performance and to increase the understanding of the organisation. The decentralisation of budget power, integration of accounting and different information systems were also utilised in order to increase performance as well as to improve the understanding of organisations.

The concepts, which have often been used in the adoption of private management techniques and styles include process management (PMT), (Laakso 1997 and Pastinen 1998), activity-based costing (ABC) (Laitinen 2001; Maiga and Jacobs 2003; Labro and Tuomela 2003; Wingren 2005; Tammi 2006; Baird 2007 Lapsley 2008), and balanced scorecard (BSC) (Kasurinen 2002; Lapsley 2004; Wingren 2005; Kasperskaya 2008). Johnson and Kaplan (1987)[3] regard these concepts as suggestions for improving the relevance in strategy and management accounting. Various studies (Argyris and Kaplan 1994; Kaplan 1991; Shields and Young 1989), stated that the implementation of such concepts have proved difficult to evaluate. However, the barriers for a successful evaluation differ from case to case and may be at the individual-, department- or organisation-level.

Järvenpää (2002) points out that the development of management accounting can be divided into at least three dimensions: *new management accounting innova-*

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[3] "Today's management accounting information, driven by the procedures and cycle of the organisation's financial reporting system, is too late, too aggregated and too distorted to be relevant for managers' planning and control decisions" (Johnson and Kaplan 1987:1).

tions, the development of accounting information systems and the human dimension. Järvenpää (2002) finds that the employee ought to act more in strategic management accounting issues and develop accounting systems, experiment with new ideas and implement new management accounting innovations. One of the benefits of the accounting systems is the improved ability to compare the performance of different economic units. However, the financial reports of municipalities are typically prepared in a way that makes it difficult to find association between revenues and expenses. For example different kinds of chargeable activities[4] are often presented as one item in a towns' income statement. As a consequence of this it is difficult to evaluate the efficiency of chargeable activities by using financial statements (Näsi and Keurulainen 1999).

Significant changes in the operational environments of the local government have forced the municipalities to completely change their mode of action and steering systems during the past few decades to accommodate the challenges of competition from the private sector, the new needs of the people living in the municipalities and developing technology (Almqvist 2004; Ter Bogt 2008). The mode of action has often been chosen from the private sector (Granlund and Lukka 1998a and Järvenpää 1998).

Many Finnish local authorities have started to implement BSC as a performance measurement (PM) steering tool separately (see Sihvonen and Lumijärvi 2004). In Finland, the Commission for Local Authority Employers[5] applied the BSC-model to local authorities in 2000. It should be noted that Kaplan and Norton (2001) and Niven (2002) have presented several examples of application of the BSC-model in municipal PM. Other studies in Europe have been carried out by Kloot and Martin (2000) and Johnsen (2001) within the same sector. In Finland, Sihvonen and Lumijärvi (2004) have examined how BSC has been implemented in the municipality while exploring the degree to which PM stresses the right issues from the perspective of civil servants and elected officials. According to their results, the municipal council, which is the highest decision maker in the municipality, uses performance information to a much smaller degree than civil servants. These findings indicate that the budget and BSC might not be coupled and this could have a negative impact on decision making. Ter Bogt (2004) state that the actual planning and control of local government is strongly based on fi-

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[4] Municipalities have tax income and income from different kinds of services provided to the inhabitants. Chargeable activities are income from services which inhabitants pay for.

[5] The Commission for Local Authority Employers promotes the interests of Finland's municipalities and joint municipal authorities on the labor market.

nancial budgets and performance measurement are used only to a limited extent for decision-making.

Syvänen (2003) who studied, the most negative elements of a municipal organisation found that it is its failure to focus on the mistakes and problems that occur when measuring performance. According to Niven (2002) measuring and analysing problems is not enough but there must also be time and need for correction. One of the basic problems of measurement in municipalities is that they focus more on quantity issues than on quality issues. Syvänen (2003) states that the BSC is used in an appropriate way when all measures are linked to the organisation´s vision and strategy, and when all measures are used as strategic steering tools. However, Olve et al. (2004) point out that "using the scorecards is no guarantee of success" According to their study (Olve et al. 2004) they claim that there have been as many unsuccessful implementations as successful ones. BSC serves also as a tool for communication, they offer the possibility of a better understanding and exchange of ideas about how the operations in the organisation should be developed. The use of a BSC means above all that you are preparing for the future. The measurements, as such, do not improve the basic operations in the municipality. However, it might support the continuous development of operations as well as the evaluation of planned and executed activities (Olve et al. 2004; Rautiainen 2004). Institutional and individual factors are not to be forgotten in the municipal context. For example, political pressure, power play, and contradictions between individuals may have either an inhibitory or a promoting effect on the development of Performance Measurement Systems (PMS). It is good to recognize this fact when developing the systems and when changes are made in the municipal financial administration (Northcott and Llewellyn 2003; Rautiainen 2008).

1.1.2 The Accounting Norms of the Municipal Sector in Finland

According to legislation, towns have to promote citizens' well being and sustain development in their area (Local Government Act 1 §). The surplus or deficit of an accounting period as such does not indicate the well being of citizens nor the long-term social or environmental advantages/disadvantages of towns' activities. Focusing too much at the surplus may result in short sightedness. A surplus can either be a sign of good financial management or a sign that citizens do not want to use services that are provided by the town (Anthony and Herzlinger 1980).

Sinervo (2011) emphasises the balance of a municipal economy has to do with the sufficiency of resources. When one analyses the accrual based income statement, one must take into account the demand for services and finance, the satisfaction level of users of the services and also the debt and cash situation of the municipality. The constitution of Finland guarantees autonomy and self-governance for all municipalities. The Local Government Act[6] includes more detailed provisions about municipal administration and finance. Private sector organisations use the Accounting Act[7], which was reformed in 1997. The accounting in municipalities is based on the Accounting Act starting from the same year. The Accounting Committee[8] operates under the Ministry of Trade and Industry. The Committee has a separate municipal section which gives general rules on how to apply the financial accounting regulations of the Local Government Act and Accounting Act in financial accounting and reporting. All these rules are important for the municipalities because they are obligatory. In addition, the Association of Finnish Local and Regional Authorities[9] work to standardise municipal sector accounting in Finland. Its recommendations are not mandatory but they help the municipalities with their own practical problems. The recommendations are respected and therefore strictly followed in most of the municipalities in Finland (Näsi 2004: 64–152). Figure 1 presents a list of the key legislation governing accounting in Finnish municipalities.

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6 Kuntalaki (365/1995)
7 Kirjanpitolaki (655/1973)
8 Kirjanpitolautakunta (1997)
9 Suomen Kuntaliitto (1993)

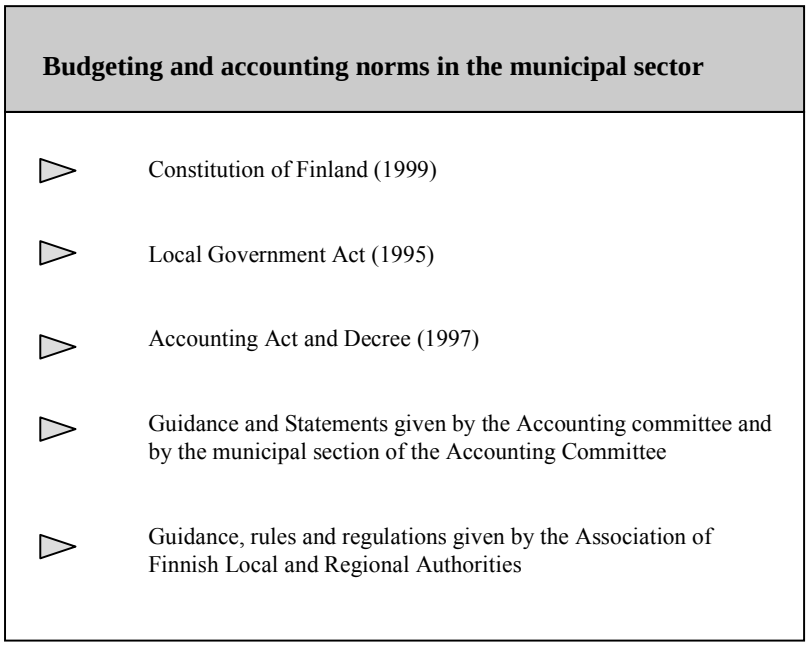

Figure 1. Legislation and other Norms regulating Municipal Budgeting and Accounting in Finland (adopted from Näsi 2004).

Finnish municipalities have more power and also more responsibilities than other municipalities throughout Europe (see Meklin and Näsi 1994 ; Näsi 2004). For example, the influence of the Finnish central government to steer local governments[10] has decreased in the last decade whereas it is common in Europe for the state to have influence over the decision-making and control systems. The essence of the autonomy of municipalities in Finland is expressed in that the most power of decision-making belongs to the council, which will be chosen by the citizens (Local Government Act, chapter 1). The1990s in Finland was marked by an economic recession and the local governments (LG) could not receive subventions to the same degree as before the recession. Thus a tight budgetary discipline was adopted. The budget had to be planned so that the conditions for the local governments' tasks would be ensured. Also, any potential deficits would have to be covered during the three-year planning period (Local Government Act, sections 65–70).

[10] The researcher is focused on Public Local Government, even though on occasion he also talks about local government, which is a larger concept than Public Local Government.

1.1.3 The Need for New Accounting System in Public Sector

The control of the efficiency and economic rationality in general has not had significant value in the public sector because its functions are not regulated by the market economy system (Ter Bogt 2004). Hence, it has not inspired the researchers of public administration. The activities in the public sector are strongly regulated by public finance and legislation. Appraising the efficiency can be understood by comparing it to administrative controlling principles, especially budgeting. Accounting has earlier been made in cash basis. Lande and Scheid, (2004) state that public sector management is easier to change if the "open business model" is followed, specifically in management accounting. Respective model gives insights in connections between costs, objectives and net income. In that way the management performance information might be transparent and have been used in public sector organisations.

Financial administration and budget systems have been regulated through dramatic changes in the municipal sector in the late 1980s. The change in Finland from a cameral[11] accounting to an accrual[12] accounting model in 1997 was a huge change in the municipal sector. The reform demanded a great deal of work from the accounting people in the municipalities and the result is that the municipal sector is quite satisfied with the new reform (Näsi 2004). The municipal section of the Accounting Committee recommended moving over to a new budget system, which is based on profit budgeting. Profit budgeting stresses the accomplishment of activities instead of tasks, as well as the proper allocation of resources, i.e. productivity, which can also be used instead of the more narrow definition of efficiency (Rautiainen 2004).

The pressure to bring the economy of towns in balance has increased throughout the 1990s, which means that the revenue will be enough to cover the costs of the produced services in the municipalities. This is caused by structural and business environmental changes: changes in the role of the state's economic steering, cutting back on the towns' resources, legislative changes, EU membership, internationalisation of business, faster and free international capital transactions and new ways of thinking in public administration by which professional leadership and company-like thinking have been promoted (Lumijärvi 2000). The public sector

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[11] Cameral accounting has been developed for use in the governmental sector focusing on money (Monsen 2002).

[12] Accrual accounting = to understand and define the balance of a municipal economy as surplus or deficit calculated in income statement between periodized incomes and expenditures (Sinervo 2011).

accounting system has changed in many ways to resemble accounting in companies. The Local Government Act from 1995 requires the realisation of functional and economic targets and preparation concerning public appraisal reports and auditor's reports. In a way, communal inspection boards have become representatives for citizens when appraising the profitability of a town's produced services. At the same time, the inspection board produces feedback for the state. It also produces information about the usage of and profitability of state subsidies.

1.1.4 New Views in Strategic Management

The contemporary view of control systems in municipalities creates a rather tough environment for developing activities, especially in situations where quality should be a more important than quantity. For example, even if the cultural department may arrange only a few events during the year, they can however, be of such high quality that they accelerate the town's activities. A mere quantitative appraisal produces false feedback. From a strategic management perspective, quality has noticeably increased in value. Today the quality of services is important, and municipalities conduct customer questionnaires, use quality verification systems and different types of total quality management (TQM) tools in order to promote quality developments. Traditional economic measures mainly describe short-term success and success in the past tense. According to contemporary strategic thinking, efficiency should express a more constant and ongoing efficiency (sustainable competitive advantage). During discussions of company strategy in recent years, it has been stressed that the cost per unit measure forecast value is minor (Ter Bogt 2008; Baird 2007). Additionally, it is important to appraise assets invisible in traditional financial statements, such as the professionalism of the staff, know-how, motivation, customer satisfaction and loyalty. Achievement in these factors might lead to efficiency improvements and more sustainable competitive advantages in the future.

The management in the public sector has changed from Traditional Public Administration (TPA)[13] to New Public Management (NPM)[14] (Meklin-Näsi 1994; Hood 1995; Naschold 1995; Näsi 2004; Sihvonen and Lumijärvi 2004; Aidemark

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[13] TPA is a system of public management which is based on a set of fundamental characteristics, such as: administration is an instrument of the executive power and the rules are objective, known by the public and edited in such a manner that they formulate a clear legal framework.

[14] NPM is used in the public sector by scholars and practitioners to refer to distinctive themes and styles of public administration. The purpose is to achieve greater cost-efficiency for governments without having negative side-effects on other objectives and considerations.

and Lindkvist 2004; Lapsley and Wright 2004; Galluzzo and Ittner 2004; Modell 2005; Järvinen 2005). Many OECD countries have begun the task of reforming their public sector and the focus has been on accounting changes from traditional cash to an accrual basis, and financial reporting from input-based measures to output and outcome measures (Ter Bogt 2008). Generally, the public sector has believed that the pressure of an economic crisis is an essential precondition for successful modernisation. However, the experiences of the OECD countries tend to indicate the reverse. Very seldom is there a correlation between economic crisis and public sector modernisation. Mostly, political mobilisation is the driving force behind public sector modernisation (Naschold, 1995). New public management has placed an emphasis on "managerialism" and "professionalism", which means that an internal modernisation is not merely a task for management, but a task for all employees participating in the value-added process (Karila 1998; Ter Bogt 2008).

Schools of process management present different methods, for instance business processes of re-engineering (BPR), total quality management (TQM), activity-based cost accounting (ABC), and balanced scorecard (BSC). Process management received world-wide recognition in the beginning of the 1990s. Several Finnish companies have adapted the doctrines of process management. As other management ideologies, process management is adapted in different organisations in considerably divergent manners: from a loose outlook or idea to an official and working process organisation shelving the functional organisation. Process management is a new way of thinking about how to develop new principles. It is about a new ways of setting goals and following-up. It requires a new kind of attitude towards one's own work, towards associates and customers. Improving activities is best achievable when conducted in an interactive manner, based on the trust of individuals. It is a learning process, where identifying problems, gathering necessary information, solving problems, action, and hopefully success too, follow each other. Transferring learning is not easy as Lukka (1998) stresses in his study. Transferring local learning experiences cause problems, especially in situations where information is transmitted between different cultural environments, for instance crossing an organisation's hierarchical boundaries or horizontally between different profit centres and departments.

1.2 The Purpose and Restrictions of the Study

In this study, the main focus is on innovative accounting methods, which provide the organisations with much more information on internal operations. This is a new way of acting and thinking in the public sector and the research will hopeful-

ly provide answers to the problems and questions associated with the development and implementation of the innovative methods.

The primary aim of this study is to explore and construct a new performance management system for use in a public sector organisation, and to test it. In addition this study is to present the kinds of problems that appear in the construction and testing of the system in a public organisation, and also to examine the possibility of building a seamless connection between three different management accounting tools, *Process Management (PMT), Activity-Based Costing (ABC)* and *Balanced Scorecard (BSC).* Furthermore, the study aims to discover the advantages and disadvantages of such a developed steering system.

A constructive approach has been used in this research and the goal is, on the basis of earlier research and the pre-understanding of the researcher, develop a new performance system for use in a public organisation as well as to test the system. This leads to some specific questions that also need to be answered, namely:

1. What kind of *problems and pressures* appear when constructing a control package (steering system) in the case organisation?

2. To what extent is it possible to build *a management steering system (MSS)* including PMT, ABC and BSC in the case organisation?

3. What would be the *advantages* and *disadvantages* of such a combined system?

The study of the above questions is of interest for researchers for several reasons. *First*, a combined system does not operate in isolation. Most of the management performance systems that researchers have dealt with have focused on single themes and they have often not been connected comprehensively (see Malmi and Brown 2008). Exceptions are the connections between PMT, ABC and BSC of the steering system could give new insights how to understand which factors and pressures influence the development and the implementation process of a steering system. Fisher (1998) states that if the links between the factors of the management control systems (MCS) are not recognised it might lead to erroneous conclusion in the final stage. *Second*, accounting researchers have spent much time to examine the accounting techniques separately but the combination of the techniques has received much less attention. *Third*, in addition there is limited understanding of influences of other types of factors on steering systems, for example, pressures including the ones studied in institutional theory (NIS/OIE). This kind of research is also what Järvenpää (2002) demand in his study encouraging employees to develop accounting systems, experiment with new ideas and implement new management accounting innovations. The result could then be used in

understanding and avoiding the possible difficulties with similar type of construction in public sector. To achieve this purposes the researcher found a case public sector organisation, the Swedish speaking municipality (SWEMU)[15] which experienced budget deficits at the turn of the year 2001, due to decreased corporate tax income. These events created a demand for more accurate control of the organisation, and therefore the organisation was interested in constructing a new steering system for this purpose.

Delimitations are important in the sense that they narrow the scope of a study. Creswell (2003: 148) states: *"For example, the scope may focus on specific variables or a central phenomenon, delimited to specific participants or sites, or narrowed to one type of research design"*. This study will confine itself to constructing a steering system and testing, interviewing and observing the staff responsible for financial functions in four department in a local government located in southern part of Finland. Creswell (2003) emphasized that it is important to provide limitations to identify potential weakness and strengths of the study. The following weaknesses and strengths were exposed in this study.

First, limitations of this research should be considered when interpreting its result. The problem of approach is difficulty in generalizing the results, because the study had been conducted in one case organisation that the researcher has time to examine. In this study the verification of generalizability had been done by "market tests" (Kasanen et al. 1991).

Second, the organisation environment, into which for the steering system was developed placed certain requirements for the nature of this study. This influenced also the selection of literature. The study is focused in the first place on ABC and BSC literature using institutional theory as a starting point. Therefore, some of the issues and findings in the ABC/BSC literatures were not taken into account. It is impossible to deal with all municipal accounting aspects during the implementation phase, and so the focus was mostly on the financial and institutional aspects of the steering system development.

Third, the environment (Swemu) to which the research relates is a particular one, with convoluted, complicated and bureaucratic qualities. These gave rise to certain demands of development competence on the organisation, researcher and staff which is why a constructive case study was chosen as the research method.

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[15] The real name is concealed primarily in order to allow the researcher freedom to report reality without constraints that might otherwise exist.

Constructing a new steering system in the municipality and testing the implementation of the construction in the case organisation was a considerable challenge due to the lack of earlier research results from the public sector, especially when combining management accounting methods such as PMT, ABC and BSC together.

Fourth, this study is limited to certain empirical context in local government focusing only on financial functions. As will be seen in Chapter 6, the construction and empirical data concerning the local government was collected in Finland. The testing whether the steering system works in practice was carried out in four departments from one public sector organisation. This is certainly not enough to propose that these findings in the study are generally valid. However, the work methods in most Finnish municipalities are quite homogenous enabling the possibility of drawing conclusions from the findings in certain circumstances.

Fifth, this study is limited to the specific phase of organisation creation process of the construction and implementation it in the public context. This study focuses on how well the new combined steering system matched with the environment, whether it was fully implemented, institutionalised or taken-for-granted in the case organisation. As it turned out, the outcomes of this research project depended on institutional pressures of the town board in the local government and some other resistance factors. This relates to Kasurinen (2002) who points out that advancing forces[16] can affect the change process. The accounting change model presented by Kasurinen (2002) is also used in this study.

Sixth, this theses will not been focused on reward and compensation, because it had not been of interest for the case organisation. (Olve et al. 2004) have stated that there are six important factors for a successful implementation of the BSC-concept: *strategy maps, dialogues, roles, interfaces, IT-solutions and incentives.* In this research the role of incentives from a management perspective is not examined even though they have an important directive role today, alongside supervision (kunnallinen työmarkkinalaitos/Nordberg, 25.11.2003).

1.3 The Structure of the Research

The structure of the research is presented in Figure 2 as task milestones. This thesis is organized as follows:

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[16] Advancing forces enhance the possibilities to carry out changes in organisations

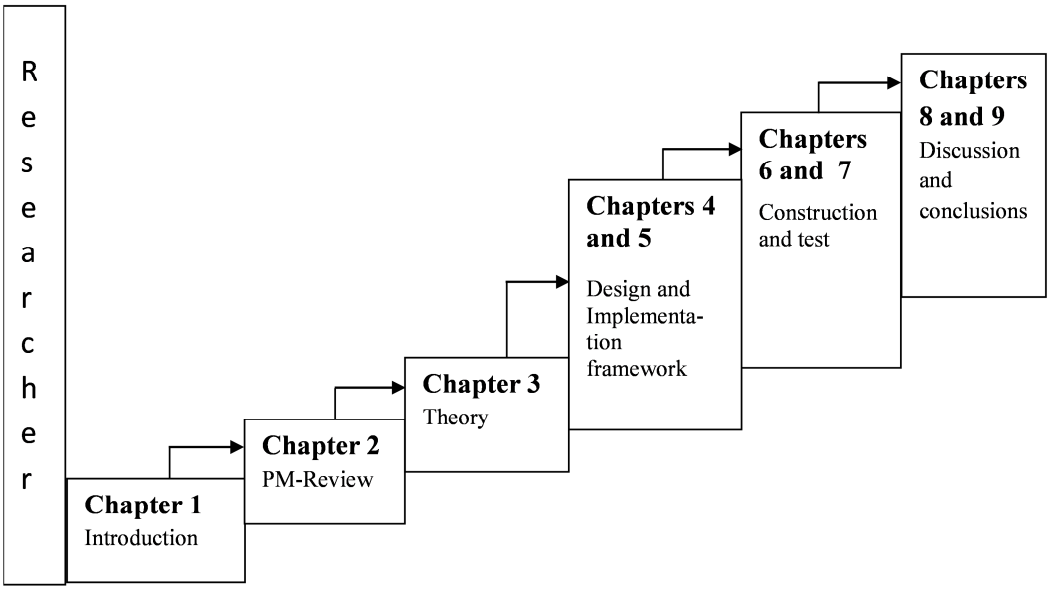

Figure 2. The structure of the Research Task Milestones.

Chapter 1 presents an introduction to innovative accounting methods and the backgrounds of the research, for example the research questions and research structure. Introduction may be called the first milestone of this thesis.

In Chapter 2 the existing literature of PMT, ABC and BSC is reviewed to provide the conceptual framework for the study. The research approach and a summary of earlier studies will be presented at the end of this chapter. In other words, the second milestone of this thesis is the literature review.

Chapter 3 starts by presenting and discussing the institutional theories, *New Institutional Sociology (NIS) and Old Institutional Economic (OIE),* and the characteristics of accounting research approaches in general. At the end of the chapter the new direction of institutional theory, *The Scandinavian Institutional theory,* is also presented. In additional the implementation literature will be also presented in this chapter. The third milestone of this thesis comprises the institutional theory.

Chapter 4 describes the research methodology. In this thesis the constructive research approach is chosen. The case method is regarded as the most appropriate, because it gives researcher possibilities to in an interactive way to participate in entire process. Chapter 5 presents the implementation stages of the steering sys-

tem in the case study and shows how institutional factors affect different stages of the steering system implementation process. The forth and fifth milestones of this thesis are called design and implementation framework.

Chapter 6 presents the construction of the steering system as a combined model. The report of testing of the construction in the city of Swemu is also presented in this Chapter. The work is described and introduced by using the seven step of constructive research process in this chapter and the work is performed as an in-depth longitudinal study. The experiences from the testing of the construction in Swemu are discussed in light of the existing literature on implementation of a steering management accounting system, the central results are presented. Chapter 7 introduces an improved model of the steering system from perspectives of NIS and OIE institutional theory and an accounting change model by Kasurinen's (2002) model to recognise the barriers in the case study. The sixth and seventh milestones of this thesis are focused on construction and test.

Chapters 8 and 9 include the last milestones of this thesis: discussion and conclusions.

2 LITERATURE ON PERFORMANCE MEASUREMENT SYSTEMS

2.1 The Review of Literature in the Study

The review of accounting literature in this Chapter shows that the constructive research approach has been used by only a few studies in management accounting research. Kasanen et al. (1993) advocate this applied science approach because it provides an option for researchers to enter the field of relevant and useful problem solving. The researcher, by being actively involved in the research process, also learns much about the condition leading to either successful or unsuccessful implementation of the new construction (see also Kaplan 1998). It is however, a demanding job for management accounting researchers to conduct this kind of study. This Chapter touches on the literature of performance measurement from the perspectives of both the private and public sector. The studies on performance measurement and ABC discussed in this literature review were in this study mostly conducted in European and Scandinavian countries. The researcher has a good reason to do so because a great deal from studies of performance measurement, institutional theory and implementation theory have been carried out in the above mentioned countries. Noteworthy is that seven of the studies in the summary of findings (see Table 1 in this Chapter) were conducted as single case studies.

This review of literature dealing with performance measurement and activity-based costing is divided in two sections: private- and public-sector research. The management change process will be discussed first in this Chapter from the public sector perspective.

2.2 The Change Processes in Public Sector

One can observe various reform activities underway in many countries over the world and as such there have been several dramatic changes to public sector accounting. These issues have resulted in studies carried out in Australia, Canada, New Zealand, mainland Europe, Nordic countries and the USA among others. These studies also indicate that corresponding changes have been made in most Nordic countries, for example in Finland, Sweden and Norway (Mellemvik et al. 2005: 299–317, Vogelpoth 2004: 4). A lot of changes have been seen in the management and control of government organisations by focusing on more business-like and professionalized management of respective organisations (see also Ter Bogt 2008).

Lapsley et al. (2003) studied the change mechanisms in the public sector using a framework developed by Costello (1994). Lapsley et al. (2003) classified changing operations of accounting innovations as the following: developmental, transitional and transformational[17]. Most of the change mechanisms in their studies were transitional and developmental (IT-initiatives and budgetary reforms as well as the use of agents of change). In addition, the study of Aidemark and Lindqvist in Sweden (2004) is of interest. Their study is connected to transformation in the health care sector:

"Two public service hospitals were converted to limited companies. This change had profound effects, with the hospital management becoming more commercially minded, productivity increasing and more rapid, responsive decision-making which united management and hospital doctors in a common vision and sense of purpose".

Ter Bogt (2008) studied reasons for introducing management changes in Dutch municipalities and provinces by interviewing professional managers and politicians. The factors mentioned by the interviewees are: "a wish to raise the level of flexibility and transparency of their organisation and a need to increase efficiency and effectiveness because of budget cuts imposed by the central government. The interviewees also considered the costs of government services to be relevant, because these attracted more attention from the press. Moreover the interviewees felt a need to react to the increasing demands of citizens (external legitimacy)". In Ter Bogt´s (2008) study you noticed that responses of the interviewees varied a lot and from this point you get impression that costs of government services are of significant value. Baird´s (2007) study did not emphasize the costs but the factors relating to activities for the purpose of improving processes in Australian public sector organisations. This might indicate that public organisations place greater value on analysing their activities for the purpose of improving processes and subsequently improving their efficiency and effectiveness (Baird 2007).

The exact motives for changes may vary, but many organisations mention the purposes are increasing economic efficiency and effectiveness (Newman 2002: 88-89). However, all authors are not convinced that these factors are the main reasons for changes in government organisations. Brunsson (1989) argues that economically irrational considerations as well as business related considerations

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[17] Developmental – changing the organisation by the introduction of a new technology or specific management practice. Transitional – the introduction of new techniques, methods, procedures or services which lead to the introduction of new structures and the reorganisation of the entity. Transformational – the introduction or the evolution of a new structure which also results in a change in the organisational strategy and vision.

based on a desire to enhance economic performance might play a role in the changes of the public sector organisations. Perhaps the organisation may want to follow a new management accounting trend in order not to seem old-fashioned or as an effort to not be considered by the external evaluator as `be bottom of the class´[18]. In prior studies there has been evidence of difficulties to comprehensively evaluate efficiency and effectiveness and the effects of changes in organisations (Politt 2000; Boyne et al. 2003). According to Ter Bogt (2008) most government organisations are still more interested in making plans and looking forward than evaluating the effects of earlier made decisions.

With respect to recent and future management changes, it seems that the focus now is on increasing the level of rationality in the management of local government by developing better systems for performance information of individual officials (Ter Bogt 2008). Such paradoxes may be complicated to conduct by the local government, particularly when introducing new accounting management systems that will meet the expectations of disparate stakeholders, namely citizens, politicians, professional managers and officials. The ongoing academic discussion has recently focused on causal performance measurement models (Kasperskaya 2008; Norreklit 2000) and therefore practices conducted by new innovative accounting tools might be valuable to these discussions. A well understood measurement system might require causal links between activities, properly formed processes and indicators, and transparency so that organisational actors may achieve the objectives in the developed model.

Kasperskaya (2008) carried out his BSC case study on Spanish city councils. He focused on analysis of intra-organisational processes using institutional theory, new institutional sociology (NIS) as well as old institutional economics (OIE) as his starting point (see Lukka 2007; Dambrin et al. 2007). Kasperskaya (2008) points out that management accounting change cannot be explained only by NIS (macro perspective) but one also needs to explain it with OIE (micro perspective). To explain change he also employs Burns and Scapens´ (2000) concept of rules, routines and institutions. Kasperskaya (2008) argues that there is a clear need for institutional theory when interpreting the findings of the researcher (Järvinen 2005; Modell 2005; Aidemark and Lindqvist 2004; Johnsen 1999).

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[18] A bottom of the class is an organisation that continues to use traditional working methods.

2.3 The Private sector

2.3.1 Process Management

Process Management in this study means that it is a method used to identify processes for satisfying the organisation's stakeholders by enhancing the performance of the organisation's processes and activities in terms of time, cost and quality. Olson (1999:7) pointed out that terms such as "activities" and "process" are often used in management accounting and states: *"The orientation towards processes has extended management accounting to include measures which focus on the horizontal relationship between processes and sub processes… It includes all action carried out in the organisation and it implies the existence of interdependencies denoted by the horizontal coupling between various processes and the customer".*

Some Finnish articles (Laakso 1997; Pastinen 1998) have also dealt with process improvement (PI) and business process re-engineering (BPR). In this study the process management includes the same elements as PI and BPR. This study suggests that process management and performance measurement give benefits if they are connected and used together, for example elements as transparency, costs and quality of services and other performance aspects were regarded as important.

Fawcett and Cooper (1998) presented the following findings in their empirical study of logistics performance measurement practice: *"Performance measurement is critical to the success of almost any organisation because it creates understanding, moulds behaviour, and leads to competitive results".*

Most of the interviewed executives pointed out that the required level of integration can be controlled by process-oriented performance measures. The focus was on process costing, customer input, supply-chain metrics and horizontal view of thinking (team). Good decisions require that costs must be measured across activities and departments. Unfortunately, despite the consistent emphasis on measuring total logistics costs, only about 50 % of managers reported that they actually use total cost trade-off analysis.

Two interesting studies concerning how to steer the process, both carried out in Finland, are Laakso (1997) and Pastinen (1998). These studies deal with how organisations could receive better help with developing and implementing capable core processes (process improvement (PI), and how to use computerised process tools to develop, implement and maintain these processes more easily. Pastinen (1998) stresses: *"However, there are strong suggestions that the process tool is*

working well in practice and that is powerful…In addition, the tool is applicable in both the manufacturing and the service sector".

Many studies have noted that organisations fail in their attempts to improve their processes. The reasons behind this failure may be due to various factors (Erickson 1992; Schaffer and Thomson 1992), including: the quality programmes not focussing on the core processes; the development programmes not having concrete goals and measurements (performance measurement criteria); programmes being too broad; and the project not being accepted by management or being driven by consultants. It is sometimes difficult to believe all explanations which have been offered; if possible a distinction ought to be made. Lapsley and Oldfield (2001) claim that consultants in public sector organisations have difficulty introducing changes due to politics causing delays in decision-making.

2.3.2 Activity-Based Costing

Hicks (1992: 33) defines activity-based costing as following: "*Activity-based costing is a cost accounting concept based on the premise that cost objectives require an organisation to perform activities and that those activities require an organisation to incur costs. In activity-based costing, systems are designed so that any costs that cannot be attributed directly to a product flow into the activities that make them necessary and that the cost of each activity then flows to the cost object(s) that make the activity necessary based on their respective consumption of that activity".*

The concept of ABC was initially described in a series of articles (Cooper 1988b, 1989; King 1991, Bailey 1991; Innes and Mitchell 1991; Nicholls 1991; Cooper and Kaplan 1992; Soin et al. 2002; Maiga and Jacobs 2003; Wingren 2005; Tammi 2006) and illustrated in Harvard Business School cases. Cooper and Kaplan et al. (1992) undertook case studies and field visits and observed, distilled, and synthesized the concept of ABC. Hussain (2000) studied the management accounting systems in services from the institutional perspective. The empirical evidence stresses non-financial performance measurement in Finnish, Swedish and Japanese banks and other financial institutions Hussain (2000).

The literature mentions that ABC information requires an extensive management accounting system that captures the relevant costs of activities in organisations. The practical evidence shows however that most organisations overestimate these

costs (Degraeve et al. 2000). It has been suggested in the management accounting literature that companies should integrate complete ABC systems with connections to other information systems like ERP[19] (enterprise resource planning) (Kaplan and Cooper 1997). Degraeve et al. (2000) state that it is not necessary to implement big systems to provide such information; only information on processes and activities that are relevant to the particular function have to be collected. The study of Degraeve et al. (2000) made several managers confused about the costs of implementation for systems to be invested in because their opinions related to what they had read in literature. The costs were lower than they had believed.

In his articles about ABC, Malmi (1997) studied what kinds of problems arise when ABC is implemented. Prior to his study, it had been argued in the literature that most problems with ABC were attributable to technical flaws. However, Malmi (1997) pointed out than an organisational issue, namely resistance, is an important reason for failure. Malmi (1997) explained resistance with economic and political motives as well as cultural reasons. He also explained the diffusion of management accounting innovation by assuming that the later an organisation adopts an innovation the more likely the decision is to be an efficient one due to learning and information transfer. This finding relates to DiMaggio and Powell's (1983) finding that organisations imitate other organisations in order to reduce uncertainty. Scapens and Roberts (1993) state that the resistance to management accounting change was due to failure to make sure of the legitimacy of a new system. Strebel (1996) emphasises that each employee group views change differently and the differing views of managers and employees on change is a common root of difficulties in change programs.

Some firms fail to complete their ABC projects and other firms fail to gain the benefits expected from the systems. Shields´ (1995), Wingrens´ (2005) and Tammi´s (2006) studies supported the theory that the success of ABC depends on certain organisational and behavioural implementation variables, for example, top management support, training, co-operation and adequate resources. They also suggest that success is not significantly associated with technical variables, such as external consultants and tailored ABC software. Performance measures and management accounting can be improved with a developed mass-tailored activity-based costing system. However, failures in the adoption of ABC systems occur even when the implementation process has been skilfully managed (Anderson and

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[19] ERP = systems which integrate internal and external management information across an entire organisation.

Young 1999). The early literature on the implementation of ABC has focused on technical details (Shields 1995), with not much attention being paid to the behavioural aspects and the perspective of learning in research on management accounting systems (Partanen 2001).

2.3.3 Balanced Scorecard

Niven (2002: 12) defines balanced scorecard as following: *"The Balanced Scorecard is a carefully selected of measures derived from an organisation´s strategy. The measures selected for the Scorecard represent a tool for leaders to use in communicating to employees and external stakeholders the outcomes and performance drivers by which the organisation will achieve its mission and strategic objectives"*.

The balanced scorecard has evolved since the early nineties. Early studies mention that BSC is a multidimensional model, especially designed for organisational performance measurement evaluation and control (Kaplan and Norton 1992). Later publications classified the model as central part of strategy making and communication within organisations (Kaplan and Norton 2001a).

Kasurinen (2002), Vaivio (2001), and Tuomela (2000) have studied BSC in the private sector in Finland. Kasurinen (2002) investigated the change process of implementing the balanced scorecard. The barriers, occurring during the implementation process, were divided into three subcategories: confusers, frustrators and delayers. He argued that modern management accounting tools are required to efficiently adapt to changing conditions, and that also the learning process seems to be important during the change process. Tuomela´s (2000) constructive case study claims that the 3K Scorecard (modified BSC model) describes the measures in a way that better presents the cause and effect relationship in the research project. Ittner and Larcker (1997) identified some principal reasons why strategic control systems fail to support quality-oriented competitive strategies, e.g. increased bureaucracy can add so much cost that the improvements are not in balance with the cost. Performance measures can be incorrect, links can be missed between strategic benchmarks, and misalignments between desired strategic outcomes and measures in the scorecard are also reasons why systems fail.

The recent literature recommends that some organisational changes have to be done when implementing new management accounting. First, the role of management accountants should change their function from scorekeeper and watchdog (bean counter) to an active supporter of management. In other words, the management accountants should increase their participation in the decision-

making and become more of a business partner. Second, the role of non-accounting personnel is more significant in innovative management accounting projects. For those reasons new methods of co-operation between organisational functions will be demanded (Järvenpää 2002; Kasurinen 2002).

2.3.4 BSC and ABC Interaction in the Private Sector

According to the literature, BSC and ABC can independently improve the performance of organisations if they are implemented well. The literature also states that if the two techniques are implemented together, they would not be as successful as hoped (Maiga and Jacobs 2003). Maiga and Jacobs' (2003) study investigates whether there is any empirical evidence about the interaction effect of BSC and ABC on manufacturing unit performance. The result of their study indicates that BSC perspectives (customer, internal process, learning growth and financial) interact with ABC to affect performance. However, they did not find a significant positive interaction between BSC internal process and ABC to affect sales margins. Some research reports that within the economics of modern management the investments in information and production technologies have difficulties in stimulating productivity and growth. In this case, we need complementary developments. Successful implementation of new manufacturing techniques requires complementary management accounting systems (Topkis 1995, Milgrom and Roberts 1995).

Newing (1995) argues that the balanced scorecard works well with activity-based costing and activity-based management, because they are important parts of the balance scorecard, giving visibility to what is really driving costs in the business internally and externally. Swenson (1998) declares: "*ABC attempts to mirror the manufacturing process, so that engineers and production managers can easily see how design changes will affect costs*".

Kaplan and Norton (2001) explain: "*by extending the concepts of ABC and BSC throughout the value chain, accountants could provide data on the relative costs of continued production problems and product design changes so that product managers can evaluate alternatives when poor design quality arises*".

The ABC process can have a significant impact on a firm's employees, particularly in areas of employee empowerment and accountability, roles and responsibilities, and performance measures (Turney 1993). Agbejule (2000) observed in his study, that ABC played an important role in improvement processes such as TQM and BPR, because each of these tools required an understanding of activities and processes.

2.4 The Public Sector

2.4.1 Process Management

Much of the accounting innovations in practice in the public sector have origins in the private sector (Hood 1995). The private sector literature contributes to understanding the diffusion of management innovations in the public sector.

Following the reforms made to the public sector in various countries, the numbers of investigations have increased, for example into how public sector performance (PSP) should be defined, measured and evaluated. A substantial part of the measurements have concentrated on financial indicators; the internally focused measurements reflect input and effectiveness. However, the subsequent outcomes of the operations themselves have received relatively little attention (Modell 2005): *"Outcomes are distinct from outputs in that they reflect the more indirect and often long-term effects of operations on specific groups of citizens or beneficiaries of public services"*.

According to the literature of process management it will be mentioned that very few studies on public sector handle these issues. From that point of view future research could be aimed towards examining process management from a public sector organisation perspective. Gosselin (1997) divided ABC into three levels of activity management: AA (Activity Analysis), ACA (Activity Cost Analysis) and ABC (Activity-based Costing), where AA is the lowest level and ABC the highest level. Baird (2007) has recently studied the extent of adoption of each Gosselin´s (1997) three level of activity management (AA, ACA and ABC) in public sector organisations compared with private sector organisations. According to these findings, it seems that the public sector adopts rather lower level (AA and ACA) activity management than ABC. This might indicate that the process analysis and process improvement are especially valued in a public sector organisation. The findings are the same by many other authors (Nanni et al. 1992; Norris 1994). Such findings are surprising and suggest that public sector organisations might find it difficult to adopt private sector practices.

Tuomi (2012) has studied how well the quality management and process management relate to each other in some Finnish public sector organisations. He focused on management and administration issues. The result was that by connecting quality management and process management as a whole, the organisations gained more benefits.

2.4.2 Activity-Based Costing

According to studies in the public sector (i.e. Brown et al. 1999), the government is interested in ABC but the interest is in the early stages. In 1996, the Government Finance Officers Association (GFOA) published the results of an inquiry to 13,000 members asking about the use of ABC/ABM in their governments. The result of the inquiry revealed that there are a limited number of reports of ABC implementation. Lately, activity-based costing as a concept has been more interesting to investigate in the public sector (Pettersen 2001; Lapsley and Wright 2004; Järvinen 2005; Tammi 2006 and Baird 2007). The government needs or desires a better cost-accounting system for the services it provides. The reasons for this are: mounting pressures by citizens and elected officials to hold steady or even reduce costs, and mounting interest in measuring and evaluating performance. Performance measurement, i.e. cost per patient-day, cost per student, cost per invoice, per meeting, is accurate cost data. The ABC study in government conducted by Brown et al. (1999) argues that there are, indeed, considerable benefits to be derived from implementing an ABC system, many of which relate to heightened cost awareness of the activities and better decision making relating to the products and services in the organisation: *"ABC is about much more than cutting costs, but the positive use of ABC must be identified and sincerely sold to the organisation if the full benefits of the system are to be realized"*.

An emphasis on modernisation is expected from public sector organisations (Arnaboldi and Lapsley 2004). Therefore these organisations have deployed a variety of tools to achieve modernisation, including new structures and new procedures. Armstrong (2002) challenges the contention that cost causality of ABC is any more meaningful than conventional cost allocation. There is however emergent literature that challenges the predicted benefits of ABC and proposes that it may be an unreliable costing method (Armstrong 2002).

Lapsley et al. (2003) investigated how management accounting innovations, such as, costing, budgeting and performance measurement tools could be used in the public sector. The research was carried out in Scotland and a total of 258 members from public sector organisations were identified. The result showed that the most important reason for accounting innovation in public sector organisations is statute, regulation or government pressure. Key performance indicators (KPIs) were used by all public sector organisations with 100 % of local authorities, 94 % of government agencies and 77 % of health care organisations. The balanced scorecard was used in 26 % of local authorities and government agencies. Lapsley et al. (2003) found that ABC was the only method that had a significant reported use in the public sector. It was noted that the area of costing showed the least ac-

tion in terms of the implementation of new technologies. Interestingly, Jackson and Lapsley found that most local authorities did not report the discarding of any accounting techniques. Abandonment had arisen due to changes in government policy or because the techniques were too costly to implement. When compared to the results of Malmi (1997), he also discovered that only 3.1 % of respondents had rejected ABC as it was too expensive. It is also worth noting that Cobb et al. (1992) found small companies rejecting ABC, because it was too costly. This was after adopting it. In Malmi's research, companies had rejected ABC based on costs before adopting it.

