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Roles of performance measurement in local government

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5. Analysis and Conclusions

This chapter documents our exploration of the applied role of budgeted performance measures (BPM) in Dutch municipalities. The chapter starts with a brief overview of the framework that was constructed to explain the roles of BPM. This answers the first research sub-question.

The actual case study findings are then used to challenge the research framework. Firstly, the four case studies are positioned in the Earl and Hopwood framework and analyzed in more general terms. The general assumptions of the research framework are considered by comparing pre-defined aspects and related empirical findings. Secondly, the four case studies are explored in more detail with the aim of refining the research framework for use in Dutch municipalities. This analysis answers the second and third research questions. The chapter ends with a discussion of the research findings.

Framework to explain the roles of BPM in general

This study began with an observation about Dutch local governmental organizations: they often applied performance measures in their planning and control systems, but seldom used performance measures rationally for output control. In other words: Dutch municipalities might use performance measures in their organizational and operational plans, budgets, and reports, but what they are used for is far from clear. This study observes and aims to explain the roles of performance measures for organizational control purposes.

The main research question is: *What is the role of budgeted performance measures in the organizational control of Dutch municipalities?*

The main research question is broken down into three more specific sub-questions:

- a) *Which aspects can explain the relationship between different contexts of organizational control (businesslike or political context) and the roles of BPM applied by top management and politicians in Dutch local government?*
- b) *To what extent do the aspects, introduced under a), explain the roles of BPM in Dutch municipalities?*
- c) *Do the applied roles of BPM explain the use of BPM by top management and politicians in Dutch municipalities?*

The first research sub-question (a) directed this study to construct a general framework by which different roles of performance measures for organizational control purposes could be researched. This initial framework of aspects served as a guide and a frame of reference during the case study research, but the explorative nature of this research also allowed other factors to be included during the analysis. Accounting and control literature was used as the main source of information for this framework.

Studying the roles of BPM assesses the relevance of performance measures for organizational control. The suggestion that performance information has no purpose by itself (i.e. that the relevance of accounting information is not determined by those who determine the form which it should take), but that relevance is determined within the context of its use (Burchell e.a., 1980), is adopted in this study as a central theme.

The role of accounting information use, or “accounting in action”, has not been researched in depth, and only general concepts and some specific empirical tested hypotheses can be referred to. The general concepts often refer to more functionalistic pictures of how accounting information facilitates organizational decision-making and control (Hopper and Powell, 1985). These general concepts emphasize various roles of information use, for example: for informing and influencing decision-making, or for attention directing, scorekeeping, and problem solving (e.g. Simon, 1954), for output and behavioral control (e.g. Ouchi, 1979) or for diagnostic control and interactive control (Simons, 1990). The more specific concepts relate to the roles of particular aspects of management control, for example to reasons for budgeting in organizations (e.g. Hansen and Van der Stede, 2004).

General accounting and control concepts can be used to study public sector organizations (e.g. Anthony and Young, 1994), and contingency theory¹³⁰ is used to determine relevant aspects of accounting and control in those organizations.

Two different sets of contingent factors are constructed. The first set is labeled as a businesslike control context, and aims to capture a rational use of performance measures for output or results control¹³¹. Empirical research has found some match between the more technical aspects¹³² of specific business organizations and the use of formal controls. A businesslike control context in this study is mainly associated with relatively large organizations, operating in relatively stable environments, in which managers perceive objectives as relatively certain. This study uses the following aspects to indicate a businesslike control context:

- a. certain and integrated objectives and performance measures (measured by the degree of goal specificity),
- b. tight budgetary control (measured by the degree of budget tightness).

The second set of contingent factors is labeled as a political control context, and focuses on the existence of conflicting institutional pressures on setting organizational objectives¹³³. It mainly highlights possible uncertainties or disputes about the goals

¹³⁰ Contingency theory assumes that under specified conditions, particular control mechanisms are appropriate. Applying contingency theory in this study, assumes that specific contingent factors in the internal and external environment of an organization can explain differences in the role and use of performance measures.

¹³¹ This context emphasizes formal organizational structures and processes, on rules and routines that serve to bring order and to minimize uncertainty for employees. The private business organization is often portrayed as the stereotypical organization that flourishes in this environment.

¹³² Such as: organizational size, organizational strategy, uncertainty of objectives, and task uncertainty.

¹³³ The presence of multiple conflicting institutionally defined pressures on the organizational objectives of local government is often used to explain why performance related organizational control is not intensively used (i.e. Pollitt and Boukeart, 2000; Modell, 2001).

and objectives of the organization. This study uses the following aspects to indicate a political control context;

- a. ambiguity of objectives (measured by multiplicity of objectives), and
- b. relatively unintegrated objectives and performance measures (measured by goal specificity).

Earl and Hopwood's (1979) traditional framework of roles of information use and contingent factors led this study to define four archetypal roles. One of the appealing features of the model is that it relates archetypal roles to the execution of organizational tasks and to the control context. Task uncertainty (measured by routineness of tasks) is applied as a factor to explain managers' knowledge about the means-end relationships of tasks. Earl and Hopwood's framework relates the "answering" and "ammunition" role to relatively certain tasks, and the "learning" and "rationalizing" role to more uncertain tasks.

Earl and Hopwood's (1979) traditional framework relates also to the control context. Two of these roles (the "answering" and "learning" roles) are assumed to be mainly related to a businesslike control context, and the other two ("ammunition" and "rationalizing" roles) mainly to a political control context. Each of the roles is characterized by a phrase, and is related to one or more indicative key characteristics. This study applies five key characteristics:

- to diagnose, to compare actual and budgeted performance (answering role)
- to learn and to change ways of doing (learning role)
- unequivocally signaling what is important (learning role, ammunition role)
- influencing future budget increase (ammunition role)
- to report and explain on past performances (rationalization role)

Case study findings can provide a more specific insight into the roles, and can challenge the above list of characteristics.

The roles of BPM and the antecedents to the roles (being the control contexts and task uncertainty) are seen as the two main constructs of the research framework¹³⁴ (see Figure 3 on page 32). Two remarks are made about the antecedents to the roles.

Firstly, Earl and Hopwood's framework uses uncertainty of objectives as a single factor to differentiate between a more or less rational goal-oriented control context. Applying this rather simple framework, the control context is divided into being more businesslike or more political. However, the research framework in this study offers more variation. It defines businesslike and political contexts separately, and defines both contexts as mutually non-exclusive¹³⁵. Using both frameworks together can thus result in different analyses. To overcome this hurdle, the roles of BPM are analyzed in two sequential phases. In the first phase the simpler Earl and Hopwood framework

¹³⁴ The complete research framework, as documented in chapter 2, consist of three constructs: antecedents of roles, roles of BPM, and BPM use. The last construct, BPM use, is the central subject of the third and last research sub-question, which is documented in one of the following sections.

¹³⁵ Both contexts relate mostly to different sets of aspects and measurable factors, offering a fairly open framework in which a businesslike and political control context can occur to some extent simultaneously.

is used to collect empirical information on the archetypal roles. The use of the Earl and Hopwood framework enables the selection of case studies, by focusing on extreme values of aspects. Then the empirical findings can be used to gradually unfold and challenge the more complex research framework, and to merge theory with the complexity and heterogeneity of practice.

Secondly, task uncertainty is seen as an independent factor in both the Earl and Hopwood framework and in the more complex research framework. Task uncertainty is thus regarded as unrelated to uncertainty of objectives or to the control contexts.

In the next sections the different roles of BPM use are analyzed and explored. As a first step, in order to provide a more general analysis, Earl and Hopwood’s framework is used. Then a more interpretive approach is used to challenge the research framework.

Challenging the Earl and Hopwood framework

Can Earl and Hopwood’s framework be used to explain the different roles of BPM use and related circumstances in Dutch local government? In order to answer this question, four different case studies were selected. Selection was mainly based on information about the antecedent factors; on uncertainty of objectives and tasks. Information, collected during interviews with civil executive officers of Dutch municipalities¹³⁶, led to the selection of four specific (groups of) organizational functions. However, the interviews did not always deliver clear, contrasting information on the four combinations of antecedent factors. Some cases were selected by choosing the best suitable. Eventually four case studies were selected: Sewerage, Economic Policy, Welfare Payment, and Spatial Planning. Table 22 provides an indicative overview of the selected case studies in the Earl and Hopwood framework.

	certainty of objectives	uncertainty of objectives
low task uncertainty	Sewerage “answering” role	Welfare Payments “ammunition” role
high task uncertainty	Economic Policy “learning” role	Spatial Planning “rationalizing” role

Table 22 Case studies in the Earl and Hopwood framework

The case studies provided a wide range of findings from one Dutch municipality (the city of Leeuwarden), and delivered a set of more qualitative measures. Measures and findings are used in two different analyzes: a more general analysis and a more detailed exploration. The general analysis aims to explain the roles of BPM by using the traditional Earl and Hopwood framework. Here the focus is on predefined and measured aspects of the antecedents and the roles of BPM. Then a more interpretive approach is used, which allows the case study findings to explain the roles of BPM in more detail.