There may be some distinctive aspects of governmental settings that hinder the development and implementation of ABC, for example, the regulatory environment of local government in which statutory requirement dominate other considerations. The annual accounts are prescribed by central government and are compulsory and this makes them a dominant form of accounting information. This complex environment makes ABC implementation a challenge (Arnabodi and Lapsley 2004).

2.4.3 Balanced Scorecard

The balanced scorecard (BSC) concept (Kaplan and Norton 1992) has gained popularity among non-profit organisations (Chang 2006). The BSC concept is now actively proposed by consultancies and a growing number of public sector organisations. It can also provide a basis for organisational learning. From the research point of view it has been observed that the causal links between strategic objectives are of importance in the BSC model (Kasperskaya 2008). According to Rautiainen (2004), an efficiency perspective should be added to the scorecard-thinking of the public sector. When causal relationships (cause and effect) have been recognized, it is easier to examine the sectors and factors that have a significant role in achieving the targeted outcome. Rautiainen (2004) emphasizes the causal links in a strategy map, which can be revised with learning loop in order to give more emphasis to the idea of continuous improvement and learning in the municipal strategy map model (see Figure 3). If the signals are positive then the learning may enhance extraordinary success in municipal operations and thus benefit the society extensively.

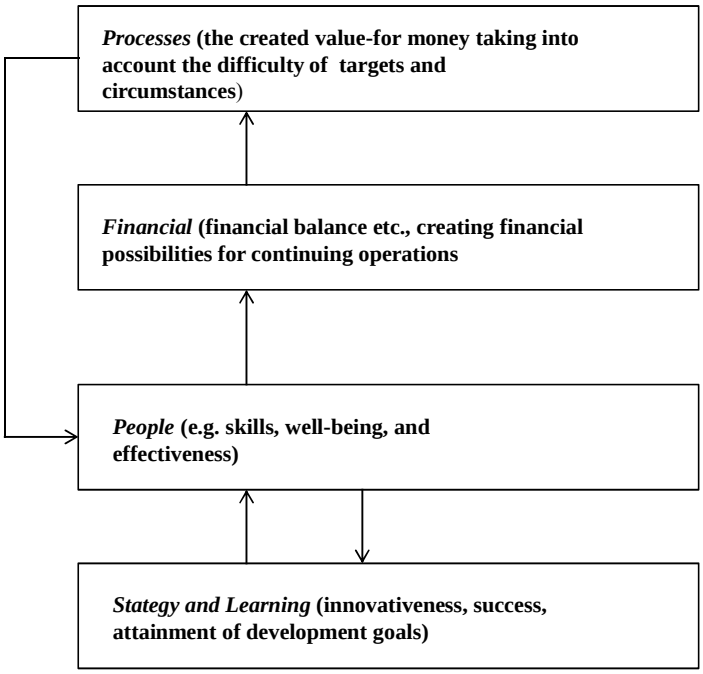

Figure 3. The Municipal Strategy Map Model (adopted from Rautiainen 2004).

Niven (2002) stresses that public-sector organisations should focus on what is being accomplished, not how much is being spent. Niven (2002) states:

"Recognizing the importance of measuring the mission, public-sector organisations have reorganized the Balanced Scorecard by placing the overarching goals and objectives represented by the mission at the top of the framework. Customer requirements, not financial objectives, are critical to meeting the mission, and therefore the Customer perspective is also elevated in the public sector and not-for-profit sectors. Internal Processes, Employee Learning and Growth, and even Financial metrics are still important and have a place on the Balanced Scorecard".

Modell (2005) stresses that the implementation of performance measurements system in the public sector has proved far from unproblematic and points out that one ought not to focus only on the technical problems in defining and measuring public-sector performance: "*The technical details should not be viewed in isolation from social and political processes unfolding in the public sector"*.

2.4.4 BSC and ABC Interaction in the Public Sector

Cost accounting and performance measurement is not a new professional application, and the costing and measuring of government services has been a concern of government managers for many years. Activity-based costing and the balanced scorecard are prominent in the literature of management. Nevertheless, the nature of management accounting practices where ABC and BSC are combined together

has not been examined in the public sector compared to the private sector. It would be desirable for studies to be undertaken in the public sector where the respective management accounting techniques have been combined together because several studies have been carried out with no connection drawn between the respective tools in the public sector. How do we account for the more recent interest of government organisations with the connection between ABC and BSC? The government is, in fact, increasingly aware of and interested in ABC and BSC as separate tools. Previous studies have observed that, within the health service, re-designed balanced scorecards open up new possibilities for medical professionals looking for a better quality of health care. Medical professionals see the opportunities of using the BSC to put the patients, staff and processes in the spotlight. New forms of control arise, bringing with them problems to be solved; this leads to the changes becoming institutionalised (Aidemark 2001, 23-24). The studies show that these kinds of new management techniques are useful when measuring and reporting governmental performance (Kidwell et al., 2002).

2.5 Summary of earlier Studies

The literature points out that organisations develop and implement ABC and BSC in order to improve their customer or product profitability. During the implementation process, most of the organisations have a tendency to either succeed or fail. The literature indicates that the problems in ABC and BSC implementation are of technical, organisational, behavioural and cultural nature. Technical aspects include difficulties in identifying cost drivers and analysing activity costs. Organisational, behavioural and cultural aspects include how individuals protect themselves and how the organisation structure are organised (see also Shields 1995; Shields and McEwen 1996). The failure of ABC implementation has to do with a lack of adequate internal resources and a lack of standard vocabulary (see also Drumheller 1993; Jones 1991; Smith 1995). There are many reasons why organisations implement ABC; one is to be as competitive as possible in the market or to adjust the prices for services and products. The main reason, however, is not of an economic nature (see Agbejule and Laitinen, 1996).

In the present study the observed problems during the construction and implementation phase are classed as technically, behaviourally or organisationally oriented and oriented around organisational change. This study indicates that the main problems in the implementation phase were of a behavioural and organisational nature.

In the following Table (Table 1) the researcher has described and summed up the most important studies from his point of view, about PMT, ABC and BSC both in

the private and public sector from the institutional theory perspective (the institutional theory will be introduced in Chapter 3). The studies are from the late 1990´s and late 2000´s. In this table the researcher has referred especially to the kinds of studies that touch his own fields of research. The viewpoints of the study are related to the institutional theory and the tools to ABC (Activity-based costing) and BSC (Balanced Scorecard). The table is also an overview of the results the researchers have got from their own studies. The Table includes the following components: authors, topics, theoretical methods, main data, tools, research methods and results.

Most of the studies are carried out as case studies and the research approach is from institutional perspectives both from the private and public sectors from Scandinavian and European countries. The studies in Table 1 are dealt with issues that are important when modern accounting systems such as ABC and BSC are implemented in organisations. The issues have been including following issues: the earlier experiences of the systems, ability of modern existing IT systems in the case organisation, complementary effects between BSC and ABC, the top management support, adequate training, consensus about objectives, making the organisations transparent, communication and guiding the management in a new direction. In addition, one should notice that governmental influence and political actors greatly affect the adoption of accounting innovations by public sector organisations. It has also been observed that Government regulatory policies (Local Government Act and Local government Finance Standards) are the primary catalyst for a move to NPM ideals in the public sector organisations. This kind of regulation represents coercive institutionalism and when the innovations are implemented in the organisation it may be construed as mimetic if copied from another successful public sector organisation to gain legi timacy in operating environments (DiMaggio and Powell 1983; Eriksson-Zetterqvist 2009).

As we can note from the Table 1 below, there are many studies around the key topic issues of this thesis. However, as yet there is little prior literature on the exact topic of a steering system where the tools are combined together in a public sector organisation. Surprisingly it was noticed that in the attached Table there are no examples of applied constructive studies. According to a review made by Kasanen et. al (1993) only three dissertations adhered to constructive research among 42 Finnish accounting dissertations in 1944-1984. Since then there have been a few more constructive studies but the number of published studies using it is still quite small (Kasanen et al. 1993; Lukka 1999, 2000, 2003; Labro and Tuomela 2003 and Wingren 2005; Kihn & Näsi 2010). Referring to the Table 1 there is only one study (Wingren 2005) which methodological approach can correctly be classified as a constructive category. All studies in the same Table were published in the field of management accounting during a period from 1996 to 2008.

Table 1. Summary of Findings regarding Management Accounting Systems in the Private and Public Sectors (PMT/ABC/BSC/performance measurement)

Private Sector:

Authors	Topic/ Main theme	Theoretical methods	Main data	Tools	Research methods	Major conclusions/ results
Wingren (2005)	Mass-Tailorization, Implementation of ABC	Implementation theory, Mass-tailored ABC concept	Interviews	ABC/ BSC	Cases	The group with earlier experience of ABC reported mass-tailored ABC to be better than the traditional ABC in many important respects.
Labro and Tuomela (2003)	Management accounting research: process considerations based on two constructive case studies	Implementation theory	Interviews, participant observations	ABC, BSC	Single case (2)	CRA to research management accounting practices helped to close the gap between theory and practice and brought action into management accounting.
Maiga and Jacobs (2003)	BSC, ABC and Company Performance: An Empirical Analysis	Implementation theory	Question-naires	ABC/ BSC	Survey	The results of this study indicate that each of the four BSC perspectives interact with ABC to affect performance.
Soin et al. (2002)	ABC and Organisational Change: An Institutional Perspective	Old institutional economics	Interviews	ABC	Single case (1)	The team succeed in in-stitutionalising a less radical version of ABC that revealed new links between costs and products but did not transform the strategic thinking of the bank's senior management.

Kasurinen (2002)	Exploring management accounting change in BSC	New institutional sociology/ new institutional economics	Interviews	BSC	Single case	The barriers were divided into 3 subcategories. This made the re-cognition of the role of managers in the change process easier.
Hussain (2000)	Management Accounting System in Services	New institutional sociology	Interviews	ABC	Single case study	Several factors have been identified within NIS that affect NFP measurement, of which economic impact is the most influential.
Agbejule (2000)	ABC Implementation in Finland	New institutional sociology/ institutional economics	Interviews participant observation	ABC	Single case (3) 2 field survey	In companies, there will be different types of implementation. In addition, the study shows that different factors affect the differrent stages of implementation.
Pastinen (1998)	Process Improvement Essentials: A Framework for Creating and Implementing Operational Improvements Plans	Implementation theory	Interviews	PMT	Cases (15)	The constructive approach takes both a broad and narrow perspective to process improvement. There are strong suggestions that the process tool is working well in practice and that it is powerful.
Laakso (1997)	Performance Evaluation and Process Interventions	Implementation theory	Interviews Observations	PMT	Cases	Time and cost of non-conformance are considered to be the primary hard process comprehension. In addition, practical tools are needed to make the analysis.
Shields and McEwen (1996)	Implementing ABC Systems Successfully	Implementation theory	Question-naires	ABC	Cases (143)	Specific behavioural and organisational factors are important for successful implementation, management support etc.

Public Sector:

Authors	Topic Main theme	Methods Theoretical basis	Main data	Tools	Research methods	Major conclusions/ results
Rautiainen (2010)	Contending legimations: PM coupling and decoupling in two Finnish cities	New institutional Economics	Interviews	BSC	Survey	It was found that a city is likely to experience decoupling of formal PM rules and routines if there are conflicting normative institutional pressures among decision makers (especially of City Board members).
Kasperskaya (2008)	Implementing BSC: A Comparative Study of Two Spanish City Councils	New institutional sociology/Old Institutional Economics	Interviews and informal talks	BSC	Cases (2)	New rules, which are designed in conjunction with existing organisational routines and are flexible in their format, are shown to have a greater chance of winning managerial acceptance.
Baird (2007)	Adoption of activity management practices in public sector organisation	Implementation theory	Question-naires	ABC	Survey	The results might indicate that public sector organisation place greater value on analysing their activities for purpose of improving processes and subsequently improving their efficiency and effectiveness.
Tammi (2006)	The Possibilities and Benefits of using ABC in the Management Municipal Context	Implementation theory	Interviews	ABC	Case study (Finnish Municipalities)	ABC makes the organisations transparent and at the same time increases the understanding of co-operation. ABC has also inspired the organisation to guide management in a new direction.
Chang (2006)	Managerial responses to externally imposed performance measurement in the NHS	Institutional theory	Interviews observations	PM	Field work	The performance of health autho-rities was more dependent on financial resources allocated by central government.
Järvinen (2005)	Rationale for Adopting ABC in Hospitals	Institutional theory	Interviews Documents observations	ABC	Case (3)	Different constraints imposed on efficiency seeking behaviour such as ABC implementation may lead to differrent solutions concerning implementation.

Hoque (2005)	Securing institional legitimacy or organisational effectiviness?	NPM and Neo-institutional theory	Interviews, documents	PM	Case study	Government regulatory policies were the primary catalyst for a move to NPM ideals in the case organisation.
Modell (2005	An Institutional Field-level Analysis of the Construction of PM Practices	Institutional theory (NIS)	Interviews	PM	Case study	Particular attention is paid to the political interplay between different actors competing to dominate the representation of student interests in this organisational field.
Sihvonen and Lumijärvi (2004)	Moving towards BSC-Based Performance of ABC	Implementation theory	Interviews Questionnaires	BSC	Single case	The majority of the elected officials and civil servants say that they have used balanced indicators in decision-making and they felt that measurement information steers their behaviour.
Rautiainen (2004)	PM in municipalities	Theory of organisational learning	Analysis of Statistics/Financial statements	PM BSC	Survey	The analysis of the cost-effectiveness of municipalities should be made using several perspectives e.g. BSC
Aidemark and Lindkvist (2004)	A Study of Two Hospitals run as Limited Companies	Institutional theory	Interviews	PM	Case study (2)	The leadership of the hospitals becomes more commercially minded and develops more rapid decision-making procedures.
Lapsley and Wright (2004)	The Diffusion of Management Accounting Innovations in the Public Sector	Implementation theory Innovation theory	Questionnaires	ABC/ BSC	Survey	The survey indicates that adoption of accounting innovations by public sector organisations is largely affected by governmental influence.
Calluzzo and Ittner (2004)	Implementing PM Innovations: Evidence from Government	Implementation theory	Questionnaires	PM	Survey 24 large executive branch agencies	The performance measure development is hindered by inadequate training, the inability of existing IT systems to provide timely, reliable, and valid data in a cost effective manner.

Askim (2004)	Adapting the BSC in Larvik Municipality	Theory of organisational learning	Interviews and document studies	BSC	Case	Governmental organisations from a wide range of areas of service delivery can become more active learners by adapting a performance management reform like the balanced scorecard.
Pettersen (2001)	The NPM Reforms in the Norwegian Hospital Sector	Implementation theory	Interviews	PM/ ABC/ BSC	Single case	Public sector reforms are significantly affected by political actors and by the current context of reforms and change processes at the institutional level.
Aidemark (2001)	The Meaning of BSC's in the Health Care Organisation	Implementation theory	Interviews	BSC	Survey	BSC replaced the one-sided financial measurement with control mechanisms.
Rivenbark and Kelly (2000)	PM: A Local Government Response	Implementation theory	Interviews Question-naires	PM	Survey (41 munici-palities)	The measurement of PM is not important to the individuals who construct the budget and are not perceived as important to those empowered to act on the budget recommendation.
Johnsen (1999)	Implementation Mode and Local Government PM	Implementation theory New institutional theory	Data Document	PM	Case (4)	Participation has been enhanced by the extensive use of employee and middle manager work groups and with the networks of the other municipalities.

Kihn and Näsi (2010) have presented a summary of 43 doctoral dissertations in management accounting published in Finland during the past two decades, a period from 1990 to 2009. Their study shows that the numbers of constructive studies have significantly increased from zero during the period 1990–1999 to 4 during period 2000–2009 (about 9 per cent). According to their results, the action-oriented approach was the most popular in the past two decades. The Table 1 shows that three management accounting techniques have been used in the studies during period 1996–2010. ABC and BSC have been most popular management accounting techniques used in the studies, 24 of (78.6 %) of the 28 studies. PMT technique has only been used twice, 7.1 % of the 28 studies. These findings are in line with Kihn and Näsi´s (2010) study. Kihn and Näsi´s (2010) results indicated that the research themes have slightly changed from cost and pricing and other topics to control. Based on the table it can be concluded that the implementation theory was the most common theory and was used in 53.5 %, NIS in 25 % and OIE in 10 %. NIS and OIE were simultaneously used only twice. Regarding to research methods, the case method was used to 68 % and surveys to 32 %.

In this research, studying the combination of PMT, ABC and BSC for the public sector was seen as an important research choice. The research is seen here as a broader performance measurement system as it includes more than one method in the research project. It may be successful that organisations operating in uncertain conditions have a broader perspective in decision making. This type of management accounting seems to be consistent with Malmi and Brown´s (2008) concept of management control systems, MCS operating as a package.

In sum, several studies in the above table are useful and the results of ABC and BSC have inspired the organisations to guide the management accounting in a new direction. Unfortunately there has been little discussion about the connections and causal relationships between the both accounting methods.

3 THE INSTITUTIONAL THEORY AND IMPLEMENTATION LITERATURE

3.1 Backgrounds

Scapens and Roberts (1993) stated that there may be conflict and resistance over new accounting change, due to the failure to secure the legitimacy of a new system and an inability to find a workable relationship between individuals and accounting. Therefore, it is important to study the relationship between accounting practices and other organisational routines. Scapens (2006) mentions that there will be also unique factors, relating to the specific organisation, shaping its management accounting practices. One ought to study the wide array of inter-related influences and in this regard institutional theory can help us to understand management accounting practices (internal and external pressures). Accounting practices are routines for doing things (periodic planning behaviour), choosing what to do (pricing and resource allocation) and monitoring what has been done (performance reporting). In a complex and uncertain world, it would be impossible for an individual to make decisions in the manner assumed in rational models. Institutions and routines create stability and social order through the provision of information on how others may be expected to behave (Hodgson 1988).

The use of institutional theory has been popular among management accounting researchers from different parts of the world (e.g. Oliver 1991; Covaleski and Dirsmith 1993; Scapens 1994; Carruthers 1995; Walker 1998; Johnsen 1999; Burns and Scapens 2000; Pettersen 2001; Aidemark 2001a; Modell 2001; 2005; 2009; Aidemark and Lindqvist 2004, Chang 2006, Kasperskaya 2008, Modell 2009 and Ashworth et al. 2009; Eriksson-Zetterqvist 2009).

Institutional theory has even been utilised in Finnish research (e.g. Malmi 1997 and 1999; Granlund 1998; Granlund and Lukka 1998 and 1998b, Agbejule 2000; Hussein 2000; Järvenpää 2002 ; Kasurinen 2002, Järvinen 2005 and Lukka 2007, Rautiainen 2008; 2009; 2010). Researchers believe that an institutional approach has advantages, as it more closely examines problems of implementation in power relationships and conflicting stakeholder interests (Covaleski et al., 1996; Rautiainen 2010), which are of particular interest in the local government sector. Three institutional theories are used in accounting literature: *New Institutional Sociology NIS* (see, for example DiMaggio and Powell 1983, Meyer and Scott 1983, Covaleski et al. 1993 and Carruthers 1995); *Old Institutional Economics OIE* (Meyer and Rowan 1977 and Scapens 1994); and *New Institutional Economics NIE* (Foster and Ward 1994). All three offer insights, which are helpful for

conceptualising management accounting change, but this research is based on the NIS- and the OIE theory. NIE´s view of accounting is fundamentally rooted in neo-classical economic theory, which focuses on rationally maximising the behaviour of individual decisions-makers and economic equilibrium. OIE is useful in the present context as it provides a focus on organisational routines and their institutionalisation, and in studying management accounting change, especially changes in organisational routines (Scapens 1994; Burns and Scapens 2000). NIS predominately focuses on the effect of extra-organisational institutions (social, economic and political) on the accounting practices of organisations more generally. NIS is not especially suitable for describing the inter-organisational dynamics of change. According to Kasperskaya (2008): "NIS is primarily concerned with explaining the uniformity and similarity of adopted organisational models, and in particular institutional environments. NIS cannot explain why two organisations experiencing similar institutional pressures may handle them differently". These two institutional perspectives can develop our understanding of Public Sector Management Steering System (PSMSS) development and implementation. Institutional theory has become a notable lens through which processes and change in organisations are interpreted and understood (Ashworth et al. 2009: 166)**.** Burns and Scapens (1998: 32) state: *"To understand these micro-processes it is necessary to recognise the institutional context, both within the organisations (rules, routines, and institutions) and outside (broader social, economic, and political institutions of the organisational field)".*

From the description above one might think that there are two worlds: the one that is governed by micro-actors (persons and organisations), and the other that is governed by macro-actors (state and society). Here Czarniawska and Sevon (1996:7) emphasize that there is only one world: "*Micro-actors associate, creating networks. As network's operation acquires a relative stability, the network begins to be perceived, or conceived of, as a macro-actor, by definition more powerful than any microactor".*

3.2 New Institutional Sociology (NIS)

An important notion in NIS is *isomorphism*, which argues that organisations facing similar institutional environments tend to adopt similar formal structures. NIS includes three major types of institutional isomorphism: coercive, normative and mimetic pressures/processes. The kind of pressures, that are of importance for this study, are for example, legislation and policy, management competence, corporate culture, management strategy and ability to copy management accounting systems (MAS) from other successful organisations. Scott (1995:33-34) empha-

sises about NIS theory: *"Institutions consist of cognitive, normative and regulative structures and activities that provide stability and meaning to social behaviour. Institutions are transported by various carriers-cultures, structures, and routines – and they operate at multiple levels of jurisdiction"*.

Kasperskaya (2008) states: *"Adherents of this approach argue that in consequence organisations often adopt and use new organisational models ceremonially: not for the sake of greater efficiency but for the purpose of signalling the availability of practices which enhance the organisations´ image and legitimise them in their social contexts. Possessing the 'right' image brings social recognition and gives privileged access to resources, which is especially relevant in the often highly regulated public sector"*.

This theory is adopted in this study to better capture various pressures in public sector practice rather than other theories, such as contingency theory. Brignall (1997) argues: *"Contingency theory has been criticized for its simplistic treatment of power, choice and the existence of multiple stakeholders, each of which have many overlapping but different objectives"*. Furthermore, most contingency research on management accounting has focused on systems design and only rarely discusses implementation issues.

An institutional approach provides better possibilities and advantages to examine problems of implementation in power relationships, and notices the stakeholders' interest from several perspectives. Institutional research has provided considerably greater insights into the complex political processes involved when devising performance management practices (Modell 2005). The institutional views hold that organisations may adopt cost and performance management systems because of institutional benefits, i.e. the benefits gained through political reasons concerning legitimacy and power (Carruthers 1995). Many organisations have chosen to adopt ABC and BSC in order to gain benefits by appearing "modern" and "cost conscious" (Covaleski et al. 1993). Other systems, like diagnosis-related groups (DRG), may have been developed and enacted in hospitals mainly because of government pressure.

In his study, Modell (2005) investigated how institutional setbacks arise and become permanent over time, and which strategies should be used in dealing with institutional requirements and setbacks. Strategies for coping with institutional demands to adapt, adopted by individual organisations, are characterised by varying degrees of resistance (Oliver 1991). However, when strong forces encourage adapting to institutional norms (as is the case when obligatory legislation is introduced, for example, or when adapting is associated with large legitimacy conflicts), there is limited room and motivation for resistance. This is often represent-

ed as obvious tendencies towards institutional isomorphism (DiMaggio and Powell 1983). The New Institutional Sociology perspective is suggested to be very useful for understanding the development and implementation processes from macro perspectives, especially when NIS focuses on the effect of extra-organisational institutions, for example functions concerning social, economic and political issues.

Subsequently a view was taken of NIS-theory and influence on the constructed steering model in local government with respect to economic impact (competition, technological advancement, economic condition and characteristics of organisations), coercive pressure (legislation and policy), normative influence (management´s competence, corporate culture and management´s strategic) and its mimetic factors (integrating of cost, performance measurement systems with the organisation's objectives and copying PMS from other organisations).

3.2.1 Economic Impact

The impact of competition on the performance measurement system in local government

A number of recent accounting studies point out that traditional accounting and accounting-based performance measures are inappropriate in today's uncertain economic and complex competitive environment (Ballantine and Brignall 1995). The agencies that produce the public services of education, welfare and hospital services have a vested interest to implement new accounting techniques because the current accounting methods do not measure activities in the future (Pettersen 2001). Brignall (1997) proposed the need for interactive management information systems in services operating within competitive environments. Fisher (1995) identified three principal reasons that organisations adopt non-financial measures and one of these is competitive pressure (economic impact). Municipalities in Finland have earlier never been under much pressure to be competitive.

The public sector organisations have become more outcome-oriented nowadays and therefore they have high expectations for performance and competitiveness. This is one reason why they prefer activity management in order to facilitate improvements in processes and performance (Baird 2007). Ter Bogt´s (2008) study argues that striving for efficiency and effectiveness perhaps was not so much an intrinsic desire based on economic rationality, instead it was probably impacted by factors such as financial stress and particularly external expectations and pressures.

The impact of technological advancement on the performance measurement system in local government

With respect to prior public sector literature it has been noticed that traditional accounting-based measures of organisational performance are outdated due to recent technological developments. At present, the impact of technology on management accounting practices is documented in public management literature and institutional theory literature (Johnson and Kaplan 1987; Johnsen 1999; Aidemark and Lindqvist 2004). Modern public sector organisations throughout the world face the same basic set of management challenges: *to improve effectiveness, to improve efficiency, and to improve accountability* (Melese et al. 2004). The trends of management systems show that we are also approaching market-oriented systems in the public sector, and new management techniques will be needed to steer the organisation (Arnaboldi and Lapsley 2003; Ter Bogt 2008). These new techniques are associated with a new global reform movement called New Public Financial Management (NPFM) which will introduce cost-improvement programmes, performance indicators and financial management information systems to the public sector (Hood 1995). Accountability in the public sector is now increasingly defined in terms of output, outcome and value for money. Standards of effectiveness, efficiency and productivity will also be monitored (McSweeney and Sherer 1990; Broadbent et al. 1991; Pollitt 1993). This is closely tied within the strategy systems as stated by Ittner and Larcker (1998: 205): *"Performance measurement systems play a key role in developing strategic plans, evaluating the achievement of organisational objectives".*

Several studies have seen the adoption of a wide variety of management techniques that have failed later. However, what all of these management methods have in common is that the changes in practice and behaviour required to make them successful have to be managed. The ability to manage the human side of change effectively is a major source of competitive advantage (Gilbert 1996). The problems, which have often been related to implementation phases, are concerned with organisational and technical factors. The operational and technical factors are most affected by top-level management agreeing to use information based on achievement and developing new innovative technology. The technical factors are concerned with the difficulty in choosing correct and appropriate measurements and limitations on data because of unreliable and underdeveloped information systems (Shields 1995).

The impact of economic conditions on the performance measurement system in local government

Contextual variables comprise motives and opportunities for reforms and innovations (Monsen and Näsi 1998). One of the motives is "financial crisis" in the governing public bureaucracy and in the production of services. These services can be derived from a social or political process connected to the political climate. Sometimes, a lack of resources exits in the service producing agencies (Olsen and Peters 1994).

Empirical research from a Dutch local government shows that there has been relatively more political uncertainty and instability as of late due to budget cuts. The research findings suggest that the focus could be on: "further development of benchmarking and performance measurement, transparency and cooperation with other organisations in both public and private sectors" (Ter Bogt 2008).

The impact of the characteristics of organisation on the performance measurement system in local government

The kind and size of local government may impact on the practice of non-financial management accounting. Opting for a flat organisation structure may well be desirable to foster quality improvement, but is not the best way to control cost or encourage innovation (Gilbert 1996; Ter Bogt 2008). Contingency theories of organisations suggest that as firm size increases, accounting information and control processes tend to become more specialised and sophisticated (Ezzamel 1990; Libby and Waterhouse 1996). From this point of view we can expect that a small organisation has less experience with BSC. In the BSC-research made by Speckbacher et al. (2003) in German-speaking countries, i.e. Germany, Austria and Switzerland, it was found that larger organisations are more likely to have implemented a balanced scored concept. In their study of the use of PM in the public sector (LG), Rivenbark and Kelly (2000) report that it is most likely that cities with a population of 100,000 or more use PM, and that it is considered important in the majority of cities where it is used (62%). Langfield-Smith et al. (1998) state that activity management is being adopted more in larger organisations due to a greater demand for accounting information and the fact that these organisations have better resources to handle such practices, thereby resulting in better outcomes.

The size of an organisation was observed to be positively related to its innovativeness. The larger organisations possess a big enough pool of technical expertise and resources. Conversely, a large part of the public sector has a centralisation of power, which means that the power and control systems are concentrated to a handful of individuals. This kind of power has been found to be too negatively associated with innovativeness, which means that the more power is concentrated in the organisation, the less innovative the organisation tends to be. On in the other hand, it is easier to implement an innovation in a centralised organisation than in a decentralised organisation (Rogers 1995).

3.2.2 Coercive Pressures

According to Ashworth et al. (2009) coercive forces are described as external pressures exerted by government to implement the structures or systems that they favour. The role or coercive forces in NIS highlights the impact of political rather than technical influences on organisational change.

The pressures of legislation/Policy on the performance measurement system in local government

According to earlier studies, e.g. in Norwegian hospitals, it is reported that the reform processes associated to non-financial performance measurement, NFPM, are not characterised by simple adjustments; the reform concepts are modified on their journey from political decisions to the implementation process on a lower level locally. To understand the change process it is important to study both the governmental activities and local activities (Pettersen 2001). According to Brunsson and Olsen (1993), change is referred to as organisational learning and is both routine-based and goal-orientated. In the public sector, the procedures generated by the reforms can also be a reflection of what is considered suitable and legitimate rather than a result of rational calculations and choices.

Observations of a decentralised public sector organisation suggest that the managers of local units might perceive that performance measurement, PMs, imposed by central government have a little influence on internal improvement. At the same time Chang (2006) states that managers have to provide required PM information to secure their survival and legitimacy in the eyes of a somewhat coercive central government. Modell (2001) found that for seeking stability, the managers intended to act more proactively to decouple financial and non-financial PMs to balance the interests of the constituents.

Most of the innovations in governmental accounting are centrally driven. According to studies, innovation is politically led by governmental decisions and implemented locally. Decisions are often made at a higher level in the public sector where the state's influence is strong. If the decision-making power of the state is weak, then innovation process changes will be easier to implement at a local level according to the local factors. Pettersen (2001) argues that the implementation of innovations depends heavily on the relative strength of the central government when compared to the local administration and autonomous institution. In local government, it appears that the aim of the budgeting process in the future will be to apply the accrual principle when making the budget. This change will be hard to perform since "politicians" do not like to be held accountable for the long-term commitments they decide. They budget for one year but public sector mandates for elected officials typically exceed one year. Therefore, one-year financial statements do not give a true picture of what they have achieved. Good accountability should authoritatively relate to a financial statement as well as to information on management performance for the whole mandate period (Lande and Scheid 2004). Olsen and Peters (1996) draw attention to the ambiguity and uncertainty of political life because political behaviour is also driven by normative convictions and basic principles rather than simply by cost – benefit calculations.

In Finland there are several institutions that give recommendations, publish handbooks, and provide guidance and training in municipal budgeting and accounting matters. In addition, there are also institutions that interpret and guide the implementation of accounting legislation and other accounting norms. It is worth noting the following legislation and norms that regulate municipal budgeting and accounting in Finland: Constitution of Finland (1999), Local Government Act (1995), Accounting Act and Decree (1997), Guidance and Statements given by the Accounting Committee and by the municipal section of the Accounting Committee and Guidance, rules and regulations given by the Association of Finnish Local and Regional Authorities (Näsi 2004).

3.2.3 Normative Influences

Normative forces describe the effect of professional standards and the influence of professional communities on organisational characteristics. They help us to understand why organisations are expected to conform to standards of professionalism and to implement systems considered to be legitimate by relevant professional groupings (Ashwort et al. 2009).

The influences of management's competence on the performance measurement system in local government

Scapens (1994) argues that it is important to explore factors, such as "*how practices evolve and how accountants and managers are trained."* Therefore, in order to understand the practice in performance measurement systems, the effects of management's competence and skills need to be understood.

Hussain (2000: 95) argues: *"Since normative pressures influence management to act or behave according to the rules and obligations appropriate to social conduct, educated, trained experienced management would implement and practice of non-financial performance management, NFPM, more frequently. Conversely, with less educated, trained and experienced management, the practice and implementation of non- financial performance management would be less frequent or jeopardised".*

The influences of management and corporate culture on the performance measurement system in local government

Within the management strategies of the public sector both the political dimensions of its activities as well as the contents of the strategies are emphasised. A significant proportion of decisive strategic processes happen in politically elected decision-making organisations; the people in these groups have differing opinions about the goals of the operations and which activities should be prioritised. These aspects make strategic management in the public sector difficult and multi-faceted (Neilimo and Näsi 1980). In Finnish cities, strategic management is the responsibility of the city council, administration and Mayor (Tilli and Kotonen 2003: 27).

3.2.4 Mimetic Factors

Integration of management accounting innovation with strategy in local government

Management teams unable to implement and practise management accounting systems (MAS)[20] in their organisation copy MAS from other successful organisa-

[20] A management accounting system can be defined as a system for gathering and communicating data for the ends of adding and coordinating collective decisions in the light of the overall goals or objectives of an organisation.

tions (O´Neill et al. 1998). Finnish municipalities have done the same by copying (imitate) MAS from other successful municipalities. This kind of copying aims to gain legitimacy for their operating environments (DiMaggio and Powell 1983). The purpose is to inform and share best practices so that best value authorities can learn from one each other and deliver higher quality services to all citizens in the municipalities.

Hussain (2000) highlights the importance of linking organisational structure and strategy with controls in which performance measurement, PM becomes very important. O´Neill et al. (1998) state: *"where management is unable to implement and practice MAS for reasons such as inability to link strategy to operational activities, they mostly in uncertain climates copy publicly-appreciated best practice MAS from other successful organisations".*

3.3 Old Institutional Economics (OIE)

The Old Institutional Economics perspective is said to be very useful for understanding the development and reproduction of accounting practices (Scapens 1994: 301–313; Burns and Scapens 2000: 3–25**).** Scapens (1994: 301) views accounting practices "as institutionalised routines which enable organisations to reproduce and legitimate behaviour, and to achieve organisational cohesion" This study will analyse a framework that explores the complex and ongoing relationship between actions and institutions. In addition, the framework illustrates the special significance of organisational routines and institutions in shaping the processes of change in management accounting. This framework has been a good starting point for this study and has helped the researcher to handle this study's complexity through focusing, understanding and exploring issues of great value.

Based on Barley and Tolbert (1997), Burns and Scapens (2000) have divided the process of institutionalisation into four sub-processes: encoding, enacting, reproduction and institutionalisation (see Figure 4). The institutional principles are explored in regard to their taken-for-granted assumptions through their existence in meanings, values and power (Simons 1995). The process comprises of principles that will be encoded into rules and routines. Rules are defined as formalised statements of procedures and they change often at discrete intervals (institutions shape actions synchronically). Routines are in a continuous process of change. They can be described as procedures actually in use, actions produce and reproduce institutions diachronically (see Burns and Scapens 2000: 9).

As seen in Figure 4, Burns and Scapens (2000) introduce a distinction between the top of the figure representing institutional realm and the bottom representing the realm of action. The central part of the figure illustrates the rules and routines that link the realms through processes of encoding, enacting and reproduction. The rules and routines are in a cumulative process encoding the institutions in other words, the taken-for-granted assumptions of people in the organisation. Furthermore, the rules and routines shape people's actions. As a result, there may be changes in the rules and routines as people act to new situations (Scapens 2006). According to the above figure, the existing routines both embody the prevailing institutional principles and shape new rules thereby influencing the routines (Burns and Scapens 2000; Scapens 1994). In institutions, the taken-for-granted ways of thinking are slower to change as they are more abstracted from day-to-day activity (Scapens 2006: 15).

The theory suggests that a first step in applying the theory is an analysis of the institutional realm. After that it is important to recognise the encoding process (arrow a) of routines and rules that characterise the management steering in the case organisation and the four departments. We then identify the main actors and their relationship with the wider institutional realm. In the second process, organisational actors enact (arrow b) as the new management technologies are introduced. One key question in evaluating the changes revolves around the issue of reproduction (arrow c).

Particularly, the focus is on the development and implementation process and finally between the introduction of a new *rule* and the use of a new *routine.* The final process (arrow d) is the institutionalisation of rules and routines (steering system), which have been reproduced through the behaviour of the individual actors. These institutions are then encoded into the ongoing rules and routines that shape new rules.

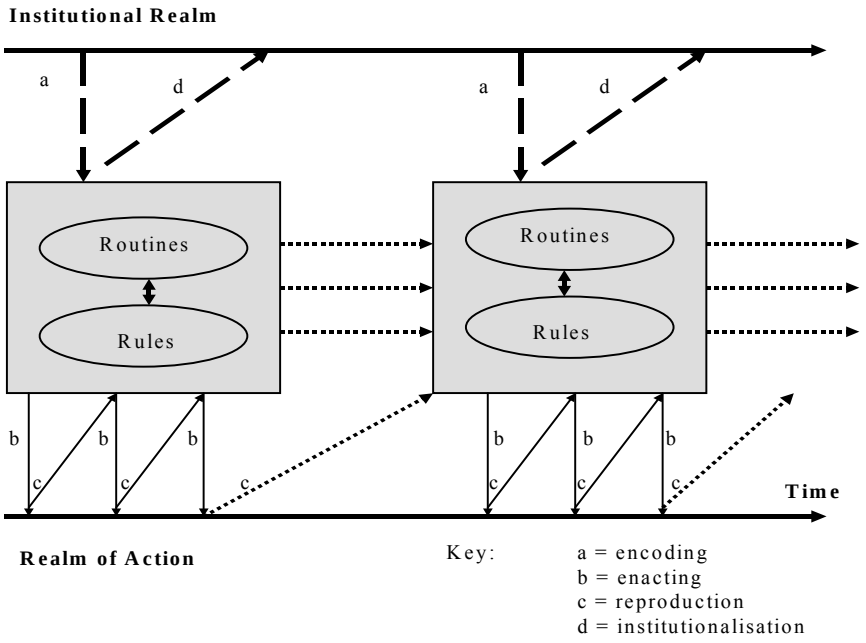

Figure 4. The Process of Institutionalisation (Burns and Scapens 2000).

The study by Burns' and Scapens' (2000) investigation is conducted at the level of the group. However Pihlanto (2000) notices that organisational work is carried out by individuals. Their actions have an obvious effect on the origin and modification of rules and routines. It can be added that Bhimani (1999) examines new institutionalism at the level of the individual, seemingly bringing forward a resemblance to Burns' and Scapens' version (2000). The researcher in this investigation focuses more on the individual than on the group. A desirable characteristic of theory of change is that it can offer a way of classifying the impact of the management accounting innovation on the organisation. From the OIE point of view, Burns and Scapens (2000) propose three dichotomies: formal versus informal change, i.e. conscious design as against tacit change; revolutionary versus evolutionary change or, in other words, fundamental disruption as opposed to gradual change; regressive versus progressive change, i.e. ceremonial as opposed to instrumental change.

3.3.1 Formal and Informal Management Accounting Change

Formal change occurs by conscious design, i.e. trough introduction of new rules or through the actions of a powerful individual group (Rutherford 1994). Burns and Scapens (2000) declare that: *"Informal change, however, occurs at a more tacit level; for example, as new routines adapt over time to changing operation*

conditions. It would probably be reasonable to expect that formal management accounting change (implementation of new management accounting systems) will be more straightforward than attempting to change the ways of thinking which are embedded in existing management accounting routines".

Evidence has proved that successful implementation require new ways of thinking (Burns and Scapens 2000: 18). Burns and Scpaens (2000) refer to a case study where tensions emerged for the managers as the new rules were incompatible with their established ways of thinking and behavioural norms embedded in the existing routines. Change can sometimes be imposed where sufficient power rests in those who are responsible for the implementation process of a new accounting system. Scapens and Roberts (1993) stress that it is only by exploring the organisational and historical contingencies influencing the process of accounting change that resistance can be understood. When studying change in management accounting it is useful to explore both the informal processes of change (unintentional) and formal processes change (intended). According to studies, informal processes of change are more difficult to handle than formal studies. A better approach might be to explore changes from other dimensions in the organisation regarding to ownership structure, indirect impact on the informal processes etc. (see Burns and Scapens 2000).

3.3.2 Revolutionary, Evolutionary, Regressive and Progressive Management Accounting Change

Burns and Spapens (2000) state: "Revolutionary change involves a fundamental disruption to existing routines and institutions. Evolutionary change is incremental with only minor disruption to existing routines and institutions". Nelson and Winter (1982) argue that most of changes in firms are evolutionary, where routines are adapted through replication, contraction and imitation. This notion is in line with Scapens (1994: 316) and he states: *"New accounting techniques and procedures will be introduced from time to time through actions of both managers and accountants. However, through the process of institutionalisation these techniques are procedures will evolve and adapt to new environmental conditions, as they become a taken-for granted part of organisational activity… New ideas, techniques and procedures may be accommodated within existing institutionalised routines (evolutionary change). But it may also be that completely new institutions are created (revolutionary change)."*

In this case study, the changes introduced by the new steering system could be classified as revolutionary because the new accounting system was absolutely a new way of thinking and acting, meaning that previous exposure to management

accounting information had been very limited. Completely new connections between costs, activities, processes and measures were established in the steering system, creating a new accounting-based organisational reality (Soin et al. 2002). Agbejule (2000) points out: *"Evolutionary changes are not planned whereas revolutionary changes are exactly planned and conscious choise. Revolutionary change is unpredictable and results in major changes in existing routines and institutions, where evolutionary change evolves through imitation, emulation, and/or adaptation of existing routines"*.

Tool (1993) offers insight into the processes of change in management accounting based on regressive and progressive institutional change. According to Tool (1993) he separates what he calls ceremonial behaviour and instrumental behaviour: "ceremonial behaviour emerges from a value system which discriminates between human beings and preserves existing power structures; whereas instrumental behaviour emerges from a value system which applies the best available knowledge and technology to problems and seeks to enhance relationship". Tool`s (1993) model adopted the term regressive change to support ceremonial dominance and adopted the term progressive change to displacement ceremonial behaviour by instrumental behaviour. In this case the implementation of a new steering system, relating to change, resembles regressive rather than progressive (Burns and Scapens 2000).

3.4 Loose Coupling or Decoupling in NIS/OIE Theories

In NIS theory literature two expressions - are regarded important - decoupling and loose coupling. Decoupling or loose-coupling occurs when formal rules conflict with actual work practices (Orton and Weick 1990). Johansson and Silverbo (2009) and Kasperskaya (2008) stress the decoupling: *"in NIS, the idea of decoupling is used to describe the discrepancy between rules and practice"*

Weick (1976) noted that organisations that apply loose coupling are more likely to adapt and respond to small external changes, and therefore survive. With loosely coupled systems, organisations are able to handle uncertainties and contingencies. Regarding to Lukka´s (2007) statement: *"Loose coupling means and posits that an organisation can have both rational and indeterminate elements simultaneously"*. This statement is focused on Lukka´s (2007) framework and based on institutional theory.

The common means of dealing with conflicting institutional pressures in public sector organisations is to de-couple the control systems at different levels of the organisation (see Abernethy and Chua 1996; Siti-Nabiha and Scapens 2005). Brignall and Modell (2000) pointed out that institutional pressures are of significance not only for the possibility of planning the integrated the performance measurement systems (PMS) but also for the balance between performance dimensions. Evidence has shown that the de-coupling of different parts of PMS is a rational managerial response to inconsistent stakeholder interest. This means that de-coupling does not use less formal PMS for controlling operations, but may occur in formal sub-systems at different hierarchical levels or in different decision-making contexts. A crude budgetary control de-coupled from its operating environment might gain legitimacy and in that way respond to increased institutional pressures for increased efficiency, for example. Other types of formal, non-financial controls can be used to meet the demands of a broader range of stakeholders (Abernethy and Chua 1996).

Studies show that when more coercive pressure from funding bodies for improving financial performance are at play, however, a forceful implementation process was successful throughout the organisational hierarchy. Oliver (1991) asserts that de-coupling could be possible in particular at moderate levels of institutional coercion and dependence. Parallel use of de-coupled PMS has allowed Norwegian municipal authorities to better manage their implementation process of sharing information between external political and internal management (Johnsen 1999). Brignall and Modell (2000) summarize that an integrated PMS model could be a close link between financial measures at different levels, but not between measures that are favoured by professional groups and funding bodies. In this study, the financial measures (budget) filled the symbolic and ceremonial role of legitimating the organisation to funding bodies. De-coupling was related to a new steering system in which even non-financial performance measures were used for the controlling of operating tasks. The de-coupling effects of the financial pressures in terms of employee teamwork, work motivation and knowledge of process thinking have enhanced, rather than reduced managers' awareness of staff competence.

Rautiainen (2008) writes that institutional customary laws and prevailing beliefs and myths have at least a slight effect on routines within an organisation. Sometimes it is good that rules are de-coupled from the routines that are used for maintaining a dominating position or legitimize operations, e.g. that despite the budget (the rule) this is the way it has always been done (the routine) (Burns and Scapens 2000).

Lukka (2007) mobilised the notion of loose coupling related to the thesis of Burns and Scapens (2000) by showing a new mode of the simultaneous emergence of change and stability. Lukka (2007) emphasizes that loose coupling between management accounting rules and routines can be viewed both as a solution and a problem. In his research findings, the management accounting routines and daily actions would not have been viable if they had been tightly coupled to the rule system.

3.5 Scandinavian Institutional Theory

Eriksson-Zetterquist (2009) claims that the Scandinavian Institutionalism includes different methodological approaches and different theory formations and results than the New Institutionalism. This has resulted in a different way of seeing how organisations change, store ideas and are influenced by trends. According to Czarniawska and Sevon (1996), it is relevant to study changes, because they reveal the existing organisation models. When changes in the organisation are made, people start questioning the conventions that before were self-evident, and at the same time it becomes possible to recognize the factors that make the organisation successful – and the factors that make it unsuccessful. An alternative way of understanding the changes is through the sociology of translation, a theory according to which changes are dependent on ideas and trends. Other central ideas of the theory are imitation, editing and deinstitutionalization (Oliver 1992; Eriksson-Zetterquist 2009). Deinstitutionalization is a term used in the Scandinavian Institutionalism, and has to do with how certain institutional norms that have been born from new attractive ideas of change, gradually lose their status and disappear from the organisation (Røvik 1996). Sevon (1996: 53) divides the process of imitation into three parts: "(1) matching of identifications and situations, (2) construction of desire to transform, and (3) institutionalised action". Differences between the Scandinavian institutionalism and other trends:

"The constructivist version of institution theory permitted the Scandinavians to continue their tradition of organisation studies, consisting of fieldwork with the processual focus. Their main interest remained the question of how institutions emerge, change, and vanish – not merely that they do (Czarniawska 2008:773)".

The research done in this doctoral thesis follows partly the criteria of the Scandinavian Institutional theory. For example, it stresses that every change must be justified and that strong focus must be placed on persons and organisations as actors.

3.6 Literature on Implementation of the Steering System

The implementation of management steering systems such as process management, activity-based costing and the balanced scorecard are associated with the issues of power, resistance, routines and rules. This is particularly so when the research approach is made from an institutional perspective (Ansari and Euske 1987; Burns 1996). The implementation of an innovation, such as activity-based costing (ABC), can be described as an on-going process: including the entire development from the initiation phase to ABM[21] stage (Krumwiede and Roth 1997). Researchers have examined that the implementation of innovations are better explained by studying the process stages as well as specific factors (Gosselin 1997). Krumwiede and Roth (1997) argue that innovation initiatives involve several stages, each with unique barriers to be overcome. Not addressing the organisational barriers at each stage will deter advancement to the higher stages and result in little or no success. The implementation stage model in this research is based on a six-stage model that includes: initiation, adoption, adaptation, acceptance, routinisation and infusion. The model is modified by Cooper and Zmud (1990) (Figure 5).

The basis of Cooper and Zmud's (1990) model is Levin's change model, which includes three stages: the unfreezing stage, the change stage and the refreezing stage. This study will examine the sequence of events that occurs within a public sector organisation in the context where PMT, ABC and BSC are implemented when Cooper and Zmud´s model of implementation is used. In this study all other stages are performed without routinisation and infusion stages and stopped after the acceptance stage. The project group accepted a less radical version of the steering system but did not continue with the implementing model according to certain circumstances, for example the structure of the organisation, lack of new information technology and the lack of a driving force at the end of the implementation process. This search is similar to what Calluzzo and Ittner (2004) noticed in their studies.

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[21] ABM is known as activity-based management and can occur only after the successful completion on the earlier steps of implementation.

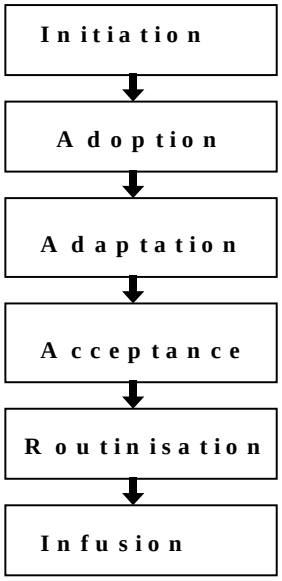

Figure 5. The Six Stages in Implementation (Cooper and Zmud 1990).

The aim of the "seven Cs model" (Figure 6) is to identify opportunities for continued improvement, and to make all the individuals in the organisation adopt this philosophy. The primary goal is to create a culture within the organisation that is in accordance with the goals, which have been set up to achieve success by steering activities behaviour in a cost-effective way. Everyone in the organisation should be conscious of what causes expenditure, and the effect this has on the continuous process of improvement (Shields and Young 1989).

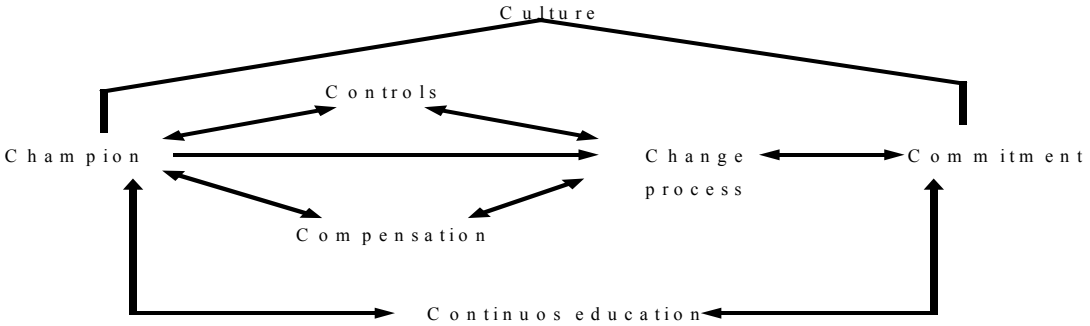

Figure 6. Seven Cs Model: Implementing the CAM-I[22] Cost Management System (adopted from Shields and Young 1989).

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[22] CAM-I stands for Consortium of Advanced Manufacturing – International and it has defined ABC as "a methodology that measures the costs and performance of activities, resources and cost objects"

In research about the implementation of the information system and steering systems based on management accounting change models (e.g. Kwon and Zmud, 1987; Shields and Young, 1989), many of the problems that arise are similar in both private and public sectors. This research reaches similar conclusions. The problems are primarily concerned with organisational and technical factors, both of which are worth noting. The organisational factors are affected by: the top-level management agreeing to use information based on achievement, broadening decision-making to include those using the information material, and developing the new technology (Shields and McEwen 1996). The technical factors, also significant in implementation and use, could be expressed as a difficulty in choosing correct and appropriate measurements. Also, limitations on data due to unreliable or under-developed information systems prevent information from being used and evaluate on the basis of achievement (Calluzzo and Ittner 2004). The technical factors will play a more important role in the implementation of the steering system (PMS) than they do in the implementation of costing systems (e.g. Anderson and Young 1999; Shields 1995), because the steering system may need more resources allocation in order to properly manage the organisation's internal IT systems. This case study was especially challenging as the steering system included three different tools that had to been combined together. By combining these tools (PMT, ABC and BSC) it is possible to study management control systems (MCS) as a package[23].

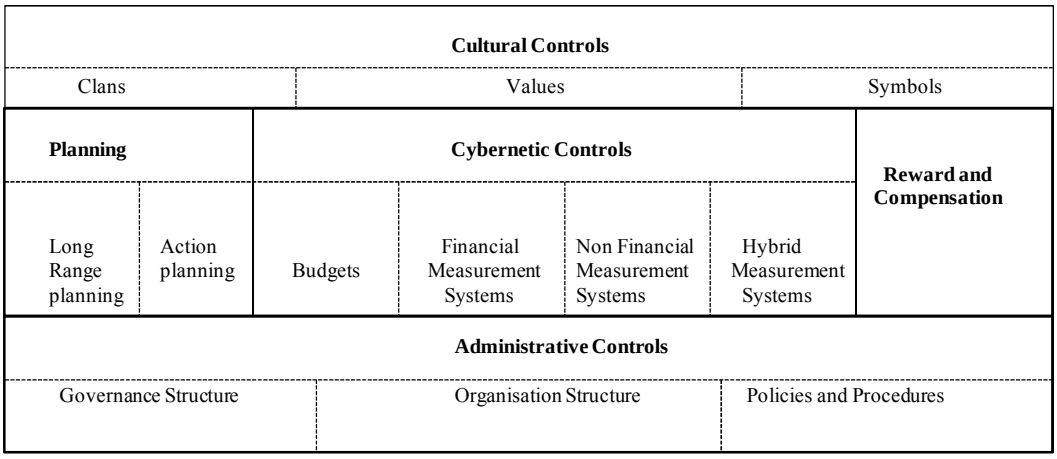

Figure 7. Management Control Systems Package (adopted from Malmi and Brown 2008).

[23] MCS package is a collection or set of controls and control systems.

Malmi and Brown (2008) state that there are good reasons to study management control systems (MCS) as a package (Figure 7) but there is a number of challenges. For example they point out that one challenge is to understand how all systems in an MCS package operate as an inter-related unit. In additional they also point out that there are challenges studying an MCS package because the systems are large and complex.

In the above Figure Malmi and Brown (2008) describe how the typology for MCS will be structured around five groups: planning, cybernetic, reward and compensation, administrative and cultural controls. In relation to planning, there are two approaches: The first is action planning, in which goals for the future are normally set for a short period (12 month). The second approach is long-range planning, in which the goals are of long run nature. In the above Figure 7 there are four cybernetic systems: budgets, financial measures, non-financial measures and hybrids that include both financial and non-financial measures. Reward and compensations system focus on motivating individuals to do their jobs better by achieving congruence between their goals and activities. Administrative control systems include three groups: organisation design and structure, governance structures and policies and procedures. Malmi and Brown (2008) divide the cultural controls in three groups: value-based controls, symbol-based controls and clan-controls. Clan controls work by creating values and beliefs through the ceremonies and rituals of the clan.

According to their study the strength of such a typology gives possibilities to analyse in a broad scope of MCS as a package, rather than a single system. Using MCS in the way it might influence employee behaviour and also provide better information for decision-making. Most of the elements of package model, presented by Malmi and Brown (2008), are also dealt with in this study, except the elements referring to the reward and compensation. On the other hand this study comprises behaviour issues by analysing barriers and so might give deeper understanding of role in the change process (Kasurinen 2002).

3.7 Influencing Factors in the Change Process of Implementation

The changes of management accounting have been an interesting area for researchers. Among others, the following researchers have studied this field of factors affecting the change process: Innes and Mitchell (1990), Scapens and Roberts (1993), Cobb et al. (1995), Partanen (1997), Malmi (1997), Pellinen (1997), Burns and Scapens (2000) and Kasurinen (2002), Innes and Mitchell (1990) and

Cobb et al. (1995). Innes and Mitchell (1990) have analysed the influencing factors in the change process in three categories on the basis of the nature and timing of their influence, the so-called *motivators, catalysts and facilitators.* Motivators are factors that influence the change in a general manner, for example an organisational structure. Catalysts are associated with the change. Innes and Mitchell (1990) prefer examples such as poor financial performance and loss of market share. Facilitators are factors that are necessary but not sufficient for a change to occur, for example, accounting staff resources and accounting computing resources. Cobb et al (1995) have further developed the accounting change model by stressing the role of individuals as *leaders* in change and the continuing change process as *momentum*. The accounting change model of Cobb et al. (1995) is presented in Figure 8.

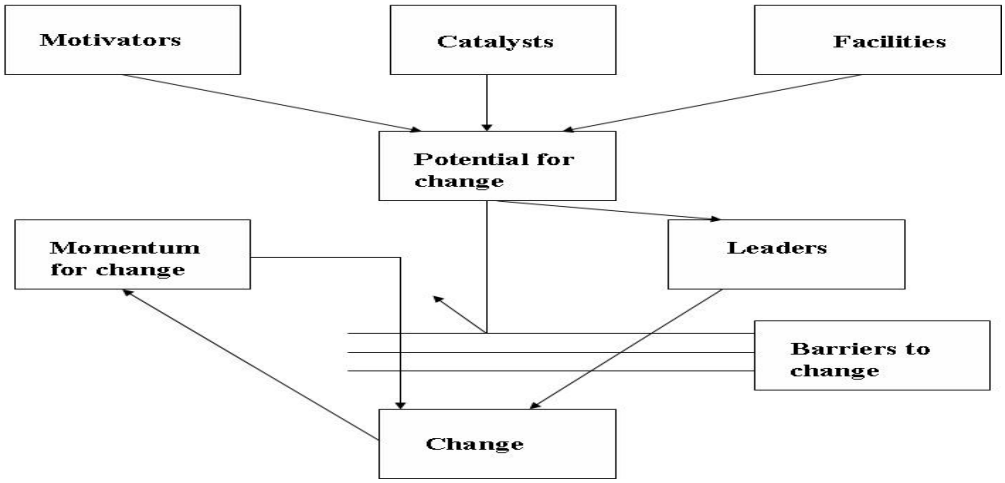

Figure 8. Accounting Change Model (adopted from Cobb et al. 1995).

Kasurinen's (2002) has further developed the accounting change model of Cobb et al. (1995) by dividing the barriers into three subcategories, named *confusers, frustrators and delayers*[24]. His intention was to recognise their role in the change process more easily and facilitate explaining the change in a transparent way. Added to this, a deeper understanding of the change context could help an organisation to avoid the barriers in practice. There will be several studies of potential

[24] Confusers = uncertainty about a project´s role in the future etc.
Frustrators = organisational culture etc.
Delayers = inadequate information systems etc.

barriers presented in the literature and related to behavioural and organisational issues (Argyris and Kaplan 1994, Shields 1995 and Roberts and Silvester 1996), power and cultural issues (Scapens and Roberts 1993) and different views on change (Stebel 1996 and Kasurinen 2002). The revised accounting change model of Kasurinen (2002) is presented in Figure 9.

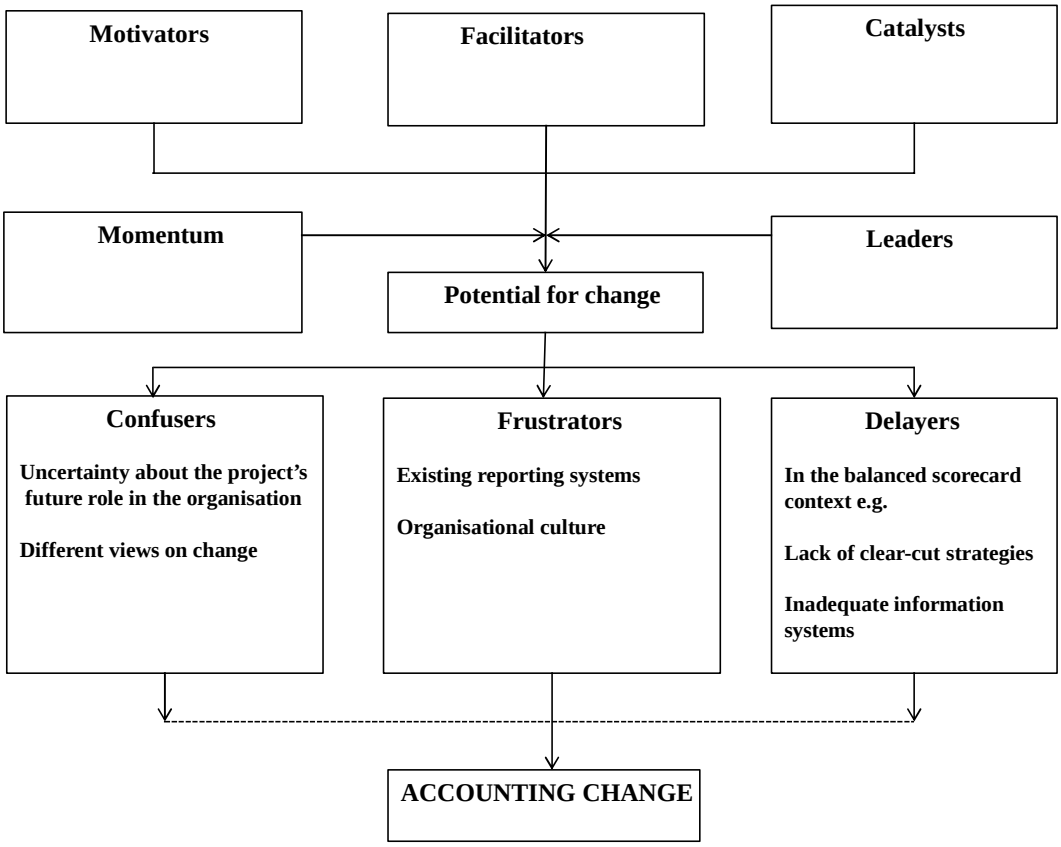

Figure 9. Revised accounting Change Model (adopted from Kasurinen 2002).

3.8 Discussions about the Implementation of the Steering System

In studies, the implementation of performance measurement tools has proved difficult to evaluate. The barriers may differ from case to case, and may make themselves known on the level of the individual, department or organisation. Moreover, bottlenecks may arise if only the department of finance implements the steering system, while the rest of the organisation is sceptical towards the results (Argyris and Kaplan 1994; Kaplan 1991). Shields and Young (1989) point out that one of the most important factors in the "seven C's model" is finding a driving force in the implementation project, which will lead the process of change

through motivation, follow-ups and constant training. This research examines technical aspects as well, though the emphasis will be on the very development and implementation of the process, from both macro- and micro-perspectives (NIS and OIE), where individuals, groups and behaviour play important roles (DiMaggio and Powell 1983; Meyer and Scott 1992; Covaleski et al. 1993; Scapens 1994; Carruthers 1995; Meyer and Rowan 1997). Shields and Young (1989) and Partanen (1997) also stress that one of the biggest challenges in successfully implementing cost management systems (CMS) is changing the individual and organisation-wide resistance, as well as the process itself.

Implementing a steering system with PMT, ABC and BSC needs a processual view of the development process in the case organisation (Tammi 2006; Baird 2007). The innovation process is complex and includes several activities. However, this type of process makes it easier to analyse and understand the cause and effect between processes and activities. A process view may also better identify which paths are effective and which paths demand the redeveloping of processes (Van de Ven and Poole 1995; Järvenpää et al. 2001; Tuomi 2012).

The BSC concept, after the implementation process, is not a static one; even Kaplan and Norton continually explore the concept from their early writing to recent contributions. Empirical evidence states that BSC users start with a simple scorecard model and try to expand their area and functions step by step (Kaplan and Norton 2001a). This evidence shows that the balanced scorecard is not a final definable concept (Ittner and Larcker 1998; Malmi 2001). This study regarding the concept of BSC is in line with evidence shown by of Kaplan and Norton (2001a). The first version of BSC was made by the project manager and project group. Empirical research reports that BSC implementation and the expected benefits and satisfaction from it depend, to a great deal, on which concrete type of BSC is used: "*Interestingly, the analysis of the relationship between the types and the companies' perceived benefits and satisfaction shows that companies implementing a more developed BSC rely more on the BSC approach and are more satisfied with their BSC than those with a less developed BSC"* (Speckbacker et al. 2003). Wingren (2005) came to similar conclusions in his study concerning the implementation of ABC calculation using the mass-tailored concept.

Krumwiede (1998) claims that organisations with a more developed information system have better opportunities for implementing new steering systems than in organisations where the information system is less sophisticated. This is because the cost of measuring is lower, leading to a more positive relationship between the systems and their success in implementation. On the other hand, managers that are in general satisfied with the information they receive from their current sys-

tem are reluctant to invest precious resources in new systems, which may lead to a negative relationship. The managers and staff in the case organisation were by and large satisfied with their current accounting system (budgets) and the new steering system was perceived as laborious to maintain and implement in the organisation. In addition the current information systems were underdeveloped for the new steering system (Ittner and Larcker 1998). In this study, the Treasurer noticed the benefits of the new steering system for the municipality, but because of the governing body and the city council (coercive pressures), implementing was not possible at this stage. Also investments that would have been necessary were not budgeted.

Academic studies yield varying research results regarding the causal performance models of information systems with new innovations in accountancy. Shields (1995) found no connection between successfully implementing activity-based costing (ABC) and technology, for example the kind of software or stand-alone vs. integrated systems. Krumwiede (1998) reports a positive correlation between developed information systems and the organisation deciding to embark on the further stages of implementing ABC. One investigation into the implementation of balanced scorecards has been deemed questionable due to a lack of developed information systems (Ittner and Larcker 1998).

Lapsley and Wright's studies (2004) indicate that adopting new accounting innovations affects the way in which the municipality works. An important element in all such implementation processes, which are difficult to carry out, is internal and external networks. Through these, potential users learn that the innovations are relevant to the needs of the organisation (Clegg et al. 1996: 9). These networks may be a co-operation between organisations, universities or professional institutions, or informal meetings with friends, which may also play an important role in spreading the innovation (Swan and Newell 1995).

3.9 Using the Institutional Theory in the Study

The institutional perspectives (NIS/OIE) described above vary in some respects. NIS theory focus on macro-studies and OIE prefer micro-studies. Both perspectives are of importance in this study. This study gives possibilities to draw insights from the institutional theory to support in the understanding of management accounting change and implementation in organisations. Burns and Scapens (1998) states: *"Management accounting change in an organisation is unlikely to be understood without careful analysis of the institutional context, both within the organisation and its organisational field and society more generally"*.

In this study both institutional perspectives (NIS and OIE) have been chosen. Thus, a broad approach to the study of steering systems is used and a goal is also to develop better theories of the impact of combining steering system innovations, such as PMT, ABC and BSC. In addition the study can help researchers to gain a broader understanding of steering systems as a package and provide researchers with further insights how to develop and design this kind of control system to support organisational objectives and performance (see also Malmi and Brown 2008). Kasperskaya (2008) argues that there is a clear need for institutional theory when interpreting the findings of the researcher.

The framework discussions are also based on dimensions belonging to behavioural aspects of the development and implementation process: the source of the reform initiative responsible for the development and implementation of the performance measurement systems (PMS), i.e. the context in which innovations are introduced etc. Behaviour-oriented research has focused on the barriers surrounding usage of the steering system, i.e. the influence of routines and how individuals protect themselves (Cooper and Zmud 1990; Argyris and Kaplan 1994; Anderson 1995; Shields 1995; Cobb et al. 1995; Krumwiede 1998; Anderson and Young 1999; Kasurinen 2002 etc.). Cooper and Zmud (1990) state that certain factors affect implementation stages differently. Very few studies have segmented management accounting methods and how different factors from an institutional perspective (micro/macro) affect the implementation at different stages (Agbejule 2000; Anderson 1995 and Krumwide 1998). This study also examines the sequences of events at various stages of the performance measurement implementation. Different factors determine the different levels of implementation, for example coercive pressures, normative influences and mimetic factors. Kasurinen's (2002) accounting model has been used to analyse the forces of change in the case organisation. The accounting change model will be used dividing boundaries into three subcategories: *confusers, frustrators and delayers* (Kasurinen 2002). Kasurinen´s model will be used to explore the organisational contingencies that influence the process of understanding the resistance to accounting change. The description of the research process is presented in Figure 10.

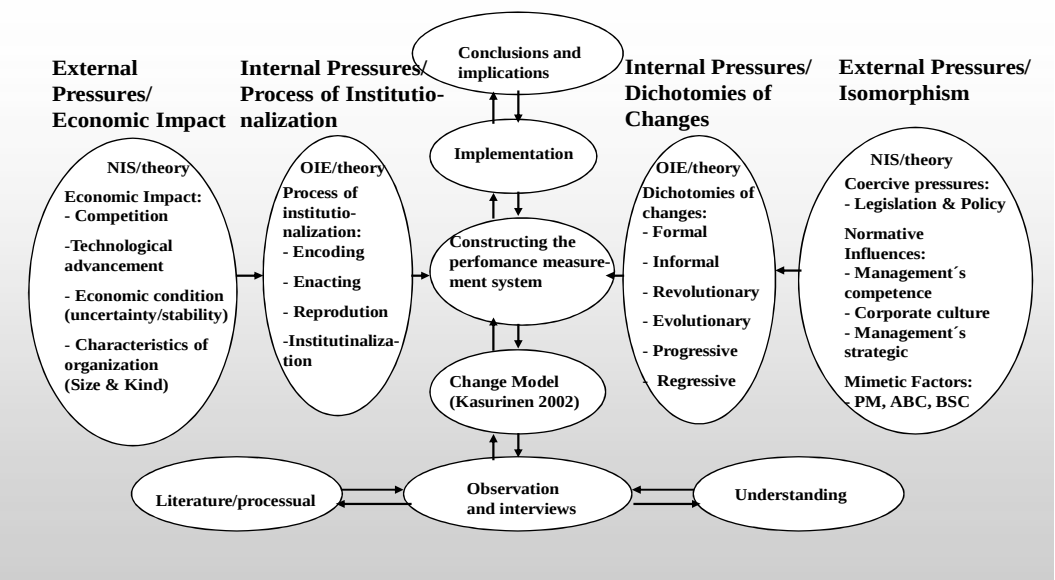

Figure 10. The Description of the Research Process.

4 RESEARCH DESIGN

This chapter discusses in detail the research method. The choice and adequacy of a method embodies a variety of assumptions regarding the nature of knowledge and the methods through which that knowledge can be obtained, as well as a set of root assumptions about the nature of the phenomenon to be investigated (Bryman 1989). In other words, methodological choices are not made in isolation, but are always related to the researcher´s assumptions about the phenomenon itself, the basis of the knowledge, and the relationship between human beings and their environment (Antila 2006).

4.1 The Constructive Approach as a Methodology

Neilimo and Näsi (1980) suggested a classification of research consisting of four approaches: the conceptual, nomotehetical, the action-oriented and the decision-oriented approach. In addition, Kasanen et al. (1993) have proposed the constructive research approach (CRA). Figure 11 presents all of these research approaches.

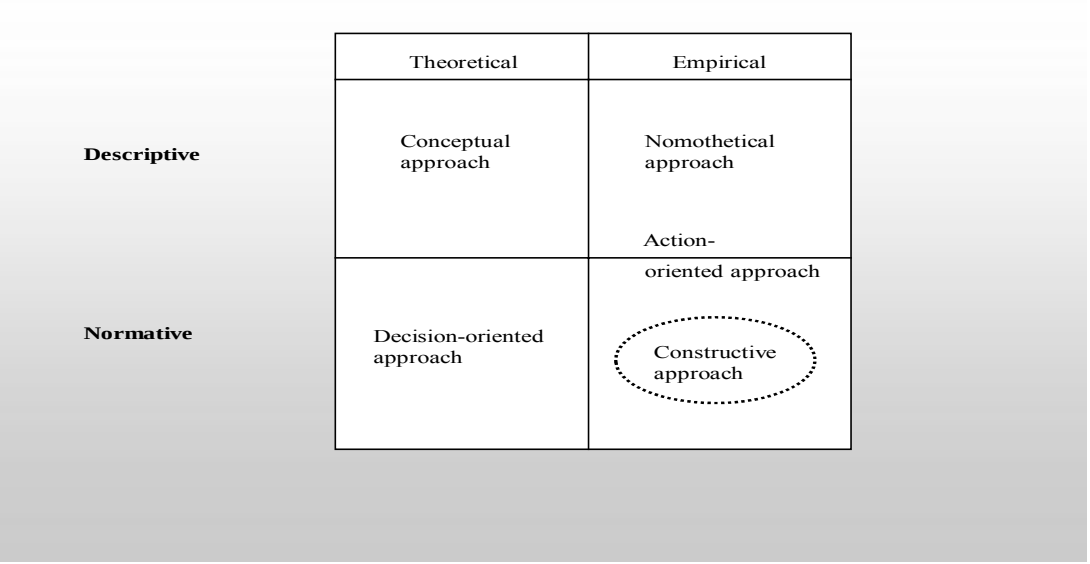

Figure 11. The Location of the Constructive Approach within the Established Accounting Research Approaches.

Figure 11 illustrates that the nomothetical approach is relevant to the empirical part, which means that the model built is tested by empirical evidences. In addition, the nomothetical approach is closely linked to the modernist (positivist) research tradition, where the model attempts to state the findings in the form of general laws. The decision-oriented approach is normative and the results are

meant to help management in running the firm. The action-oriented approach, by comparison, is human focused and provides a kind of alternative to the nomothetical approach and this model. Characteristics for the constructive approach are heuristic innovations and the aim is to demonstrate the practical usability of the constructed solution.

CRA is close to the action-oriented approach regarding the research approach classification of Neilimo and Näsi (1980). A common feature in both research approaches involves a case study in the research process. Both modes of research presuppose a thorough understanding of organisational processes, so that any intended changes can be accomplished in practice, and the researcher can adopt the role of a "change agent" who supports the participants of the organisation in their learning processes. It is important to note that the action research does not create any kind of explicit managerial constructions. Additionally, it must also be possible to generalise the result of constructive research. Kasanen et al. (1993) claim that the generalisation in CRA should be a goal. However this claim is disputable. The generalisation means that if a working solution is produced for a management accounting problem of a particular organisation, it is likely also that this solution applies to other organisations in the same branch (Kasanen et al. 1993). The conceptual approach produces new knowledge through the "method of reasoning" (see e.g. Neilimo and Näsi 1980; Lukka 2006).

In scientific study, one has to choose the kind of approach to use. This study has utilized the constructive research approach (CRA) which is more empirical than theoretical because the task is to construct a new steering method and evaluate it by way of empirical tests. The role of the researcher is classified as interventionist, which is typical of CRA (Lukka 2000; 2006). The constructive approach was not developed until the beginning of the 1990s (see Kasanen et al. 1991; 1993; Kaplan 1998; see also Lukka 2003; Labro and Tuomela 2003). Other private sector research, where CRA in the management accounting area has been published, includes Tuomela 2000; Puolamäki 2000; 2004; Wingren 2005. CRA has not been such a commonly used research approach in management accounting research. Referring to two major accounting research journals, the Journal of Accounting and Economics (JAE) and Accounting, Organisations and Society (AOS), we can mention two examples of constructive studies: in management accounting in AOS, Flamholtz (1987) develops a model which determines the value of human assets, and in JAE, Banker et al. (1988) develop a model to analyse the behaviour of relevant costs with respect to changes in the expected duration and variability in set-ups and processing.

CRA aims to solve a problem identified in real life together with the research object's participants; the research is not simply a theoretical outlining of the solution. Its essential part is the activity of the found solution in practical market tests. In addition to activity analysis, CRA is quite close to the idea of so-called clinical research where the practical solution of the problem is expressly emphasised and the endeavour towards a theoretical contribution is less significant.

CRA requires roughly the same kind of empirical research as activity analysis does. In other words, the basis is the observation through ethnography, interviews, gathering written material, participation in meetings and communications with the organisation being researched. Leading the CRA process to a successful problem solution requires a balance between the researcher and the investments of the object, i.e. the organisation. It is essential that the researcher has extensive knowledge and the ability to innovate and apply his knowledge to the organisation's problems. The researcher has to interact and be able to earn his position in order to gather a sufficient amount of respect within the organisation, especially in the eyes of the people involved in the development work. The organisation too has to offer its knowledge and sufficient resources for the development work (Lukka and Tuomela 1998). From an intervention point of view, CRA clearly represents a strong version and the research in question is heuristic by character.

There are signs that intervention case/field research is achieving a sound footing in the field of accounting research. The intervention case/field research approach already offers an excellent opportunity for the researcher to make, apart from a theoretical contribution, practical relevant research work. The intervention alternative comes with yet another additional advantage: a greater chance that the researched organisations will experience an immediate benefit, or at least benefit a short time after the co-operation with the researcher.

The reasons for conducting case study research usually differ in accordance with the methodology (Pihlanto 1994), but whatever the standpoint is, case studies in management accounting research have been growing (Lillis and Mundy, 2005:132). Otley (1999) has declared that case-based, longitudinal studies provide the best route for analysing, e.g. performance management systems. Langfield-Smith (1997: 228) has argued that only in-depth studies can help us to understand the complex nature of interaction between management control systems and strategy. Yin (1994) declares that the research aims are not only to explore certain phenomena, but also to understand them within a particular context.

CRA requires the researcher to take an active role in the actual problem solving of empirical research sites. Neither the objectivist nor the subjectivist schools of thought have inspired management accounting researchers to do this, so it is not

surprising that only few constructive studies can be found in management accounting literature (Kasanen et al. 1993: 251). Even other respected researchers have accepted this approach (Granlund and Modell 2005: 159).

One explanation for the scarcity of constructive studies in the academic publications can be found in the nature of *consulting*. Consulting reports are often confidential and therefore contain *business secrets* (Kasanen et al., 1993). Lukka and Tuomela (1998) state that the CRA has both advantages and disadvantages and differs greatly from consulting projects. The CRA researcher has an extensive wealth of experience regarding different theoretical and practical decision alternatives and the commitment is usually long term. Consultant projects, by comparison, are completed as changes take place in the organisation and are without longer commitments (Figure 12).

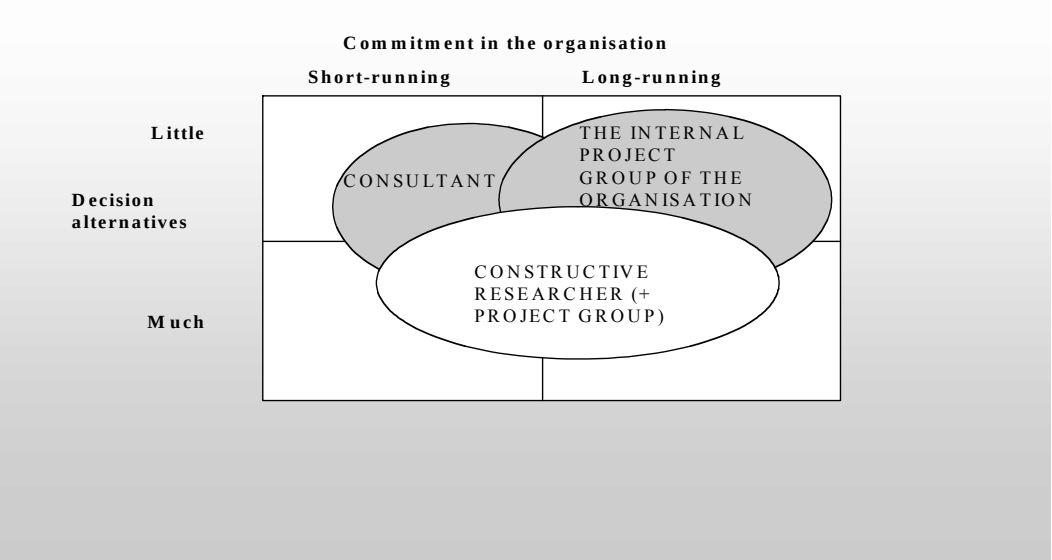

Figure 12. The Conductor of Development Project (Lukka and Tuomela 1998).

van Helden et al. (2008) has recently executed a study about knowledge creation by consultants and academics in public sector accounting and management. The empirical investigations showed that public sector managers approached a consultant for practical and technical problems because of their experience-based knowledge. The researchers found also that advice about practical and technical issues belong in the domain of academics when an impartial and trustworthy type of advice was required. Is it reasonable to assume that consultants and academics may also help each other in solving problems related to practical and technical issues? Should the researchers even act like a consultant or take a more active role in the empirical research work? Pastinen (1998) argues that an internal change

agent (researcher) may need an external expert (consultant) to facilitate the organisational change. Agbejule (2000) has also mentioned how a consultant may bring added value when diffusing innovations rapidly (isomorphism).

Gummesson (2000) argues that academic researchers ought to focus more on the significance of the pre-understanding[25] when choosing their scientific approach and methods. He adds that a lack of pre-understanding will cause the researcher/consultant to spend substantial time on collecting basic information and most of this information is not available outside an organisation. In additional, he is convinced that the personal experiences of the researcher/consultant play a large role in the improvement of the pre-understanding and access to the research process. In connection with this Gummesson points out: "*The greatest difficulty facing the researcher/consultant is often not the intellectual knowledge of theories, models, and so forth but, rather, the understanding of a social environment and institutional conditions. My conclusion is that both access and pre-understanding are treated too lightly by the research community*".

4.2 The Constructive Approach: the Research Process

CRA in management accounting has been modified by Lukka (2000: 116–120) from the description of Kasanen et al. (1993: 246). Lukka (2000) explains that there are seven steps in the constructive research process:

1. Find a practical problem relevant to managers in an organisation. This problem should also be interesting with respect to theory, since the aim is also to connect the findings of the study to the existing theory.
2. Examine the possibility of having long-term access to the case organisation and to obtaining commitment from the managers involved[26].
3. Gain an in-depth understanding of the topic both in theory and in the studied organisation.
4. Innovate; that is to construct a model, diagram, plan or some other solution to the problem in question.
5. Demonstrate that this solution works in practice.
6. Examine the possibility of transferring the solution concept to other organisations as well.

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[25] Refers to experience before they start with a research program

[26] This step is a new step. Kasanen et al. (1991, 1993) has only six steps in his original version.

7. Point out the theoretical contingencies and contributions of the solution.

The importance of both theoretical and empirical elements of constructive problem solving is described in Figure 13 (Kasanen et al. 1993: 246).

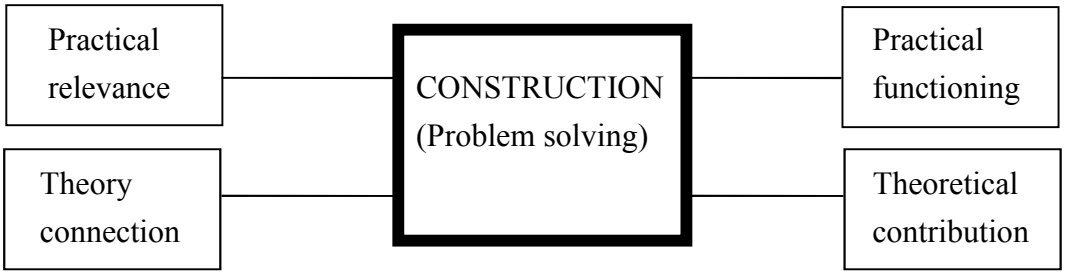

Figure 13. Elements of Constructive Research (Kasanen et al. 1993: 246).

In this case study, the constructive research approach was chosen and the principal goal of this study was to construct a consistent performance measurement framework, which would support and facilitate the steering activities in the case organisation. The perspective of this study is chosen from an institutional approach. The selected abduction nature of approach was chosen because it would provide the researcher with more freedom to study the phenomenon, observing features in deductive and inductive approaches. By using abduction approaches, both the deductive and inductive alternate and the phenomenon of interest is then scrutinised both from the general to the particular and vice versa. The researcher chose the constructive approach, although it had earlier been used too scarcely in management accounting research (Kasanen et al. 1993: 243, Lukka and Tuomela 1998: 26)[27].

The other reason for choosing the constructive research approach was in regarding to the researcher's earlier work and training experience regarding modelling performance management methods, i.e. through the use of PMT, ABC and BSC in both the public and private sectors (e.g. Palmroos 2001; 2002; 2005). The abduction study provides the researcher with an opportunity to utilise his own experience of PMT, ABC and BSC and to identify the advantages and disadvantages it offers when applied to performance management. The researcher argues that the management of accounting changes research should be based on institutional theory (OIE/NIS) from a constructive approach. The full potential of CRA has not

[27] Kasanen et al.: "propose the constructive approach as a significant option for management accounting researches to enter the field of relevant and useful problem solving. This direction for research would be one potentially fruitful answer to the recent claims that management accounting has lost its relevance."

yet been described or used in public management accounting research. See below Figure 14, describing the seven steps in the constructive research process are related to this case study (Lukka 2000: 116–120). The processes are described horizontally, the case organisation and the researcher are named as resources and the steps as activities (Lukka 2006). The construction of a well-made steering system, including performance measurement systems, is of great benefit even in public sector organisations. This means that the systems must be closely tied to the strategy systems as stated by Ittner and Larcker (1998: 205): *"Performance measurement systems play a key role in developing strategic plans, evaluating the achievement of organisational objectives, and compensating managers."* Many managers feel that the old traditional management accounting system has become inefficient in modern growing municipalities, and therefore many public sector organisations are implementing new and innovative steering systems (Green and Amenkhienan 1992; and Lukka and Shields 1999). The TB and TC in Swemu were also of the same opinion that a new steering system had to be developed to facilitate the steering process in the town. In addition, it might suit as a complement to the entire development process, which was undergoing construction for the whole town. The work of the construction in the organisation will be executed by using the seven steps in the constructive research process (Figure 14). The construction of the steering system will be discussed and presented later in Chapter 6.