¹³⁶ The selection interviews were not aimed to provide insight into the roles of BPM. Information on actually applied roles was only collected during the case studies.

The next sections document the general analysis of the case studies. Cases are positioned into the framework by using control contexts and routineness of tasks as dimensions. Per case a comparison is made between its originally assumed position, its estimated position during the selection phase, and its actual position during the case research. Then the applied roles per case study are briefly discussed. This section concludes with a general analysis.

Sewerage

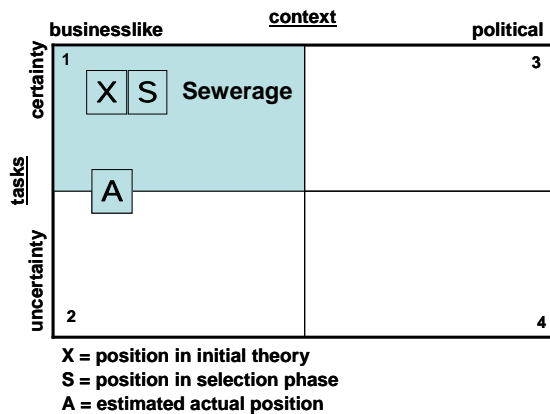


Figure 4 Position of Sewerage

Initially, the search was for a case study that could represent box 1 in Figure 4; a situation associated with a businesslike control context and relatively certain tasks. In this situation, objectives and tasks are expected to be certain and undisputed and “*algorithms, formulae and rules can be derived to solve the problem by computation*” (Earl and Hopwood, 1979, p 8). The preferred position of a representative case was expected to be near the X-mark in Figure 4.

Interviews during the selection phase suggested selecting Sewerage. Sewerage appeared to be related to clear objectives and to routine tasks. Sewerage was therefore considered as a representative case. The S-mark in Figure 4 symbolizes the position of Sewerage during the selection phase, which is comparable with the preferred position (the X-mark in Figure 4).

The actual position of Sewerage, based on the case study findings, supports the assumption of a businesslike control context and the absence of a political control context to a large extent. Objectives and performance are seen as specific (by clear, relevant, and integrated measures), and conflicting influences on objectives are not found. However, the organizational control of Sewerage is not profound. Sewerage appears to operate largely in isolation from the rest of the organizational control processes, and budgetary tightness is limited. The Sewerage case indicates an average level¹³⁷ of routineness, which only to some extent seems to conform to the as-

¹³⁷ For more detail on the measured aspects, see Appendix VIII Summary of Aspects.

sumed position in the selection phase. The A-mark in Figure 4 represents the actual position of Sewerage in the framework. This actual position is used to analyze the case study in general terms.

The traditional Earl and Hopwood framework assumes that the role of performance measures at the A-mark is somewhere between providing answers¹³⁸ and assisting learning¹³⁹. However, the Sewerage case study findings only partly confirm these assumptions. The use of performance measures for providing answers is only partly observed; performance measures are used as budget targets and for monitoring achieved performances (operational reporting), but the use for variance analysis for organizational control seems to be limited. The use of performance measures for assisting learning is not observed. The rationalizing role¹⁴⁰, on the other hand, appears to be present in general terms. Table 23 provides an overview of the expected, assumed and observed roles in the Sewerage case study.

roles	answering	learning	ammunition	rationalizing
initially expected				
assumed at actual position				
actually observed	partly			general

Table 23 Roles related to Sewerage

Economic Policy

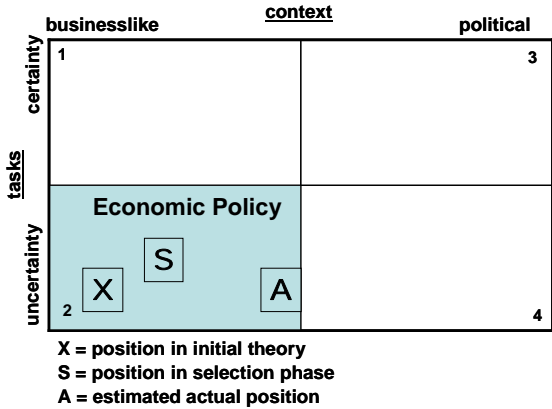


Figure 5 Position of Economic Policy

A case study that was initially supposed to represent box 2 in Figure 5, should relate to a businesslike control context and relative uncertain tasks. In this situation, objectives are expected to be certain and undisputed but tasks are uncertain. “Here MIS can not provide the answer but they can go part of the way, providing assistance” (Earl and Hopwood, 1979, p 8). The preferred position of a representative case was expected to be near the X-mark in.

¹³⁸ By emphasizing the variances between planned and achieved performances.

¹³⁹ By using performance measures for signaling or for learning-to-do.

¹⁴⁰ Using performance measures for organizational reporting on past performances.

The interviews during the selection phase did not provide strong indications for one particular organizational function. Economic Policy was selected after some consideration. Economic Policy could be associated to some extent with clear objectives, absence of a political context and to uncertainty of tasks (the S-mark in Figure 5).

The actual position of Economic Policy, based on the case study findings, differs from the position in the selection phase. Economic Policy only limitedly supports the assumption of a businesslike control context. Objectives seem to be clear and relevant, but are not perceived as controllable, and could not be easily translated into operational terms. The limited amount of budget tightness indicates also a less businesslike control context. Disputes about organizational objectives, on the other hand, are not observed. This absence of a political control context is seen as a match with the initially expected position. The case observations indicate a low level of routineness, which conforms to the initial preferred position of the case. The A-mark in Figure 5 represents the actual position of Economic Policy. This actual position is used to analyze the case study in general terms.

The traditional Earl and Hopwood framework assumes that the role of performance measures at the A-mark is somewhere between assisting learning¹⁴¹ and assisting rationalizing¹⁴². The Economic Policy case study findings, however, do not fully confirm these assumptions. The use of performance measures for assisting learning is only partly observed; signaling is clearly observed, but learning-to-do appears to be absent. The use of performance measures for rationalizing is present in general terms. The answering role is also observed, but only partly and to a limited extent. The ammunition role appears to be present, but only to a limited extent¹⁴³. Table 24 provides a summary of the expected, assumed, and the observed roles.

roles	answering	learning	ammunition	rationalizing
initially expected				
assumed at actual position				
actually observed	limited	partly	limited	general

Table 24 Roles related to Economic Policy

¹⁴¹ By signaling or for learning-to-do.

¹⁴² By using information for reporting on past performances.

¹⁴³ The ammunition role is mainly used to influence future budgets in other departments.

Welfare Payment

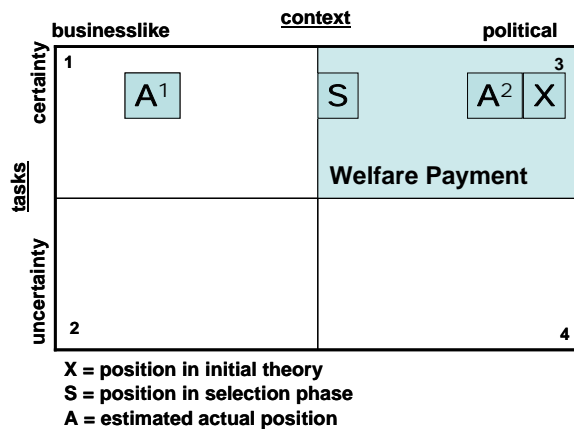


Figure 6 Position of Welfare Payment

The preferred case study for representing box 3 in Figure 6 should relate to a political control context and relatively certain tasks. Here objectives are expected to be uncertain or disputed but causation is certain, and “*the information systems serve to promote and articulate particular interested positions and values*” (Earl and Hopwood, 1979, p 10). The preferred position of a representative case was expected to be near the X-mark in Figure 6.

Interviews during the selection phase provided some diffuse indications. Welfare Payment was related to low tasks uncertainty, but appears highly associated with both a political and a businesslike control context. Welfare Payment was eventually selected as an example of political control and certainty of tasks (the S-mark in Figure 6 indicates its assumed position).

The actual case findings confirm the diffused analysis of the control context of Welfare Payment during the selection phase. The findings confirm the existence of a political control context clearly (by disputes about financial and non-financial objectives between different institutionally defined groups). At the same time, a businesslike context also appears to be present (objectives and performances are seen as sufficiently clear, mutually integrated and relevant). Using an integrated, single scale for expressing the different control contexts, the position of Welfare should thus be near the S-mark in Figure 6. This however neglects the nuances of the case study findings. Therefore, the actual position of Welfare is now symbolized by two marks. The A-marks in Figure 6 represent the actual position of Welfare Payment in the framework, and express the presence of two different control contexts. These actual positions are used to analyze the case study in general terms.

The traditional Earl and Hopwood framework assumes that the role of performance measures at the A-marks relates to providing answers¹⁴⁴ (the A¹-mark) and ammuni-

¹⁴⁴ By emphasizing the variances between planned and achieved performances.

tion¹⁴⁵ (the A²-mark). The Welfare Payment case study findings, however, do not confirm this assumption completely. The use of performance measures for influencing next period budgets is clearly observed. The answering role is only partly observed; it only relates to the use of performance budget targets and operational reporting but not to the use of variance analysis. However, performance measures are also used for assisting learning and rationalizing. Table 25 provides a summary of the expected and observed roles in the Economic Policy.

roles	answering	learning	ammunition	rationalizing
initially expected				
assumed at actual position				
actually observed	partly	present	present	present

Table 25 Roles related to Welfare Payment

Spatial Planning

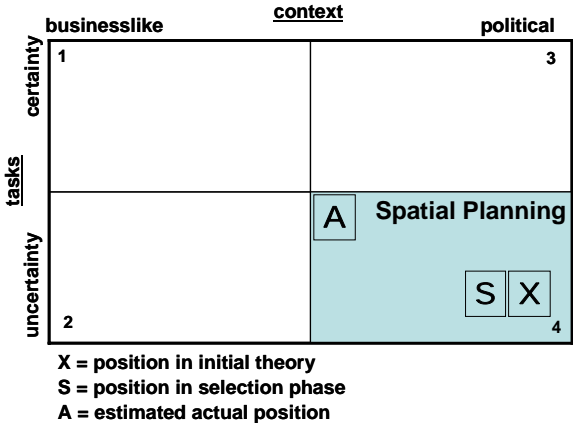


Figure 7 Position of Spatial Planning

Box 4 in Figure 7 relates to a political control context and uncertain tasks. Here objectives and tasks are expected to be uncertain, and information is used to legitimize and justify actions that have been decided upon. The preferred position of a representative case was expected to be near the X-mark in Figure 7.

Interviews during the selection phases suggested selecting Spatial Planning; it was clearly associated with a political context and to uncertain causation. The S-mark in Figure 7 indicates that its assumed position in the selection phase is close to the preferred position.

However, empirical research showed that the Spatial Planning case provides only limited support for the assumption of a political control context (limited conflicting pressures exerted on the objectives). The limited presence of a businesslike control

¹⁴⁵ By influencing future budgets.

context, on the other hand, does conform to initial assumptions¹⁴⁶. The case findings indicate an intermediate or average level of routineness of tasks. The A-mark in Figure 7 represents the actual position of Spatial Planning. This actual position is used to analyze the case study in general terms.

The traditional Earl and Hopwood framework assumes that the role of performance measures at the A-mark is somewhere between providing answers¹⁴⁷, assisting learning¹⁴⁸, providing ammunition¹⁴⁹, and assisting rationalizing¹⁵⁰. The Spatial Planning case study findings confirm these roles to some extent. The use of performance measures for rationalizing is clearly observed, and the use for influencing future budgets and status reporting is also present. A limited use of information for signaling purposes is also observed. Table 26 provides a summary of the expected and observed roles of Spatial Planning.

roles	answering	learning	ammunition	rationalizing
initially expected				
assumed at actual position				
actually observed	partly	limited	present	present

Table 26 Roles related to Spatial Planning

Combining the case studies

The next step is to analyze the cases together, based on measured antecedents and roles indicated above (see Figure 8). Analyzing four different case studies (held simultaneously within a single organization) by using a rather simplistic framework can never result in strong conclusion about this framework. This analysis is likely to undervalue the documented richness and variety of the case study findings, and is methodologically unsuited to robustly challenge the framework. Nevertheless, this summarized and general analysis can give some insights and directions that can be used in a more detailed discussion later on.

First, the four cases researched appear to represent less extreme positions than was expected during the selection phase. The aim at the start of the empirical research was to select clear cases, associated with extreme positions with respect to the control context and task uncertainty. This aim builds on the assumption that, by researching an extreme position, the framework could best be challenged. However, the actual positions of the case studies seem to be less obvious. The marked area in Figure 8 is an indicative visualization of the area that is covered by the case study findings in reality. A case with a clear businesslike control context and certain tasks, or with a clear political control context and uncertain tasks, seems to be largely miss-

¹⁴⁶ The relationship with a more businesslike context of control of Spatial Planning is diffuse. Objectives are relevant and in general terms clear, but often not integrated with operational performances, and financial and non-financial performance measures are often not connected or balanced with each other. The tightness of budget control is also considered as limited.

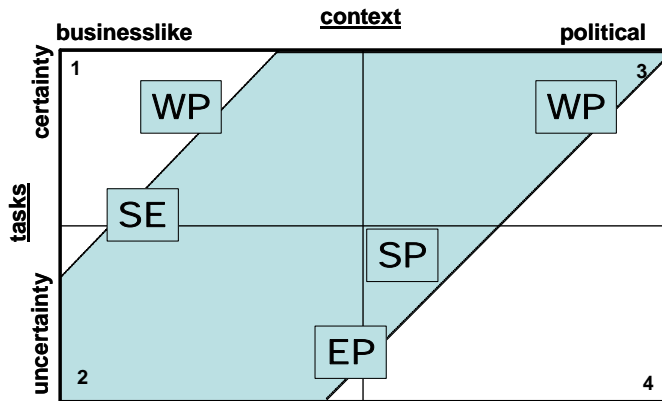
¹⁴⁷ By emphasizing the variances between planned and achieved performance measures.

¹⁴⁸ By signaling or for learning-to-do.

¹⁴⁹ By influencing future budgets.

¹⁵⁰ By using performance measures for reporting on past performances.

ing. This will force this study to be more modest in drawing conclusions on the relationship between the roles of BPM and the control contexts.



SE = Sewerage, EP = Economic Policy, WP = Welfare Payment, SP = Spatial Planning

Figure 8 Actual positions of cases

More specifically, the use of a dichotomy of control contexts does not lead to obvious results in this research. Welfare Payment relates to both contexts, whereas Economic Policy and Spatial Planning have an intermediate position with respect to the control context. Only Sewerage is recognized as clearly businesslike. Measures of task uncertainty, however, seem to be far more obvious. Causality appears to differentiate the four cases more clearly, and points to Welfare Payment as an example of certainty of tasks, and to Economic Policy as having a high degree of uncertainty of tasks. Concluding, the cases have more clearly contrasting positions only with regard to task uncertainty. The positions with regard to the control contexts (at least as measured in this study) produce mainly confusing or limited variation.

The main reason for applying the traditional Earl and Hopwood framework was its assumed ability to address several roles of BPM use, and to relate specific roles to specific situations. Table 27 gives an overview of the assumed and observed roles per case study.

case study		roles			
		answering	learning	ammunition	rationalizing
Sewerage	assumed				
	observed	partly			general
Economic Policy	assumed				
	observed	limited	partly	limited	present
Welfare Payment	assumed				
	observed	partly	present	present	present
Spatial Planning	assumed				
	observed	partly	limited	present	present

Table 27 Differences in roles of BPM

Table 27 shows the differences between the assumed and actual observed roles of BPM. Assumed roles are often partly and sometimes only limited observed or absent,

and roles are observed in situation where they were not assumed. These differences suggest that relationship between a particular position in the Earl and Hopwood framework and the various roles of BPM is less straightforward than thought.

Not only are the positions of the cases in the framework puzzling, the empirical research suggests that in practice the various roles of BPM are also not exclusively related to specific situations¹⁵¹. Analyzing the roles of BPM by using Earl and Hopwood's assumptions, and four case studies, perhaps provide some answers, but also point to various important questions. The Earl and Hopwood framework offers no clear insights. Perhaps the use of the more complex research framework can take this analysis further. In the following sections the case study findings are used to analyze and explain the roles of BPM-use in Dutch municipalities in more detail.

¹⁵¹ Table 27 suggests that actual observed roles differ clearly from (the by the Earl and Hopwood framework) assumed roles. Most of the cases, except Sewerage, can be related to (part of) the four archetypal roles.

Findings that explain the applied roles

In the previous section, the four cases researched were positioned in the traditional Earl and Hopwood framework and related to archetypal roles of BPM. This section uses the research framework in order to explore the various case study findings systematically and in more depth. Findings for each case are briefly summarized below, and are used to further explore and explain the applied roles of BPM.

Summary of case studies

As previously indicated, the *Welfare Payment case* relates to both a businesslike and a political control context. Organizational objectives and performances are perceived as clear and integrated, with relative certain causation between tasks and objectives, but objectives are at the same time disputed by stakeholders. Members of the Council (adjusting welfare policies), central government (restricting financial contribution), and civil managers (controlling operational processes) exert influence on organizational objectives. This influence can be regarded as institutional pressure, but does not appear to result in ambiguous objectives. Uncertainty within the external environment, instead of ambiguity of objectives, is surfacing as a relevant factor. Politicians and managers perceive objectives as clear, in the sense that they understand their meaning and consequences. However, they lack insight into future external developments.

Politicians and managers made reference to external uncertainties, but often considered them to be uncontrollable. Future developments in the number of clients entitled to welfare and the future financial contribution of central government are in their opinion largely uncontrollable by the municipality. As a result organizational objectives and performances are used more as signals and as points of reference, than as achievable year-end targets. At an operational level a similar situation exists: information about actual developments seems to be more relevant than variance between budgeted and actual performances.