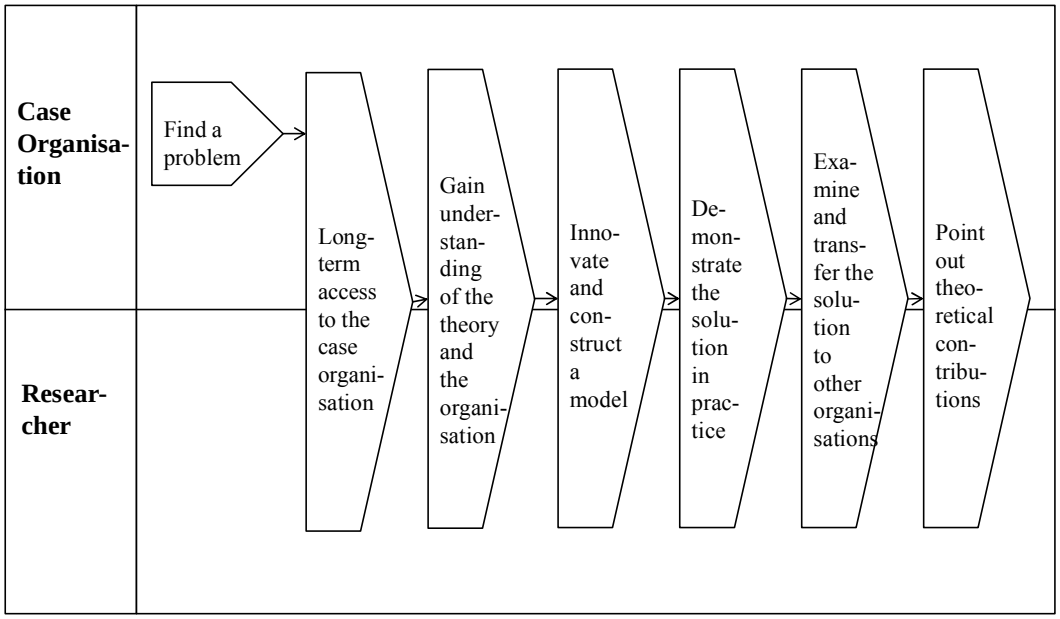

Figure 14. The Seven Steps in the Constructive Research Process of the Case Study (Lukka 2000: 116–120).

4.3 The Research Methodology of the Study

This type of research is an exploratory research (Scapens 1990; Spicer 1992).

"Exploratory research is conducted into a research problem or issue when there are very few or no earlier studies to which we can refer for information about the issue or the problem. Typical techniques used in exploratory research include case studies, observation and historical analysis which can provide both quantitative and qualitative data" (Hussey and Hussey 1997: 10).

In this study the abduction approach will be used, which means that the researcher has to have prior experience about the phenomenon. In the abduction study both deductive and inductive approaches alternate. The abduction approach is summarised by Tammi (2006:7) as follows: "*The phenomenon of interest is scrutinised both from the general to the particular and vice versa… We are thus concerned with the logic of observation and quality of knowing"*.

The researcher cannot affect the research process, because he is also on the 'scene' within the organisation, and has to simply observe the causal connection in the whole research process (Wallén 1996:48). To find the right answers for the solution having earlier experience and skills as well as the theoretical knowledge to analyse and conclude the findings is required. Grönfors (1985: 35) states that if the researcher does not have prior experience about the phenomenon he is researching, he only draws conclusions from the point of view of the observation. Presuppositions during the research selection process make this impossible. In this particular research process, the researcher's earlier work and training in modelling performance management methods using PMT, ABC and BSC, in both the public and private sectors, has helped him to succeed and progress in the research process. The abduction study gives the researcher an opportunity to utilise his own experiences of PMT, ABC and BSC to identify the advantages and disadvantages they offer when applied to performance management. Finally, after focusing on the institutional theory and fundamental questions on the deliberation of science, you will have the opportunity to analyse the research questions closer. The empirical work has helped to clarify the understanding obtained from the theory on the one hand, and to more critically read the previous studies regarding performance management accounting within a public sector organisational context on the other hand.

4.4 Data and Methods

The empirical study was carried out in a local government environment in Finland (SWEMU) operating with economic functions in four departments: Finance, Social Services and Health Care, Technical and Education. The Case study began in November 2001 and the active part of the case study finished in September 2002 (Appendix 1). The sources of the data collected (i.e. interviews, documentary evidence and/or participatory observation) have to been made transparent according to Suddaby (2006:641) and Creswell (2003:181,185) in order to be verisimilitude for the reader. During the case study, approximately 400 hours were spent on interviewing, discussing and attending meetings in the organisation including all other research activities. The researcher had also participated in various training sessions and studied written material from the town as well as material compiled by external consultants. For the study, the researcher had collected both primary and secondary data. The researcher has also studied the publicly available annual municipal plans and municipal reports in the case organisation.

In addition, the researcher constructed four models (one for each four departments) with PMT and ABC, and one model with BSC (a collective model for all four departments). These new accounting tools were developed and constructed together with the staff to examine how they would work in the public sector. The researcher acted as a kind of discussion partner, team member trainer and adopted the role of a "change agent", who supported the staff in their learning processes. The questions were directed to the key persons[28], project groups and project managers. The interviews had not been prepared beforehand and they were unstructured or semi-structured. In this technique, the researcher has no exact list of questions. Instead, the researcher had a checklist of subjects through which to follow. Easterby-Smith et al. (1991) suggest that semi-structured interviews are an appropriate method when the step-by-step logic of a situation is not clear and the subject matter is highly confidential. The discussions in the current study were not tape recorded, anyway the researcher wrote down the notes of the meeting and discussions (see Appendix 2). The weakness in the interviews was that the mayor was not interviewed because he had retired by the time the case study began in Spring 2002; however contact was made via email and telephone calls.

The constructive research process in this study enabled more informal discussions and a deeper understanding of the research context for the researcher. Case stud-

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[28] Key persons=Key individuals from 4 departments and they were interviewed and helped the researcher to design the steering models.

ies are an appropriate method of research for studying the development and implementation of management accounting in its institutional context, because they help the researcher to understand the complexities and evolution of implementation as it moves from initiation to evolution (see Scapens 1990). This study was cross-sectional in the beginning, because the study included four departments and the data was collected just once, however three years later the case study was completed with a follow-up questionnaire survey. In addition, the study was also longitudinal because it was a study where the aim was to research the dynamics of the problem over time. It can be argued that a longitudinal study can be based primarily on a qualitative approach. Stebbins (1992) argues that the chain of qualitative case studies improves the applicability and validly of the findings.

During the case study, the researcher had the opportunity to use a software product when training the staff in process design as well as with the designing of the activity-based costing model in all four examined departments in SWEMU. The researcher only used the software in order to create a good structure of the processes and activities in all four departments. In addition, the same software was used in the design, calculation and coding phases of the activities (see Creswell 2003:193). The results were thus easier to report to the staff and the project organisation during the whole research process. The results gained from this management tools concept also contributed to a better quality, validity and triangulation of the case study. The case study in this version would have been difficult to carry out without data software used during the designing phase of research process. Olve et al. (2004) believe that IT solution can support the initial phases of the scorecard project, because the links to individual metrics can be logically tested, rather than just visualized on the computer screen. Olve et al. (2004) emphasized that using scorecards as tools for communication it will offer a better understanding and exchange of ideas about how functions develops.

4.5 Triangulation

The use of different research approaches, methods and techniques in the same study is known as triangulation and can overcome the potential bias and sterility of a single-method approach. Triangulation gave the case study a better platform to investigate the phenomenon and this ended in a greater validity and reliability than a single methodological approach (Creswell 2003: 196; Kihn and Ihantola 2011). In addition, the triangulation has vital strengths; it encourages productive research, enhances qualitative methods and allows for the complementary use of follow-up questionnaire concerning the project for developing and implementing of the case study (Denzin 1970 and Jick 1979). The main combination of method-

ologies consists of interviews, model designing, training, discussions, secondary data, questionnaires, etc. With the consent of interviewees it was decided that no interviews were tape recorded for reasons of confidentiality. Some managers were interviewed several times. Clarification was done via e-mail and by telephone when necessary.

The reliability of case studies may sometimes cause problems as observations or measurements cannot be repeated. However, there are many ways to increase the reliability of observations (McKinnon 1988). In this case study, information reliability was increased by using several data-collection systems (triangulation), by spending more time in Swemu, and by creating open relationships with the staff. This last point was only possible because the researcher was a member of the project group.

A three-stage approach was used to receive the answers to the questionnaire. First, case studies were carried out in four local government departments. The case studies were completed and reported to the executive group and staff in September 2002. Second, a questionnaire survey was conducted in the same month directed to the staff (Appendix 13). Approximately 67.8 % of the staff answered the questionnaire. Third, a follow-up questionnaire survey was distributed three years after completion of the case study (Appendix 14). This research was mainly performed as a qualitative, constructive case study, the questionnaire survey aided and added value to the research. In addition the triangulation methods in this case study increased the reliability and validity. Modell (2005) has discussed the notion of triangulation by combining qualitative and quantitative methods:

"*Surveys may improve our understanding of the incidence of a particular and/or the form and strength of conceptual relationships observed in case studies. On the other hand, case study methods may add to a more holistic and richer contextual understanding of survey results and help to explain apparent anomalies or puzzles emerging from the latter"*

4.6 Reliability and Validity

According to Cooper (1983), a deeper understanding of the management accounting system can be obtained by examining its building process. Following the building process here, real-time decision-making, would add more reliability to the information. The general way of approaching the problem of reliability is to make as many steps as operational as possible and to conduct research as if someone were looking over your shoulder. According to Yin (1994:33) a good re-

search design must past the following tests: *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) and *Reliability* (demonstrating that the operations of a study – such as the data collection procedures can be repeated, with the same results).

Reliability and validity are concerned with the findings of the research. If a research finding can be repeated, it is reliable (Yin 1994). Kihn and Ihantola (2011) in their studies refer to *procedural reliability* meaning that another person who should be able to research the work come to a similar conclusion. Above all, procedural reliability also require a relevant case study design including explicit research questions, a complete research schedule, a logical set of field notes on all evidences and a comprehensively documented case analysis (Ryan et al. 2002).

In this case study, the construct validity was also important as a method of using validity. This relates to the problem that there are a number of phenomena which are not directly observable, such as motivation, satisfaction, ambition and anxiety (Hussey and Hussey 1997). The research interviews were long enough to ensure that there would not be any misunderstandings. The terminology practice and the use of modern accounting tools were learned well enough after many training sessions and discussions. It was considered to be beneficial for the researcher to spend enough time on the training in order to reduce any partiality that may be present. The questionnaires were based on tailored questions that were also reviewed with the Treasurer. Much information was obtained in the free-form discussions, which would have otherwise not been possible, for example, when reporting on the development ideas and on the quality costs.

In the study, an attempt has been made to answer threats and weaknesses. Threats can often be identified in case studies with respect to validity that may have spurious consequences. Concerns over internal validities may be extended to the broader problem of making inferences. A threat to an external validity deals with problems of knowing whether or not the findings in the research are generalizable.

Creswell (2003: 195–196) means that validity is a signal of a strength of qualitative research where you have to suggest whether the findings are accurate or not. According to him, there are eight strategies to check the accuracy of findings: *triangulate, member-checking, rich/thick description, bias, negative or discrepant information, prolonged time, peer debriefing and external auditor.*

The validity of this research also improves because of the consideration of several important issues: the used procedures, the framework and the research methodology (Kasanen et al. 1993; Lukka 1999, 2000, 2003, 2006). In addition, the researcher has many years of experience and familiarity with the research phenomenon from the private and public sector. When understanding the problems occurring in the organisation it is important to know the topic (PMT, ABC and BSC), the kind of techniques used when gathering and planning interviews, data collection and literature, observation, construction of the steering system, case analysis, interpretation of the findings, drawing conclusions as well as consideration of the implications.

This case study is a single case study from a public sector organisation (Swemu). According to Yin (1994) case study can include both single- and multiple-case studies. This case study is based on a qualitative evidence from a constructive research approach focusing on intervention throughout the entire research process. All these functions will give the research more internal and external validity outcomes. Ryan et al. (1992) state: *" The objective of individual case studies will be to explain the particular circumstances of the case, whereas the objective of a research programme based on case studies in a particular area is to generate theories capable of explaining all observations which have been made… looking for theoretical generalizations and not statistical generalizations".*

5 ANALYSING INSTITUTIONAL THEORIES OF PM SYSTEMS IMPLEMENTATION IN THE CASE STUDY

5.1 Overview of the Case Study

5.1.1 Background Information

The town of Swemu is located in Finland. Swemu is a typical small town by Finnish standards with slightly over 14,000 inhabitants. Most of the people are Swedish-speaking (82 %). The other 18 % are Finnish-speaking, of which only part speaks Swedish and Finnish. Notable is that a significant number of the people who worked in the four departments concerning the case study were completely unilingual (Swedish speaking).

The comments of the head of the information department:

"We are in a special position with respect to the Swedish speaking people who work in the departments of our municipality. Approximately 60 % are completely unilingual (Swedish speaking). Most of our records of the boards are written in Swedish and all meetings arranged should be also in the same language…"

5.1.2 Financial Status

The financial planning of municipalities during the last decade has been adjusting to diminishing resources while the demand for services has increased. This tendency has brought great challenges and structural changes to Swemu. The long planned merger of Swemu and its neighbouring municipality provided a firm ground to develop the region. During the difficult economic recession of the 1990s, Swemu was able to invest sufficiently for the unemployment rate to stay low. Renovations and new constructions could be carried out at exceptionally low cost.

From the year 1998 onwards, Swemu began practising long-term planning. Its aim was to bring the town's economy to a state of equilibrium by the year 2002. This was achieved by 2001 using long-term planning and concrete actions. It was also important that the development process started in 2001 (concerning the administration and service functions) would continue and that it would be applied both to the short-term and long-term.

At the turn of the year 2001, Swemu was arrived at a state of financial disequilibria due to decreased corporation tax revenues (Swemu Financial plan 2002–2004). These events also resulted in a number of investments that had to be postponed to create a more accurate steering of the organisation. The tax environment included many uncertain factors such as the effect of the increased amount of taxable allowances on the municipal tax revenue and differences caused by the fluctuating distribution coefficient, which concerns corporation taxation. Table 2 describes forecast of the taxation revenues during the years 2001-2004 based on The Financial Plan for the town of Swemu 2002–2004.

The figures in the table forecasted a decrease in corporation taxation revenues. The municipality was aware that some big consolidated companies wanted to move away from the area of Swemu.

Table 2. Taxation Revenues during 2001–2004.

(1000 €)	2001 (Forecast)	2002	2003	2004
Municipal tax	30.106	31.333	32.174	32.914
Corporation tax	7.568	5.248	4.743	4.743
Real estate tax	2.102	2.237	2.271	2.321
Total	39.776	38.818	39.188	39.978

The economic life of Swemu has been lively and the number of workplaces has increased every year. Business life consists of both small and medium-sized companies. Tourism has grown as of late and is considered an important source of sustainability. By looking at the structure of working environment, similar tendencies can be recognised with other towns in Finland: the number of workplaces in the manufacturing industry is decreasing as workplaces within the service sector are increasing. Overall, the employment situation in Swemu has not been so good in comparison with earlier years 1999 and 2000. The unemployment rate by the end of year 2001 was under 10 %.

In the spring of 2002, the Town Board (TB) of Swemu submitted concrete actions to be taken to improve the development process. The economic problems in Swemu forced politicians to look for new ways of cutting costs (Monsen and Näsi 1998; Olsen and Peters 1994; Lűder 1994). New, innovative methods were to be

used in the steering of the town. New proposed methods included: process-oriented development of actions, activity-based cost accounting and the balanced scorecard. Four departments were selected for a pilot project: Finance, Social Services and Health Care, Technical and Education. The goal was to make a cross-section of the functions related to the financial administrative departments. The TB wanted to choose a pilot project to begin with. The results would then be considered and the project expanded if the experiences turned out to be good. The expansion would then cover also the departments of estate administration and welfare for the aged.

5.2 Implementation of the Steering System

The *initiation implementation stage* has to do with pressure to change the organisation. The threats will be of an internal or external nature. This stage in this study is related to long-term planning and to economic problems, which were in disequilibria due to decreased corporation tax revenues in the case organisation. The reports of external consultants suggested improving the development process (Johnsen 1999; Arnaboldi and Lapsley 2004). The following implementation stage, *adoption stage,* explains what to select and the kind of solutions and decisions that must be made to facilitate change. The TB of Swemu submitted concrete actions to improve their development process, i.e. new innovative methods such as PMT, ABC and BSC (Coercive pressures). The Mayor and Treasurer became motivated by the new accounting methods and four departments were examined in the local government: Finance, Social Services and Health Care, Technical and Education. The entire staffs of these four departments, who handle financial functions, were involved in this research. The *adaptation stage* identified possible shortcomings of the current steering system. The purpose in this study was to construct and implement a new steering model with the new accounting innovations to facilitate the change in the organisation. The *acceptance stage* is intended to vent opinions harbored by organisational members and to gauge reaction to the new steering system. The *routinisation stage* realises the project, and in this study the organisation was assured that the new steering system would be of great benefit. To aid in the changing and process re-engineering of operations in the four departments however, investment in new information technology would be needed. The last stage, *infusion stage,* examines how the steering system is combined and integrated with other organisational information systems. In this study, the steering system was not yet integrated with other systems, because the system required investment in new information technology.

5.3 Implementation Stages in the Case Study

This Chapter presents a description of the implementations stage model used in this study. In the initiation phase it became clear that the economy was forced (coercive) to change, as it was out of balance with the resources. The sponsors (management) gave the organisation encouragement and permission to use the modern steering tools (PMT, ABC and BSC). Moreover, the sponsors were keen to test the tools out of pure curiosity.

The present study stopped after the acceptance phase. The new steering model was designed and completed with a view to be implemented at the end of 2002 but failed when it hit obstacles like the staff mindset not being firmly modified and the lack of an information technology system. This was in addition to the lack of acceptance from Town council, TC and Town Board, TB. The stages of the implementation model are presented in the above Figure 15.

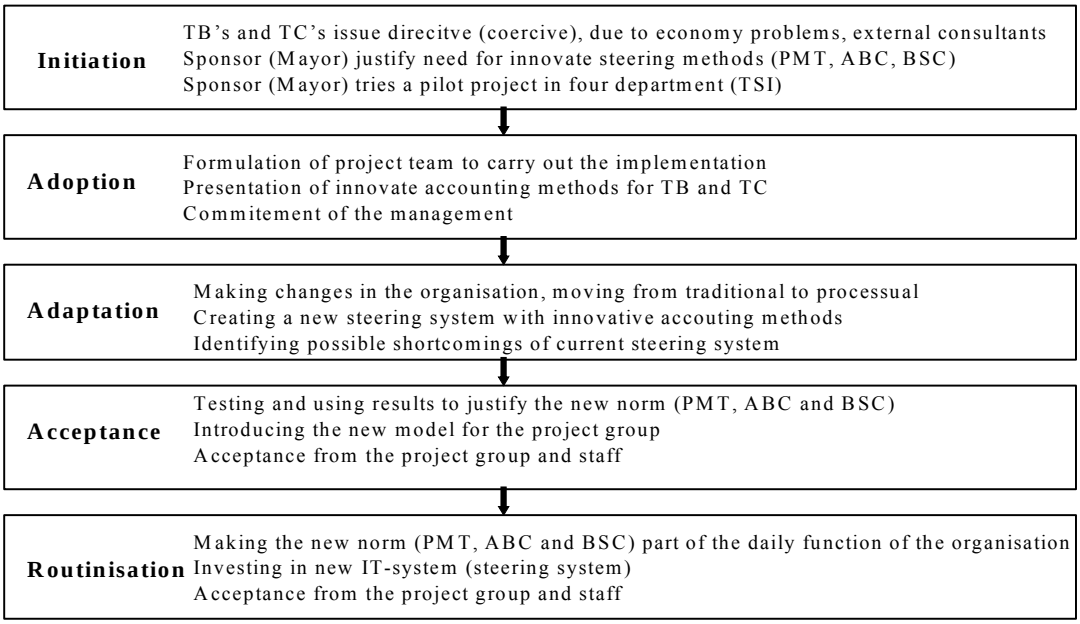

Figure 15. The Current Study Model of the Implementation in Swemu.

5.3.1 Initiation

The Mayor introduced the PMT, ABC and BSC project in 2001. He was the driving force in the project, even making the politicians and civil servants within the city of Swemu interested in it. The pilot project – constructing the new steering system in the city of Swemu – concerned the financial functions of four depart-

ments: finance, health and social services, technology, and education. The four most important aims of the project were to (based on reports from consultants):

1. Gain insight into the new, innovative accounting systems (PMT, ABC and BSC).

2. Begin constructing a new system to re-establish a balance in the economy.

3. Test how well the new steering tools are suited to the town of Swemu.

4. To build on the conclusions that previous consultants have reached: team thinking and modifying the operative organisation to better support process thinking.

The need for a new steering system was recognised after the consultants had left their reports to the town of Swemu. The Mayor participated in various management accounting seminars and courses, increasing his awareness of the latest development of management accounting tools. He was interested in testing the applicability of the new tools within the organisation organizing a pilot project. The Mayor's vision was to use modern tools in steering the organisation. His observations included the following:

"As it is, the budget is no longer sufficient to develop our processes. I want to try the new concept, and see whether it will be of any use in steering. It is important to ensure that introduction of the concept is accepted on all levels, even within the town council."

From the institutional perspective the implementation of the new steering system in Swemu can be viewed as a formal change of its management accounting system, where the change was introduced consciously by Town Council and Town Board.

5.3.2 Adoption and Adaptation

The initiation stage proved important to the Mayor in gaining approval for the development project from both politicians (TC) and civil servants (TB). The pilot project began in November 2001 and was completed in September 2002, so it was carried out accordance to the original time-plan. The project was subsequently followed up and a second survey was conducted at the end of 2005. The project team was appointed at a later stage, after the project began. The Treasurer was

appointed project leader while some of the other team members were the heads of the departments and key persons[29] participating in the project work. The development and implementation stages in the case demanded a project organisation, which is presented in Figure 16.

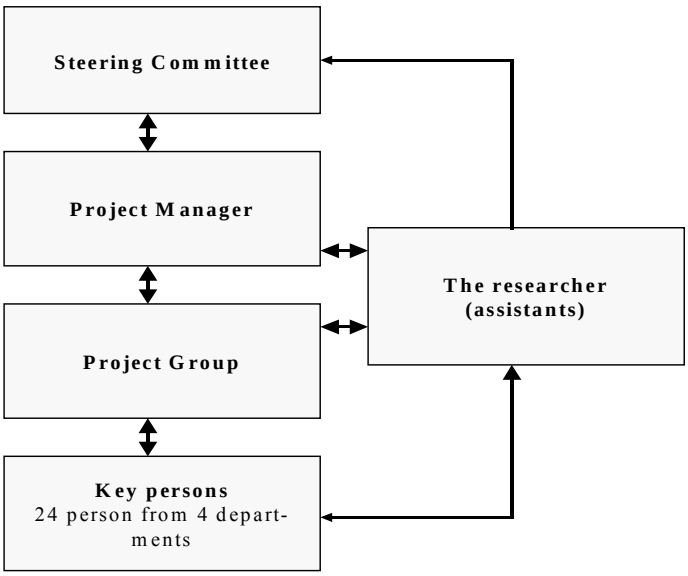

Figure 16. The Project Organisation.

Mayor retired in the summer of 2002, so he could no longer take part in the project. It fell to the treasurer to take on primary responsibility for realising the project; he also became the person with whom the researcher had most contact in this study. The steering committee consisted of the civil servants, members of the town council and the entire town's departmental heads in particular. The project group consisted of the heads of the four departments taking part in the project. The tasks of the steering committee included supervising the time-plans to make sure they were followed, and ensuring that the goals of the project were achieved. The project manager took care of contacts between the steering committee, researcher, members of the project group and key individuals in the four departments helped the researcher to design the steering models. The project manager held ultimate responsibility for the whole project. The tasks of the researcher were also considerable, as he together with assistants and key individuals had the responsibility of constructing the model steering system, initiating the processes and activities, and constructing the balanced scorecard measurement apparatus.

[29] Key persons = 24 persons from 4 departments

The project group was most involved in constructing the model steering system, along with the researcher. Among the most important tasks of the project group were also approvals and the possible changes made in designing and introducing the steering system, prior to writing reports and before the final report was twice described to the entire project organisation. With the project underway the Treasurer intended to steer the four departments in the organisation towards a process-oriented direction (process organisation) in order to enhance the implementation of the new steering system. The Treasurer had a well-prepared action plan, but it could not be completed because of time constraints during the pilot project.

The institutional perspective provides an explanation for the adoption and adaptation of the steering system implementation. The pressures from TC and TB made the results of the management accounting tools more acceptable. From the institutional perspective the rules and routines had an important role in the designing and implementation stages of the tools (Burns and Scapens 2000).

5.3.3 Acceptance Stage

This stage was important in Swemu with regard to the continued use of the new steering model. The model was designed and completed with a view to be put into use in 2002. The responses from members of the project organisation were also important. This phase was therefore examined from various perspectives, each with two different surveys, using observations made during the project, discussions with the various members of the project organisation, and the final report to the steering committee, project group and key individuals. The implementation phase could not have been continued in the case organisation, as it depended on the acceptance of the TB. However, the project organisation accepted the steering system but could not be accepted as a daily function of the organisation. The resistance factors have been discussed earlier in the accounting change model of Kasurinen (2002). From the institutional perspective Agbejule (2000) ventilates the ABC implementation and states: *"From the institutional perspective, resistance is likely to occur if the new routines (new way of recording working hours) challenge existing (current ways of recording project hours) ones."* This quotation is in line with the case study, because the staffs were not familiar with the new routines and way of thinking. However, in the case study, the resources of power, the organized training and education for the staff made the new behaviour possible. The new routines did not become widely accepted so they could not be considered institutionalised.

5.3.4 Routinisation

In order for the steering system to be put into functional operation and gain legitimacy, the city was obliged to invest in new computer systems for the following-up process, activities and the balanced steering card. Moreover, the organisation ought to be firmly modified, changing the departmentalised thinking prevalent in most municipalities and cities today into a process-oriented procedure. The routinisation stage could not have been carried out either, due to the lack of acceptance from the TB.

6 CONSTRUCTION AND TEST OF THE COMBINED STEERING SYSTEM

6.1 Construction of the Steering System

In the construction phase of the study the researcher and project organisation had to construct four different models with management accounting tools (PMT and ABC) and one model with BSC-tool for the departments. Finally these models combined together to one model (steering system) for the whole case organisation Swemu. The architecture of the construction model is closely parallel to Kaplan and Norton (BSC) and Cooper (PMT/ABC). The proposal of the construction model is illustrated in Figure 17.

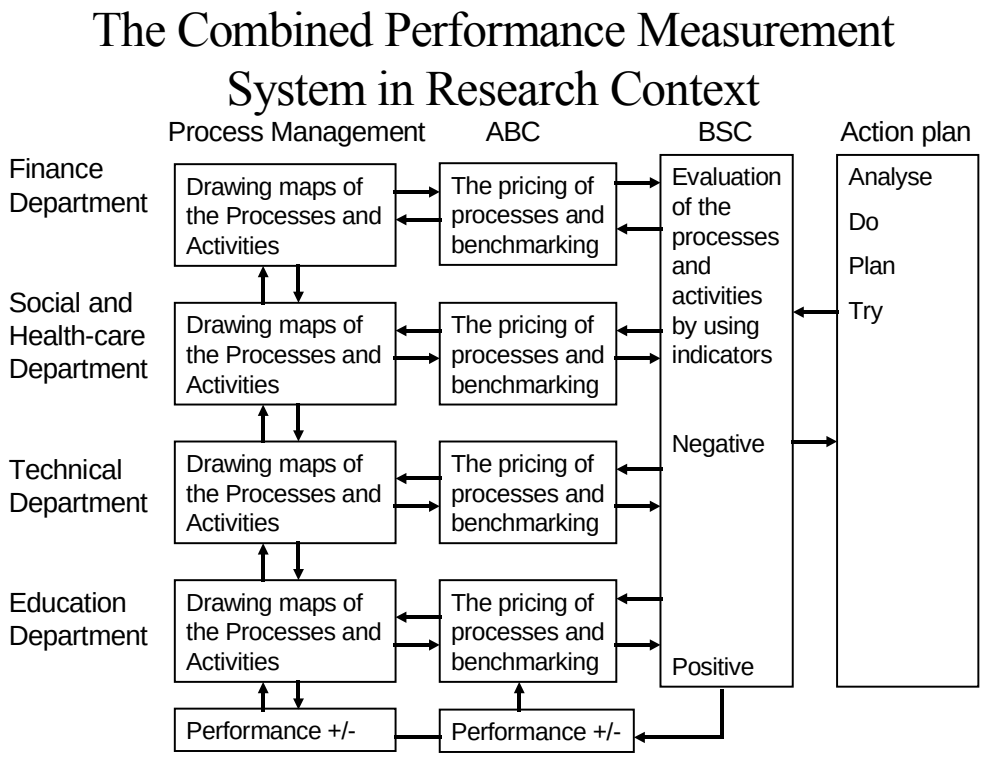

Figure 17. The Proposal of the Construction Model in Swemu.

The new steering system in the above figure was constructed together with the Mayor and the Treasurer at the initial stage of the project. The goal was to steer the town in a more transparent way than with the previously used budget models. When the modern management tools (PMT/ABC/BSC) were combined together, the user had the potential to check which kind of measures relate to the different processes. For example the researcher and project group used different measures

in order to evaluate the processes which were examined. In initiating measures to reduce the number of days of customer credit, process steering, activity-based costing and the balanced scorecard are of great help as they describe which activities, resources and expenses are needed to improve the measurement. The systems can be useful when an organization attempts to answer questions such as: Have the claims routines been handles in an effective way at all? Has the invoice been sent out on time? Who is in charge of the process? This kind of steering method helps the staff to do things correctly. The method helps the staff in the four departments to direct their attention towards certain aspects of their activities and processes. From this point of view the staff has better opportunities to learn from measures of performance (see Macintosh 1985: 253; Askim 2004: 425). Figure 18 describes accurately the idea how use the tools are connected as a package.

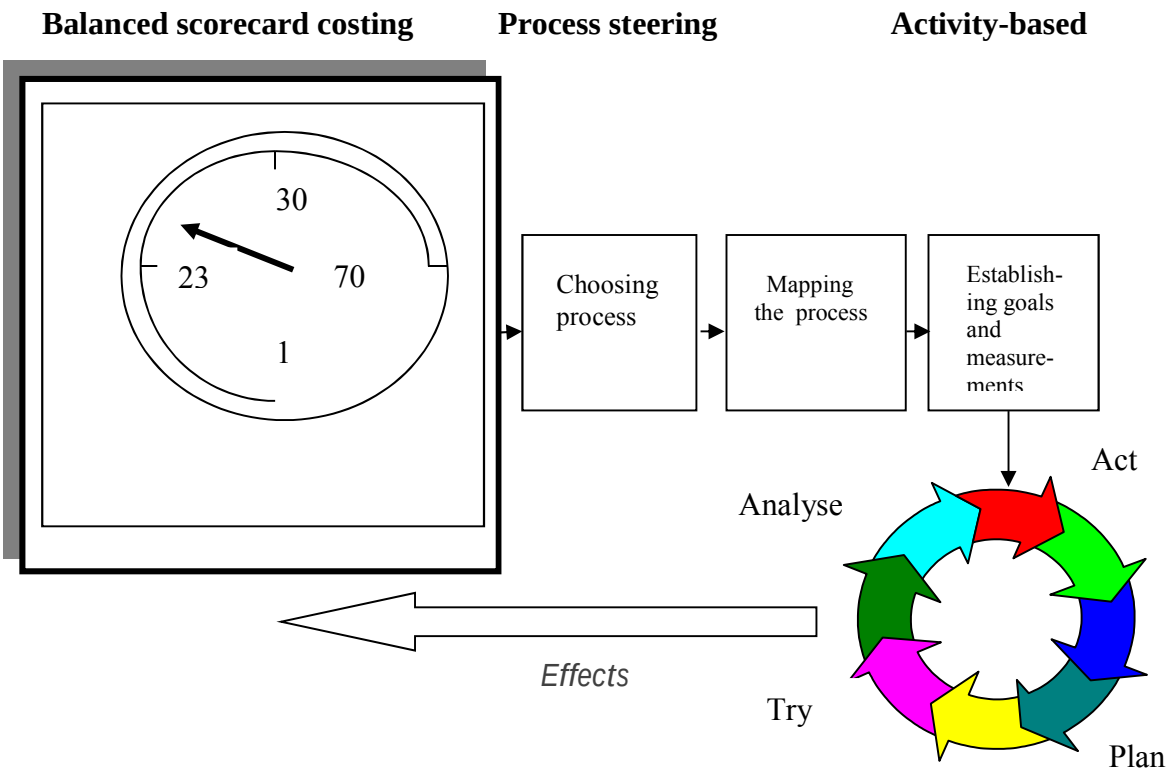

Figure 18. Initiating Measures to reduce the Number of Days of Customer Credit in the Scorecard.

See also the Fieldwork Phase in Chapter 6.2.2, where the quality costs were presented in Table 3. During the research project, particularly in the interviews, discussions with the staff often came up. The process of payroll calculation emerged as an important one to develop. The majority of employees said that the routines

for entering salary data were problematic: when entering the salaries, the payroll program could not accept the data at the same speed as the payroll calculator entered it, which led to all data being lost and the entering having to be done from the beginning again. Faulty entering made approx. 5 % of the routine of entering data. The processes of the financial functions were priced in this study and the calculations are presented in Table 3.

According to literature, BSC and ABC can independently improve the performance of organisation if they are well implemented. Successful implementation of new manufacturing techniques requires complementary management accounting systems (Topkis 1995, Milgrom and Roberts 1995 and Wingren 2005). Therefore a challenge for the researcher was to examine how this new steering system would work in a public sector organisation. The final construction was made by the staff in the project organisation. The construction work was accurately described by using the seven steps of the constructive research process (Labro and Tuomela 2003).

6.2 Conducting the Constructive Case Study: the Seven-Step Research Process

The case has been described and analysed as a sequential research process using the seven major steps of CRA (Kasanen et al. 1993; Lukka 2000). The seven step model provides a possibility for the researcher to bring forward the study's dimensions of validity, links to theory and empirical procedures. The steps sometimes overlap and iterate however, this makes it easier to analyze and highlight important issues related to particular parts of the research. The seven steps of CRA are clarified in Figure 19.

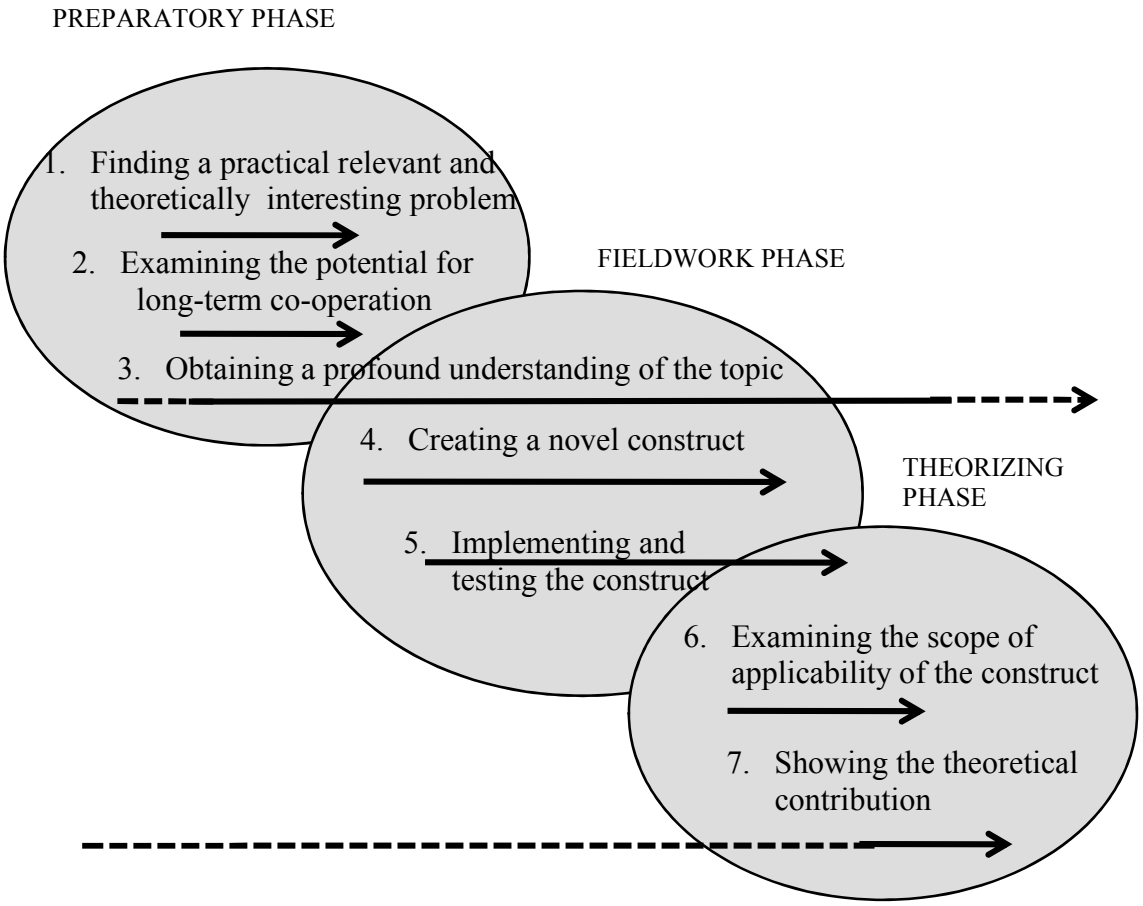

Figure 19. The Phases and Steps of Constructive Research Process (Adopted from Labro and Tuomela 2003).

The seven steps are aggregated in three phases: the preparatory phase, fieldwork phase and theorizing phase. Steps 3, 4 and 5 are related to ensure internal validity, while the sixth step deals with external validity (Yin 1994). The arrows between the phases illustrate the time that elapses in each phase and steps are partially overlapping in the three phases. The third step continues throughout the whole process. The third arrow is dotted in the beginning and ending of the phase to remind us of a theoretical understanding that is likely to have started before the constructive research process. The seventh step is also dotted reinforcing that the theoretical connections should be in mind throughout the entire research process, albeit the exact theoretical contribution should be elaborated in the final part of the constructive research process (see Labro and Tuomela 2003).

6.2.1 Preparatory Phase

Step 1: Find a practical problem relevant to managers in an organisation. This problem should also be interesting with respect to theory, since the aim is also to connect the findings of the study to the existing theory.

The most difficult step in any research area is choosing the topic issue to be studied. Constructive research is no exception. The researcher has to consider the topic both from the a practical and theoretical point of view (see Kasanen et al. 1993; Lukka 2006). There should not be an obvious solution available from literature (Lukka 2000). The researcher has to produce a new solution to the problem in question. If the researcher is not able to do so, then there is obviously no point in going pursuing the research (Kasanen et al. 1993; Lukka and Tuomela 1998). The new construction is not aimed only at the decision-maker in question; it also has to include something new for the research community. An extensive literature review in chapters 2 and 4 revealed that the problem was also theoretically challenging. The researcher made sense that the steering system problem in the public sector was not properly addressed even though to some extent, modern constructs like process management, activity-based costing and balanced scorecard were accepted separately in organisations. Another problem was how to find a municipality with managerially relevant problems in this area. In the search for a potential case organisation the researcher used his own personal contacts with colleagues to learn that city of Swemu had recently undergone a comprehensive consulting work and needed help to develop their strategy-based performance measurement system. The first step in the case study was to approach the case organisation and arrange the meeting with the Mayor (of the city). The Mayor invited the researcher to a meeting in September 2001 for a discussion of the development process in the city.

The Mayor commented:

"The external consultants went through the town´s different functions and administration. The analysis pointed out that the functions are in need of development. Above all, their report suggests that we should improve our development process. In particular, we must organise the functions from the process and team working perspective. The core and support processes of functions must also be identified. In addition they mention that a steering system has to be created for developing quality and cost efficiency"

Some kind of coercive pressures and mimetic factors were noticed in the case organisation (DiMaggio and Powell 1983; Haas 1992:3; Pettersen 2001) because external consultants had already made recommendations for the town to use in the development phases of the processes.

During the same meeting in September 2001 the Mayor asked whether the researcher could act like a "guest lecturer" in a seminar in the same autumn 2001.

The Mayor added:

"I have heard about the new innovative management accounting methods used in other municipalities. Is it possible to arrange a seminar or workshop separately for the Town Council and Town Board here in our city where these methods are presented? It would be very interesting to see if tools like PMT, ABC and BSC could cause improvements in our situation?"

Two seminars were arranged two months later in Swemu by the researcher, one on 16.11.2001 to the Town Board and one on 3.12.2009 to the Town Council. All members of the Town Board (department managers) and Town Council (politicians) were present and each seminar lasted two hours. The first seminar (16.11.2001) was attended by 12 participants. These participants represented all of the managers from every department of the town. During the seminar, the basics of process management were also reviewed: the kind of advantages/ disadvantages to be achieved from the development and implementation of the control methods, and the benefit from creating the town steering system. This session inspired much discussion.

The department manager of the technical office asked, among others, the following questions:

"How must the organisation prepare for the research work and what will the research work require of the organisation? How long will the research work last?"

The Mayor's questions were again connected to the references:

"Do the references exist of such modern calculation systems in use in other municipalities or towns?"

The Treasurer's questions were related to the standard of information processing systems and the maintenance of the software programs:

"What resources and what kind of information processing systems are required in the maintenance of the steering system? Does there exist any kind of information system in the maintenance of the steering system? How must the current information systems in our organisation be integrated in the steering system?"

General questions, which all managers presented, were connected to the advantages:

"What advantages are to be obtained from the development and implementation of the steering system?

What kind of problems will there be when the project starts and during the whole process"?

This session facilitated the decision-making of the development process. A decision was made to arrange a similar opportunity for the TC, with the Mayor acting as the author of the proposal. The Mayor thought that the commitment of the TC would also facilitate the research project. The Mayor in this study was the driving force (Shields and Young 1989) in the initiation phase (Cooper and Zmud 1990) and introduced the possibilities to develop the city of Swemu. He was the right person to get the politicians and civil servants within the city of Swemu interested in it.