The internal environment of Welfare Payment is seen as standardized and certain. When the number of welfare clients is known, tasks are clear, the expected workload per employee can be estimated, and the financial consequences are clear.

High political risk seems to drive performance measurement use in the Welfare Payment case, rather than the uncontrollability of objectives or the certainty of task execution. Welfare Payment represents a serious risk factor for the executive committee, both in financial terms and in terms of proper execution of the law. Politicians' awareness that future developments in Welfare Payment can seriously harm the municipality (and the Council members), puts Welfare Payment in the spotlight, and drives the need for monitoring actual performances. Adequate monitoring enables the organization not only to learn (by estimating future developments and changing operational tasks), and to influence future budgets (using financial forecasts), but also to report in detail on past performances. Diagnostic use of BPM for organizational control is mainly observed in relation to financial budgets and in general terms.

Sewerage operates in a relatively certain political and financial situation. Organizational objectives are clear and integrated with operational performances. Causation of civil technical tasks is high; the regular operational tasks are considered as routine, and projects are fully programmable in a technical sense. The external environment of *Sewerage* is also to a large extent certain. Political interest is limited and politicians do not consider *Sewerage* as politically risky. Objectives and tasks to perform are defined in advance. Conflicting pressures or disputes over organizational objectives are not observed. However, time management of large sewer system projects is seen as uncertain. It appears to be hard to deliver large *Sewerage* projects (new sewer systems or large maintenance projects) on time¹⁵². The need to combine sewer system project with other infrastructural projects, the difficulties in the coordination of and communication about *Sewerage* projects (both within the organization, and between the municipal organization and external parties) are given as the main reasons for this uncertainty.

Organizational control is rather loose, and is mainly focused on preventing financial underspending (by stimulating coordination and time management of large projects). Financial or non-financial organizational risks are not observed. Financial control at an organizational level appears to be limited (due to a complicated financial scheme). Malfunction of the sewer systems (resulting in unsatisfied citizens) is not observed. At an operational level project control appears to be well organized and tight. The role of BPM use is limited, with some use for operational reporting, but mainly it is used for organizational reporting on past performances. The diagnostic use of BPM for organizational control is mainly observed in relation to financial budgets and in general terms.

The *Economic Policy case study* describes a situation in which objectives are clear and certain, but barely operational. Many involved see the main organizational objective (more employment opportunities) as out of the municipal's control. They felt that external influences mainly determined the growth, and especially the decline, of employment in the city. The objectives are also regarded as non-directive; the link between organizational objectives and operational actions is weak and diffuse. Objectives are seen more as strategic mission statements than as performance related targets. However, *Economic Policy* is a key issue for the municipal council. Aldermen and civil managers are frequently involved in *Economic Policy* related activities, and its objectives are seen in many council documents.

Economic Policy's main task is to stimulate employment through influencing other policy fields within the municipal organization or external business organizations. At an operational level, *Economic Policy* is characterized by both routine tasks (e.g. regular co-ordination, participation in internal meetings, business visits, communication, and research) and by non-routine actions (mainly new opportunities and special projects).

Control, both financial and non-financial, is rather loose. At an operational level the financial budgets are relatively small and operational control is not considered very

¹⁵² *Sewerage* projects appear to be hard to deliver on time, because they often have to be executed in combination with other projects, such as road (re)construction.

important. At an organizational level the focus appears to be more on swift reactions to opportunities than on controlling performances.

The use of performance measures for budgeting or reporting operational status is not emphasized. Performance measures are mainly used to signal to others, to underline the importance of specific actions, to influence future budgets, and to communicate historic facts and past performances. The diagnostic use of BPM for organizational control is mainly seen in relation to financial budgets and in general terms.

The *Spatial Planning case study* describes a situation in which a wide spectrum of tasks is executed in a complex environment. Spatial Planning has both routine tasks (e.g. keeping regulation and zone planning up to date) and non-routine tasks (e.g. new spatial development, or major projects). Its external environment is highly institutionalized (e.g. by national Acts) and often unpredictable (formal objections by citizens or developments in society can easily influence what needs to be done).

Spatial Planning is regarded by politicians as important and municipal politicians often participate in operational decision making. Some particular objectives are clear and integrated with performances, but most of the objectives are deliberately stated in more general terms. Organizational objectives appear to be purposely ambiguous; in this way tasks can be reactive and mapped against these general objectives historically. In this case ambiguity seems not to be a response to conflicting institutional pressures on organizational objectives, but more a strategic choice.

At an operational level, project control appears to be important and many specialists or professionals (e.g. civil engineers and lawyers) are employed. Professionals seem to dominate the operational culture, and are seen as a special group of persons (by politicians and top management, and by themselves). Conflicts between operational and organizational levels are not observed.

Organizational objectives and performances are seldom integrated with operational tasks. Operational project control is emphasized and appears to be loosely coupled with organizational objectives. Financial and non-financial organizational control is characterized as rather loose.

Performance information is used for budgeting and operational reporting, but mainly it is used for operational control purposes. It is also used for influencing future budgets, and also largely for organizational reporting on past performances. The diagnostic use of BPM for organizational control is mainly observed in relation to financial budgets and in general terms.

The empirical findings of the case studies can now be used to challenge and perhaps redesign the research framework. This is conducted in three steps. First, the archetypal roles of BPM are briefly discussed, and broken down into the more specific roles of BPM use. Then the applied roles are discussed, focussing on similarities and differences. Lastly the discussion is summarized, in answer to the second sub-research question: "*To what extent do the aspects, introduced under a), explain the roles of BPM in Dutch municipalities?*"

An explanation of the way BPM is used

The four case studies provided some puzzling and confusing information about the definition of the archetypal roles of BPM use, and on the relationship between these roles and their environment. They were also regarded as suggestions or as a source of inspiration which could help this study to explore the roles of BPM in more detail.

The “answering” role, for example, helped this research to focus on the rational use of information systems¹⁵³. Research findings found but limited use of this “answering” role. Only highly aggregated financial performances are controlled in this way. Politicians and managers seldom rely solely on formal information systems for organizational control purposes. They are often personally involved in aspects of operational decision making, and frequently contact operational managers in order to obtain additional information. BPM are seen as valuable, but seldom provided the complete answer. Researching the “answering” role in more detail was enabled by studying three of its functions or sub-roles: targeting (budgets), monitoring (operational reporting), and variance analyzes. The use of BPM for targeting and monitoring is frequently seen in all the case studies. Targeting appears to provide norms (for budgetary control) and points of references (e.g. for communicating important issues), and monitoring mainly provides information on actual operational developments. Monitoring gives Council members and managers information on actual performances and about the status quo, but provides limited advice on the route to choose¹⁵⁴.

Applying the “learning” and “ammunition” roles helped this study to articulate the use of performance measures in a more social setting¹⁵⁵. The research model initially assumed that the “learning” and “ammunition” roles were used under clearly different circumstances. “Learning” was expected to relate to specific objectives and to limited knowledge on how to achieve them, and “ammunition” was expected to relate to uncertain or disputed objectives and certainty in task execution. However, empirical findings cannot separate the two archetypal roles that clearly. In practice, both roles appear to relate to some extent to each other. Welfare Payment in particular is associated with both roles, but both roles are also observed in Economic Policy. In order to explain these observations, the two roles are broken down into three functions or sub-roles: learn-to-do, signalling, and influencing future budgets (budgeting). The three sub-roles appear to be applied under different circumstances, which are discussed later.

Only the archetype “rationalizing” role was researched in its initial form. This role, with its function of legitimizing organizational performances by providing organizational reports on past performances, is not broken down further.

¹⁵³ This role suggested that, under relatively certain conditions, the information system contains all the necessary information to control the organization. Thus managers get their answers merely by using the formal control system.

¹⁵⁴ Discussions with managers and controllers seem to indicate that the difference between knowing where you are and knowing what to do is not often recognized.

¹⁵⁵ These roles were built on the assumption that, under more uncertain circumstances, organizational control is more dependent on social control systems.

In summary, in aiming to explain the roles of BPM in more detail, the roles are defined by several more specific sub-roles. Seven sub-roles of BPM use are included in this research: targeting (budgets), monitoring (operational reporting), variance analyzes, learning-to-do, signalling, influencing future budgets (budgeting), and reporting on past performances (organizational reporting).

Explaining the applied (sub-) roles of BPM, some similarities

As previously discussed, some sub-roles of BPM are documented in all the case studies. The use of BPM for variance analysis, targeting performance budgets, operational reporting, influencing next period budgets, and organizational reporting appears to be used in all policy fields.

The diagnostic use of BPM for variance analysis is observed in all the case studies, mainly for organizational control of highly aggregated financial performance measures¹⁵⁶. However, this way of using performance measures is seen far less in the control of financial operational budgets. Responsible operational managers mostly comply with strictly defined budget rules. Financial budgeted performances can be altered, or budget overspending can be explicitly or implicitly accepted, so long as the rules are applied properly.

The use of BPM for variance analysis is seldom applied for controlling detailed financial or non-financial performances. This despite the presence of variance analyses information in many documents. Other components of the “answering” role are more frequently observed. Targeting of budgeted performance measures (budgets) and monitoring of actual achievements (operational reporting) are observed in all the case studies. Both sub-roles of information use are more or less comparably applied in the researched cases. Only Welfare Payment uses status reporting comparatively more intensively.

The use of BPM for influencing next period budget (as part of the “ammunition” role) appears to be applied in all the cases, except Sewerage. This function of BPM use relates to the budgeting process¹⁵⁷. Information on achieved actual and estimated future performances is used for influencing or motivating members of the Council to adjust next years performance budgets in a desirable direction. Influencing next period budget is used most in Welfare Payment, but this function is also documented in Economic Policy and Spatial Planning.

Sewerage seems to be the exception to this rule, but is using a multi-year planning and control cycle. Its yearly budgets are set by a mid-term plan, setting budgets for the next four years or longer. Influencing the next period budget is in this case re-

¹⁵⁶ By applying this diagnostic control function, politicians are using the accounting information system to ensure that financial organizational performances are (or will be) within some general budgeted targets.

¹⁵⁷ Budgeting is the process of setting budget targets. Budgeting can be approached as top-down (budget targets are in line with pre-set organizational objectives) or as bottom-up (organizational objectives are altered in line with the developments of budget targets). Both approaches are assumed to be functioning together to some extent.

ferred to as influencing the next mid-term plan. At the time of this research the mid-term plan had just been renewed, and therefore influencing the next mid-term plan was not seen.

Organizational reporting is also documented in all the cases, especially Welfare Payment, Economic Policy, and Spatial Planning. In Sewerage this function of rationalizing and legitimizing past performances is used less.

To summarize, the four cases researched suggest that this organization does apply some kind of standard way of using BPM throughout the organization, regardless of the precise technical, political and social task environment. The way BPM is used for organizational control appears to have some kind of a minimum level, related to a restricted set of roles of BPM-use used to a minimum extent. Organizational control is apparently running in the lowest gear here¹⁵⁸. The case study findings also illustrate situations in which, in addition to this use of standard roles, standard roles of BPM more intensively occur, or are supplemented by other roles of BPM.

This standard use of particular sub-roles of BPM was not initially expected; the research framework did not make any assumptions about it. Adjustment of the framework on this point should be considered.

Explaining the applied (sub-) roles of BPM, some striking differences

Some sub-roles of BPM turn out to vary significantly between the four case studies. Variations seem to be most contrasting regarding the learning-to-do function, but also the use of BPM for signalling¹⁵⁹ appears to vary between the four cases.

The learning-to-do function of BPM appears to be most pronounced in Welfare Payment. The politicians and managers who are responsible for Welfare Payment are confronted with serious financial and political risks and unpredictable circumstances. Enforcing control over future financial performances is for them without doubt a major issue, but compliance with laws and procedures is also important. Performance measures are central. Politicians and managers responsible for Welfare Payment try

¹⁵⁸ What is driving the content and the extent of use of these standard roles of BPM-use is not investigated in this study, but some suggestions can be made. The content can, for example, be influenced by the nationwide implementation of businesslike planning and control instruments in Dutch municipalities in past decades. This implementation project has had significant impact on the planning and control systems of Dutch city councils, and resulted in similar use of planning and control instruments in many local governmental organizations (Van Helden, 1998; Van Helden and Ter Bogt, 2001; Ter Bogt, 2004). This standard way of using BPM can also be influenced by the more institutional defined rules and regulation, regarding accountability or account given purposes (Pollitt and Bouckear, 2000). An additional remark is made. If organizations rely mainly on this standard role of BPM, they do not differentiate much between different policy fields, and their planning and control systems are less likely to facilitate politicians and managers in their control of operational tasks in more uncertain or unpredictable environments. It is assumable that this standard role of BPM mainly facilitates the control of routine tasks in a stable environment, and less the control of less pre-programmable tasks in a unstable environment.

¹⁵⁹ Signaling is seen as a function of both the archetypal "learning" and "ammunition" role. The difference between both archetypal roles is defined by the presence of "learning to change ways of doing" or "influencing next period budgets". Learning to change ways of doing stresses the intention to change processes, influencing the next period budget stresses the intention to change future budgets.

to react to changes caused by the unpredictable external environment, and use BPM for signalling and learning. They use status reports intensively for monitoring actual operational developments, discuss performance trends, signal emerging changes, and analyze operational processes in order to find alternatives that can bring them closer to their objectives. Two observations are made.

Firstly, process-related performances are perceived as controllable, but results-related performances are not. The municipality sees itself as in control of operational processes, but also as having limited control over the total amount of welfare to be paid and the financial compensation it is to receive. In this environment the use of BPM for learning seems to flourish; it seems to facilitate politicians and civil managers in adjusting objectives or altering operational tasks¹⁶⁰.

Secondly, managers said that they can predict the results of tasks to be performed in advance. As a result, they can estimate the results of operational changes fairly accurately. For example, an expected change in the number of welfare clients is used to estimate a change in operational costs and expenses for welfare payments. However, according to the research framework, learning-to-do was mainly expected in an environment in which managers are uncertain about the causality between tasks and specific objectives. It therefore seems odd that managers use BPM for learning-to-do, when they seem to know what to do.

What seems to be important in this case is that this learning-to-do does not often lead to significant instant changes. Many operational processes in Welfare Payment are pre-programmed and are often constrained by national rules and protocols or by local policies. Many different organizations are also operationally involved in a chain of welfare-related processes. Changing this kind of process is therefore not easily done. As a result, operational changes seem to be mostly applied to future years; in the following budget period. Continuing this line of reasoning, managers seem to know what to do today, but are learning how to pre-program the future.

Economic Policy, on the other hand, was expected to relate to the learning-to-do function, but case findings did not confirm this function at all. The objectives of Economic Policy are perceived as relevant, clear and undisputed, but nobody knows exactly how the municipality can achieve them, and the achieved performances are only measurable after some time. In this situation, signalling seems to be important. Signalling facilitates the communication and coordination of the operational tasks. Responsible aldermen and civil servants apply signalling to influence (or to motivate or to pursue) others to act according to their plans, of which the exact results are hard to predict¹⁶¹.

¹⁶⁰ This more timely information means the Council is better informed and appears to make organizational control tighter. However, frequent operational monitoring and reporting is not making the unpredictable controllable. More objective information on actual developments is basically making the Council members more aware of the current challenges to resolve, but does not seem to resolve them.

¹⁶¹ Learning suggests some kind of trial-and-error process. In the Economic policy case, however, it is not always clear which decision will lead to the achievement of the organizational objectives. In a changing environment, this kind of learning can thus also be based on more intuitive or judgmental processes.

Analysing Welfare Payment and Economic Policy together, another observation can be made. Both are described by specific and relevant organizational objectives, and by operational control that is aimed at achieving these specific objectives. Operational control in both policy fields is, however, mainly reliant on process/project and social control mechanisms. Politicians and managers are personally involved in operational and organizational decision-making and control, and seem to enforce integration between operational tasks and organizational output control.

Perhaps one could speculate that this suggestion can be put in more general terms. That is, if unpredictable changes in the external environment or unpredictable consequences of operational tasks are hindering the achievement of precise and relevant organizational objectives, politicians and managers are likely to use BPM for unequivocally signalling what is important and for learning to change ways of doing. Learning is, however, conditional. Further research is necessary to explore this in more depth.

The Spatial Planning case study reveals a different situation. Spatial Planning is characterized by some specific but mostly ambiguous objectives, and by operational tasks that are barely directed or defined by specific organizational objectives.

The majority of the organizational objectives and performances of Spatial Planning are purposefully vague, leaving room for operational activities to be filled in later. Loose coupling between operational and organizational control seems to be an important characteristic here. Not only are operational performances and organizational objectives supporting a loose coupled control system, but also the communication between politicians and Spatial Planning management seems not to achieve tight integration of operational and organizational control. Signalling appears to facilitate the more ad-hoc communication needs of politicians, top management and operational managers. In Spatial Planning, signalling seems to be used predominantly to express various interests and values. This could be caused by the complex and institutionalized external environment of Spatial Planning, but the existence of different organizational cultures (between politicians and operational professionals) could also be an influence. An additional aspect is that politicians are often involved in the more operational aspects of this policy field. Spatial Planning seems to offer politicians opportunities, for example to act, to be informed, to articulate issues, or to communicate with their electorate. Associations with the use of BPM for learning-to-do are however not made.

One remark has to be made on a missing variation in the empirical research. The use of BPM for diagnostic variance analysis was mainly expected in Sewerage. Organizational control in Sewerage is however hardly evidenced; the findings suggest that BPM in Sewerage is not used much for organizational control. This loose organizational control within Sewerage is perhaps attributable to the fact that this policy field is perceived by politicians as peripheral; with limited political ambitions and risks attached to it. The applied complex financial accruals and the civil engineering nature of the sewer system tasks can possibly contribute to explaining this situation also.

Summary, aspects that explain roles of BPM

The case study findings give support to aspects of the research framework, but also challenge the framework. Some aspects of the framework do seem to explain the way performance information is used for organizational control in Dutch local government. However some other aspects could rather be regarded as a starting point for further exploration.