As on the previous seminar with the TB, the Mayor once again acted as a host for the session. The financial director of the neighbouring municipality's health care centre also participated in this session. The seminar was held as a half-day meeting at a polytechnic in city of Swemu. The same issues as at the seminar of the TB were dealt with. This opportunity was not as successful as the previous session because the TC did not believe there was a concrete advantage to the development process.

Step 2: Examine the possibility of having long-term access to the case organisation and to obtain commitment from the managers involved

This step in CRA is to examine possibilities for longitudinal co-operation with the target organisation. Labro and Tuomela (2003) pointed out five critical issues to highlight and to deal with in preparatory phase of constructive research:

1. "Assuring that practical problems are recognized by *several* actors in the case organisation and that they are enthusiastic about solving these problems.

2. Ascertaining that the case organisation is able to *commit enough resources* to the development work. As teamwork usually plays a critical role in constructive research managers´ and other relevant actors´ time is the most important resource.

3. Identifying managerial values and ensuring that these are not too much in contrast with those of the researcher.

4. Providing case firm participants with enough information about the CRA so that they *understand the fundamental features and objectives* of this kind of research.

5. Agreeing on publication and confidentiality issues".

In this study the Mayor was one of the original initiators of the development of the steering project. To gain co-operation and commitment in this case several methods were used. *The first issue*, seminars were organised for the Town Board and Town Council in the preparatory phase and discoursing with the Mayor on co-operation. The members in TB and TC had the possibility to ask questions of the researcher about development and implementation issues during the seminars. The practical problems were recognized by several actors in the case organisation (from the leading troika in Swemu). The need for help in this problem solution was pointed out earlier by the external consulting company. The Mayor indicated in conversation that he was retiring in June 2002 and therefore increased the risk for the progress of the project without such an enthusiastic champion in the case organisation. The Mayor had nominated the Treasurer to project manager to drive this project. The research work applied to a pilot project, which is related to developing the functions of financial management in four departments. The pilot project is special in so far as the newest methods of the process management are used. In the building of the model, a seamless connection between PMT, ABC and BSC in the management steering system would be built. After that, causality would more easily be achieved. The TB and TC of Swemu gave the permission for the research work to start on March 2002. TB´s and TC´s pressure was of coercive nature (Olsen and Peters 1996; Pettersen 2001), due to the problems due to financial disequilibria depending on decreased corporation taxation and therefore the signal to start the research project was classified as important for the whole city.

The second issue, it was seen as an important sign to get all necessary personnel resources allocated to the development project. A project meeting was arranged with the researcher and the Treasurer. Some problems come up in the beginning of nominating the project team:

The Treasurer commented:

"I am not sure that we can nominate the project team yet, because we should anchor and commit the people on all levels before we start the project".

During this stage of the project, the researcher discussed and went through the leading principles and schedules together with the Treasurer. These included

identifying the necessary resources to be utilised during the project. Other areas included the education of staff, the choice of project group members and manager, the use of accounting methods and software for data collection, the building of the model for the financial functions, and the carrying out of the model in measurement with indicators. The researcher also discussed the commitment of the project with the staff and it was agreed that it would be addressed in connection with the first training. All those working in a financial management capacity in the affected departments were chosen for the research project. The total number of people was 28. This number also includes department managers who were also responsible for other tasks.

During this session, the researcher obtained the realised budget figures of all four departments from the year 2001. As they were denominated in Finnish marks the figures in this research had to be later converted into euros. In addition, a list of those chosen for the pilot project was created along with a map showing each person's workroom and where all the office equipment was located. The researcher needed this preliminary information to be able to build the pilot project model.

Working in tandem with the Treasurer, the researcher went through the activity groups and the allocations of the realised figures of 2001 on a basic level that focussed on the perspective of the finance department. The corresponding information of other departments was clarified later through interviews with the other managers of the departments.

In this research project one big challenge was to get the staff committed and convinced about the necessity and advantages of the case study. An important stage of the project was completed earlier when the members of the TB had accepted to start the pilot project. In order to be successful it was important also to make a commitment to the lower levels of the staff in the organisation. The Treasurer, also acting as the project manager, was greatly supportive and attended the meeting with the TB. The learning session was held for the participants in May 2002, was vitally important to encourage comittment (Tammi 2006). It takes a lot of time to make such a large number of people (28) committed together as there is always someone who needs more time.

A training session was held for the entire staff in May 2002. The objective of the session was to make the staff aware that the research project had begun, what it would now require from them, and where the project was headed. This training was also intended to persuade the staff to commit to the project because without their commitment it would have been difficult to carry out the research work.

Comments from the training sessions; book-keeping people:

"I think that we are living in a computer age, but our own age is too high to manage these complex management accounting innovations".

"This project seem to be interesting, because it is first time we have possibilities to speak our own Swedish- language (mother tongue)".

"I have not heard about these accounting methods before, perhaps we have no more work to do in the future?"

Comments from the training sessions; payroll calculation people:

"The techniques require a lot of information from activities and processes. It is very complex and perhaps creates much more problem to manage it…"

Comments from the training sessions; superior people:

"I have heard about these techniques before, I suggest we should try them and see what happens".

During the session, the basics of new accounting methods were reviewed. The purpose of the methods have serve as a type of development model and also inspire the staff to guide the accounting thinking in a new direction (Tammi 2006). Through this new accounting method the learning behaviour of the staff was also affected at the same time. A surprising finding in Askim´s (2004) case study was that while management control practices of the departments in public sector organisations varied, the learning behaviour was similar. The case study in Swemu resulted in positive learning effects obtained from the steering system (PMT, ABC and BSC). This conclusion refers to the contributions from other authors' studies in governmental organisations (Meyer and Scott 1992; Askim 2004). In summary, several authors have stated that performance measurement and process management are well suited to support learning. Tikkanen (1998) pointed out:

"Managers are gradually beginning to perceive their organisations as portfolios of dynamic processes rather than static, vertically driven hierarchies".

The third and fourth issues, the values of different participants were pointed out as important for evaluating how well or bad the project was conducted. A considerable amount of effort was put into making the organisation's representatives

understand the characteristics (see Tuomela 2000) (interventions, co-operation, take an active interventionist role in the development process) of the project work[30].

The fifth issue, the last phase deals with agreeing on publication and confidentiality issues. According to discussions with Treasurer in the case organisation it was agreed that the real name of case organisation not could be used officially.

Step 3: Gain an in-depth understanding of the topic both in theory and in the studied organisation

This step of the research project resembles field studies: involving ethnographical methods like observations, interviews and data analysis able to be used by the researcher for familiarizing himself with the case organisation. This analysis reveals the visible and latent problems and the targets of the organisation. The researcher has to be aware of the prior theory connection in order to not only base the factors discovered on earlier findings, but also later deliberate on the theoretical contribution of the research (see Lukka 2006). This step differs greatly from consulting projects where often the groundwork of empirical work and theory is minimal (see Lukka and Tuomela 1998).

It is typical in this type of research for the researcher to be a member of the working team because the researcher has to make interventions. Eventually he or she could also become the project manager for the working team (Labro and Tuomela 2003). Lukka (1999) states that the major difference between a constructive research approach and more traditional approaches is that to make a good constructive research project the researcher must not only interview fact holders and record their views but also be in a position to intervene in the project as it progresses. Pellinen (1996) has noted that: *"Knowledge which can be reached only by interviewing and observing would not lead anywhere...and only under the surface, in the highly complex, ambiguous and even uncomfortable organisational reality exist the meaningful organisational phenomena which help to understand the function of accounting in the studied company"*.

The aim of constructive research is also to make interventions, and the prerequisite is that the researcher is knowledgeable of the issues with which s/he is in-

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[30] The project was running in beginning as a consultant work, but the researcher did know that in the end of this project it should be transformed to a dissertation project and therefore all preparatory work was arranged from that point of view. The constructive research approach is similar to consulting in nature.

volved and knows sufficiently the context in which the problem has to be solved (Lukka 2006; Lukka and Tuomela 1998).

In this case the research co-operations spanned a long time. The fieldwork stage, involved the follow-up survey, covered almost five years: beginning to be acquainted with the municipality (approx. ½ year), participating in the project organisation (approx. 1 year), the development and implementation of the construct (approx. ½ year) and the follow-up actions including the follow-up survey (approx. 3 years).

In this case study the researcher acted as a kind of discussion partner, trainer, team member and also adopted the role of a "change agent" supporting the staff of the case organisation in their learning processes. The researcher also participated in various training sessions and studied written material from the town as well as material compiled by external consultants. The data was collected from interviews and informal talks with mangers and members from the project organisation involved in the project as well as from internal documents. When the information was received the researcher refined the data further in such a format by data-software, which made it clearer and more up to date in order to be more easily analysed. The researcher also had to check prior studies about performance measurement systems and other theories utilised (institutional). Through these activities the researcher gained long-term access to the case organisation and obtained commitment from the managers involved in the case study in the initial phase. A short time after the beginning of the research project a project organisation was formed and all members in this organisation had their own role in the case study. The project organisation consisted of key people, a project group, project manager, a steering committee and the researcher.

6.2.2 Fieldwork Phase

Step 4: Innovate; that is to construct a model, diagram, plan or some other solution to the problem in question.

This step is an innovative process, which demands a real problem to solve. During the development phase it was important that both the researcher and members of the case organisation participate in the construction work. If a constructive solution cannot be developed then the research approach is no longer constructive, but the process can continue as some other research approach. A developed construction which has been developed earlier but been used in a new context could not be regarded as a constructive approach (Lukka 2006). Like the model Kaplan (1998) developed on innovation action research, the constructive research ap-

proach requires active co-operation among scholars and members of the organisation related to the practical and theoretical issues.

After the preparatory phase it is particularly important to obtain more details and a profound understanding of the topics in order to create a novel construct. The main objectives for the researcher were the interviews and training sections for the project organisation about the new accounting tools and theory. The interviews were held over a period of four days in the Local Government of Swemu during May 2002. All 28 persons were interviewed. Each person was interviewed for approximately 1.0–1.5 hours (see Appendix 2) recalling his/her own activities after the training session. Everyone had had to fill in his own activities on the form (see Appendix 3) before the interview. Thus, a congruent line was obtained and all used the same terminology in the functions and the issues related to it. In the charting of activities an hourly work schedule was not used separately. With the researcher's guidance and interview a reliable result was achieved with regard to the activities. Each person estimated the activities for his/her own working hours in relation to the one that had been used for the whole year.

The interviews went well, however, there were sometimes problems getting all information agreed ex ante. The majority of the staff was able to express themselves and the researcher supported the staff and helped to solve problems, if they arose. The interviewee's commitment to the project also became evident. Committed people were enthusiastic to share the problems that were important to the development, for example to clarify quality costs, etc. The interviews were one of the most important aspects of the project development stage of the research. Through these interviews it was possible to build a reasonable model in process management and activity-based cost accounting; in other words, to create price tags on the processes (see Figure 20). During the interviews it was especially important to discover the thoughts of the staff regarding their present problems and proposals for improvement of functions on matters pertaining to staff welfare as well as the use of their own time in the separate functions. The researcher's behaviour is also important in how he behaves and handles the staff. Body language correlates to the answers of the staff. The researcher obtains more relevant information when being on the same wavelength as the interviewee.

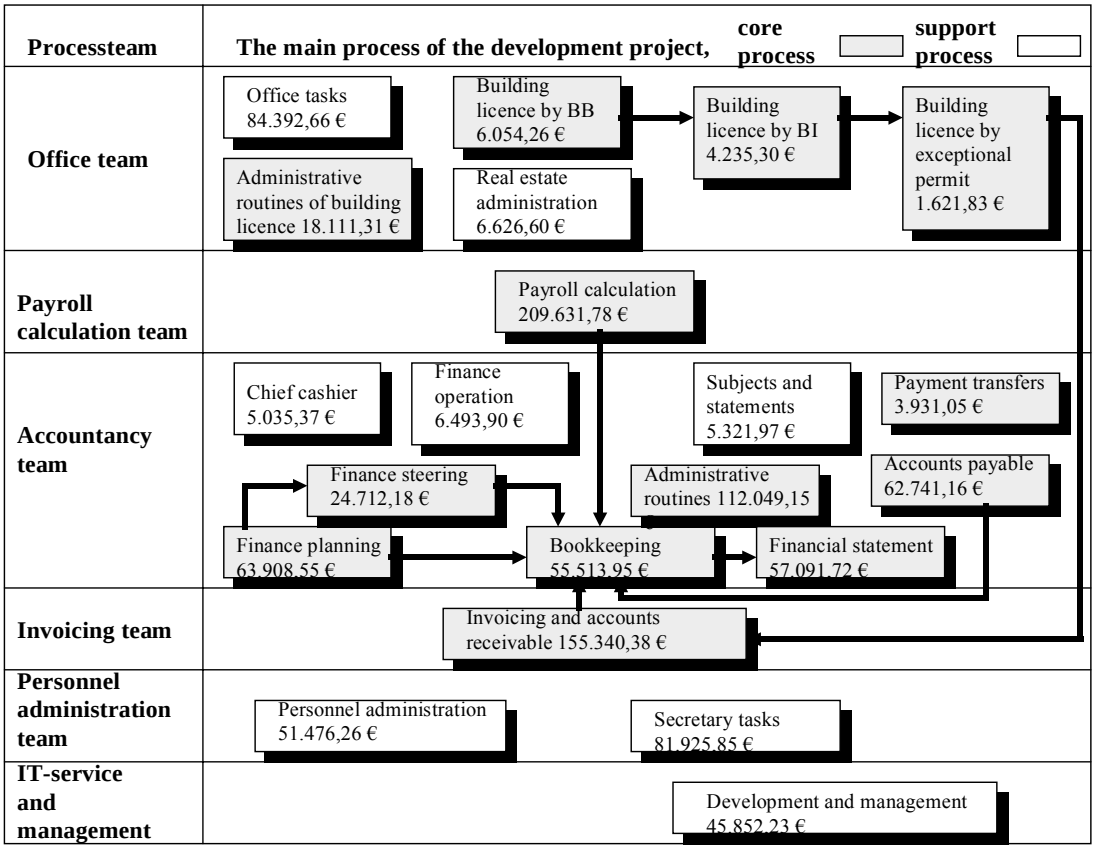

Figure 20. The Core and Support Processes in the New Teams.

The process-oriented operations required that the organisation ought be restructured as teams, and the objective of the LG of Swemu was, among others, to organise the activities as teams from a processual approach and the teams are described in Figure 20. In this figure the process of development of the financial functions is described according to the new process, and a team-oriented way of thinking, including pricing on the main process. The processes are specified separately, both by department and activity, and also by the unit costs of the activities. The main process was divided in core processes and support processes. The core processes can be considered as value-adding, because their activities are of importance from the financial functions and revenue point of view in the entire municipality. The not value-adding activities describe the support processes which enhance the total functions to act in the organisation. If necessary they can be done of other municipalites and various forms of external autonomization, such as outsourcing and privatization (see Ter Bogt 1999: 330–333).

Personal observations were important in the analysis of the research project and in the drawing of conclusions. The interviews were performed in good co-operation and the staff had become motivated to advance the project. A similar project had

not previously been carried out in the organisation. There were however, problem situations in the interviews. Some people in the key person group had problems answering the questions during the interviews they found it difficult to calculate their own work processes on the basis of time, and to express their activities in terms of time spent on them because of a reluctance to show openness (transparency). During the project, particularly in the interviews, discussions with the staff often arose. The process of payroll calculation emerged as an important area to develop.

The majority of employees (payroll calculation group) commented:

"The routines for entering salary data is very problematic: when we enter the salaries, the payroll program cannot accept the data at the same speed as we enter it, which leads to all the data being lost and then we have to do the same process from the beginning again."

Faulty entering accounted for approximately 5% of the routine of entering data. If each process is priced, the calculations in Table 3 are obtained for each department per year.

The cost of percentage faults is 5 % of the activity cost in the above table. According to the above table it can be noticed that the quality costs are greatest in Finance department due to the greater activity cost. Although the total costs of Social Services and Health Care are normally cover the greatest deal of the costs referring to the municipality and then Education.

The method of the ABC system showed how the payroll calculation process could be changed to reduce costs. Most of the interviews progressed without any problems. The researcher tried to help in difficult cases by dealing with the problems experienced by the interviewees through forming the right questions to focus on issues and ways to analyse them. The solution was to structure big issues and split them into smaller functions. Temporally, the project started from the activities of the whole year and was then analysed on a monthly level, weekly level and daily level. The Balanced scorecard education was held in the City Hall in Swemu on May 2002. During this daylong session the balanced scorecard method was presented in theory followed by the project group's first model of the combined scorecard for all four departments together including a vision, strategies, perspectives, critical success factors and indicators. The scorecard of financial functions in the local government of Swemu is illustrated in Appendix 4.

Table 3. The Quality Costs in the ABC-Model for Each Department.

Finance department:	Activity cost	Cost of percentage faults
Activity costs of the monthly salaries for entering data	€ 20,623.64	€ 1,031.18
Activity costs of the hourly salaries for entering data	€ 8,818.14	€ 440.90
Activity costs of the representatives' salaries for entering data	€ 7,024.63	€ 351.23
Total for finance department	€ 36,466.41	€ 1,823.32
Social Services and Health Care:		
Monthly salaries	€ 14,969.68	€748.48
Hourly salaries + temporary summer workers	€ 2,937.32	€146.86
Total for Social Services and Health Care	€ 17,907.00	€ 895.34
Technical:		
Hourly salaries	€ 7,642.98	€ 382.15
Education:		
Monthly salaries	€ 12,265.97	€ 613.29
Teachers' salaries	€ 3,044.86	€ 152.24
Supply teachers	€ 654.70	€ 32.73
Total for education department	€ 15,965.53	€ 798.26
Total for all departments	**€ 77,981.92**	**€ 3,899.07**

The project group members were also named during the session. The following participants were chosen for the project group: Finance Department Treasurer (who also acted as the chief and contact person of the pilot project to the researcher); Finance Department Staff Secretary; Social Services and Health Care Department Secretary; Technical Office Administrative Director; and Education Department Financial Manager. Because the treasurer was uncertain about the choice of members, the choice of the members of the project group was performed only at this stage. The treasurer wanted to be sure that all those selected, particularly those in the project group, were committed to the project before the final project group was chosen. In the construction phase of the study the researcher and project organisation had to construct four different models with management accounting tools (PMT and ABC) and one model with BSC-tool for

the departments. Finally these models combined together to only one model (steering system) for the whole case organisation. The architecture of the construction model is closely paralleled to Kaplan and Norton (BSC) and Cooper (PMT/ABC). The construction model is illustrated in Chapter 7.

The work of constructing this study relied both on the individual work of the researcher and also the joint development work of the project organisation where key members played an important role in the phases of designing and implementing the steering system. The individual work consisted of guidance, training, interviewing, digitizing refined data, and discussions about activities, processes and indicators. The joint development work consisted of designing, developing, implementing, and discussions about the allocations, drivers and testing of the steering system. It can be argued that the developed construction was a little ambiguous, subjective in nature, as well as a tool designed for internal strategic control. Lukka (2000) pointed out that models and frameworks developed to solve practical problems are always social constructs and therefore in this case the study was critical to recognize the everyday social reality of department managers and other managers in Swemu. These explanations acknowledge different roles the team work played in the study and explain how the study succeeded in the case organisation.

Step 5: Demonstrate that this solution works in practice.

This step is one of the most important steps in the constructive research approach because an important feature of constructive research is that the practical functioning of the construction is tested in the organisation (Tuomela 2000). The construction is not only tested technically, but also in terms of the entire functionality of the research process. This phase of research is demanding but can provide clues into the successful implementation of the constructive research process.

This case study possesses all the features of a constructive research approach with a high level of intervention and therefore this case study is of interest even though the construction was not implemented and taken into daily use (Lukka 2006). The construction was tested in the project organisation (staff and project group) and was accepted as a potential management accounting system but not in a daily work situation. The reasons for that the solution did not could be accepted in the daily work are related to certain barriers in the case study, for example organisational culture, lack of steering information systems etc. These barriers are discussed in detail in Chapter 7 (Kasurinen 2002).

6.2.3 Theorizing Phase

Step 6: Examine the possibility of transferring the solution concept to other organisations as well.

Lukka (2006) stresses that this step does not belong to the empirical phase. The researcher has to analyse the learning process of the construction alongside the case organisation. If the innovative construction passes the market test it is then natural to analyse to what extent it could be applied to other organisations as well as what changes would be required to achieve the transfer. Even if the market test has failed it would be of interest to deliberate educationally and analyse whether it would be possible to avoid an identical failure in another organisation (Lukka and Tuomela 1998).

The central characteristics of a constructive research are that the construction works practically, while simultaneously being relevant, simple and easy to use (Lukka and Tuomela 1998: 25). This study succeeded well on some points. The process was well performed and analysed although the first Mayor did not participate in the research process after the adoption stage. The results from the case study show that the construction could be recommended also to other departments in the organisation, although it was not in concrete use in the organisation as a daily working method (Lukka and Kasanen 1995). The methodological discussion in accounting regarding the generalisation of the research results is of importance from a scientific perspective. In addition, the construction not only has to work in the research context but also to show that the construction has a theoretical connection (Kasanen et al. 1993: 259). Lukka and Tuomela (1998: 25) pointed out that the new observations concerning the construction taken into use, as well as the applications of the construction, could increase prior knowledge. A construction that does not work in an expected way could be of value compared to prior knowledge. This kind of new insight contributes both to the theory connection and theoretical contribution. Evidence and observations from the case study showed that the driving force has significant meaning, just as a tight contact between politicians and civil servants.

The project group and staff members was ready to recommended this steering system slightly (see Table 4) for other departments in the town because benefits could been already recognized even though the system was not in regular use. The results of the data analysis in the case organisation were positive. The project organisation thought that the study process worked well despite the problem with the institutionalizing the system. In this study reasons for non-adoption pointed out in which circumstances the construct might be applicable. The research process has been documented in detail in order to make arguments convincing (See

appendixes 5: Financial planning and calculation of wages processes in Swemu, 6: Development process steps of financial management functions in LG of Swemu, 7: The structure of the ABC model, 8: The core and support processes of the research project including prices, 9: The staffing structure in the ABC-model, 10: Local government of Swemu´s scorecard in the town, 11: The phases for the development of the scorecard in Swemu, and 12: SWOT analysis of the financial functions of Swemu.

Step 7: Point out the theoretical contingencies and contributions of the solution.

From the academic point of view this step is the most critical phase of constructive research as it is where the researcher has to explicitly express the theoretical contribution and to demonstrate the relationship between observations and prior theory. The constructive research approach is a rather new approach in management accounting research. Lukka (2006) stresses that the constructive approach gives theoretical results in two ways: "first, the new construction itself could be theoretically significant and second, it could bring new knowledge about phenomena and the dependencies behind them." For example, Tuomela (2000) identifies functional, institutional and social explanations for why the new construction had not been managed. In that way he casts doubt on the compatibility of the issues researched and the selected framework. In his research the role of performance measures in managing customer focus was considered.

In this case study, the new construction, a steering system, was not adopted for use in the four departments due to specific institutional and behavioural features and therefore the goal was unable to have been achieved since even the weak market test had been entirely passed in the respective departments. In this case study it was important to research the backgrounds and pressures of the project which led to fails. In the following Chapter the result will be closer tested by market test. Lukka (2000) classifies two primary ways of contributing to theory in constructive studies. There is a possibility that the construct itself is such a novelty that it requires completely new means to achieve certain ends. Also, the constructive study can serve the aim of developing, refining or testing a theory (Keating 1995). The theory development takes place after the construction has been tested. The most interesting stage is the follow up, where the implementation is deemed successful or a failure, leading to refinement or perhaps dismissing old theories and giving rise to new theories (Lukka 2000, 2002).

The Swemu case is similar to the Degraeve et al. (2000b) case regarding novelties. Through combining three management accounting tools the new construct in Swemu led to new means of better understanding and identifying drivers of costs.

Because faulty entering accounted for approximately 5% of the routine of entering data, the method of the ABC system showed how the payroll calculation process could be changed to reduce costs. The identification of this problem enabled the staff to look more accurately at drawbacks in the processes in order to save money and avoid problems. In addition, the activities and processes were now standardized and therefore the performance of the four departments could be benchmarked. This increased their ability to critically analyse the different departments and in that way make decisions about how to improve costs per unit and become more cost-conscious. The organisation was unable to make such observations before this study.

6.3 The Test of the Construction through Market Test

6.3.1 The Market Tests

The testing and results are reported in the case study in this chapter. For obtaining a clearer picture of how well the case study worked from the staff's perspective, two small surveys were done: one in 2002 and the other 2005. This chapter has two parts. The first reports the analyses of data and results in the case organisation from the first survey, and the second presents the central benefits and drawbacks of the study as a whole (which also came through observations and discussions during the case study and the second survey).

Kasanen (1986) made a case for market-based validation of managerial constructions, referring to a weak market test, a semi-strong market test and strong market test. The concepts of the solution in these tests are: weak market test (has any manager responsible for the financial results of his or her business unit been willing to apply the construction in question in his or her actual decision making?), semi- strong market test (has the construction been widely adopted by companies?) and strong market test (have the business units applying the construction systematically produced better financial results than those which are not using it?). The goal of a constructive research work is to achieve a construction that passes the test. It should be noted that if a test of the construction from a practical and theoretical perspective fails, it could turn out to be of importance (Tuomela 2000). Tuomela (2000) has developed two different constructions and the most interesting results related to that which was not taken into use due to, for example, resistance by a marketing manager due to the increased visibility of their activities.

In this case study it can be argued that the weak market test was passed because the project organisation accepted the construction. The project organisation developed a new construction (steering system), which they tested in their own department but had not taken in the daily work.

6.3.2 The Weak Market Test

Kasanen et al. (1993) state: "the weak market test is passed when a manager is willing to apply the construct to his or her actual decision-making problem". However Lukka (2000, 2003) has pointed out that the weak market test should refer to the actual implementation of the construct, rather than the willingness to implement it. In the researcher's case study the result is similar to Tuomela´s (2000) case study, which did not succeed totally in the implementation phases, however the weak market test was passed and most of the project organisation members were willing to implement the tools in their own departments and other departments of the town. The staff did not institutionalise the steering system in the organisation, however a less radical version of PMT, ABC and BSC were managed at the level of the project organisation. The new steering system revealed new links between processes, activities, costs and indicators, but did not go as far as to transform the strategic thinking of the town board's management. Labro and Tuomela´s (2003) proposition about weak market test is illustrated in Figure 21.

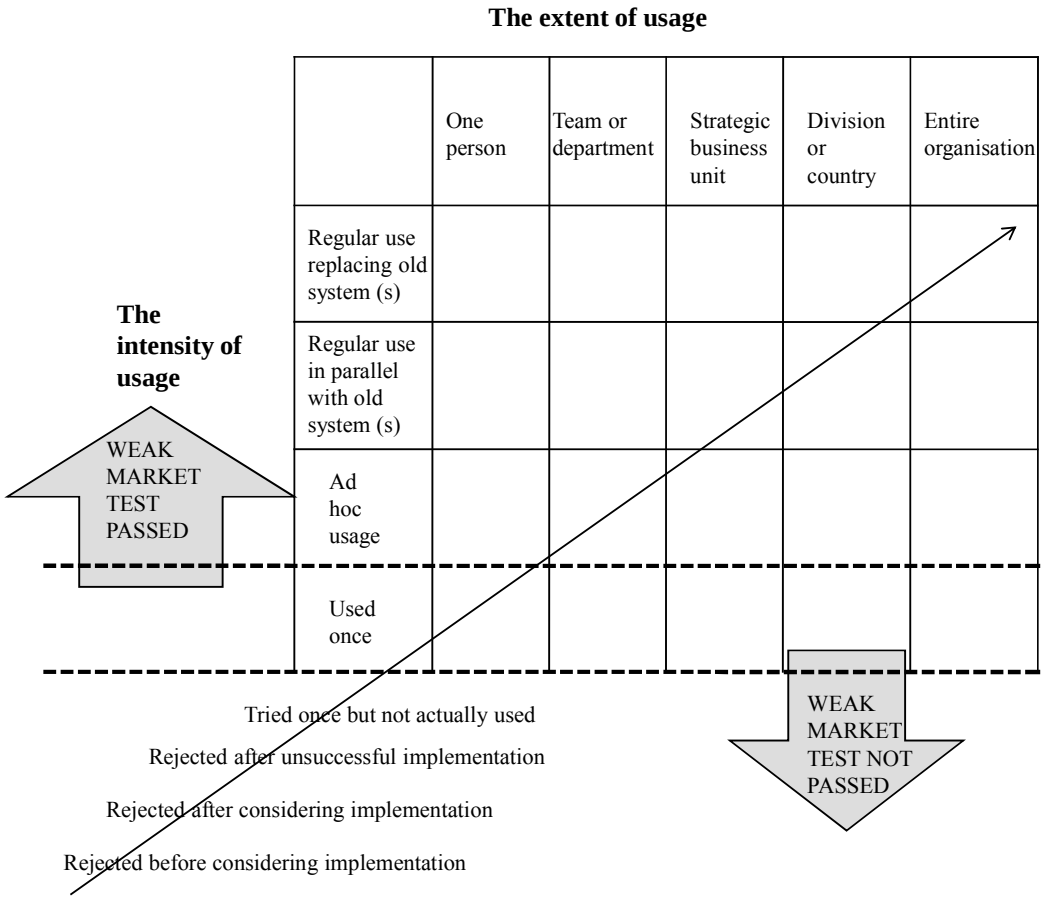

Figure 21. Different Dimensions of the Weak Market Test (Labro and Tuomela 2003).

The weak market test gets stronger the more to the upper-right corner of the matrix the test results exhibit. The degrees of non-implementation decisions are presented in the bottom-left-hand corner of the Figure 21. According to Labro and Tuomela´s (2003) proposal the weak market test means that the construct shows notable actions, even if only once used it meet the weak market test criterion. In this case study it should be noted that the validation passed the weak market test among the staff during the development and implementation phases. The usage of this case matrix could be put in the square which corresponds to Ad Hoc Usage/Team or Department, even if the steering system had not been implemented and used in daily work. In Chapter 7 it is time to discuss the reasons or barrier for failure of the strong market test.

6.3.3 The Strong Market Test: Analysis of Data and Results of the First Survey

In order to obtain a clearer picture of how well the case study was working from the staff´s perspective, two surveys were done, one in 2002 and the other 2005. This chapter has two parts. The first part reports the analyses of data and results in the case organisation from the first survey, and the second part presents the central benefits and drawbacks from the study as a whole (through observations and discussions during the case study and the second survey). The response for the strong market test question will be discussed at the end of this section, and after that the analysis of data and results will be reported.

A questionnaire was made to the staff members who were mainly involved in the research work, because one of the objectives was to know how the new systems could been adopted in the public sector, and particularly in the project, which included the economic administrative functions of four different departments in the LG of Swemu. The objective was also to get answers to the problems and questions, which were set at the beginning of the research work. The pilot project was built together with the staff and was tailored to its needs. After the development process, it would become difficult to respond to the issues presented in the questionnaire. However, the obtained results are distinctly positive to some points and the staff regarded the modern systems as a possible method to use in their municipality (the questionnaire can be found in Appendix 14). Totally, 19 persons answered the questionnaire; the percentage of those who had answered, was 67.8 %. In this questionnaire, the case is handled as a whole, i.e. not split into separate departments. The staff group who answered this questionnaire consisted of members of the superior group (4 persons), book-keeping group (3 persons), payroll calculation group (8 persons) and office group (4 persons): totally 17 women and 2 men. Table 4 articulates the responses and results of the process approach-related questions as a percentage of total respondants. The following scale has been used in the evaluation: 1 = I strongly agree, 2 = I partly agree, 3 = I do not agree or cannot say, 4= I partly disagree and 5 = I strongly disagree.

Table 4. The Results of the Data Analysis in the First Survey.

The scale/frequency 1 =I strongly agree 2 =I partly agree 3 =I do not agree or cannot say 4 =I partly disagree 5 =I strongly disagree	**1** **%**	**2** **%**	**3** **%**	**4** **%**	**5** **%**
Variables I feel very happy in my present job	63.20	26.25	0	5.25	5.25
I think that the study process in the LG of Swemu has given me a better idea of the steering system of the organisation´s operation regarding the functions of the financial management (cost awareness, control of internal processes, work motivation, etc.)	0	57.50	26.50	10.50	5.50
In my opinion, the education and the methods for how the steering system was implemented went well	5.50	55.50	5.50	33.50	0
I recommend the study process to be conducted in other departments	5.00	22.00	55.00	16.00	0
In my opinion, the study process, using process management, activity-based cost accounting and the balanced scorecard, worked very well in the development and implementation of the financial management functions of these four departments	0	37.50	44.00	18.50	0
In my opinion, the steering method is flexible and Provides more possibilities to steer than a traditional method (a budget)	10.50	31.50	31.50	26.50	0
In my opinion, the team work has improved with the new development process	12.50	12.50	62.00	6.50	6.50
In my opinion, the team work in the processes is more motivating with new methods than in traditional department working (functional)	12.50	12.50	62.00	6.50	6.50
The participation in the case study process has Improved my work motivation	0	22.25	61.25	11.25	5.25
Knowledge of process thinking has facilitated our co-operation in the organisation	5.50	30.00	59.00	5.50	0
The education and the steering work in the case study provided me with the knowledge and willingness to face future challenges in local government	5.50	52.50	36.50	5.50	0

I feel very happy in my present job.

Above all, 89.50% of the staff was happy and satisfied with their jobs in the organisation. About 50 % of the staff was more than 50 years old, and by observations and discussions it was understood that the staff would not have more work "extra work" to their normal routines. The stability and culture factors such as symbols, rules, norms and values are of importance in municipalities (see Scott 1995), and one would expect these issues are more critical if the staff is older. The workers in these organisations do not always appreciate reforms. The new steering system was expected to create more jobs because the new system was not in daily use and the staff had such a thought during the development and implementation phase of the case study. The managers of the organisation noticed that the age could be a threat in the future if they did not begin to recruit more people in time before the older people reached retirement age.

I think, that the study process in the LG of Swemu has given me a better idea of the steering system of the organisation's operation regarding the functions of the financial management (cost awareness, the control of internal processes, work motivation, etc.).

Approximately 57.50 % of the respondents felt that their knowledge level had increased and that the staff now better understood how the new management measurement accounting system could facilitate the steering in local government. Only a few members were of an opposite opinion.

In my opinion, the education and the methods how the steering system was implemented went well.

When asked whether the training and model designing was relevant to the case study, 61 % felt that the process-oriented approach was easy to understand and carry out.

There is evidence that improving the management's knowledge and understanding of accounting information within the public sector, e.g. through training and exchanges between professional groups, may strategically reduce resistance to the process of change and make the financial control system more reliable. Covaleski and Dirsmith (1983), for example, gave departmental secretaries the responsibility for and the opportunity to participate in budgeting. They discovered that this encouraged better attitudes towards the financial control system, while at the same time teaching them how better to use and take advantage of the accounting information. This is in line with the case study, because the project organisation that consisted of the involved department managers and accountants from the four

departments were given responsibilities for and the possibility to participate in the development process. They worked as members of the project organisation. The results were encouraging, the members became motivated, the cost awareness increased the control of internal processes became familiar, etc.

I recommend the study process also to be conducted in other departments.

The results from the questionnaire showed that the case study of the steering system was not fully accepted in order to be recommended to the other departments, but the question was a little complicated to fully answer because the staff could not at this stage evaluate the total process of the implementation. This was due to the fact that although the model had been designed and accepted, it was not in concrete use, because the organisation had not invested in IT-systems. This item contained one of the most significant points and caused problems in the infusion stage of the implementation of the steering system.

In my opinion, the study process, using process management, activity-based cost accounting and the balanced scorecard (scorecard), worked very well in the development and implementation of the financial management functions of these four departments.

Approximately 37.50 % of the respondents thought that activity-based cost accounting and the balanced scorecard worked well in the development and implementation of the financial management functions in this case. One advantage was that the process had become transparent and all the processes and activities were familiar to the whole staff (see Tammi 2006). Some people, however, were a little dissatisfied with this way the activities were described; the people thought that they were being checked on to see how effectively they actually were working. Therefore, the researcher had to explain what the aim of the case study was, and how they had to structure their actions. This issue was one of the worst aspects in the case study during the acceptance stage of the implementation process. However, another advantage referred to the benchmarking of the four departments because the activities and processes were now standardised for the respective departments, it was therefore easier for each manager to control and analyse their activities compared to the other departments' activities; and finally even to develop them (see Järvenpää et al. 2001).

In my opinion, the steering method is flexible and provides more possibilities to steer than a traditional method (a budget).

In this case, 42 % of the respondents mentioned that this kind of steering has provided more possibilities than traditional budgeting steering. The budget is not

connected with strategies as the balanced scorecard concept (Niven 2002) and the budget is more familiar for the staff than new performance measurement systems.

The staff was perhaps not sufficiently sure what the model of the steering system was really about, but they became familiar with it during the initial phase of the training and later on. The staff was not familiar with the use of a process-designing computer program and this was due to their lack of experience, their varying competencies and lack of independent thinking. In this type of organisation, people get used to working in a hierarchical organisation, and the ability and the will of the employees to adopt new ideas vary considerably.

The treasurer comments:

"The case study opens, in my opinion, a new way to continue development to stress the above-mentioned horizontal view of thinking regarding an organisation and the way to put operation and decision-making into practice in the town of Swemu. When you start such a process, it becomes apparent that there is a need to achieve a culture where each employee feels that they belong to a team, and that as a result they also have a clear picture of the objectives for the activities, cost-awareness, quality-thinking and so on."

"At the end of the day, I want to point out that it is important to carefully introduce the objectives of the project and the objectives that the organisation wants to stress before the project begins. In the future, we would stress this phase more to anchor and commit the people on all levels before we start the project."

Miller et al. (2001) point out that: "*Public managers have a number of levers at their disposal for influencing people and programs and bringing about organisational change, but they cannot be used effectively without a clear sense of mission, values, vision and overall strategy."*

In my opinion, the teamwork has improved with the new development process.

Teamwork in local government was unknown and perhaps this result is quite moderate. Work and decision-making processes are very hierarchical and the process time is quite long. In the case of the LG of Swemu, external consultants had proposed that the entire organisation has to change to a team-working model. At present, people only work for their own department but there were a great interest to develop the case organisation against a team-working model. The Treasurer was the driving force and had worked out a plan for this issue.

In my opinion, the teamwork in the processes is more motivating with new methods than in traditional department working (functional).

25 % of the respondents strongly or partly agree with the statement that teamwork is more motivating with the new methods than in the traditional department work. In teamwork, the expectation is that people will have more responsibility than before and that there are no limits when working in a team. The work became interesting. The profile is seen as social and the staff feels that their work is also more flexible. New public management stresses also "managerialism" and "professionalism", which means that all employees are participating in the project and it is not merely a task for management (Karila 1997).

The participation in the case study process has improved my work motivation.

The response to the question of motivation shows that the staff agreed slightly that their motivation had increased, although there were many of the people who could not agree on that point. The Treasurer said after the case study:

"The staff has adopted a positive attitude to the research project and as the work has proceeded, the motivation has increased".

The motivation was even noticed in the case study work with the researcher. The majority of the staff understood and appreciated it. In the beginning, the commitment was from the managers of the TC (Town Council) and TB (Town Board), but when the Mayor retired the reporting work was performed within the staff group and project group.

Knowledge of process thinking has facilitated our co-operation in the organisation.

Approximately 35.50 % of the staff was of the opinion that the process-oriented approach and the new knowledge of process thinking have facilitated the co-operation in the organisation. The discussions with the treasurer and project manager from the organisation stressed that the steering of the organisation in a local government is managed hierarchically and varied in groups of people regarding their competence.

The education and the steering work in the case study provided me with the knowledge and willingness to face future challenges in local government.

The development and implementation of a new innovation performance measurement system showed that this kind of steering might match in a local government environment. The response to the above question was overwhelmingly clear, 58 % of the staff was positive towards the mode of action and had a willingness to face future challenges in local government.

Table 4 gives a bit confusing picture as many of the respondents answered the scale/frequency 3 (I do not agree or cannot say) in the questionnaire. This was a result of the fact that the new model was not yet implemented in the case organisation. The project should have had more time to use it together and also to use special IT-tools for such issues. This case study is similar to some of the points which Rautiainen (2008) touch in his study about change pressures and leader succession in a city: *"in a municipal context the categorization of pressures into external and internal is fuzzy as the city council both represents people facing external pressures and is a body that exerts (coercive) power over other members of the municipal organisation"*. In the case study the staff might have been careful when they responded the questionnaire because of institutional pressures (see Rautiainen 2008). On the other hand the Town Board in the case study had a greater power than the Town Council. In addition it is mentioned that the Town Board always listen to what opinion the Mayor of the city was in preparation of decisions. This relates to coercive pressures.

6.4 The Pressures which hindered the Construction to be implemented

The staff and civil servants began to analyse the quality costs, which became transparent in the payroll calculation process and which were also verified by benchmarking in the four examined departments (see Table 3). Puolamäki (2000) states: *"The scientific contribution is the theory linkage, which may be remarkable even if the construction did not work"*. The Treasurer, who was responsible for the functional results in the city of Swemu, was keen on using this construction, but the big problems were barriers encountered in the case organisation such as a lack of a driving force which had sufficient power to get the whole project organisation to accept it, a lack of information systems to maintain it, and the lack of clear-cut strategies of the Town Board (TB) and Town Council (TC). Shields (1995) argued that the researcher copes with challenges of change if both the technical issues and the behavioural organisational variables have been reflected when pursuing successful implementations. In addition, Cobb et al. (1995) and Kasurinen (2002) analysed the change process including advancing forces of change and potential barriers to change. These factors have been discussed in the Chapter 7.

Lukka and Tuomela (1998:28) have critically discussed the advantages and disadvantages of constructive research. A good constructive researcher has an extensive view of different theoretical and practical solution alternatives. Commitment to the development and implementation phases are typically long running. A

problem that sometimes occurs regards the changes of key personnel in the case organisation. In this study there had been such a problem due to a retiring Mayor and the selection of a new Mayor. The new Mayor and his actions might have been a hindrance to fulfilling the project and the final implementation of the new constructed steering system in the case organisation. The treasurer, who was included and was the second most important key person in the case organisation, did not have sufficient power and authority to conduct and fulfill the implementation expectations in the organisation (political power play). In this case study the role of TC was not big enough or did not give exact instruction about economy issues. The Mayor had a lot of power and authority in this research project to give instruction how to handle in and decide to draw the right line about the economy of Swemu. Rautiainen´s (2010) study shows similar signals where the action of TC seemed to be inconsistent and did not give exact signals about the economy line in the studied two Finnish cites.

However, a critical examination of the research approach in this study will reveal that the construction has not passed the strong market test at the end of the research process, because the steering system was not brought into daily use. The change in the case study could not occur in the absence of information systems to monitor the execution of the routines of the construction; the steering system (see Burns and Scapens 2000). Therefore the steering system could not have been tested practically.

6.5 The Central Results of the Second Survey

On the 8.8.2005, a new questionnaire (see Appendices 14 and 15) was sent out: a follow-up survey to the one carried out in the autumn of 2002. The survey was done in the hope of obtaining a clearer picture of how well the case study was working, from the staff's perspective, and what further consequences there have been. The results[31] of the second investigation can be seen in Table 5. In this survey, the answers of the various groups of the staff are not considered separately but they are treated together as one group. Separating out the staff groups in this investigation would not have added any significance, as there were fewer contributors from the management and office staff than from the payroll-calculating and bookkeeping staff.

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[31] The results are based on average value with a scale used from 1–5.

Table 5. The Central Results of the Questionnaire II (N=28).

		Average value
A.	**Changes in the organisation relating to timing in the period 2000–2005**	
1.	The project has progressed since the first survey in 2002	3.72
2.	My stance on the development processes is as it was in the first survey	2.00
B.	**Which aids would have been particularly helpful in the development and implementation phases?**	
3.	The staff needed more training in using the new tools (PMT/ABC/BSC)	1.90
4.	Pre-prepared models for activities and processes would have made the project easier	2.09
5.	A ready-made computer system for constructing the processes would have helped in understanding the system	1.90
6.	More training opportunities would have facilitated realisation of the project	2.72
C.	**Difficulties observed in the development and implementation phases**	
7.	The organisation is too bureaucratic to carry out projects such as this	2.09
8.	The development project is too complicated for the city to carry out	2.45
9.	The political structure of the organisation is a great obstacle in carrying out the project	3.45
10.	The staff are not knowledgeable enough about these innovative development methods	1.81
11.	Maintenance of the steering system was not easy as there was no purpose-built computer system	2.18
12.	The period of training in the use of the new development techniques was too short	2.18
13.	The culture of the organisation is not ready for this type of steering system	2.36
14.	The organisation is too large to apply a system such as this	1.90
15.	The organisation itself needs a driving force who will get the project accepted and completed	1.81
16.	Completion of the new steering system was difficult due to the frequent staff turnover in the organisation	2.72
D.	**Advantages observed in the development and implementation phases**	
17.	Motivation has improved during the course of the development work	3.45
18.	Cost-awareness has increased during development of the steering system	3.36
19.	The new steering system would make my job easier in the future	2.90
20.	I recommend the development work, with the new tools, to other departments in the organisation in the future	3.36
21.	Teamwork has improved in conjunction with the development work	3.36
22.	An advantage to the project was being able to speak one's mother tongue	1.36
E.	**How would a combined steering system (PMT, ABC and BSC) be helpful in the public sector (in your departments, advantages and disadvantages)?**	
23.	A combined steering system better explains cause and concurrence of the measurements and the activity processes, and eases steering the economic functions	2.72
24.	A combined steering system requires computer systems in order better and more easily to maintain it	2.45
25.	A combined steering system cannot be maintained manually (too time-consuming)	2.18
26.	A combined steering system gives better opportunities for developing activities and processes than the current budget system in the city	2.63
27.	A combined steering system help decision-makers make the right decisions, as the processes are sorted out beforehand and one knows which measurements relate to which activities and processes (cause and concurrence)	2.63
28.	A combined steering system is difficult to apply within the public sector (difficulties: bureaucracy, politics, organisational culture etc.)	2.18

F.	**Changes in the development processes, and the role of the external specialist**	
29.	External assistance was needed to get the development project completed	2.36
30.	The project progressed well and kept to the agreed time-plan	3.09
31.	How well the project was carried out, on a scale of 1-5	3.72

In the Table 5 the following scale has been used in the evaluation phase: 1 = I strongly agree, 2 = I partly agree, 3 = I do not agree or cannot say, 4= I partly disagree and 5 = I strongly disagree.

The results point to the development process not progressing since the case study was carried out. This is partly due to the Mayor – the driving force involved from the very beginning on 16.11.2001 – retiring in the summer of 2002. The new Mayor, elected in the autumn of 2002, later on a new Mayor was elected in 2005. The questions in the second questionnaire were carried out properly and thereby the questions of the research could be analysed and interpreted more critically.

6.6 The Central Results of the Study in the Two Surveys

According to the central results, benefits and difficulties of the two surveys, discussions and observations during the constructive case study can state from the following documents (see Table 5, 6 and 8, Chapter 6). The results from the two studies differ partly due to the difference in time they were done and the fact that some aspects are not as relevant anymore, and that the system has not been in daily use.

The problems that arose in this study are connected to both institutional theories (NIS and OIE). Previous investigations into implementation discuss implementation studies oriented around technology (Kaplan 1990a, Shields 1995), around behaviour and organisation (Cooper and Zmud 1990; Argyris and Kaplan 1994; Shields and McEwen 1996; Anderson and Young 1999; Burns and Scapens 2000) and around changes in the organisation (Shields and Young 1989; Shields 1995; Swan and Newell 1995; Partanen 1997; Miles and Snow 1978; Pettersen 2001; Lapsley et al. 2003; Lapsley and Wright 2004; Modell 2005). The technically-oriented implementation studies focus on constructing model steering systems; the behaviourally and organisationally oriented studies emphasise the behaviour of the individual as an important consideration; those oriented around organisational changes place weight on cultural and political factors in the organisation. These implementation studies have been used as a foundation to give structure to the problems arising in this investigation; a conversion scale is used to classify them as being of little, average or significant importance. The problems summa-

rised in this study are drawn from surveys, observations, documents, interviews and open discussions (Table 7). Most of the observed problems in this study are related to behaviourally and organisationally oriented issues.

Table 6. The Central Results from the Two Surveys in the Case Study.

	Benfits		**Difficulties**
1	An advantage to the project was being able to speak mother tongue (Swedish)	1	The staff needed more training in using new tools
2	The process in the organisation has given the staff a better idea of the steering system of the organisation's operation regarding the functions of the financial management (cost awareness, control of internal processes, work motivation etc.)	2	Pre-pared models for activities and processes would have made the project easier to carry out, especially if they had been supported by a computer system for analyzing and designing the processes, which in turn would have helped in the process of understanding the steering system
3	The process of the development and implementation phases created interest to continue also in other departments	3	The organisation was too bureaucratic and too large to carry out such projects, other difficulties: politics, organisational culture etc.
4	The new model gave more possibilities to steer than the traditional method (budget)	4	The staff was not knowledgeable enough about these innovative development methods
5	The participation in the case study process had improved the work motivation	5	The organisation needed a champion who wanted to get the project completed
6	The process provided the staff with knowledge and willingness to face future challenges in local government	6	A combined steering system is difficulty to maintain manually (too time-consuming)

Table 7. Observed Problems of the Employees during the Construction and Testing Phases. The following scale in the evaluation is used: 1–2 = Strong importance, 3 = Average importance and 4–5 = Little importance. The figures are derived from Table 5 (N=28).

Implementation studies or problems	**Strong importance**	**Average importance**	**Little importance**
Technically oriented:			
A ready-made computer system for constructing the processes would have helped in understanding the system	1.90		
Pre-described models for activities and processes would have made the project easier	2.09		
Maintaining the steering system is difficult as there are no appropriate computer systems	2.18		
A combined steering system requires computer systems in order better and more easily to maintain it	2.45		
Too many or too few identified activities or drivers (came up in the discussions in the case study)			4
Behaviourally or organisationally oriented:			
The staff would have needed more training in the new methods (PMT, ABC and BSC)	1.90		
The staff were not knowledgeable enough about each innovative tool	1.81		
The organisation needs a driving force to get the project accepted and completed	1.81		
Staff behaviour during the project (obstacles such as age, knowledge, motivation etc.)		3.45	
Initial acceptance from the management			4
Oriented around organisational change:			
The organisation is too bureaucratic to carry out a project such as this	2.09		
The development project is too difficult to be carried out in the city	2.45		
The political structure of the organisation is a large obstacle to completion		3.45	
The culture of the organisation is not mature enough for this type of steering system	2.36		
The organisation is too large to apply such a system	1.90		

From Table 7 it can be observed that the greatest problems are related to both technical and organizationally oriented reasons and also reasons relating to organizational change. The problems classified with strong importance are for example the lack of a ready-made computer system for constructing the steering system in the case study and the lack of a driving force to get the project accepted and completed to be taken into daily work. It was also observed that staff had not sufficient skills in IT systems (innovative tools) and in addition the organisation was too large to apply such a system. The advantages and disadvantages of the combined steering system are specified in Table 8. In the same table the both surveys are reported. The first survey was more positive regarding to the scales of importance, stemming from that the construction has not been taken into daily use after the first survey.

Table 8. Advantages and Disadvantages of the Combined Steering System with PMT, ABC and BSC.

Advantages and disadvantages of the combined steering system (PMT, ABC and BSC)	**Strong importance**	**Average importance**	**Little importance**
I = first survey, II = second survey			
Advantages:			
Improved motivation and cost-awareness during the course of the development work	First survey (I)		Second survey (II)
The new steering system would make my job easier in the future	First survey (I)	Second survey (II)	
I recommend the steering system to other departments	First survey (I)	Second survey (II)	
Teamwork has improved in conjunction with the development work	First survey (I)	Second survey (II)	
The staff were allowed to speak in their mother tongue	First survey (I) and Second survey (II)		
A combined system better explains the concurrence of causes between the measurements and process activities		First survey (I) and Second survey (II)	
The combined system helps the decision-makers to make correct decisions in the municipality better than the budget	First survey (I)	Second survey (II)	
Disadvantages:			
Maintenance of the steering system requires a computer system	First survey (I)	Second survey (II)	
The combined system cannot be maintained manually	First survey (I)	Second survey (II)	
The system is too complex to be applied within the public sector (due to e.g. bureaucracy, size, cultural differences, lack of tools)	First survey (I) and Second survey (II)		

7 DISCUSSIONS OF REASONS FOR FAILURE OF THE STRONG MARKET TEST

7.1 Advancing Forces in the Case Study

The aim of this Chapter is to discuss the reasons or barriers for failure of the strong market test. The factors that hinder or prevent change were called *barriers.* In this study motivators, catalysts, facilitators, leaders and momentum, are defined in total as advancing the forces of change, in other words, as potential opportunities for change.

In Figure 22, the influencing forces and barriers identified in the case study are described using the accounting change model of Kasurinen (2002). The accounting change model is used to examine the advancing forces (motivators, facilitators, catalysts, momentum and leaders) and barriers (confusers, frustrators and delayers).

An important *motivator* of this study was the increasing complexity of the public sector environment. The case organisation also had economic problems due to decreased corporation taxation and the organisation was therefore forced to do something in order to cut budget deficits. These issues increased the pressure on the town board (TB) and town council (TC) to improve processes in the case organisation. To respond to these pressures the TB and TC needed information about the cost structure and measurement systems of the organisation. This kind of information was not available from the current budget system. The mismatch between the supply and demand of information created a tension, a pressure for change – called motivator (Innes and Mitchell 1990). Worth to mention in this context is that Kasurinen (2002) highlighted the more influential and organisation specific motivators for example the problems with a financially oriented control system. *Facilitators* are also important and necessary for a change to materialise. Key in this case study were the introduction organised by the Mayor for the town board and town council in addition to the well structured plans that had been created. *Catalysts* are also directly associated with change (Innes and Mitchell 1990). An important catalyst in this case study was the Treasurer's experience of strategy work as well as his experience of the financial functions of the four cited departments being examined. The managers of TB and TC sponsored the momentum referred to as the continuing change in the case study**.** The individuals and their roles were also regarded as important leaders through the change. The Mayor's role in the case study also deserves mention here. He was the driving force in the

case organisation in the beginning of the project and inspired the politicians and civil servants to be interested of the innovative steering system.

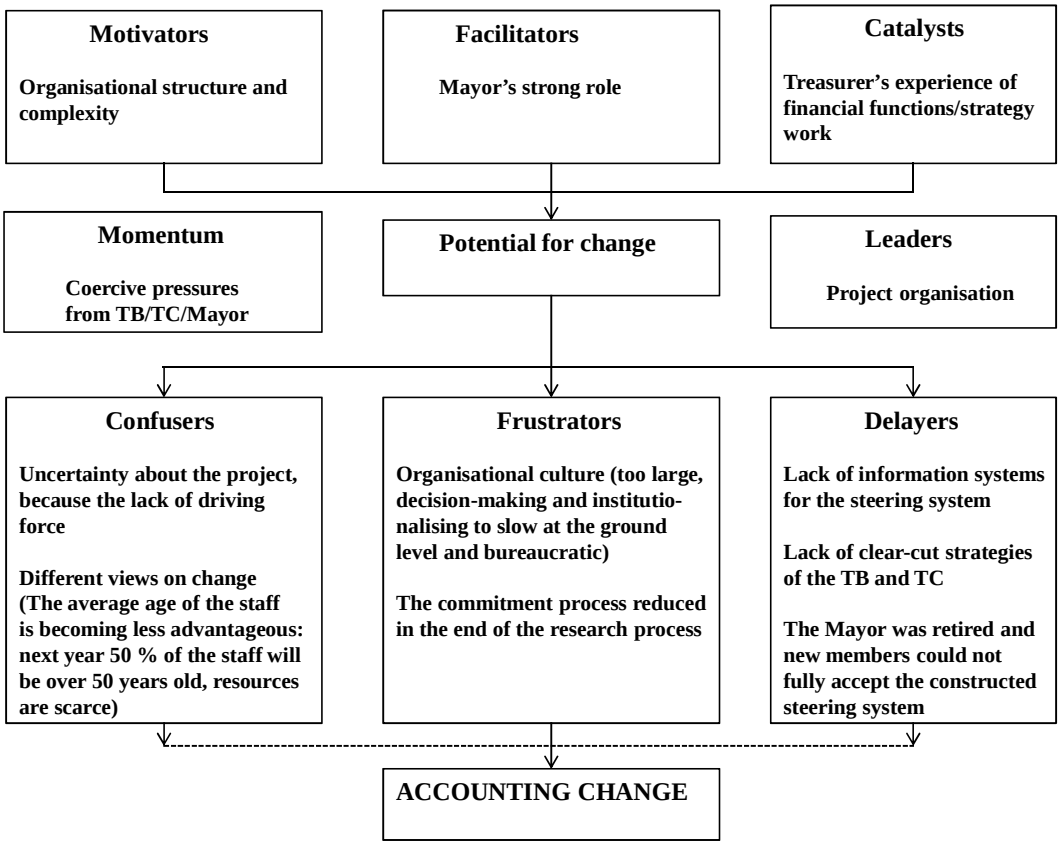

Figure 22. The Accounting Change Model in the Case Study (Adopted from Kasurinen 2002).

7.2 Barriers to change in the Case Study

The barriers in this case study are divided in the same categories as in Kasurinen´s (2002) accounting change model: confusers, frustrators and delayers. The confusers in this study are related to different views on change namely, the high average age and lack of sufficient knowledge in new accounting systems etc. Frustrators related to organisational culture and delayers to lack of information systems for the constructed steering system. According to Kasurinen´s (2002) balanced scorecard building process does not pay enough explicit attention to the context of change implementation. The lack of this contextual analysis at the early stages of the project may lead to the understatement of the structural barriers and to only limited implementation. Kasurinen´s (2002) revised accounting

change model provides a potential way to analyse the context change. Kasurinen (2002) claims that the better the barriers are known at the early stages the better they can be circumvented in practice.

The Mayor at the early stages of the project played a key role in the case project and he could be titled a champion (Shields and Young 1989). The strong support of the Mayor also seemed to influence the motivation of the managers (department managers) and accountants (staff members). The Mayor´s position as a leader was very strong and therefore it can be concluded that the managers and accountants did not have any choice other than to start the project. The strategy work made in advance influenced the managers positively and they seemed to be interested in implementing a tool to increase performance measurement that could be used for analyses of the cost structure. The project changed a lot after the Mayor retired at a critical moment, which interrupted the implementation process. The process progressed but did not pass the strong market test in the case study. Perhaps this occurrence increased the uncertainty about the future role of the steering system. A new Mayor with experience from a non-public sector organisation was appointed. Despite that, the major change during the period of this study was the increased contact between managers and accountants, because all members from these groups would participate in the project. The influence of individuals was even of significance in the project, for example the Treasurer assumed the same role that the first Mayor had had and was also responsible for the whole project. An important factor influencing the project was that the new Mayor was not committed to work with the project and he was not convinced of its benefits. Even for managers and accountants this issue was a disruptive influence to the case priorities in the organisation because this kind of research project needs time to come to fruition (Cobb et al. 1995). Factors, like those described above that seem to decrease the change attempts in the organisation are called *confusers* in this study. Cobb et al. (1995) point out how important the commitment process of the changes in general ought to be: *"The process of change can only happen through people, even if the vital elements of motivators, catalysts and facilitators are in place, change will not occur without commitment through the management process".*

Other barriers classifiable as *confusers* in the case project are the high average age of the staff and learning difficulties. The new steering system required a new way of thinking and the staff needed to have more skills in the modern accounting methods. The high average age was an obstacle for the change.

It is worth noting that the managers have a dual-role, as catalysts and leaders, which might be crucial to the change process in this study. In general the catalysts initiate the change process and at the same time they have a leadership role. Without this role the change process may fail or falter in the face of the barriers. According to Nadler and Tushman (1990: 77): *"The executive is a critical actor in the drama of organisational change".*

In this case, references are made to the new Mayor. By using Kasurinen´s (2002) model the recognition of the barriers´ role in the case study was easier and may have facilitated the attempts to explain the change.

However, Roberts and Silvester (1996) claim that organisational culture and existing structures are not major problems when conducting these kinds of projects. They claim that larger problems occur in managing power struggles between ´divisions and business units` (the manager at a higher level (Mayor) designs his own system for department managers). Before his retirement, the first Mayor defined the first version of the indicators in the balanced scorecard concept, aiming it at the entire organisation. This ´divisionally designed´ system comprised of increased visibility and in that way aroused fears of meeting the local needs of the case units (Scapens and Roberts 1993). Sometimes the culture is not mature enough to accept new systems in the organisation and therefore it may be understandable to take into consideration the managers wanting to implement a more comprehensive type of steering system as the first version (Kasurinen 2002). In this case study the first version was designed in that way. In addition, it can be mentioned that the new developed management accounting tools were totally new and unfamiliar. These tools tended to weaken the role of strategic thinking for the managers in the project group in the beginning of the project but improved later on. The members of the staff were in a better position because the ´accounting culture´ was familiar regarding to financial functions in their daily work. The above-described factors are called *frustrators* in this case study.

The Lack of clear-cut strategies of the TB and TC was the most significant barrier hindering the change. The issues did not become better when the new Mayor was appointed. Consequently the creation of a strategy focused steering system including PMT, ABC and BSC became difficult to fulfill such that all members in the case organisation could accept it. The steering model had been developed by a project organisation including a steering committee, project manager, project group and the staff along with the researcher. The TB, TC and the new Mayor had not accepted the project so the commitment level reduced by the end of the research project. This kind of project is typically regarded as rather technical in

nature and should require a data program to overcome the difficulties in data collection. The above-mentioned factors in this case study are called *delayers*.

The above-mentioned change model provided possibilities to analyse the context of change at the early stages of a project. At least some of the potential barriers could have been avoided, for example how to incorporate a commitment process during the project work and get the new Mayor more involved in the case study. Furthermore, if the discussion had been focused more on the data collection and information systems, the proposed changes could have been better accepted and perhaps even easier institutionalised in the case organisation. Kasurinen (2002) stresses the importance of the forthcoming role of a steering system and how it should be carefully defined at an early stage of the implementation process.

7.3 The Insights of Institutional Theory in the Change Model

One of the important advancing forces in this case study was the increasing complexity of the public sector environment in Swemu relating to economic problems due to decreased corporation taxation (motivating factor). The organisation needed a relevant and reliable management steering system. The old-fashioned budget system was not sufficiently ´up to date´ to fully satisfy to the demands of the time. The coercive pressures (legislation and policy) had a dominating role over new innovations like PMT, ABC and BSC. It should be noted that the advancing forces ´put´ the project in right direction in the beginning but at the end the case study's direction was changed. The normative influences such as management's competence and strategic thinking seemed to function and these members were trained in the new innovation methods. During some of the informal discussions with the managers, it was revealed that the developed steering system should have been taken into daily use by using IT systems.

The Treasurer commented:

"This year we do not have enough money in the budget to invest in such IT systems. In the future, I am sure that we have to weigh decisions to see which is the best…it would be a good alternative"

The culture of the case organisation was a typical public sector organisation with routines and rules deeply embedded in the organisation that normally change slowly (Pettersen 2001). A central role of institutional theory is the need to serve the legitimation of the financial functions. The individuals of the case study had an important role relating to the legitimation process, especially the first Mayor

and the Treasurer, who tended to change and develop their practice to become a respected support function. The Mayor and Treasurer had a dual-role in the case organisation as catalysts and leaders which were crucial to the change process in this case (Nadler and Tushman 1990).

In the case organisation one informal change was that the project organisation began to respect the developed steering system (PMT/ABC/BSC) because the people in the project organisation changed their ways of thinking from being embedded in existing management accounting routines. From this perspective the steering system enabled them to provide the four departments with information on the costs of processes, activities and measures. The project organisation appreciated the transparency of the described processes. The accuracy of the activities was also observed with a new credibility as the accounting data were strictly grounded in organisational processes and not prepared by convention-based accounting system. The steering system was altering the organisational reality for the project organisation in Swemu, providing new possibilities through which individuals could arrange and structure their world (Soin et al. 2002).

As mentioned earlier, the accounting change model (Kasurinen 2002) provides a potential way to examine the context of change. It is worth noting that the use of an institutional perspective as the starting point made it easier to analyse the causes behind the implementation barriers. For example, the barriers (delayers), such as lack of clear-cut strategies were related to NIS theory. Coercive pressures were connected to TB and TC decisions. These kinds of actions may be also be observed when analysing advancing forces that ´push´ the project in the wrong or right direction.

7.4 The Institutional Conscious PMS Model

The new construction of the steering model was redeveloped during the phases and steps of the constructive research process (see Labro and Tuomela 2003). This new model was aimed to test the construction of the model in the case organisation, comprising elements based from the NIS and OIE institutional, which gave the researcher better possibilities to indicate the activities at the different stage appeared in the implementation model (Cooper and Zmud 1990) and also understand the problems and barriers (confusers, frustrators and delayers), in the accounting change model (Kasurinen 2002), which been used in the case study. Seemingly, the application of the accounting change model to case context together with institutional theories facilitated the attempts to explain the change. This new constructed steering model is the same model which had been proposed

in the beginning of this study but except the hindrances of institutional theory and barriers. The new model is introduced in Figure 23.

The Combined Performance Measurement System in Research Context

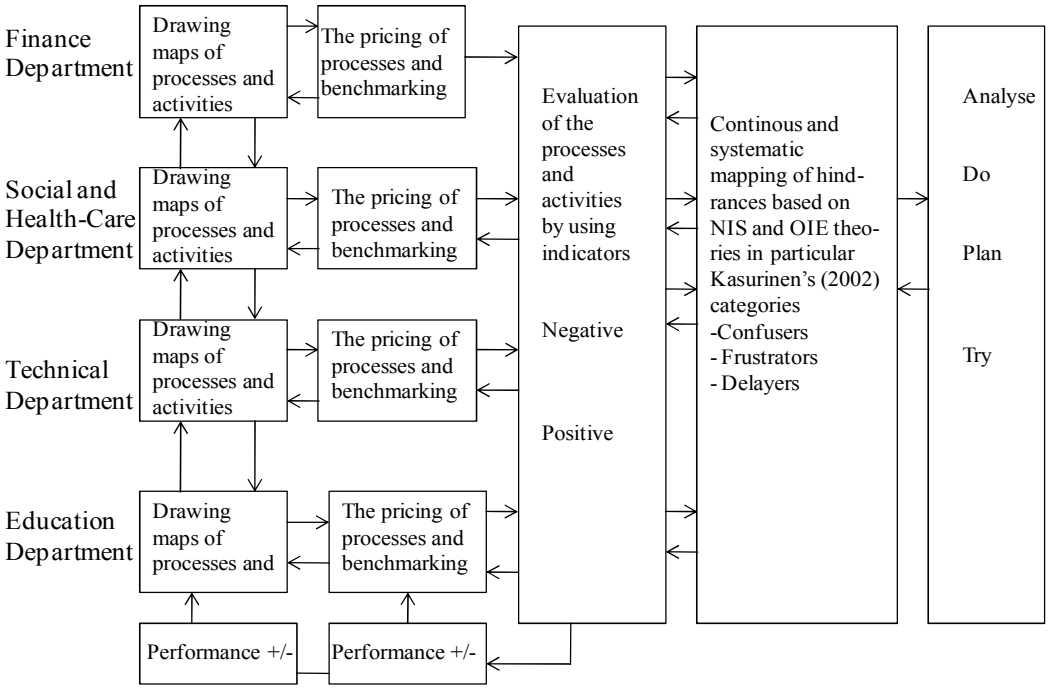

Figure 23. The Institutional Conscious PMS Model in the Case Study.

The implementation of the steering system as a daily working tool did not succeed in the end of the implementation stages, because the city did not have the will to invest in an IT-software system (delayers) to facilitate the new steering system. The biggest reason consists of that the case organisation had not a clear strategy how to handle the IT functions in the steering system, which IT-tools they had to choose after the implementation phase of the construction. Further, they had not even taken up the costs in their budget plans. The other barriers referring to this study were: uncertainty about the project, because the lack of driving force, and that the average age of the staff is becoming higher *(confusers),* organisational culture factors; decision-making and institutionalizing to slow at the ground level and bureaucratic, commitment process reduced in the end of the research process *(frustrators),* the lack of clear-cut strategies of the TB and TC, the Mayor was retired and new members could not fully accept the constructed steering system. During the construction phase, the researcher observed issues which have impacted on the understanding and thinking of the performance

measurement and performance management (see Tuomela 2000:15). The staff had become more cost-conscious and critical when analysing processes, activities and indicators. The institutional theories, OIE and NIS, also seem to be of importance in the construction phase. There were differences between the new steering system and existing rules, routines and institutions. From the OIE institutional perspective, it seemed that the most significant issues concern the Barley and Tolbert (1997) institutionalisation process: encoding, enacting, reproduction and institutionalisation. From the NIS institutional perspective, the parts of importance are legislation and policy (coercive pressures), corporate culture (normative influences) and the characteristics of organisation (economic impact). In the case study the new steering system implementation (formal management accounting change) was expected to be done in a more straightforward way, however the member of the project organisation noticed in the end of the project that successful implementation would have required new ways of thinking from start to finish (Burns and Scapens 2000: 18).

When Kasurinen's (2002) model and institutional theories were used, then the causal links between measures and processes became more identifiable and transparent, which improved the possibilities of carrying out the research process. The findings in the study contribute to the ongoing academic discussion about causal performance measurement models (Otley 1999 and Kasperskaya 2008). Later on Malmi and and Brown (2008) have highlighted the MCS package as a possibility to discuss about this phenomenon also from this point of view.

The new construction can also be described by the MCS package typology of Malmi and Brown (2008), in Figure 24. The idea of this analytical MCS concept is to get a sufficiently broad approach to study the phenomenon empirically and also understand and recognize the links between components in the MCS package and further how they relate to each other.

<table>
<tr><td colspan="7">Cultural Controls</td></tr>
<tr><td colspan="2">Clans/TC/TB</td><td colspan="3">Values/Vision Statements in BSC</td><td colspan="2">Symbols/Project Team Meetings</td></tr>
<tr><td colspan="2">Planning</td><td colspan="3">Cybernetic Controls</td><td rowspan="2">Mapping of Hindrances</td></tr>
<tr><td>Long Range planning/ Steering System</td><td>Action planning/ Budgets</td><td>Budgets</td><td>Financial Measurement Systems/PMT ABC/BSC</td><td>Non Financial Measurement Systems/BSC</td><td>Hybrid Measurement Systems/BSC</td></tr>
<tr><td colspan="7">Administrative Controls</td></tr>
<tr><td colspan="2">Governance Structure/ Board Structure/Project Team</td><td colspan="2">Organisation Structure/ Functional Specialization in Departments</td><td colspan="3">Policies and Procedures/ Bureaucratic rules</td></tr>
</table>

Figure 24. Management Control System Package in the Case Study (adopted from Malmi and Brown 2008).

The original MCS package model, which Malmi and Brown (2008) have constructed contain also components such as reward and compensation. In this study the reward and compensation has been replaced with mapping of hindrances, because the role of reward and compensation was not important for the case organisation, even though Olve et al. (2004) have stated the importance from the implementation perspective. The change might give new dimensions on how to analyse the links between different levels and categories of control and also to recognize the barriers which interrupted the procedure in the MCS package. In the case study it was observed how difficult the training phase was indeed in the administrative control, cultural control and cybernetic control levels, above all, when designing and developing during the construction phase.

By taking a broader scope of the designing and construction phases of the steering system in this study, the components became transparent and its usefulness and purpose of the system became easier to understand of the employee in the project organisation.

8 DISCUSSION

8.1 Earlier and Current PMS Findings in the Public Sector

The purpose of this study was to examine the new innovative management accounting tools in local government from a steering approach and an institutional perspective using NIS and OIE. In this section, issues which are of research value are compared to previous studies carried out in the public sector (Johnsen 1999; Aidemark 2001; Askim 2004; Sihvonen and Lumijärvi 2004; Calluzzo and Ittner 2004; Järvinen 2005; Hoque 2005; Modell 2005; Johnsen et al. 2006; Chang 2006; Tammi 2006; Baird 2007; Kasperskaya 2008; Ter Bogt 2008). Previous research has shown that performance measurement in organisations steers behaviour and decision-making. Previous research has also suggested that PM development is hindered by inadequate training and the inability of existing IT systems (Calluzzo and Ittner 2004). In addition, previous research has also stressed that BSC implementation reduces goal uncertainty and communicates the complex work of professionals to management and politicians and stimulates a new dialogue on vision and strategy. Some previous research has suggested that political interplay between different actors seems to play an important role when adopting and institutionalising a new PM system to the public sector (Modell 2005). Comparing to the results from the earlier studies mentioned above, results in this study are similar to a large extent.

Things changed in the case organisation when the mayor retired and therefore the contact surface between politician and different actors was not the same as earlier. When the new Mayor was appointed the pressures changed and the PM system lost its importance. In this case study, the development process was hindered in part due to the inadequate staff-training and in part due to deficiencies of the existing IT system. The existing IT system was not sufficiently developed to be used with new IT tools as such. However, a ready-made computer system for constructing the processes, activities and indicators would have been available. In this study the researcher used management tools as a package (QPR[32]) in the designing and cost calculating phases. In this section some observations in the Swemu study related to the drivers and barriers behind the processes will also be explained. The outcome-oriented performance management system will be com-

[32] Software supplier which focusing on management tools in organisations.

pared to earlier studies in the public sector (see also Kasurinen 2002). Helden's (2005) review of the adoption of new public management (NPM) accounting techniques shows that studies are scarce and that there is a demand for more studies. Previous studies (for example Pollitt 1986; 2000) have been primarily concerned with the technical elements of NPM. However, reviews of papers published in accounting journals reveal that public sector management accounting research (PSMAR) also concerns NPM practices. Especially, the practical uses of new management accounting techniques have been of interest (Helden 2005). Perhaps the reason is that it is easier to handle accounting techniques and technically oriented issues of NPM, than the intangible aspects, which include organisational culture, knowledge management, politics and human resource issues. These issues are themselves very complex to study (see Bürkland 2009).

In this research, both the tangible and intangible aspects were examined from an institutional perspective. A noteworthy finding in this study is that the intangible aspects, which can characterized as behaviourally or organisationally oriented issues (training methods, driving force etc.), were of greater importance than technically oriented and organisational change oriented issues. Conversely, Helden (2008) strongly states that the problems of performance measurement relate to the development of indicators in the public context that are more classified as technical than behaviourally or organisationally in character. In this study all members has accepted the first version of indicators, the worst problem handled with how to continue with the research work when new members were appointed in the organisation, how to get them to accept earlier decisions related to the development process.

In this study institutional theory was used to examine some complex factors which influenced in the municipal context (Swemu). Especially, the aim of this study was to explore a construction of a new steering system including several performance system techniques creating finally a MCS package (Malmi and Brown 2008). The nature of management accounting practices where MCS package was implemented in the municipal context has been studied surprisingly little.

Johnsen et al. (2006) concentrate on public sector performance management from a Nordic perspective. Municipalities in several Nordic countries have adopted BSC models in conjunction with decision-making, using indicators for comparisons and learning. Fewer municipalities have used the performance management information for cost reductions and improving democratic accountability (Van Helden and Tillema 2005). Helden (2005: 107) noticed that the reports from PSMAR have concentrated more on budgeting issues than on costing and cost management issues. The explanation may be that in public sector organisations,

budget figures have for a long time been of considerable importance in resource allocation, which is connected to performance indicators. An additional reason may be that the charging for governmental services is still not extensively used, depending on the fact that it is very difficult to identify and price the outputs. This has been observed for example in health care organisations, when the services are priced by a method named Diagnosis-Related Groups (Modell 2001; Pettersen 1999 and 2001).

The researcher and the Swemu staff together developed a combined steering system model to also provide the staff the option of a cost reduction tool for the four departments. The project had an unremarkable goal proposed by the project organisation to save approximately 10 % of the total costs in four departments, which they could not manage not at least in the end of September 2002. The budget figures were ready in spring time 2003.

In his study, Tammi (2006) has analysed which benefits ABC can offer to management in municipalities in Finland. Tammi (2006) stressed the importance of transparency in the processes and the importance of co-operation in municipalities. The result from this current study concerned the people working in the municipality. A change occurred in their way of thinking and in their way of identifying processes and focusing on the consumption of personnel resources and the meaning of personnel management. When the activities and decision-making start to become too strongly based on pricing, the staff had to refocus on value-added activities and also to reassess why the municipality exists. All this kind of thinking creates more value and contributes to the non-financial measures and how these measures are evaluated. Some interviewees (payroll calculation group) in this study indicated that certain activities could be conducted better, for example internal cooperation and the sharing of information to the staff. One interviewee (book-keeping) said: *"by choosing adequate measures it makes it possible to increase efficiency and quality"*. Ter Bogt (2008) on the other hand points out that public sector organisations do not comprehensively and regularly evaluate their efficiency, effectiveness and effects of changes. However, a reason for this is that it is often hard to measure efficiency and effectiveness, as well as the effects of management changes in government organisations.

In the present study, the researcher also strived to analyse which forces and barriers lie behind the acting of people in the municipal context by using Kasurinen´s (2002) model. Furthermore, the study focused on how non-financial measures can

be used to control and steer different kinds of activities[33], even though all the examined functions[34] are not of a financial nature. The researcher has observed that modelling the three accounting methods connected together (PMT, ABC and BSC) provides the staff, in a municipal context, advantages and disadvantages (discussed later in Chapter 8.3.3.) when it comes to clarifying the casual relation between indicators, prices and processes. In other words how to allocate costs and measure performance in the organisation. This research provides a contribution for both other researchers focusing on performance measurement systems (PMS) and for the municipalities regarding their steering in practice. It is also worthy to admit that ABC, as a standalone steering tool, cannot give signals sufficiently fast enough, and therefore the connection to other tools could be of value. Näsi (1996, 241-242) has stated in her studies for example: "*When comparing accounting systems, one system does not need to be better than another, but different systems will suit better in certain operational environments. Under these circumstances, the new accounting methods will be chosen very carefully, comparing different systems based on their advantages and disadvantages.*"

The most important advantages that the project revealed included the new steering system simplifying the jobs of the staff; in addition, realising the project in one's mother tongue proved to be an advantage in avoiding unnecessary misunderstandings. However, the second survey showed no improvement in motivation and teamwork, which may be due to the steering system not being put into operation following completion of the project. Another important point, to be regarded as an obstacle, was that half of the staff in the organisation was over 50 years of age. A SWOT Analysis (Appendix 12) was made in the beginning of the research project and used to enhance and conduct the work in the case study. In the independent comments: *"It is clear that an organisation with so many people of our age find these novelties difficult to understand, and that the next generation is much more in touch with and has a better understanding of these things."*

Indeed, Wiitakorpi (2006) has investigated the effect of increasing age on the learning ability of employees. Her research, however, showed that personal characteristics and the level of further education had a greater effect on willingness and eagerness to develop oneself than age. The people surveyed in the current study responded with difficulties they regarded as important factors in constructing and implementing the project. Amongst other things, this type of organisation

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[33] Activities = more accurate meaning of the word to do something, normally used in connection to ABC

[34] Functions = a general meaning of the word to do something

seemed to be too bureaucratic and complex to carry out projects such as this. Other difficulties reported and observed are summarised thus: the staff were not sufficiently knowledgeable about the innovative accounting methods, so the general level of knowledge was also low; the staff had expected more training during the research process. In addition, the organisation was regarded as far too large to implement corresponding steering systems (manually) comprehensively. Only the staff succeeded in constructing and implementing a simpler version of the steering system. This result goes against Rivenbark's and Kelly's (2000) report that larger cities end up implementing PM within the public sector more than smaller cities.

Ter Bogt (2008) recognized the importance the work between politicians and managers in government organisations because they do not work in isolation, at least it will help the project to progress faster. These questions seems to be even more relevant, given that the literature on change processes suggests that it takes considerable effort and up to five years to fully implement major changes in the financial management and other control aspects of organisations (see Kong 2005).

8.2 Earlier and Current PMS Findings from the NIS and OIE Institutional Theory

Modell (2005) prefers the institutional research and provides that it gives considerable insights into the complex political processes involved in devising performance management practices. Ashworth et al. (2007) suggest that from an institutional theory organisations pursue legitimacy by conforming to isomorphic pressures in their environment. In this case study it is important to note that NIS theory with the three mechanisms of isomorphism were taken into account, however is not always easy to draw clear distinctions between the respective isomorphisms according to Kasperskaya (2008). The primary impulse for initiating a better performance management system to the case organisation came from the Town Board of Swemu and may therefore be characterised as a clear example of coercive isomorphism. In addition, a new construction of steering system reveals characteristics of mimetic and normative isomorphism actions. The initiated programs comprised of a workshop of new techniques, the knowledge acquired from seminars the managers had earlier attended, and external consultants' work in the case organisation. All these activities are classified as normative isomorphism drivers. The case organisation constructed and implemented the steering system in a ceremonial manner but changed to a more pragmatic and instrumental nature after the Mayor retired. Often, when there will be no changes among the employees and managers, the direction is straightforward and the process continues in an

uncomplicated way (see Kasurinen 2002). In this case study the steering system was only understood by the project organisation, while the other managers in the Swemu involved and TB gave only formal support to the steering model in the introduction phase of the study. The resistance from the new mayors saw no relationship between the steering model and their responsibilities. This, with other barriers (incompatible IT systems), led the case organisation to decouple the operational activities from the steering system. Lukka (2007) emphasizes that loose coupling between management accounting rules and routines can be viewed both as a solution and a problem. In his findings the accounting routines and daily actions would not have been viable if they had been tightly coupled to the rule system.

According to Burns and Scapens (2000), modification of management accounting is easier to accomplish if the existing routines and institutions in the organisation are uniform; if they are not, it may be more difficult. Modifying processes in management accounting is more complex than if one rationally chooses to implement optimal procedures and technology options as they are known. A normal change generally requires a thorough understanding of the current context within the organisation, especially with regard to its routines and institutions. Further, to knowledge of the system, this includes understanding the thoughts and behaviour of members of the organisation. In this case study, institutional reasoning[35] was used, because public sector organisations, such as Swemu are strongly embedded in regulations, cultures, values and traditions (see Ter Bogt 2008; Helden and Tillema 2005: 357). In their findings they noticed that it was helpful to be involved in various benchmarking projects and in that way obtaining an insight into the relative efficiency of their organisations and improving performance.

The case study in Swemu found conflicts in the original or common way of thinking, in which there were differences between the new steering system and existing rules, routines and institutions. This conflict was not an issue at the beginning of the study, but arose later. The first Mayor managed the process, using the formal model, conscious design and strong actions by the individual himself. The Mayor heavily emphasised the encoding phase (see Burns and Scapens 2000), and furthermore gave permission for investigative projects at a lower and higher levels in the town (that is, town administration and town council). The enacting and reproduction phases were not carried out with as great an authority as the encoding phase, due to the Mayor's retirement. Responsibility for the investigation subsequently fell to the treasurer; hence also the steering changed from being formal to

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[35] In Finland the municipalities have to accept the rules in The Local Government Act

a more informal model of change. Perhaps these actions caused confusing tensions among the group before the Treasurer had taken a stronger command of the project. Burns and Scapens (2000) manifest: *"If the processes of informal change lag behind the formal change processes, tensions may be introduced in the form of anxiety and resistance, possibly leading to the failure of the implementation."*

These tensions were a consequence of being at odds with the new rules and routines introduced and approved in the organisation. The new rules and routines were incompatible with the ways of thinking and acting of the civil servants, as well as with the behavioural norms based on their existing routines. There were nevertheless enough people holding responsibility (including the treasurer), participating in the investigative project, who had the necessary knowledge and skills together with the researcher to carry out the implementation stages. Certain routines had started to develop in the project organisation, such as team-building, which is a solid foundation for the application of the steering system. According to Burns and Scapens (2000), implementing the process of institutionalisation is important, bearing in mind the advancing forces (motivators, catalysts, facilitators etc.) used by the various member in the different phases (encoding, enacting, reproduction and institutionalisation).

Sihvonen and Lumijärvi (2004) noticed in their study in the municipality of Loppi that the training and communication issues between politicians and civil servants were regarded as important. In the Swemu research, this result of issues was similar, but in addition it was observed that the understanding and most of the implementing phases, in particular, could have been managed better if the politicians and civil servants had had tighter contacts with each other during the entire process. It was observed that this project was lacking of sufficient power (coercive process) depending on that attention was not paid to the political interplay between different actors inspiring them to try new ways of action in order to gain benefits in Public Sector Accounting (PSA). This type of thinking is similar to Modell (2005).

Johnsen (1999) suggested from his case study, a Norwegian local government performance measurement research project, that using implementation with decoupling performance indicators and organisational objectives may enhance implementation success of performance measurement in local government. This advice does not suit to the given management by objectives (MBO) literature. Johnsen (1999) points out that the implementation approach of performance indicators coupled to organisational objectives may hinder implementation success rather than facilitate it. This study argues that when the new systems inclusive used indicators were decoupled from the organisational objectives gave the pro-

ject organisation more power to progress in research project without confliction between the politicians and members of project organisation. In the Swemu case it was found that a combined steering system better explains the cause and effects of the measurements despite the difficulties with bureaucracy, politics and organisational culture issues. Therefore, the combined system was regarded as a benefit, depending on the commitment work on all levels in the entire organisation in the beginning of the project.