The indicated archetypal roles were not considered to be fully applicable to this empirical research, and adjustments were necessary. Accounting theory and research findings suggested breaking down the archetypal roles of BPM use into different sub-roles of BPM use. As was indicated before, seven different sub-roles of BPM use are applied:

- performance targeting (budget),
- variance analysis,
- status reporting (operational reporting),
- learning to change ways of doing (learning-to-do),
- unequivocally signaling of what is important (signaling),
- influencing next period budgets (budgeting), and
- reporting on past performances (organizational reporting).

Some of these sub-roles of BPM use are applied limitedly throughout the four case studies. The standard sub-roles of BPM, recognized in this study, are: high level financial variance analysis, budgets, operational reporting, influencing next period budget, and organizational reporting. These sub-roles can be described as standard roles of BPM. This study makes only limited suggestions on the extent to which these sub-roles are used. Additional research can give more detail, and can explain these standard roles of BPM more specifically.

There is no evidence for the diagnostic use of variance analyses in the four cases, except for controlling high level financial performances. This suggests that performances are seldom controlled at arm's length; textbook forms of organizational result or output control are limitedly applied in the four cases¹⁶². Politicians and managers, controlling their organization, do not often rely solely on the performance information system. Formal task controls (such as process and project control) and informal or social controls (such as personnel and cultural controls) appear to operate together¹⁶³. BPM are often applied as norms in behavioral control systems, or are used for various reasons in the social setting of civil servants, politicians, and civilians.

Aiming to include some more social control oriented sub-roles of BPM use, this study uses learning-to-do, signaling, and influencing next period budgets¹⁶⁴. These three

¹⁶² This conforms to the findings of, for example, Bordewijk and Klaassen (2001), Van Helden (2001), Ter Bogt (2005).

¹⁶³ See for example Ouchi (1979), Hofstede (1981), Merchant and Van der Stede (2003).

¹⁶⁴ Influencing next period budget is regarded as a standard function of BPM-use, but the extent of use varies between the four case studies.

sub-roles are somehow interrelated, as demonstrated clearly by the Welfare Payment case study findings. This suggests that the Earl and Hopwood's archetypal "learning" and "ammunition" roles are more closely related than was initially assumed¹⁶⁵. The Welfare Payment and Economic Policy case studies have demonstrated that learning-to-do is conditional; learning-to-do is mainly expected when some kind of feed-back mechanism can evaluate performances by specific objectives, and when organizational tasks can be adjusted accordingly.

Many factors can influence the use and relevance of these three more social control oriented sub-roles of BPM¹⁶⁶. Case findings suggest that political interest or political risks are surely one of them. Sewerage is an example of a policy field in which politicians have limited interest in using BPM at all. The involvement of politician's in the reduction of Welfare Payment risks, or in stimulating the potential of Economic Policy showed political interest in achieving the main organizational objectives. The Spatial Planning case study pointed both to the specific opportunities this policy field offers to politicians to be personally involved in particular projects or tasks, and to the use of BPM to express specific issues. The findings in this case study suggest that signaling, learning-to-do, and influencing future budgets are not always applied for controlling organizational objectives, but are also used for facilitating specific operational tasks or political actions¹⁶⁷.

The research framework assumes that the roles of BPM are related to task uncertainty and a context of organizational control. Task uncertainty (expressed as the means-end relationship of tasks) provides explanations of the four case studies. However, the relationship between the case studies and the particular roles of BPM was more diffuse. Consequently, task uncertainty does not appear to clearly explain the roles of BPM in the four cases. The findings also suggest that two factors instead of one single factor explain a means-end relationship. Routineness of tasks expresses the programmability of tasks, but the ability to evaluate operational tasks or performances on their contribution to organizational objectives appears to be important too. This "contribution to objectives" is a new factor, and could be included in a revised research framework.

Further adjustments to the framework could be suggested with regards to the concepts and measures of the different contexts of control. A businesslike control context was intended to express the technical rationale of control, by focusing on certain,

¹⁶⁵ This shows a resemblance to the concept of interactive controls (Simons, 1995, 2000). Simons defines his interactive controls by the interactive way managers use it. As he put it: "*Interactive debate and dialogue takes places at all levels of the organization as new information is studied and analyzed. This ongoing discussion highlights the need for changing ways of doing things, changing value propositions, or even changing aspects of the business strategy*" (Simons, 2000, p. 217).

¹⁶⁶ For example, measurability of tasks and outputs, political interest in the performance, scale of the organization, street-level discretion and linkage between objectives and performance indicators (Ter Bogt, 2004; Van Dooren, 2005).

¹⁶⁷ The use of BPM is likely to have more functions that defined by only organizational control. This study is however mainly concentrated on organizational control. Further research can explore this in more detail.

specific, and undisputed organizational objectives and integrated performances. Case findings do suggest that specific (measured by the factors: clarity, relevance, and integration) organizational objectives and operational performance measures are important characteristics of a businesslike control environment. Uncertain and undisputed objectives, however, appear to be less applicable in this study. Three remarks can be made. Firstly, uncertainty of objectives and unpredictability or uncontrollability of the external environment seem to overlap and were hard to separate in the four cases. Secondly, certainty of objectives is not clearly related to specific objectives and performance measures. The Welfare Payment case study, for example, shows that an uncertain or unpredictable external environment can even be regarded as stimulating a business rationale of control; the need to achieve unpredictable but specific objectives seems to force the organization to control in a more technical rational way. Thirdly, undisputed organizational objectives do not seem to relate to a businesslike control context (as in the Spatial Planning case).

Using a political control context in this study was far from unproblematic too. The political control context was based on the notion that objectives are disputed and uncertain, conflicting pressures of institutional parties on objectives exist, and on the importance of political processes for organizational control. Welfare Payment particularly illustrates a situation in which objectives are disputed but also unambiguous, and control is characterized as rational and goal-oriented. Spatial Planning illustrates a control context that is more characterized by the presence of ambiguous objectives than by disputed objectives. Therefore, it could possibly be assumed that rather the uncertainty or disputability of objectives, ambiguity of objectives best characterizes a political control context¹⁶⁸.

Another factor was the potential confusion about the use of the word “political”. The use of the word “political” in “a political control context” and “a political control mechanism” suggests some similarity, which can cause some misunderstanding. In this study a political control context relates mainly to an institutional organizational setting in which achieving specific objectives is not put at a premium. Political control as a mechanism is a social control mechanism that can be applied in any control context¹⁶⁹. Re-naming the control contexts can thus be of some practical help¹⁷⁰.

To summarize, this empirical research shows that certainty, predictability, or indisputability of objectives do not clearly relate to the technical rationale of control. Characterizing a businesslike and political control context by using aspects of organizational objectives, as has been applied in this study, appears to explain a businesslike control insufficiently. Findings suggest a more bottom-up relationship; the use of op-

¹⁶⁸ According to Hofstede (1981, p. 194) ambiguity of objectives is “*the most critical criterion for management control*”. He suggested three reasons for ambiguity: conflicts of perceived interest and values, lack of knowledge about means-end relationships, and environmental turbulence.

¹⁶⁹ Political control mechanisms, as informal control mechanisms, can be applied in a businesslike or a political control context.

¹⁷⁰ For example, by making reference to objective-focused (instead of a businesslike) or task-focused (instead of a political) control context.

erational performances for achieving relevant and specific organizational objectives seems to be particularly important¹⁷¹.

The previous reflections bring about various suggestions for adjusting the research framework. Some more specific suggestions for a renewed framework are documented in one of the following sections.

Observations with respect to the use of BPM

Research question c) aims to explain the use of budgeted performance measures through the applied roles of BPM. The research framework had constructed BPM use by the design characteristics and quality of the accounting information system. The design characteristics measure aspects of scope and timeliness. In this study, information on the design of AIS was collected by looking at the use of: (a) financial or non-financial pre-defined quantitative targets (budget), (b) information on actual accomplishments (actual), (c) variance information between actual and budget, and (d) additional information (on past performances, estimates, forecasts, and future events). Information on the quality of AIS was collected by using user satisfaction as a surrogate measure.

Case study findings illustrated the use of different types of performance measures, but the measures of both design and quality of AIS appear to differ only to limited extent. Financial performance measures was used in all researched cases and appeared to be fairly consistent throughout the cases.

Variety in the use of non-financial performance measures appeared to be rather limited. In all the cases an emphasis on actual and budgeted performance measures for organizational control was registered. Only the Economic Policy case study revealed a limited use of actual performances, which conforms to the notion that the actual performance of Economic Policy is hard to measure within a short time-frame. Additional information was included in all cases, except the Sewerage case study.

The cases showed limited variation in the quality of performance measure use. Consequently, no assumptions could be made on the relationship between the quality of and the roles of BPM, but some additional interpretations could be made.