Modell (2005) has investigated the performance measures from the institutional approach and states that conflicts can be avoided by decoupling contentious cause-and-effect relationships between measures using separate performance measurement systems. Modell (2005) states: *"the decoupling can even be seen as a result of incompatible information systems and firmly institutionalised barriers to collaboration between various staff functions, e.g. finance and personnel"*. In the Swemu case, the focus was on the construction and testing of a complete steering system and the PMS measures were decoupled from the budget systems. This study is in line with Modell´s (2005) study regarding to the incompatible information systems.

The new Mayor had goals that were in conflict with the goals in the beginning of the project. The Conflicts arise in the end of the case study when the line of the new Mayor was resistance to that which was an aim in the beginning of the study. The aim of the study was to take the model in daily work. This study is also in line with Malmi and Brown's (2008) MCS package model, which indicate that if the impact of particular performance measures (in this study the behaviour of the new Mayor) might conclude that the model did not get the final acceptance in Swemu when it misfit with other elements of the control package for example clans (TB).

8.3 Discussions about the Research Questions

8.3.1 Problems in the Construction and Testing of the Model

This research task suggests that the objective of the construction approach, which is chosen here, is to construct a new performance management system for use in public organisations and to test it. This has been discussed and analysed in earlier chapters. This study argues that the construction passed the weak market test but in the end of the research it failed and could not pass the strong market test due to the discrepancies caused by the TB of Swemu. The research task has led to some specific questions that will be discussed to next in this section.

One of the most important actions having to be included in conditions were the action plan in the organisation; how to train the staff, how to give a clear picture of the objectives for the activities in the research process and how to stress the earlier mentioned horizontal view of thinking (see Pastinen 1998; Tammi 2006). In this research it became clear that there is a need to achieve a culture where each employee feels that they have a clear picture of cost awareness and process working.

Apart from the treasurer, the top-level management in the city of Swemu began having a negative attitude towards the new steering method, constructed using the new tools. This was partly due to the top-level management, working with the new Mayor, having no contact whatsoever with the model before it was ready for use. More subordinate civil servants in the city contributed to building up the model, and their attitudes and acceptance were far more positive. The top-level management prioritised the conventional method, using planning and budgets, which they were accustomed to using. The new Mayor did not understand the complex calculations. He was appointed as the Mayor when the case study had been finished and he could no more have an influence on the calculations and development process. Results from other evaluation projects show similar findings (Preston and Chua 1994; Magnussen and Solstad 1994). The nurses in their studies said that they did not believe the cost control system could improve anything, because they did not know anything about the system. Shields and McEwen (1996) point out why the ABC method fails when it comes to implementation; their comments are similar to those in this case study, e.g. lack of top management support.

All parties involved must have their own roles in developing each job, if new technology, methods and process, which in addition lead to changes regarding visions and strategies, are to be introduced at all. This was demonstrated particularly well in this study. Among other things, Clarke and Lapsley (2004) point out the following: *"The variety of settings and findings with the characteristics of different contexts (local, state, national or international), political forces and the establishment of a managerial class in this new public sector all have roles to play in defining the significance of management accounting as a tool for development, for transition, or transformation."*

The construction and implementation process of the performance measurement systems in the public sector depend much on how well the commitment work has been done both at the political and institutional level (Pettersen 2001; Calluzzo and Ittner 2004). Based on studies in the public sector, Pettersen, (2001) concluded that adjustments of accounting systems are slow at the institutional level,

and rapid action at the political level. Pettersen (2001) states: *"Politics can produce a rapid change in visions, but institutions are slower to act, and hospitals are slow changers, and their actions are stabilised by their deep-rooted patterns of norms, beliefs, routines and rules".*

If the obstacles in the implementation phase can be identified early (as confusers, frustrators and delayers), the process of change is easier to carry out. It should be added that advanced forces can easily pull the project in the wrong direction. Various levels of the organisational hierarchy are included in each system. In this project one can discern these advanced forces (motivators, facilitators and catalysts), which almost brought the project onto a wrong track, such as the Mayor's retiring at an early stage and delays in electing the members of the project group. It is also important at an early stage to define the future role of the balanced scorecard (Kasurinen 2002: 21–22).

Shields and McEwen (1996) and Calluzzo and Ittner (2004) heavily stress the role played, in implementing ABC and PM, by factors relating to behaviour and organisation. They believe that the reason behind a failed implementation is focusing too much time on technical factors, such as software design, driver testing and model design. Roberts and Silvester (1996) take a similar line, also pointing out the importance of factors relating to organisation. Obstacles within an organisation may be due to many different things. In order to fully understand the resistance to change an organisation, one must know how the structures of the organisation work and be familiar with their influence, internal and external, on the environment in which they operate. Even in this study it has been observed that factors relating to behaviour and organisation play an important role, though it should be noted that the importance of factors relating to technology and organisational changes were also of strong importance. One of the technical factors related to the lack of tools. A computer system would have facilitated understanding and implementation of the steering system according to discussions with the treasurer; designing and carrying out the system were less important. Other important factors relating to behaviour and organisational issues are the activities of the driving force during the development and implementation phases in the case study.

Acceptance from the city, however, was of little importance at the start of the work, but later gained a highly significant role (see Galluzzo and Ittner 2004), when changes in the individuals in top-level management prompted an evaluation of the investigative project. The group of factors relating to behaviour and organisation gave rise to numerous problems. This investigation yields partially similar results to those obtained by Shields and McEwen (1996), e.g. problems in the

following implementation factors: top management support, training and linkage to performance evaluation. The factors relating to organisational changes included the staff feeling that the organisation was too big to apply a steering system such as this without using any kind of accessories. This result is entirely justified, bearing in mind that many large organisation administers each steering system manually. Previous investigations have nevertheless shown that large cities that use PM have found computer-based tools to be of advantage (see Rivenbark and Kelly 2000). Staff who answered the questionnaire felt that the culture of the organisation was not mature enough to be able to use steering systems such as these. The opinion of the top management was that the organisation ought to be changed to team-based groups before putting the innovative steering system into use. This corresponds with Aidemark and Lindkvist (2004). External consultants also encouraged a change in the organisation, from thinking functionally and departmentally to thinking as a process-oriented team.

8.3.2 Connection between PMT, ABC and BSC

Constructing a model for and maintaining a steering system, where PMT, ABC and BSC are combined, such as this showed that it helped the project organisation of the project to progress easier when the activities were designed in advance in the case study. The staff began finally to understand why the organisation would be interested in the system. One of the aim of the study in the beginning was to connect all three tools in the steering system in the daily work and in that way find how useful it would be in their own work (see Shields and Young 1989).

In a study by Kloot and Martin (2000) in local government, the end results (management outcome) are highlighted in terms of customer satisfaction and municipal relations. These were not connected to long-term measurements such as personal development and financial performance indicators, nor to the strategies and goals drawn up by the municipality. Their study claims that BSC and ABC can independently improve performance, if the organisation carries out the processes well. However, some results suggest implementation is less successful than believed or suggested in the literature (see Kloot and Martin 2000). Milgrom and Roberts (1995) suggest that successfully implementing new and modern strategic tools within the economy requires complementary systems. Wingren (2005) demonstrates that his BSC model will integrate the activities in a stronger way into the key success factors and measures. This can lead to a more understandable knowledge of the entire operations. Newing (1995) recommends the balanced scorecard as working well with ABC and ABM, because these are processes, internal to the scorecard, that visually demonstrate what is causing expenditure,

both within and outside the organisation. ABC attempts to reflect the process, so that the management can easily see the influences that designed changes will have on costs (Swensson 1998).

Malmi and Brown (2008) stress that for example budgeting and balanced scorecard can be labelled as a MCS. Normally they are often introduced by different groups at different moments and therefore the controls as a whole should not be described holistically as a single system, but instead as a package of systems. The strength of Malmi and Brown's (2008) MCS package lies in the broad scope of the package, rather than the depth of focusing on its individual systems. By taking a broader approach in this study it has helped the researcher and the staff to design and develop the construction (see Malmi and Brown 2008; Merchant and Van der Stede (2007). Furthermore a broader understanding of the links between the modern accounting methods (PMT, ABC and BSC) has been gained. The results of the study suggest that combining PMT, ABC and BSC makes it easier to deal with and develop processes in Swemu. Maiga and Jacobs (2003) also proposed: *"That the implementation of ABC when combined with BSC is likely to have a significant positive impact on organisational performance."* In their investigation into modifying hospital management to make it more similar to the private sector, Aidemark and Lindkvist (2004) maintain that this model resulted in more rapid decision-making processes, and that the financial situation improved early on in the development work: *"The market link with the patients/customers that directly relates the activities to the financial results and equity of the hospital also inspires the hospital management to work for increased production and shorter waiting lists."*

In a process orientation context it may be useful to notice and make a distinction between results and process measures (Meyer, 1994). Pastinen (1998) points out: *"The result is an indicator of that which transpires within a function, not what happens across the functions. In contrast, process measures monitor the task activities throughout an organisation that produce a given result"*. He also stresses: *"To facilitate the improvement pace and to further motivate the employees, the integration of a reward system with the performance measurement system can be justified."*

In this investigation, there was a noticeable improvement in motivation during the course of the project. This occurred as the connection between activities and processes was gradually discovered, and as awareness of the costs and resources behind the activities improved (tracking of measures became transparent during the development of the steering system in the case study).

8.3.3 Advantages and Disadvantages of a Combined System

The research showed in clear terms the presence of both advantages and disadvantages in the development and implementation of this kind of steering system (see Table 8). One of the more positive advantages emphasised was a better follow-up, compared to the current system. In addition, it is possible to get closer to the processes and activities affecting the decision-making if the decision-makers also know in detail what the decision concerns, and how further to develop the process.

The disadvantage of a combined steering system is that it necessitates an investment in computer programs, without which it may be difficult to develop and maintain the system itself. Olve et al. (2004) stress that it is not necessary to invest in an information system to make the scorecard actionable. They suggest that a template in Excel can retrieve data for the scorecard from manual input and existing systems, which enables the controller to produce the needed data. It may also be difficult in the initial stages to get a similar system accepted on all levels and by departmental heads, all involved in decisions regarding the development and implementation phases. Furthermore the influence of bureaucracy, politics and culture is stronger in the public than the private sector, which may further complicate the adoption. In this case study, the importance of acceptance on all levels (those of the city council, city administration and civil servants) was clearly noticeable, even at an early stage. In their study, Lapsley and Oldfield (2001), declare that management consultants in public sector organisations found it difficult to introduce and implement changes in new accounting methods, because of internal politics and bureaucracy, and were also resistant to change. In addition the operational activities and processes in public sector organisations were classified as too complex due to hierarchical processes and difficulties in resolving issues to a satisfactory conclusion.

Empirical evidence and observation in this research were the benchmarking activities that took place in all four departments. The activities in the departments were analysed and compared and the results was an important indicator of the success of the development and implementation of the new steering system in Swemu.

In sum, the new steering system resulted in many positive effects, although the steering system was not implemented in daily use. This research provided impulses that the new construction also ought to be tested and incorporated into other parts of the case organisation. This means that more indicators and performance measures that are aimed at extending the number of controllable aspects within the organisation are needed. This in turn creates a need to link non-financial per-

formance measures to each other and to the existent financial performance measures (see Vaivio 1999).

8.4 Comparison of the Case Findings with earlier Studies

In this chapter the case study will be discussed and compared to the earlier studies in the public sector. Most of the studies are carried out as case studies and the research approach is from the institutional perspective. This study will be discussed from three different perspectives: from that of the results, which do not correspond to the case study; from that of the results similar to the case study; and from that of results not found in earlier management accounting studies. This kind of discussion is important, because it is then easier to analyse the case study from the contribution view and it also permits the researcher to provide an accurate summary of other authors' opinions of this topic subject in public sector organisations.

8.4.1 Results not Corresponding to the Case Study

Langfield-Smith et al. (1998) Baird (2007) stated that, above all, activity management has been adopted in large organisations due to a greater demand for accounting information and the fact that these organisations have better resources to handle such practices. The Swemu case study indicates that an organisation may be too large and bureaucratic in administration functions for developing and implementing the steering system or, due to the lack of a pool of technical expertise and resources, and the lack of up-to-date information systems. Baird (2007) is also of the opinion that more innovative organisations with an outcome orientation culture would be more likely to experiment with new practices such as activity management that claim to facilitate improvements in processes and to enhance performance. His study has pointed out that an innovative organisation, which is likely to experiment with new practices must first analyse its own structure and evaluate how the new construction will fit in the organisation. In this current case study the members of the project organisation thought that Swemu should abandon its current organisational structure and focus more on co-operation and process management.

Tammi (2006) found out that ABC has served as a development model and inspired the organisation to guide management in a new direction. The empirical data is not considered to support strategic management. Conversely, the Swemu

case study explained that a combined steering system (PMT/ABC/BSC) explained the causes and effects of the measurement and in addition supported strategic management. The Balanced scorecard focuses on strategic management and provides extra value when connected with ABC (see also Malmi and Brown 2008).

8.4.2 Similar Results as the Case Study

Hoque (2005) stated that Government regulatory policies were the primary catalyst for a move to NPM ideals in the case organisation. The researcher in the Swemu case study also identified the policies which were regarded as important catalysts as well as revealing the experience and competencies of lower level management. The catalysts are directly associated with the change (Innes and Mitchell 1990). The advancing forces belonging to the catalysts that have been examined are, for example, the Treasurer's experience of strategic work and also the experience of the financial functions in the cited four departments. The Swemu case study noted that NIS/OIE (Modell 2005 and Burns and Scapens 2000) theories, routines and rules also affected and were of interest in the constructing and testing the model of performance management measurement, particularly when analysing coercive pressures and forces which influence on the different implementation stages.

Sihvonen and Lumijärvi (2004) noticed that the majority of elected officials and civil servants in Loppi were of the opinion that PM affects the local government's work and behaviour. The final result was the same in this case study. The case study resulted in changing the staff's way of working and thinking. The treasurer had made a good plan for forming the team and working together. Aidemark and Lindkvist (2004) used the new structures in their case organisation and noticed at the same time the leadership of the hospitals became more commercially minded and developed more rapid decision making procedures. In the Swemu case study the whole staff became more aware of critical to the costs in the four departments and overall more business oriented regarding to the financial functions in the organisation.

The results from the case study were similar to other authors' (Pettersen 2001; Calluzzo and Ittner 2004) examinations relating to development of performance measures, which were hindered by inadequate training, the inability of existing information systems and a lack of organisational commitment to achieving results. In addition, it was noted in the case study that the politicians produced a rapid decision to start with the steering system development project. Unfortunately it was remarked that the staff was slower to act and finalize the project. These

experiences can even be observed in other studies. (see Pettersen 2001; Aidemark and Lindqvist 2004; Tammi 2006; Baird 2007). In the case study the staff now has a better idea of the steering system, i.e. cost awareness, control of internal processes and work motivation. Also, teamwork has improved with the new construction process. All these identification signals originate from the new tools which make the organisation transparent and at the same time increase the understanding of co-operation and enable the organisation to look more critically on costs and measures of the activities during decision making. The evidence of Tammi´s (2006) study enhance the discussion of the customer from a process view and then you have to focus on the drivers who start the chain of activities (see also Malmi and Brown 2008; Tuomi 2012).

This current study clarified that the case study could be conducted in an easier way when the practical tools, partly pre-prepared by they were used when constructing, testing and making analysis in his case organisation. The similar result can be noticed in Wingren´s (2005) study. In his study the group with earlier experience of ABC reported mass-tailored ABC to be better than the traditional ABC in many important respects. The drivers in the current study were also indicated in the construction stage of ABC part and it enabled the benchmarking process between the four departments separately in order to critically interpret the results of the processes in value-adding and not value-adding activities. The value-adding (core processes) and not value-adding activities (support processes) are also described earlier in Figure 20. These results during the construction stage enabled the ability to make certain decisions by analysing the quality costs of the activities and processes in case organisation in order to save money and keep the costs on an accurate level.

In Rautiainen´s (2010) study you can notice that NIS could explain case events in a transparent way in the public sector organisations, because conflicting pressures can partly explain complexities of individual behaviour (e.g power relations, experiences and educations). Similar tendencies could be observed in Swemu case study relating to the conflicts which arised when the new Mayor was appointed in the end of the case study.

8.4.3 Results not found in other earlier Management Accounting Studies

The case study also produced new results, which had not been reported in other accounting management studies in the public sector. Laurén et al. (1978: 107) have studied the use of the Finnish and Swedish language in Finland and in the same study they also published the vocabulary of accounting words used in Finland and Sweden. According to their study, languages are our thoughts and our

traditions, our most important capital. Laurén et al. (1978) said: "*The normal situation for most Swedish speaking people is that the languages are functionally differentiated. In such situations both languages have their own area of usage, where the other language is seldom or never used."*

In that case one would use the Swedish language at home, with friends and the Finnish language in the workplace and in other official situations. According to Lauren et al. (1978) it is very difficult to keep a balance between both languages and in which situations you could discuss all subjects equally well in both languages. In the light of these findings, it is understandable that the staff in the case study in Swemu preferred to speak Swedish with the researcher, because both their mother tongue and workplace language was Swedish. Furthermore, in regards to the special position of Swedish speaking people who works in the four departments in Swemu, approximately 60 % were completely unilingual (Swedish speaking), and most of the records of the boards were written in Swedish and all meetings arranged in Swedish. In addition, realising the research project in one´s mother tongue proved to be an advantage in avoiding unnecessary misunderstandings and also contributed to the research project from the point of view of reliability and validity. Above all the language had a motivating effect on the project and facilitated the research to be executed according to the original schedule.

In addition, it should be mentioned that earlier studies have not been carried out in the public sector regarding combined measurement systems such as PMT/ ABC/BSC, only separately. It is also worth mentioning that the constructive research approach in the construction and testing of a steering model based of modern accounting tools such as process management, activity-based costing and balanced scorecard had not been carried out in public sector organisation before.

9 CONCLUSION AND CONTRIBUTIONS

9.1 Conclusions to the Research Questions

According to Kasanen et al. (1993), the researcher should have reached a result closely associated with the constructive case study features. In other words, the researcher should find a practical problem relevant to managers in an organisation. This problem should also be interesting with respect to theory, since the aim is also to connect the findings of the study to existing theory. In addition, the researcher has to construct a model to solve the main problem in the organisation and also demonstrate that this innovative solution (see Kihn & Näsi 2010: 48) works in practice as well as whether there is any kind of theoretical contribution to the case construction. As the research work has been performed and the discussion section written, it is possible to speak about the main task: to construct, on the basis of earlier research and the pre-understanding of the researcher, a new performance management system for use in public organisations, and to test it. In order to gain a deep understanding of the phenomenon the main task leads to some specific research questions that also need to be answered, namely: What kind of *problems* will appear when constructing the model in the case organisation? To what extent is it possible to build *a seamless connection* between PMT, ABC and BSC in the management steering system (MSS)? What would be the *advantages* and *disadvantages* of such a combined system?

The final construction work is accurately described and introduced by using the seven steps of constructive research of the new steering model gives positive signals from the research process. The construction passed the weak market test, however not the strong market test. New aspects from institutional theory (Burns and Scapens 2000 and Modell 2005) and using the accounting change model (Kasurinen 2002) when testing made the phenomena transparent and at the same time enhanced the attempts to interpret the findings in the case study.

1. What kind of *problems* will appear when you develop the model in the organisation?

In the case of this local government, three types of problems were revealed: technical, behaviourally or organisationally oriented, and problems revolving around organisational change. Concerning technical factors, it can be mentioned that a prepared computer system could have helped the staff to better understand and use the new innovative tools in the training process, which could also have helped the organisation to take the system into daily use (infusion phase). This technical

factor was significant among the problems in the organisation. Other problems concerned behaviourally- or organisationally-oriented issues. The training and driving force (champion) phases seemed to be the most problematic areas because of new ways of thought and action, and changes of personnel within the organisation (see Calluzzo and Ittner 2004). It became apparent that the size of the organisation, especially if it was too large, was the most significant problem in terms of organisational change factors. The staff considered that their competencies were not at such a level that they could manage and understand these new kinds of techniques and new ways of thinking without technical equipment, among other things. This result is different from many other studies. Numerous studies (Innes and Mitchell 1991; Langfield-Smith et al. 1998) declare: *"Management accounting systems, such as, activity management is more likely to be adopted in larger organisations because of their greater demand for activity management information and the fact that they are better equipped to commit resources to such practices, thereby resulting in better outcomes."*

In this case study, it was also observed that the reaction, in the initial phase from the political point of view, was very rapid and the real problems arose at the institutional level where the actions are slower. These observations are similar to those of Pettersen (2001) and Modell (2005).

A clear problem and a barrier, which emerged at the end of the case study project, occurred when the first Mayor retired from Swemu and a new mayor was chosen. Afterward, there were instances of commitment problems. A large part of the public sector has centralised power structures, meaning that the power and control systems are concentrated with a handful of individuals. This kind of power (coercive pressures) has been found to be negatively associated with innovativeness in that the more power is concentrated in the organisation, the less innovative the organisation tends to be (see Rogers 1995).

2. To what extent is it possible to build *a seamless connection* between PMT, ABC and BSC in the management steering system (MSS)?

Regarding the management accounting literature, one can note that PMT, ABC and BSC work well together because they are handling processes and activities that are internal to the balanced scorecard and visually demonstrate the cause and effect factors both within and outside the organisation (Milgrom and Robert 1995, Newing 1995, Swensson 1998, Meyer 1994, Pastinen 1998, Maiga and Jacobs 2003 and Aidemark and Lindkvist 2004, Melese et al. 2004, Wingren 2005 and Kasperskaya 2008). The aims of the research were not fully tested in the case study, only manually in the sessions of the project organisation. As a summary of the findings and observations, it can be stated that a seamless connection can be

built to a certain extent by using financial functions (see Chapter 6). The method would be easier to design and carry out if the activities and processes were standardized (pre-prepared) (Wingren 2005). In addition, the processes have to be documented accurately and in a transparent way. The findings suggest that the construction also aided the design process of the model, especially with the use of an ITC system (see Pastinen 1998) during the constructing and testing stages of the model. These actions are extremely time consuming and competence demanding.

In the case study, the same model design method was used for the four departments. The staff started to discover the processes and activities of the financial functions in each department and afterward set the price using ABC on the processes and activities. All four cost based activities were linked to a combined model. The last phase was to build a complete balanced scorecard model, which was connected finally with the combined activity model. The organisation succeeded in this work because the pre-described models for activities and processes were built with the staff. The civil servant belonging to the project team also used a pre-described model in the balanced scorecard model design. The project team focused on discussing and carefully considering the right activities, processes, perspectives, success factors and indicators because cause and effect must be traced and be transparent. All these issues had to be in balance with the entire organisation's strategy and vision. A main task in this study was to obtain a comprehensive understanding of the topic and new thinking in local government. This case study focused on the financial functions within the organisation, even though the indicators in the combined balanced scorecard model are chosen from both financial and non-financial perspectives (customer, process and personnel).

The findings revealed that the steering model would not function if the indicators were not chosen incidentally without connection to activities and processes. The integrated steering model tries to balance several perspectives that are connected to several success factors to reach targets in financial and non-financial perspectives connected to respective resources, activities and processes. The combined performance measurement system in the research context of the case study is constructed and tested in Chapter 6. The model showed that the causal links made the mechanisms visible by which organisational (staff) might achieve the objective defined in the steering model. In addition it can be mentioned that the connection between PMT, ABC and BSC were managed and might gain legitimacy in the case organisation. Particularly when the steering system was de-coupled from the other control systems, for example budget systems (see Abernethy and Chua 1996; Siti-Nabiha and Scapens 2005).

3. What would be the *advantages* and *disadvantages* of such a combined system?

Advantages of a combined system

The advantages of a combined system are that the organisation could achieve a balance between financial and non-financial indicators, and above all the entire process should be transparent. At the same time, the measures will have a strong connection to the activities and processes in the organisation, which provide a better opportunity for improving and measuring. The main purpose of this study was to construct and test a combined management accounting model for steering the case organisation. The main advantages, which were of strong importance in the study, were, e.g. better motivation, teamwork, cost-awareness and control of the measurements in the financial functions. The combined system gave the staff the opportunity to make more accurate decisions in the municipality than when using the old-fashioned budget system, because the processes became transparent. Also of importance was that the staff had the opportunity to speak in their mother tongue during the entire research process. Furthermore, it was shown that the steering system makes the civil servants better able to overcome future challenges in the municipality. The treasurer commented: *"In the future we must be better at making right choices regarding public procurement."*

Disadvantages of a combined system

The case study reported also some disadvantages with the combined system. Generally, the system was seen as being good, but the steering system could not be adopted for daily use due to the lacking resources and a computerised follow-up system. Also, the municipality possesses an authoritative and old-fashioned organisational structure, culture, politics and bureaucracy which caused some troubles when designing the steering system**.** The project organisation was not got used to think in a way that was in accordance with the system. In addition the age-level of the staff is becoming less advantageous: 50 % of the staff will be over 50 years old. The dominant culture at these four departments was argued to be that of the accountants, however the new steering system was not consonant with the local culture in public sector. Routines, organisational level institutions and the culture were of importance when explaining resistance to steering system failure. These findings are consistent with the research of Malmi (1997).

It was observed that there were two important issues preventing the organisation to implement the infusion phase of the steering system and put it into daily work. One of these was the lack of an IT system and the other was regarding the organisational structure, which is still functionally oriented but is currently changing

toward a more process-oriented and team-based nature. The final result would have been difficult to manage without information technology (IT), which had been used by the researcher, for example, in designing the model, by starting with processes and activities and indicators. The project organisation realized that if a modern information technology system (IT) had been used comprehensively by the staff, it would have aided the organisation to construct, test and implement the new model as a daily work. The managers were scared to invest so much money in the IT systems, however Martinsons et al. (1999) states that the costs for implementing such tools may be relatively small if the organisation already has sub-information systems that collect data information and metrics for other purposes.

The answers to the asked questions were obtained in the study. There is indeed reason to state that the systems development model in question could be an alternative method to steer in municipalities in the future even though the municipality is complex and often uses old-fashioned control and steering systems in its decision-making. Furthermore, the project presents evidence that the implementation of this kind of steering system in the public sector, requires detailed and systematic planning along with changes to the organisational culture, so that the organisation is ready to accept the new steering tools being implemented (Ter Bogt 2008). Kekäle et al. (1998: 138) have made similar observations in their study. Swemu has progressed considerably with introducing team-thinking in the processes relating to the financial functions. Sihvonen and Lumijärvi (2004) concluded from their study in Loppi, that training and communication could have increased the politicians' and civil servants' knowledge of strategic work and balanced measurements: *"personnel can dislike measuring and take it as a criticism…therefore, it is important that measurement becomes part of normal activities and it will be taken as a positive thing, which enables development and learning."*

Performance measurement means different things to different workers in the public sector, depending on the rank and position of the individual in the organisation (see Grizzle 1986). Moreover, factors such as the current interests of the municipality also have some effect. In Rivenbark's and Kelly's (2000) investigation, one person surveyed reported that: "*The emphasis is on cost control in order to keep taxes low…performance measures do not get city council members re-elected".*

9.2 Conclusions to the Case Study

In summary, four major conclusions will be drawn regarding to the case study. *First,* the original idea for the study was derived from a request of the Town

Board. In addition, it should be mentioned that the study is partly based on analyzing literature. The research problem ought to be, as mentioned earlier, both practically relevant and theoretically challenging (see Kasanen et al. 1993; Lukka 2000). The researcher paid attention to some important motivating and critical success factors to ensure complete co-operation with the case organisation (see Labro and Tuomela 2003), namely:

- Enthusiasm for the development work by several company staff members
- Availability of resources
- Managerial values that can be agreed to by the researcher
- Managerial understanding of the fundamental features of the CRA

Second, the focus on the role of close co-operation and teamwork were particularly vital in this case. In building management accounting steering model, co-operation and teamwork was appreciated so as to make the solution complete and accurate. The teamwork in Swemu gave the researcher extra information which could not have been provided by a traditional research method. Participant observations of the team helped the researcher to make important interpretative analysis about the implementation failures that occurred in the study. Labro and Tuomela (2003) noted: *"Theoretical contribution potential is then restricted to interpretative analysis, which would remain ambiguous and speculative if there had not been a close relationship with the organisational actors during the development process".*

Third, Kasanen et al. (1993) address the view of management accounting as an applied science (a novel construct). In accordance with this, the researcher was able to develop and implement a novel construct in the current case study. In the end, the construct led to an unsuccessful implementation. The implementation effort led to consideration of the theoretical underpinnings of the model and to critically evaluate the entire research process (Mouritsen et al. 2002). Of importance was the interpretative analysis that pointed out institutional and socially embedded explanations for non-adaption also addressed by other researchers (see Mouritsen et al. 2002; Labro and Tuomela 2003) and practitioners dealing with management accounting change processes.

Fourth, the findings in the constructive case study should show credibility without the implementation trial, otherwise the results would have been totally incomplete or misleading. The constructive case studies of Degraeve et al. (2000b) and Tuomela (2000a) show both immediate practical relevance and technical functioning of the model been constructed. One of the case studies (see Degraeve et al. (2000b) succeeded in the implementation process and the other Tuomela (2000a) failed in the implementation test, but above all the construct resulted in

refining of the theory of performance measurement and customer focus. This case study (Swemu) is similar to Degraeve et al. (2000b) and Tuomela (2000a) in that the steering system showed practical relevance of the model in the sessions of the project organisation however with respect to the implementation effort the implementation test failed. Pastinen (1998) received better help with developing and implementing capable core processes and used computerised process tools to develop, implement and maintain these processes more easily. This study is also in line with Pastinens´ (1998) concept because the researcher also used management tools in developing and implementing processes and activities during the research process, facilitating the development of the entire steering system. This case study was guided by CRA to answer the question of how the improvement of praxis combined with theoretical development in management accounting research can help the researcher obtain a better understanding of the methodology and in that way close the gap between theory and practice as well as enhance the legitimacy of the CRA and above all bring action into management accounting.

This study was also a trigger for the managers in the case organisation after the research process. Mental acceptance of the project and the need for strong commitment from top management was expected from the new managers in the case organisation. The findings of this study are consistent with Cavalluzzo and Ittner´s (2004) survey, which suggest that results-oriented performance measurement initiatives will not succeed without commitment of the top management in public sector organisations. The Treasurer pointed out: *"The final report gave new people, who had started during the research process, ideas to arrange meetings weekly every Monday with the TB members, but in a little smaller group"*.

The above arrangement is an important phase of the whole development process in Swemu, and has been institutionalised by the new Mayor. Certain routines have already been accomplished in the case organisation, such as team building, which is a solid foundation for the application of the steering system. According to Burns and Scapens (2000), implementing the process of institutionalisation is important, bearing in mind the forces used by the various member in the different phases (encoding, enacting, reproduction and institutionalisation).

Other noteworthy thoughts connected to this case study concern partly the causal effects, and what kind of influence the indicators had on the project personnel and the organisation. Indicators in the new constructed management model were separated from the organisation's budget model. Because of this, no significant problems occurred during the set-up and implementation of the management model. Only at the last part of the project conflicts arose in the form of power play when manager appointments were made. According to Rautiainen (2010), can conflict-

ing institutional pressures to some extent explain complexities of individual behavior in public sector organisations. Power relations may be important in explaining changes, but also contending legitimations may clarify aspects of accounting change or stability. For example, budgeting rules may be coupled at an overall level, but decoupled at a detailed level.

The possibilities and prerequisites to focus on power delegation and centralization in the new management model have not been separately discussed in this study. Tendency towards decentralization can be noticed, based on observation during the project and spontaneous reflections. Loose coupling increases the organisation's ability to adapt to small external changes and the possibility to survive (see Eriksson-Zetterquist 2009). In this study, with the help of the loosely coupled system, the organisation studied was able to handle contingencies and adapted better to changes that took place in the surroundings.

The indicators used in this study were developed together with the personnel at the four departments studied. This made it possible to keep in mind the needs and wishes of the four departments. Budget indicators were of no added value, and that is why there was a will to develop indicators that would reveal the problems that the different departments were especially interested in. The special indicators (quality cost) made cost savings possible already from an early stage. The budget indicators gave the personnel a totally different picture of the budgeting process when they could see all the costs per activity separately instead of seeing only cost factors in the financial statement document. Other indicators became the more interesting the more the personnel was trained to think in a more business-like manner, e.g. to think about the billing process (the cash flow, how many days money transfer takes). For the personnel it was a learning process, and they also became more cost-aware than they had been before.

9.3 Theoretical Contributions and Managerial Implications

9.3.1 Theoretical Contributions

This study challenges existing understanding of the design and implementation of performance management systems (PMS), a combined steering system comprising three different management accounting tools (PMT, ABC and BSC) in a local government, and especially using NIS and OIE institutional theories from a constructive research approach. Although the combined PMS as a steering system has

remained relatively unexplored in literature the results of this study shed light on the links between the tools in the whole implementation process by using constructive research approach from the institutional perspective. Previous research[36] has discussed the PMS as separate tools and not combined as a comprehensive steering system. As a contribution to theories of PMS implementation, it could be stated that the adoption of management accounting tools in public sector organisations is tending to increase as a result of organisational learning of other organizations, professionals and networks in which organisations are embedded and also due to the recommendations from organisations that are respected and therefore strictly followed by most of the municipalities in Finland (see Näsi 2004: 64-152). This study may be a good example of this thought. The construction and testing of the new model was a time consuming and it was demanding to get the accounting tools to match each other. However, the construction of the new model has contributed to the ongoing discussion about the development of causal performance measurement models (see also Otley 1999; Kasperskaya 2008: Malmi and Brown 2008).

In addition a great deal of conflicts in Swemu could be avoided by decoupling contentious cause-and-effect relationships between measures using separate performance measurement systems (measures in PMS and budget). This study also contributes to the phenomenon of decoupling, for example even if the rules and praxis of performance measurement were loosely coupled, the flexibility did not get better as Lukka (2007) claims in his study. The praxis and rules were decided by the project organisation and they did not become apparent for TC and TB. Therefore the phenomenon of decoupling could not be accepted on top level of the case organisation. In the final stage it became entirely clear how important these issues were. Interview based research findings in public sector organisations in Finland (Rautiainen 2009; Rautiainen 2010) said: *"when interests conflict, PM becomes more complicated and decoupled, because it is not clear what is wanted, and consequently, what should be done and measured"*. In this study NIS and OIE institutional theories had made it possible to explain the case events and conflicting institutional pressures in a detailed way. In addition, to understand the forces and factors that hinder or prevent management change, Kasurinen´s (2002) accounting change model was used. By concentrating on external and internal influences, we might better explore how institutionalised ways of thinking (institutions), rules and routines shape management accounting change (see Scapens 2006).

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[36] Järvinen 2005; Tammi 2006; Baird 2007; Kasperskaya 2008.

This study contributes also to the new idea of management control systems operating as a package. The techniques in the steering system in this study did not operate unconnected from each other in the local government context. The advantage of a combined steering system makes it possible to get processes and activities indentified in order to produce the desired outcome. By gaining a broader understanding of the steering systems as a package may facilitate the development of a better theory of how to design an inter-related whole. This idea are supported by Malmi and Brown (2008) and Sandelin (2008): *"By taking a broader package approach to the study of MCS, researchers will be able to develop better theory of the real impact of innovations such as BSC, and how to design MCS packages".*

This longitudinal case study (see also Malmi 1997) was performed and conducted as a constructive concept in order to explain the developing and implementing process of the steering system in depth. This of course, does not allow us to make statistical generalisations. It is hoped that the framework used and observations from the case study will assist others in understanding and explaining the problems occurring during the research process. In line with Kasanen et al´s (1993) concept about constructive research process, the researcher has chosen the same approach in order to conduct the entire case study. The essence of an applied science lies in preparing theoretically grounded solutions for practical purposes and CRA is in line with this. This case study deals with management accounting innovation and, according to Lukka (2000, 2003 and 2006), the pursuit of innovations in practical and theoretical terms to draw theoretical conclusions based on the empirical work. The goal in this case study was to show the theoretical connections and the research contribution of the solution. In addition it was important also to analyse failed projects in order to learn from them from an institutional perspective (e.g. Malmi 1997; Tuomela 2000; Kasurinen 2002).

This study was conducted by CRA. However, the number of published studies is still low. Labro and Tuomela (2003) maintained several reasons for the prevailing situation: positivists scientific idea originating from the natural sciences are still dominant in many areas of business research and academic paradigms are slow to change and conservatism in accounting research is supported by the elite researchers. Normative research endeavours explicitly linked with changing practice encounter especially strong suspicion. They are considered consulting and are dismissed as being non-scientific (Lukka and Tuomela; Kasanen et al. 1993). Contributing to theory, there were some significant novelties in the case study regarding the model constructed by the researcher. First, this study was the first to construct a steering model of CRA for the local government using institutional theory (NIS/OIE). Second, this was the first time a combined steering system was

studied in local government using different disciplines at the same time (process management, activity based costing and balanced scorecard). The case study was a novel construct created together with the project organisation and the model is likely also to be useful to other municipalities.

The Swemu case is similar to the Degraeve et al. (2000b) regarding novelties. The new construct in Swemu led to new ways of combining three management accounting tools. The payroll calculation process could be changed to reduce costs. For example, faulty entering accounted for approximately 5% of the routine of entering data. For the problematics found by force of the comparative knowledge (see Rautiainen 2004), benchmarking may turn out to be potential and useful, as it has in this study. The ABC management tool used in the case showed how the payroll calculation process could be changed to reduce costs. The identification of this problem enabled the staff to look more accurately at drawbacks in the processes and in that way save money and reduce problems. Additionally, the activities and processes were now standardized and could therefore be benchmarked, increasing their possibility to control and analyze with respect to the organisation as a whole (see Wingren 2005). The organisation had no prior possibility of making such observations. This study gave new insights into the underlying positive relationships of decision-making and understanding in both applied science (see Mattessich 1995) management accounting literature.

This study contributes to the theory also in other ways. The research process is comprehensively described in Chapter 6 and could give the reader a picture of happenings during the research process and which barriers can cause problems in the implementation process. Seemingly, the application of the management accounting change model (see Kasurinen 2002) in the context of the case enhanced the attempts to explain the change. It is worth noting that some of the barriers encountered in the case study made the causal functions easier to analyse and understand from an institutional perspective. For example, the barriers (delayers), such as a lack of clear-cut strategies relate to the coercive pressures of NIS theory was observed in TB and TC decisions.

This study also contributes to the management accounting change literature including the institutional perspective (see Cobb et al. 1992; Shields 1995; Burns and Scapens 2000). Factors supporting implementation of management tools in the study were tracked at both the micro and macro levels (NIS/OIE).

Researchers in Scandinavia have been reflecting on what the future of the Scandinavian Institutional Theory looks like. Opinions vary, other researchers being positive and thinking that the institutional theory is going to grow in Scandinavia, while others are more negative and of the opinion that the Scandinavian Institu-

tional Theory is going out of fashion (Eriksson-Zetterquist 2009). This study gives the Scandinavian theory a boost by lifting up new perspectives to research by looking into the constructive research process in the municipal sector and the new trends of research that Sahlin and Wedlin (2008) and Czarniawska (2008) have recently demanded.

9.3.2 Managerial Implications

The New Public Management (NPM) project in public sector forges ahead, despite criticisms from academic and policy-makers of many aspects of NPM. Lapsley (2008), for instance, has doubt over key elements of the NPM, such as the measurement of performance, however, it should be noticed that there is no detriment to projects where NPM is included as a PMS element. Rautiainen (2009) states that we ought to be grateful for the international "New Public Management" direction, because due to that performance measurement has been respected and supported in public sector organisations (external legitimation). The problems of performance measurement in public service require considerable effort be expended on the development of performance measures, by public sector managers, government and by researchers into the development of performance indicators. Another significant point of performance measurement can be seen from the implementation point of view in which manner the new techniques (for example benchmarking and balanced scorecard) have been adopted by public sector organisations. Therefore academic institutions claim that considerable research is necessary in order to demonstrate the nature of performance measurement models in the public sector. In terms of managerial implications, the study offers tools and models for developing innovations such as those that have been claimed in the above discussions. It was argued that the construction may have a better chance of survival if the indicators take into consideration the links between the different tools being used in the model. In this study the indicators were developed from the view of financial functions in the four departments. If the view had been made from another perspective the indicators may have been of a completely different type.

Several more managerial implications are discussed in this section, among them include: research process and the role of the researcher and the members in the project organisation, learning issues and the equipment and tools made during the implementing process. The constructive research approach enhanced the implementation and testing stages compared to other research process. Pellinen (1996) has noted that: *"Knowledge which can be reached only by interviewing and observing would not lead anywhere...and only under the surface, in the highly com-*

plex, ambiguous and even uncomfortable organisational reality exist the meaningful organisational phenomena which help to understand the function of accounting in the studied company".

As the empirical findings indicate, strong individuals whose impact on the construction has a long-term influence are required. Both the treasurer and the Mayor were this kind of person, each having a clear vision, target-minded and committed to the project. They also had strong feelings about achieving the planned goals. Planning, coordination and stimulation are crucial in the context of a researcher in the public sector. As a result, the empirical findings showed that the actors (staff) were encouraged to develop and secure the motivation needed for the construction to emerge and be tested.

The researcher's background and prior experience with the techniques influenced the process of data collection, particularly, the usage, documentation and interpretation of management tools at the implementing stage. This competence gave the possibility of securing legitimacy of the construction and pushed the research in right direction. Nevertheless, possible researcher bias cannot be wholly eliminated since an individual researcher can never be separated from his or her background, for example philosophical views and experiences (see McKinnon 1988). The empirical findings suggest that the learning and training of the management tools were of strong importance and these activities would have aided the implementing phase of the study. Naarmala´s (2009) study about ITC experience is similar to this study, where he points out that implementing new ICT systems are easier to conduct if the persons have previous ICT experience.

This study argues that the construction, implementation and testing would have enhanced the entire research process and, above all, assist the members in the project organisation to achieve the goal. According to Manolova et al. (2002) suggest that managerial skills and environmental perceptions are the most important dimensions of human capital. The evidence in this study highlighted that all the actors in the construction process ought to be committed to co-operation for the long term and participate in an extended training program throughout the research project. It was suggested that the management tools (data programs) used by the researcher were important and could be the main drivers to achieve an adequate result to interpret and analyse during the testing process. Pastinen (1998) improved processes by using process tools to gain more power during his constructive research.

Tuomi´s (2012) study gives signals that process management connected with quality management are suitable tools to implement in public sector organizations, although the institutionalization process is progressing slowly. The case

study in Swemu contributes to Tuomi´s (2012) doctrine of process management. The use of process management in this study made the employees aware of horizontal view of process thinking. Furthermore, it became clear how important it is to achieve a culture in which each employee feels that they belong to a team where all are striving towards the same goals. This is also expected to enhance the legitimacy of the steering system in an organisation.

Finally, this study also enhances the understanding and realizing the value of balanced scorecard, which so far has not dealt sufficiently with how to make scorecard actionable in public sector organizations and the relationships between other management tools (see also Olve et al. 2004). Most of the studies of, for example, ABC and BSC implementation have focused on a separate tool, not several tools which are connected together. Implementation of management accounting innovations such as PMT, ABC and BSC are complex. This study contributes the study of Olve et al. (2004) focusing on six issues of a successful scorecard: strategy map, dialogue, roles, interfaces, incentives and IT support. In this study the cause-effect relationships were enhanced partly of above mentioned issues and contributed to the intended local government outcomes.

9.4 Validation and Generalization of the Construction

Yin (1994:33) has summarized and posits that a good research design must pass the following tests:

"– *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; and

– *Reliability*: demonstrating that the operations of a study – such as the data collection procedures can be repeated, with the same results".

Several different approaches have been used in the study in an attempt to triangulate the evidence for our construction (see Kihn and Ihantola 2011). The use of different research approaches, methods and techniques in the same study might overcome the potential bias and sterility of a single method approach. Even the

primary issue of the reliability of a research process is to use multiple methods simultaneously to support the intervention, such as document analysis, participant observations and interviewing. The constructive approach made it possible to delve beneath the surface and identify the organisational phenomena that help reveal the function of financial accounting in the studied organisation (Pellinen 1996).

McKinnon (1988) summarized four general threats to validity and reliability in the field study:

"1. Observer-caused effects cause the participants to change their behavior and conservations.

2. Observer bias is the result of the researcher´s selective perception and interpretation.

3. Data access limitations concern time limitations, restrictions on mobility and limited access to documents, events and people.

4. The complexities and limitations of the human mean that the statements the subjects make may be consciously or unconsciously misleading".

In order to manage these threats one requires sufficient time and multiple methods of observing social behavior in the field.

In this constructive research approach the validity testing of the construct is done by the "market mechanism" and market validity testing is analysed and performed in two stages according to Kasanen et al. (1991):

"*Weak market test (are actual, economically responsible, managers ready to accept the model for use in their decision making in real situations)? Strong market test (has the performance of their, economically independent, units improved since the utilization of the new model or construct? Are the results, measured in economic terms, better in companies using the model)?"*

Kasanen et al. (1991) is of the opinion that the economic realities and risk of losses generated by "betting on the wrong horse" makes the weak market test one that many constructs do not pass. In this study, the strong market test could not be passed because of the above-mentioned reasons. It can be argued that the construction managed to pass the weak market test phase because was managers and staff accepted the construction for use in situations of real decision-making.

It is important to ensure when evaluating this constructive research that all the features to which Niiniluoto (1985) refers are represented, i.e. objectivity, criticalness, autonomy and progressiveness. Therefore, the research process should be transparent and reported in step by step detail as well as be credible (Kasanen et al. 1993:258; Lukka 2000: 122). Like so everybody can check and criticize the research process. This kind of construction research does not only solve problems but also leads us to new problems and new questions. Kasanen et al. (1993:259) states: *"In order to show that the method of construction is scientific, it is not enough to show that a certain managerial construction works in its proper context…One also has to show that the construction has theoretical connections, i.e. that it is a part of a particular framework…In addition to contributing to the scientific validity of the method, the showing of the theoretical connections supports the claim that the construction in question also would work in other instances than in its original field".*

The project group and transferring issues were also discussed in formal and informal sessions with the staff. This kind of action can be linked to external validity (generalisity) (Lukka 2000). In the case study it was possible to increase external validity by creating a toolbox in the steering system that made quality costs transparent and systematically produce better results for decision-making than without this new construct. In addition to the validity and reliability issues discussed in chapter 5 (research design), they are more broadly discussed in the seven-step research process articulated in Chapter 6.2.2. Step 6 in particular, examines the possibility of transferring the solution concept to other organisations.

Generalizability of research findings is an issue to be taken into account when conducting a case study. In case studies, according to Yin (1994: 31–32), one should aim to make analytical generalizations. This case study is conducted in a single municipality and might be somewhat conflicting compared with previous research. However this kind of research in public context (Swemu) means that all municipalities in Finland function similarly according to legislation and other norms regulating municipal accounting in Finland. Lukka and Kasanen (1995: 83) emphasize constructive generalization, occurring when a real problem is solved in a case organisation by developing a new solution that makes a scientific contribution. This case study is a typical example of constructive generalization relying on linking the solution concept to the existing literature and the diffusion of innovation (Kihn and Ihantola 2011).

Also significant in the study was the language used. The discussions with the members in the project organisation and observation from the construction process revealed this importance. Prior projects conducted by Finnish-speaking pro-

fessionals encountered frustrations due to difficult communication and understanding situations. As mentioned earlier, approximately 60 % of people working in the four departments were completely uniligual Swedish-speaking. This municipality has a special position in comparison to other municipalities in Finland in that board records are written in Swedish and all meetings arranged should be also in the same language. Consequently, in this case, language is considered to be an important issue for the constructing and testing phases. All members wanted to speak Swedish with the researcher, because both their mother tongue and workplace language was Swedish. In light of these findings, it can be argued that this was an import issue when interpreting and analysing the whole research process. As such, the researcher's background can be of interest when discussing about reliability aspects and researcher bias in the case study (see McKinnon 1988).

The researcher in this study has become familiar with the techniques PMT, ABC and BSC in earlier comparable consulting tasks (see Palmroos 2001; 2002; 2005). For this reason, it might be considered as vital for the academic researcher to have personal experience (pre-understanding) from a position in which he had been responsible for making and implementation decisions. This Swemu case may be a good example of Gummesson's (2000) thoughts, where he states it is important to note that through the role as a management consultant ought to lead to improvements in the quality of academic research in business administration.

9.5 Suggestions for Future Research

The present research on management accounting is carried out as a case study using the CRA. This kind of case study method is good even for future research work, especially when the research is difficult and time consuming and the environment is complex and difficult to understand (see Mellemvik et al., 2005). In the PSA it would now be time to examine why process management, activity-based cost accounting and the balanced scorecard as a concept, especially combined together, are not in use in the municipalities. The public sector would be interested in planning financial spending better, knowing whether money is normally being spent at a reasonable rate, and how much are the random factors and coincidences affecting this (see Malmi 1994).

In his article, Modell (2005) concentrates on future challenges in public sector research, primarily performance management in the public sector (PMPS), and notes down important contemplations on future research: *"Further research is required into whether the logics inherent in process-oriented and outcome-*

oriented performance management can be reconciled or if tensions between the two will result in further proliferation and fragmentation of performance management practices…more systematic investigations into the drivers of and barriers to more outcome-focused performance management practices would seem a fruitful area for further research…we still know little about how citizen-oriented or consumer-oriented rankings are implicated in the performance management practices of public-sector organisations".

In addition to this research, there will be new aspects for the literature on the steering system in the public sector. One is the CRA as a case study in the public sector and the other is an examination of a combined steering system (PMT, ABC and BSC) in a broader aspect, (see even Malmi & Brown 2008), where even other functions than financial would be examined as well as where an IT system has been used. The role of incentives in municipal administration has been studied surprisingly little. Typically no incentives have been included in budgets, and the weight is on control. In modern, innovative, low networks incentives have a significant role alongside control. Those aspects would produce interesting results and suggest the need for future research. It might even be fruitful to study MCS as a package where incentives are linked in the same system. Particularly in organisations which already use steering system in daily work.

In the future it would also be of importance to study what kind of benefits the public sector organisations might get if the steering system was examined from a Lean-function model perspective. Lean-function models are normally used to develop the processes, eliminate waste and to increase the value of functions in organisations.

Though time-consuming, this research has been inspiring. The constructive research approach has served exceptionally well for this research, although the construction was not implemented and taken into daily use (see Tuomela 2000; Lukka 2006). From the learning point of the reader, this approach could be warmly recommend for other researchers who have a complex research area.

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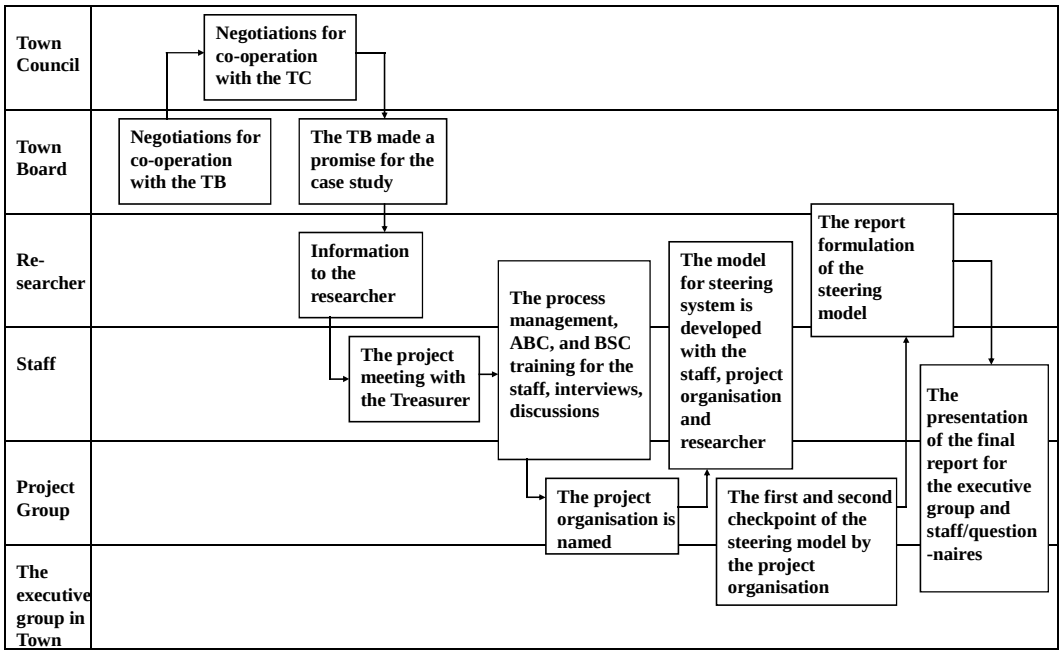
APPENDICES

Appendix 1.

An overview of the case study in Swemu 16.11.2001–30.9.2002



The activities of the time schedule the in the case study process:

16.11.2001 Negotiations for co-operation with the Town Board (face to face)
03.12.2001 Negotiations for co-operation with the Town Council (face to face)
05.03.2002 The Town Board made a promise for the case study (advise/information)
05.04.2002 The project meeting with the Treasurer (contact)
08.05.2002 The Process Management/ABC/BSC Training for the staff (training in the class room)
14.05.2002 Interviews with the staff (face to face)
15.05.2002 Interviews with the staff (face to face)
30.05.2002 Balanced scorecard training for the staff (training in the meeting room)
30.05.2002 The project organisation is named (discussion)
01.06.2002- The model for steering system is developed together with the staff, project
18.06.2002 organisation and researcher (model designing)

19.06.2002	The first checkpoint of the steering model by the project organisation (interactive discussion)
19.06.2002	Balanced scorecard model is developed together with the project organisation and the researcher (team work)
19.08.2002	The second checkpoint of the steering model by the project organisation and the researcher (interactive discussion)
20.08.2002-	The report formulating of the steering model (report)
23.08.2002	The report formulating of the steering model (report)
05.09.2002	The presentation of the final report for the executive group (presentation/discussion)
13.09.2002	The presentation of the final report for the staff (presentation/discussion)
13.09.2002	The development process questionnaire to the staff
30.09.2002	The evaluation of the questionnaire

Appendix 2

Timetable for interviews in the development project, 14–15/05 and 22–23/05/2005, Swemu

	Finance department	Date	Time
1	City accountant	14/5	8:30
2	Main accounts	14/5	9:30
3	Bookkepper	14/5	10:30
4	Finance secretary	14/5	12:00
5	Head bookkeeper	14/5	13:00
6	Bookkeeper	14/5	14:00
7	Payroll calculator	14/5	15:00
8	Payroll calculator	15/5	8:15
9	Payroll calculator	15/5	9:15
10	Staff secretary	22/5	12:00
	Social services and health care		
11	Office secretary	15/5	11:15
12	Bookkeeper	15/5	13:15
13	Payroll calculator	15/5	14:15
14	Assistant office employee	15/5	15:15
15	Assistant office employee	22/5	8:30
16	Payroll calculator	22/5	9:30
	Technical services		
17	Head of administration	22/5	10:30
18	Office employee	15/5	10:15
19	Office employee	23/5	9:15
20	Office employee	23/5	10:15
21	Office employee	23/5	11:15
	Education department		
22	Head of finance	22/5	15:00
23	Office employee	23/5	8:15
24	Payroll calculator	22/5	14:00
25	Department secretary	22/5	13:00
	Social services and health care		
26	Director of social services and healthcare	22/5	16:00

	Technical services		
27	City engineer	23/5	13:00
	Education department		
28	Head of education	23/05	14:00

Appendix 3

ACTIVITY ANALYSIS

Department:_____ Interviewee:_____

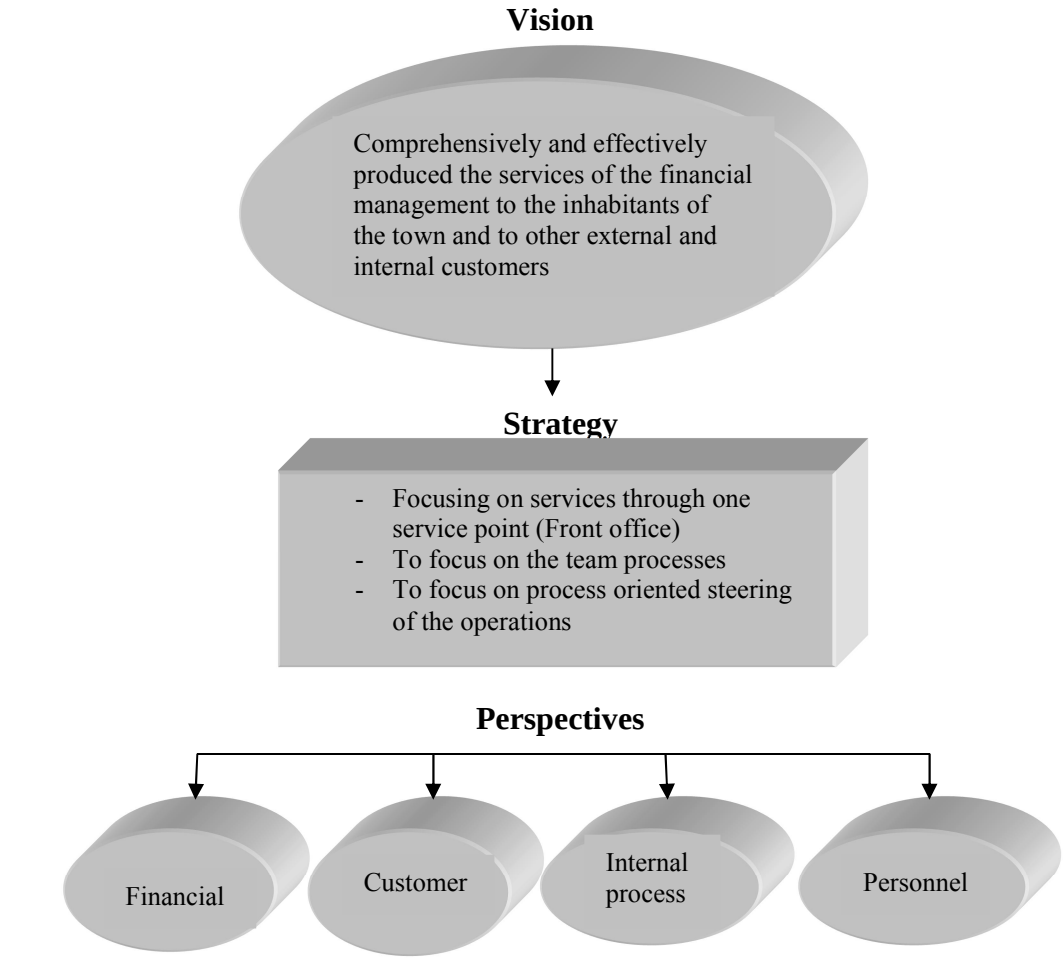
Activity	**Outputs**	**Amounts**	**%**	**Drivers**	**Process per year**
Total					

Acceptance: _____

Date _____/_____ 2002

Appendix 4

The Scorecard of the Financial Functions in the Local Government of Swemu.

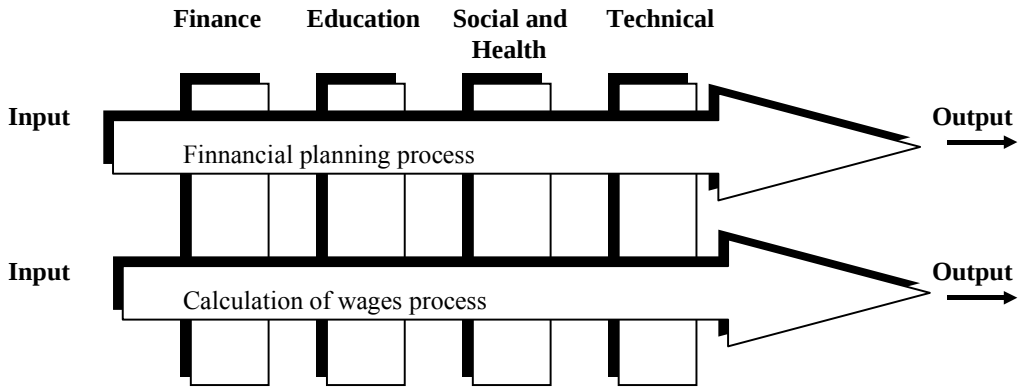


Critical success factors	Liquidity Budget equilibrium	Satisfied customer	Acceptable turnaround time Process oriented	Good knowhow Motivation
Indicators	Quick Ratio Sales receivable turnover, Budget diff	Satisfaction index Claims	Wrongly filled application Input problem with payroll calc.	Development discussion Education day

Action plan The person who is responsible for the action plan in the perspectives.

Appendix 5

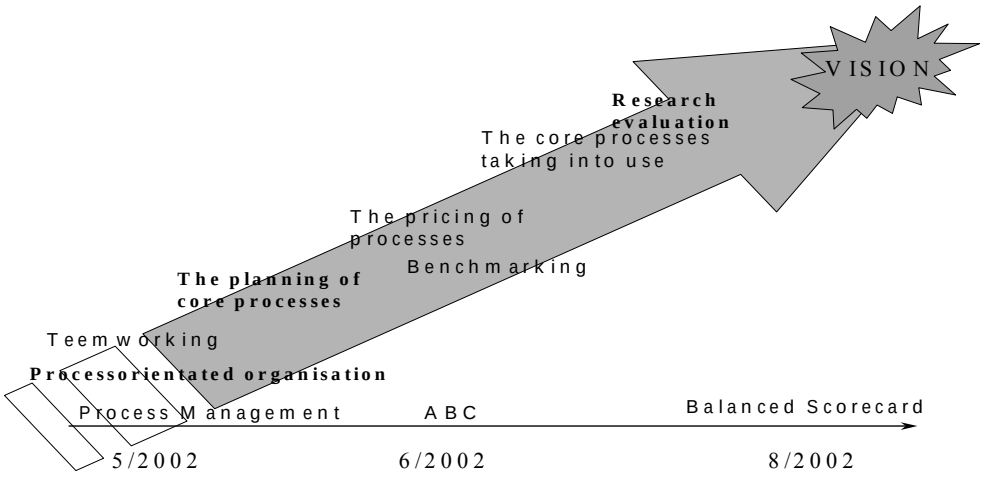
Financial Planning and Calculation of Wages Processes in Swemu LG.



In Appenix 5 some of the core processes in the case study are presented; specifically, the financial planning processes and calculation of wages process. All processes are described as horizontal, because they cut across all vertical departments in the organisation (Liukkonen 2000; Tikkanen 1998: 219).

Appendix 6

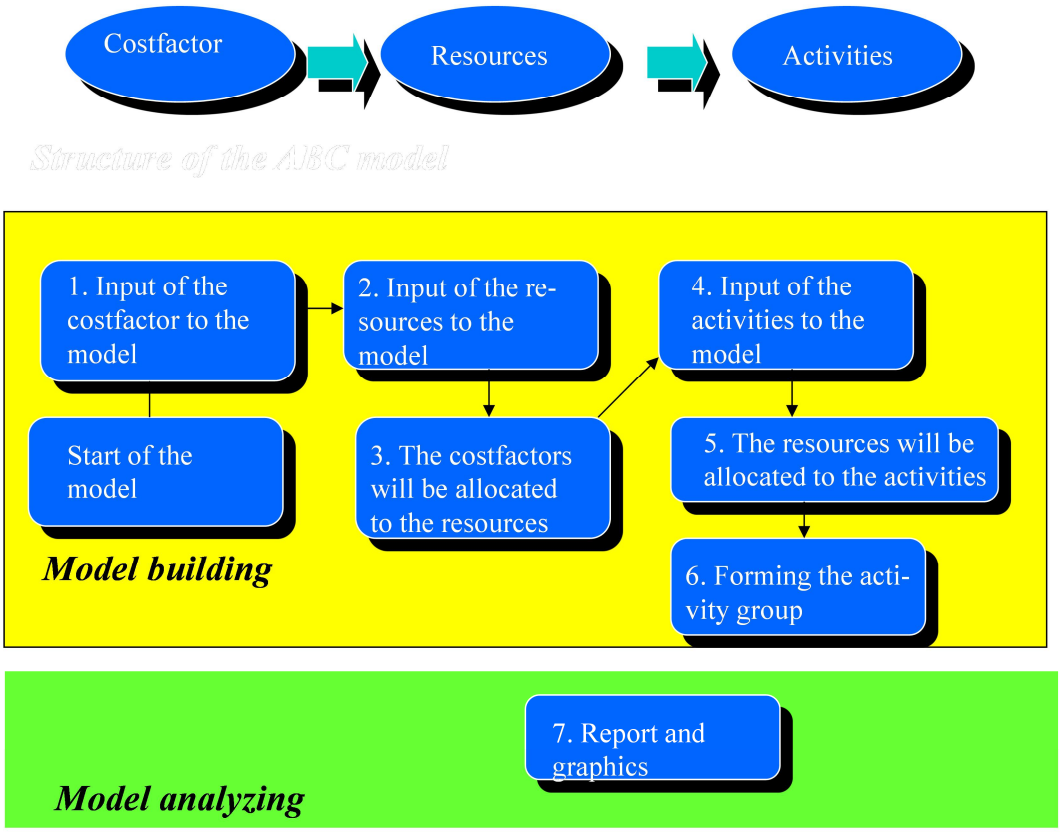
Development Process Steps of Financial Management Functions in LG of Swemu.



In the Appendix 6 the development process steps of the financial management functions in the case study are described. Such a steering system, which includes three management tools, is impossible to operate if the three tools are expected to be applied at the same time. In principle it is about handling three different tools which have to be combined together after they have been developed.

Appendix 7

The Structure of the ABC Model.



In the ABC model described in the Figure above, no product level has been used, because the trace of the costs and the allocation of the costs to an activity level is good enough to clarify the unit cost for each activity separately. The model design starts from a cost factor allocated to resources and then, further, to activities. The activities are collected into separate group activities (processes). The cost factor in this model is same as expenses in the income statement.

The entire staff and project group participated in the building and realisation of the ABC-model. The researcher and treasurer had been responsible for the technical realisation of the project by utilising the information processing system and directing the progress of the project.

Appendix 8

The Core and Support Processes of the Research Project including Prices**.**

Core processes (group activities):	
– Payroll calculation	209.631,78 €
– Finance planning	63.908,55 €
– Finance steering	24.712,18 €
– Bookkeeping	55.513,95 €
– Financial statement	57.091,72 €
– Administrative routines	112.049,15 €
– Accounts payable	62.741,16 €
– Invoicing and accounts receivable	155.340,38 €
– Payment transfers	3.931,05 €
– Building licence by BB (Building Board)	6.054,26 €
– Building licence by BI (Building Inspector)	4.235,30 €
– Building licence by exceptional permit	1.621,83 €
– Administrative routines of building licence	18.111,31 €
Support processes (group activities):	
– Office tasks	84.392,66 €
– Secretary tasks	81.925,85 €
– Development and management	45.852,23 €
– Finance operation	6.493,90 €
– Subjects and statements	5.321,97 €
– Chief cashier	5.035,37 €
– Real estate administration	6.626,60 €
– Personnel administration	51.476,26 €
Process (group activities) cost together	**1.062.067,40**

Appendix 9

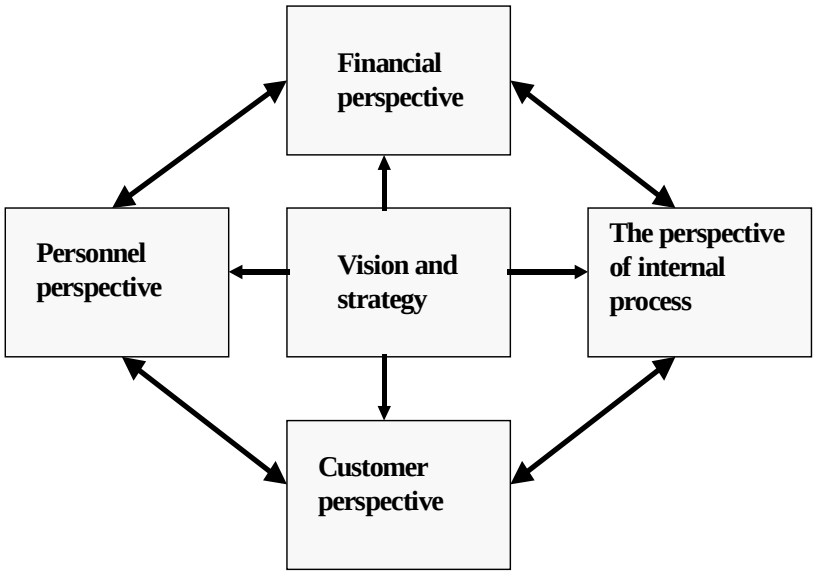
The Staffing Structure in the ABC-Model.

Staff/Departments	**Finance**	**Social Services and Healt Care**	**Technical**	**Education**
Supervising staff	3 persons (3.00)	2 persons (1.18)	2 persons (1.28)	2 persons (1.08)
Office staff	1 person (1.00)	2 persons (2.00)	4 persons (4.00)	2 persons (2.00)
Book-keeping staff	3 persons (2.82)	1 person (1.0)	-	-
Payroll calculation staff	3 persons (3.0)	2 perons (2.0)	-	1 person (1.0)
Other staff (cleanerd)	1 person 0.17)	1 person (0.28)	1 person (0.30)	1 person (0.25)
Tolal persons per department	10	7	6	5
	(the cleaner is used of all departments and the figures in brackets = average no. working years per person			

In the column “Average no. working years per person”, the resource of the staff group has been divided by the number of hours the staff works per year (1544.25 h = 213 working days * 7.25 h/day).

Appendix 10

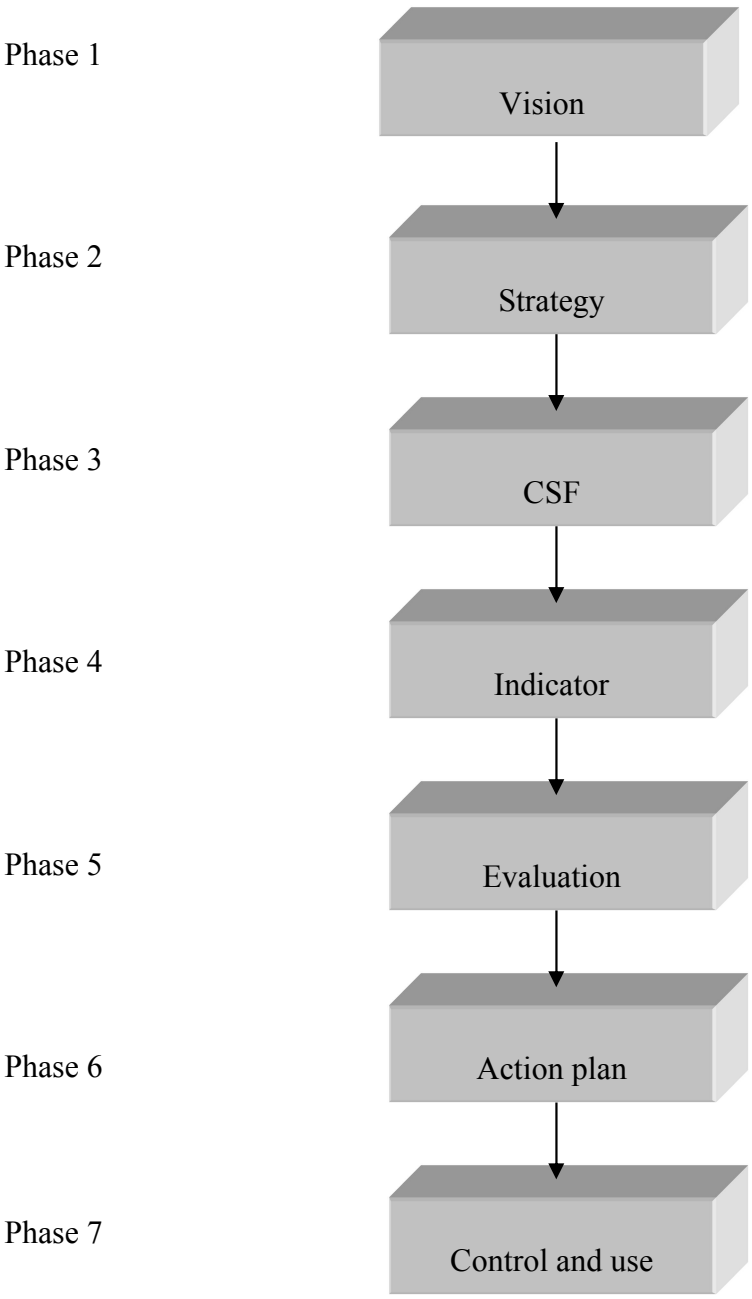
Local Government of Swemu's Scorecard showing Four Perspectives.



This study is based on the model put forward by Kaplan and Norton (1996), which also contains a financial perspective. The model in this study heavily stresses the financial functions within the four departments which the case study concerns: the departments of finance, health and social services, technology, and education. Therefore the financial perspective in this case study is justifiable. The operative part of the financial perspective in the study is considered most closely on the basis of the visions that the city has set up as goals for all its departments, bearing in mind that the residents should receive compensation for the tax they pay (value for money) (Rautiainen 2004: 22).

Appendix 11

The Phases for the Development of the Scorecard in Swemu (Adopted by Niven 2002: 61–63).



Appendix 12

SWOT Analysis of the Financial Functions of Swemu.

Strenghts/opportunities	**Threts**
Service from the common service point improves the opportunities of both co-workers and internal and external customers, as well as the municipality´s residents, to get a better, faster and more flexible service from the same establishment (the Fix House) Larger teams also create opportunities for reserve workers, who can finish off the process and thus bring about shorter queues (the time in line is reduced) The feeling of ´we´ is improved, which increases work motivation Thinking in terms of processes means the everyone helps one another; the new steering of the operation leads to a better concept of cost and an interest in the measures, as the organisation has itself helped to develop them Modern working environments help towards an increased motivation Lager teams if more people would move to the Fix House (city offices/IT department) Saving time at meetings and other interactions with the staff Identifying expenses of decreased quality, resulting in savings on expenses	The age structure of the staff is becoming less advantageous: next year 50 % of the staff will be over 50 years old Resources are scarce (invoicing water) Reserve emplyees need to be trained in good time so that no bottlenecks arise (e.g. in payroll calculation)
	Weakness The IT contact is not yet developed, problems with rapidity when the operation is conducted in different places (the speed suffers) The program package is too old for certain functions e.g. home and day-care

A SWOT analysis was used to develop strategies. In a SWOT analysis, the strengths, weaknesses, opportunities and threats surrounding the operation are examined, or more simply put: what should we do (opportunities and threats, external factors), what can we do (strengths and weaknesses, internal factors), and what do we want to do (vision, what financial goals do we want to achieve, etc.)?

Appendix 13

Questionnaire for the town of Swemu Development Project in the following departments: Finance Department, Social- and Health-Care Department, Technical Department and Education Department (16.11.2001–30.09.2002).

(This form is translated into English from the original one)

1. In which department do you work in? _____
   1 Finance department
   2 Social and health care department
   3 Technical department
   4 Education department

2. Staff group
   1 Superior group
   2 Book-keeping group
   3 Payroll calculation group
   4 Office group
   5 Another group (cleaner)

2. Male/female
   1 Male
   2 Female

3. Use the estimation with the following scale:
   1 I strongly agree
   2 I partly agree
   3 I do not agree or cannot say
   4 I partly disagree
   5 I strongly disagree

4. I feel very happy in my present job
   1 I strongly agree
   2 I partly agree
   3 I do not agree or cannot say
   4 I partly disagree
   5 I strongly disagree

5. I think that the study process in Swemu has given me a better idea of the steering system of the organisation's operation regarding the functions of the financial management (cost awareness, the control of internal processes, work motivation etc.).

   1 I strongly agree
   2 I partly agree
   3 I do not agree or cannot say
   4 I partly disagree
   5 I strongly disagree

6. In my opinion the education and the methods how the steering system was carrying out went well,

   1 I strongly agree
   2 I partly agree
   3 I do not agree or cannot say
   4 I partly disagree
   5 I strongly disagree

7. I recommend the study process also to other departments

   1 I strongly agree
   2 I partly agree
   3 I do not agree or cannot say
   4 I partly disagree
   5 I strongly disagree

8. The study process by using process management, the activity-based cost accounting and Balanced scorecard (a scorecard) applied very well, in my opinion, for developing and implementation the functions of financial management on these four departments.

   1 I strongly agree
   2 I partly agree
   3 I do not agree or cannot say
   4 I partly disagree
   5 I strongly disagree

9. The steering method is flexible, in my opinion, and gives more possibilities to steer than a traditional method (a budget)

   1 I strongly agree
   2 I partly agree
   3 I do not agree or cannot say
   4 I partly disagree
   5 I strongly disagree

10. The teamwork has improved, in my opinion, with the new development
    1 I strongly agree
    2 I partly agree
    3 I do not agree or cannot say
    4 I partly disagree
    5 I strongly disagree

11. The teamwork in the processes motivates more, in my opinion, with new methods than traditional department working (functional)
    1 I strongly agree
    2 I partly agree
    3 I do not agree or cannot say
    4 I partly disagree
    5 I strongly disagree

12. The participation in the study process has improved my work motivation
    1 I strongly agree
    2 I partly agree
    3 I do not agree or cannot say
    4 I partly disagree
    5 I strongly disagree

13. The knowledge of the process thinking has facilitated our cooperation
    1 I strongly agree
    2 I partly agree
    3 I do not agree or cannot say
    4 I partly disagree
    5 I strongly disagree

14. The education and the steering work in the project have given me needed readiness, in my opinion
    1 I strongly agree
    2 I partly agree
    3 I do not agree or cannot say
    4 I partly disagree
    5 I strongly disagree

15. Proposals or comments to persons along the study process (express your opinion freely)

16. What I have learned most from the project and what was affirmative and negative during the project?

17. The research project corresponded to my expectations

    1 I strongly agree
    2 I partly agree
    3 I do not agree or cannot say
    4 I partly disagree
    5 I strongly disagree

18. Other viewpoints, which are related to the project

_____

_____

19. Give a school grade (4–10) ____ as a whole from the developing process

THANKS FOR YOUR OPINIONS!

Appendix 14

COVERING LETTER

Lars Palmroos
University of Vaasa
Department of Accounting and Finance
P.O. Box 700
65101 VAASA
Vaasa 8/8/2005

Follow-up questionnaire concerning the project for developing and implementing the steering system for the town of Swemu's financial functions in the following departments: Finance Department, Department for Social Services and Health care, Technical Board and Education Department

Lars Palmroos, M.A. (Economics) of University of Vaasa, is as part of his Ph.D. carrying out a survey among the staff of the town of Swemu in the following departments: finance, social services and health care, technical services and education. The survey is aimed at the staff who deal only with financial functions, and who have been involved in the development project. The project was begun in the autumn of 2001 and completed in the autumn of 2002. The work of developing and implementing the steering system was carried out using the innovative and modern economic strategies of process steering, activity-based costing and balanced scorecard. This inquiry is a continuation of the inquiry carried out in the autumn of 2002.

Professor Erkki K. Laitinen, Ph.D., of the Department of Accounting and Finance at University of Vaasa, is acting as supervisor for this project.

Research into local government is important for continuing development within local governments and cities, wherefore all those who have taken part in the development process are requested and encouraged to answer the enclosed questionnaire as carefully as possible. I hope you will be able to spare the time (20 minutes) required to complete the survey. Processing the answers and publishing the results is carried out in such a way as to ensure the anonymity of the individuals involved.

I would be grateful if you could return the questionnaire in the enclosed envelope (postage paid) by 10/9/2005 at the latest.

Thank you in advance for your co-operation.

Yours sincerely,

Lars Palmroos, M.A.

ENCLOSED: Questionnaire
Stamped return envelope

Appendix 15

Questionnaire to staff concerning a follow-up inquiry into Financial Functions in the Development Project for the Town of Swemu in the following Departments: Finance, Social and Services and Healthcare, Technical Service and Education (Time frame of the development process being investigated: 1/11/2002–30/8/2005)

(This form is translated into English from the original one)

1. In which department do you work?

   _____

2. Staff group
   1 Supervising staff
   2 Bookkeeping staff
   3 Staff for payroll calculation
   4 Office staff

3. Sex
   1 Male
   2 Female

Use the following scale in the evaluation:
1 I strongly agree
2 I partly agree
3 I do not agree or cannot say
4 I partly disagree
5 I strongly disagree

4. The development process has progressed since the first survey was carried out at the end of 2002

   1 2 3 4 5

   Is the position of the development process the same as it was in the first survey, carried out in September 2002?

   1 2 3 4 5

   Which changes have taken place e.g. concerning work methods in the development process (higher civil servants, general civil servants, politicians, other personnel) during the period 1/11/2002 – 31/8/2005?

   _____
   _____
   _____
   _____

5. What kind of assistance do you wish you would have had in developing, or the bringing about of an equivalent steering system within the development process? ABC = the pricing of own activities and processes; process steering = a description and outline of own activities in flowcharts (turnaround time and bottlenecks); BSC (balanced scorecard) = the measuring of activities and processes from different perspectives (financial, customer, process and co-worker; including visions and strategies)

I would have liked more training when it comes to the modern development-tools: the activity based costing (ABC) and process steering, as well as the balanced scorecard (BSC)	1	2	3	4	5
Activity and process models described beforehand, enabling an easier overview of ones own activities and processes during the surveying stage	1	2	3	4	5
An already existing computer system for adding Ones own processes, might have helped with the understanding of the steering system	1	2	3	4	5
More training opportunities during the development process, would have made the realisation of the project easier	1	2	3	4	5

Is there anything else that might have helped you and the development project?

_____
_____
_____
_____
_____
_____
_____
_____

6. The changes in the development process (observed difficulties in development and implementation) (development methods: process steering, activity based costing and a balanced scorecard way of thinking)

Observed difficulties:

The organisation (city) is too bureaucratic for such projects	1	2	3	4	5
The development project is too complicated for the city to carry through	1	2	3	4	5

The political structure of the organisation is too great an obstacle to carry through the development project	1	2	3	4	5
The personnel is not knowledgeable enough when It comes to innovative methods of development (the above mentioned development methods)	1	2	3	4	5
The maintenance of the operating system is difficult, since there are no accessible computer systems suited for each purpose	1	2	3	4	5
The instructional period for the new development methods was too short	1	2	3	4	5
The culture of the organisation is not ready for this type of operating system	1	2	3	4	5
The organisation is too sizeable for the application of such a system	1	2	3	4	5
The organisation needs an enthusiastic, authoritative person, who can get others to accept the new steering system	1	2	3	4	5
The realisation of the new steering system is difficult to carry through, as new people are employed on a continual basis (on the higher civil servant level)	1	2	3	4	5

Any other difficulties, or problems you would like to mention?

_____
_____
_____
_____

7. The changes in the development process (observed advantages concerning development and implementation) (development methods: process steering, activity based costing and a balanced scorecard way of thinking)

Observed advantages:

Higher motivation during the time of the work with development	1	2	3	4	5

I have become more cost-conscious during the development of the steering system	1	2	3	4	5
The new steering system would make my work easier in the future	1	2	3	4	5
I can recommend the development work, with the new development methods, to other departments in the future	1	2	3	4	5
The team work has improved in relation to the new development work (with the new methods)	1	2	3	4	5
Speaking ones own mother-tongue, was a positive side of the project	1	2	3	4	5

8. As a user and developer within the development process in your own department, would it help you if the three development methods (ABC, process steering and BSC) were connected to each other? What would be the advantages and the disadvantages of such a connected system? An explanation of what a connected operating system is: It roughly means that by using the measurements (BSC) e.g. one can directly be connected to the right process and at the same time to the price of the process (ABC). This way one can gain information on whether it has been expensive or cheap (price-tags on the processes), which persons have been involved in the process, how effectively it has been accomplished and which quality costs (bottlenecks) have brought about unnecessary difficulties. These processes can then be developed further, or unnecessary or ineffective processes can be made more effective and more suitable for the organisation and for each individual. The measurements are strongly bound to strategies, visions and perspectives.

   The following statements concern a connected (combined) operating system with the development tools: ABC, process steering and BSC

A combined system is better at explaining the cause And interaction between the measurements and the process activities, and makes the steering of the economic functions easier	1	2	3	4	5
A combined steering system demands a computer System which makes it better and easier to maintain	1	2	3	4	5
A combined steering system cannot be maintained manually (time-consuming)	1	2	3	4	5

A combined steering system gives better possibilities for developing the activities and processes, than the current budget system of the city does 1 2 3 4 5

A combined steering system helps the decision Makers make the right decisions, since the processes are analysed in advance. This means that one knows which measurements, activities and processes belong together. (cause and interaction) 1 2 3 4 5

A combined steering system is difficult to apply to the local sector (difficulties: bureaucracy, politics, the culture of the organisation etc.) 1 2 3 4 5

9. The changes in the development process and the role of the outside expert

The development project needed outside help (expert) to carry out the project 1 2 3 4 5

The project proceeded well and kept the set timetable, which was decided on at the beginning of the development project that is; the development of economic functions in each department 1 2 3 4 5

The realisation of the project as a whole with the scale 1–5 1 2 3 4 5
(1 = 10, 2 = 9, 3 = 8, 4 = 7, 5 = 6)

10. Which part of the development work was a success?

_____
_____
_____
_____

11. Which part of the development work was not a success?

_____
_____
_____
_____

12. What makes the organisation function more effectively than before?

_____
_____
_____
_____

13. What makes the organisation function less effectively than before?

14. How does this project differ from similar projects within the city?

15. What could I and the group have done differently concerning the development and implementation of the development project?

16. Other views on the project

THANK YOU FOR YOUR COMMENTS!