Scope is measured by capturing: financial and non-financial, actual, budget, variance between actual and budgets, and additional information¹⁷². The scope of performance measure use was valued in all four case studies as average or above, but differences in scope between the cases were limited. All case studies reported the use of financial and non-financial performance measures, and of the use of actual performances. Information on budgets appeared to be more prominently used in the Sewerage and Spatial Planning case than in the Welfare Payment and Economic Policy case stud-

¹⁷¹ This is in line with Hofstede's (1981) suggestion that management control should relate to operational activities, and not to different types of organizations.

¹⁷² such as estimates, forecasts, and future events

ies. In the Welfare Payment and Economic Policy studies, the emphasis appeared to be more on actual information. Additional information (such as forecasts, estimates, and other information) was seen in all case studies, except the Sewerage case study. Thus, it seems that scope of performance measure use does not present clear suggestions about the relationship between roles and use of BPM.

Towards an adjusted framework

The findings and explorations of this study produce some indications and suggestions which address the way performance measures are used in Dutch municipalities. The scientific significance of these results could be exaggerated if they are used to make firm assumptions and propositions. The following adjustments are therefore to be regarded merely as suggestions. These suggestions are formulated as hypotheses¹⁷³ and need to be robustly tested in the future.

The relevance of objectives and performances¹⁷⁴ for organizational control is likely to be the most important aspect for explaining the way performance measures are used. Objectives and performances must be relevant to the persons who are involved in organizational control. But what defines relevance for organizational control is less straightforward. Case findings suggest that relevance of objectives and performance for organizational control is primarily dependent on the interest of politicians; performances are relevant for organizational control when a policy field is politically sensitive¹⁷⁵. Objectives and performance measures, related to a politically insensitive policy field, seem to have limited use for organizational control.

Research findings suggest that a policy field is politically sensitive if the tasks or activities of this policy field are perceived by politicians as offering opportunities or causing risks.

If a policy field's tasks offer politicians opportunities, they are likely to offer the possibility of fulfilling their political ambitions. Taking the Spatial Planning case findings as an example, politicians are involved in setting specific objectives and performances (setting a few of them in specific terms, but mostly in more ambiguous terms), are personally involved in some operational tasks, are using specific information about particular issues of political importance to address particular interests and for communication with citizens. But to what extent these opportunities lead to organizational control, is not explicitly documented in this case study. If these opportunities are fuelled by local party political programs or by governance bodies (e.g. by central government), they will probably lead to the setting of objectives and budgeted perform-

¹⁷³ All hypotheses relates to organizational control in Dutch local governmental organizations.

¹⁷⁴ Relevance, as documented in the initial research framework, is measured as a factor of specificity of objectives and by budgetary tightness. Both aspects were assume to indicate the perceived importance of objectives and budgeted performances for organizational control, but provide hardly any contrasting information on this subject.

¹⁷⁵ The relevance of political involvement, sensitiveness or interest for organizational control is also documented in public administration literature, and is often regarded as an aspect that explains performance measurement use (Pollitt and Bouckaert, 2000; Van Dooren, 2005).

ance targets¹⁷⁶. But politicians can see different opportunities between setting and achieving objectives and performance targets; the interest in setting objectives can differ considerably from the interest in achieving organizational results¹⁷⁷.

Next to opportunities is the perception of risk surfacing as another cause for a policy field to be regarded as politically sensitive. Taking the Welfare Payment case study as an example, political risk can be related to significant financial deficits, operational malfunction that can lead to interventions by governance bodies, and the possibility of being held accountable for underperformances.

Sewerage appears to be a policy field with limited politically sensitive tasks; politicians see little opportunity or risk attached to them. Two observations were made here: (a) politicians appear to have a limited interest and involvement in the operational tasks, and (b) organizational control is loose; a desire to ensure the achievement of organizational objectives seems to be largely absent.

The Sewerage case findings show that the roles of BPM are restricted to a set of standard roles¹⁷⁸, which are also observed in the three other cases. However, in these three other cases the use of some standard roles is often more intense (the use of BPM for budgeting and progress reporting) and is supplemented with other roles of BPM.

Hypothesis 1

Municipalities apply a set of standard roles of BPM-use throughout their organization, which can be regarded as a minimum set of (sub-) roles used to a minimum extent. Standard roles of BPM-use relate to diagnostically applied bottom-line financial control, to influencing and setting budgeted performance targets, and to reporting performance progress at an operational and organizational level.

The Sewerage case findings show that the main reliance on the standard roles of BPM-use relates to situation in which organizational control is loose, and the contribution of tasks or performances to organizational objectives is perceived as relatively certain or predictable.

Hypothesis 2

If the tasks of a policy field are perceived as politically insensitive, then only the standard roles are being applied, the contribution of operational tasks or performances to organizational objectives is perceived as predictable, and organizational control is loose.

¹⁷⁶ In Spatial Planning, for example, specific objectives are set for bringing zone-planning up-to-date, in order to comply with national law.

¹⁷⁷ Organizational decision-making relates to organizational action, but "*it would be naïve to assume that the connection was always a tight one*" (Pollitt, 2001, p. 939). Pollitt (2001, p.940) added "*In public administration, even determined implementation (action) does not necessarily lead to uniform or expected results*".

¹⁷⁸ These (sub) roles relates to the process and result of budgeting (influencing budgets and setting budget targets), to reporting progress (at operational and organizational level), and diagnostic use of highly aggregated financial (bottom-line) performances.

The Spatial Planning and Economic Policy case studies both document examples of political opportunities. In both case studies politicians appear to be more interested and involved in particular operational tasks than in controlling organizational objectives. Organizational objectives appear to play a role, but are mostly used in a more social and political way. For example: objectives and performances are used for signalling unequivocally what is important and for influencing future budgeted performances. Both case studies also illustrate situations in which project control is important for operational control and organizational control is characterized as loose.

Hypothesis 3

If a policy field offers politicians an opportunity, politicians are interested in particular organizational objectives and operational performances or tasks, and are often personally involved in particular operational tasks. Organizational control is expected to be relatively loose.

The case study findings provide some comprehensive suggestions on the aspects that can lead to the roles of BPM use in a politically risky situation. At least two concepts seem to be useful: the businesslike control context and the organization's ability to learn.

Initially, the businesslike control context was defined by characterizing organizational objectives. Certainty, low levels of ambiguity, lack of multiplicity, and predictability were aspects used to define or measure this control context. Case study findings, however, suggest that the control context is basically dependent on the contribution of operational tasks or performance to achieving specific organizational objectives¹⁷⁹. This assumes that objectives give direction or motivation to operational tasks or performances, and the integration of objectives and performances. This suggestion is used to redefine the businesslike control context.

Hypothesis 4

In a businesslike control context, operational tasks or performances contribute clearly to the achievement of specific objectives.

This businesslike control context is seen the most clearly in Welfare Payment. Using this case study to characterize the businesslike control context in more detail, the following suggestions can be made: perceived political risks, objectives and performances are specific or unambiguous, organizational and operational objectives and performances are relatively integrated, limited task uncertainty, and organizational control is relatively tight. In this control context, all the documented (sub-) roles of BPM-use are applied.

¹⁷⁹ The suggestion that, for a meaningful classification from a management control viewpoint, the organization has to be broken down to the level of operational activities is also made by Hofstede (1981).

Hypothesis 5

A businesslike control context is mainly expected when a policy field is perceived as politically risky. Here control is tight. The roles of BPM-use relate to more intensively applied standard roles, and to signalling and learning.

The findings of the Economic Policy case can be used to refine this politically risky situation. In Economic Policy the achievement of organizational objectives is perceived as relevant, however control of achievements is hardly possible. Politicians perceive both the risks of underperformance (although they can not easily be held accountable for it) and the opportunities offered. Here the control context is characterized as businesslike to some extent. Particular operational tasks (e.g. actions and special projects) are important and objectives are mostly used to signal important issues or specific interests. Economic Policy is used as an example of a politically risky policy field in a limited businesslike control context.

Hypothesis 6

If tasks are politically risky, but the control context is less businesslike, the emphasis of organizational control is on executing particular operational tasks.

An additional observation can be made. Economic Policy and Spatial Planning differ on ambiguity of objectives (unambiguous and respectably mostly ambiguous) and on integration of organizational objectives and operational performances. However, they seem to differ far less on control context (intermediate businesslike or respectably political), and both appear to describe situations in which the interest of politicians is on particular operational tasks or performances. The applied (sub-) roles of BPM in both policy fields also show reasonable resemblances.

Hypothesis 7

If the emphasis is on particular operational tasks or performances, the roles of BPM relate to the standard roles and to signalling.

Case study findings show that an organization's ability to learn to change ways of doing is conditional. Learning-to-do is expected when an organization is able to change operational processes as a response to progress evaluation. If achieved performances cannot be monitored and evaluated in time, and when tasks or processes cannot be adjusted in time, learning-to-do does not seem to be possible.

Hypothesis 8

Learning will only occur when an organization is able to change operational processes according to performance evaluations.

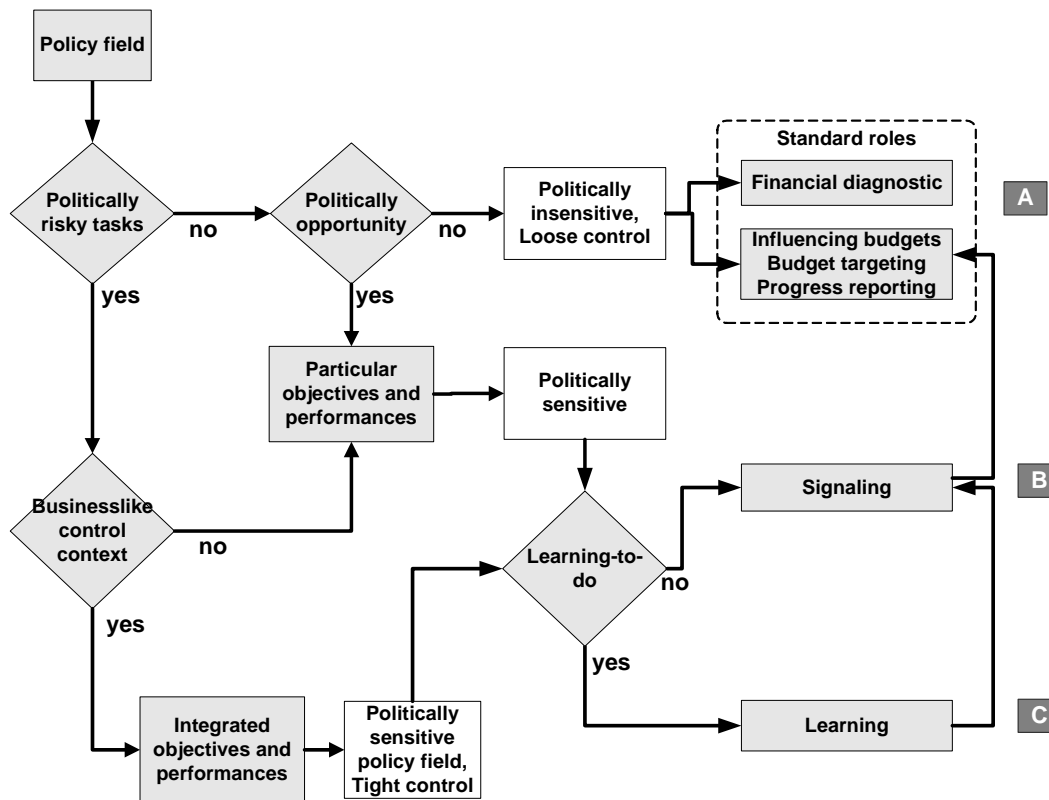


Figure 9 Adjusted research framework

Figure 9 gives an overview of the adjusted framework. The four case studies can be positioned in it.

The tasks in Sewerage appear to be politically insensitive (no political risks or opportunity), and Sewerage is positioned at A. Only the standard roles of BPM are being applied.

The tasks of Economic Policy (some political risks, offering political opportunities) and Spatial Planning (no clear political risks, offering political opportunities) are regarded as politically sensitive, and both case studies are positioned at B. Organizational control is directed to 'involved in' and 'achievement of' particular objectives and performances. Standard roles of BPM are emphasized and signalling is applied.

The tasks of Welfare Payment are seen as politically risky and the control context is businesslike. Organizational control is directed to achieving organizational objectives. This case study is positioned at C. Standard roles of BPM are more intensive (in particular influencing next period budget, budget targeting, and progress reporting) and signalling and learning are applied.

Discussion

Still little is known about the way performance measurement and control is used in Dutch local government. Even after studying one organization in more detail, as in this study, only a few firm statements can be made. This is no surprise; both the subject and the methodological approach of this study were not expected to deliver robust results. Nevertheless, this exploration of the role of accounting in action, of the way budgeted performance measures contribute to organizational control, has resulted in several conclusions and suggestions that can lead to an increased understanding. It has also addressed several points that should be discussed further. Two additional insights are discussed in the following section: the feed-forward of formal control, and differences in information use.

Feed forward control

It appears that operational performance reports are often used to evaluate and influence *future* instead of *current* processes and budgets.

Control theory often assumes that status reports are used for the evaluation of the achievements in the current budget period¹⁸⁰; that they are an intertwined process of influencing operational processes with the purpose of ensuring achievement of organizational objectives and performances. The case study findings indicate that the actual applied control scheme often does not function as a mainly cyclic process, but as a longitudinal process; as a process of evaluating achieved performances for influencing the next period budget and processes¹⁸¹.

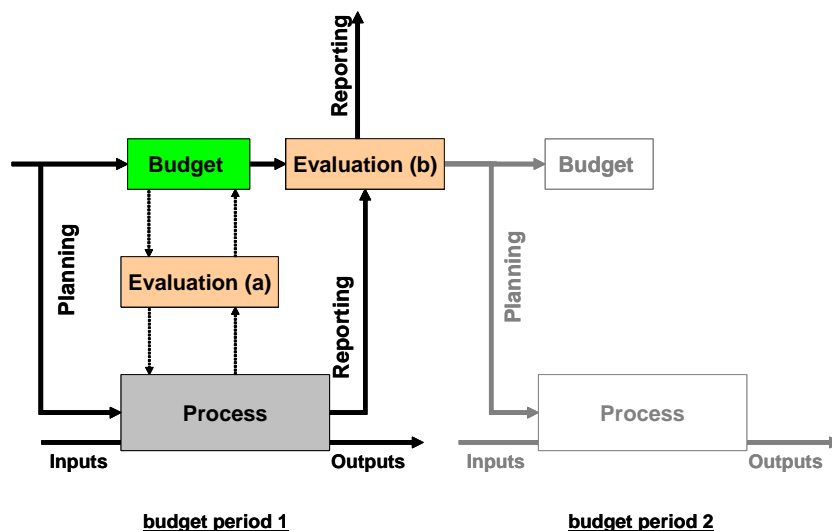


Figure 10 Evaluation of budget and process

¹⁸⁰ Evaluation (a) in Figure 10.

¹⁸¹ Evaluation (b) in Figure 10.

Figure 10 illustrates this mechanism. Reports on actual performances are often used to evaluate the next period budget and sometimes to change future operational processes. Budgets therefore appear to be based more on previous operational budgets and the forecasted consequences of current achievements, than guided by a top-down process of translating organizational strategy and objectives into action.

Individual case studies reveal more detail on this evaluation process. It appears that evaluation in order to change future processes and budgets is mainly seen in the Welfare Payment and Sewerage case¹⁸². Both case studies relate to a businesslike context, indicated by specific objectives and low levels of task uncertainty. In a less businesslike control context the control processes appear to differ. In the Economic Policy and Spatial Planning case studies, decisions on (change of) budgets and processes seem to relate more loosely to this evaluation process. Setting performance targets seems to be based less on reports of actual operational achievements¹⁸³. As a consequence, future budgets seem to be mainly based on the evaluation of current budgets. However, this tentative analysis needs to be researched further before firm conclusions could be drawn.

Performance information use

The cases provided some additional insights into the differences in perception of the perceived level of quality of information use between the top of the organization and the operational level. The Welfare Payment and Economic Policy case study, for example, demonstrated situations in which operational managers perceived a higher level of quality than top management and politicians. The Sewerage and the Spatial Planning case studies demonstrated a reverse situation. Here top management and politicians perceived the quality of information higher than operational management. However, often top management and politicians did not seem to use this information. Some more detailed interpretations can be made about this point. The Welfare Payment case, for example, demonstrated the relevance of performance information for organizational control. Process control is emphasized, and process-related information is regarded as important. Operational management is recognized as the driver of the process-related information requirements; they are involved in the process of continuously improving management information. Operational management appeared to be quite satisfied with the available information. Operational performance score cards had been developed and actual performance information was perceived by these managers as being increasingly sufficient, accurate, and timely. Higher in

¹⁸² Both case studies differ significantly on this subject. In the Welfare payment case study, the evaluation of operational performances (i.e. increase of welfare payments) results in changes in future processes (adjustments in special welfare) and operational and organizational budgets (changes in performance targets). The Sewerage case study documents that evaluation of operational performances mainly relates to changes in future processes (for example to coordination and communication processes) and to operational planning (reschedule of projects).

¹⁸³ In the Economic policy case study, operational reports contain sparse information about performance variations. Actual information on achieved performances is often not available, and politicians and civil managers perceive performance targets and operational tasks as not directly related. The Spatial planning case findings illustrate that politicians and managers do not often apply performance targets for operational control.

the organizational hierarchy, however, this information was valued less. Top management and responsible politicians expressed the need for more specific reports; the available standard operational performance information was not perceived as fully meeting their needs. Thus, this case demonstrated a situation in which performance-related information was produced by operational managers mainly for the purpose of operational control. This information was valued by these managers, but their superiors valued the usability of this information less.

The Sewerage and the Spatial Planning case studies documented the reverse situation: a higher perceived quality of management information at the top of the organization. The case study reports did not document specific reasons for this effect, but some interpretations can be made. For example, both cases documented the dominant use of projects for the execution of operational tasks. Two aspects of projects-related organisations, in comparison with product-oriented organisations, can be of importance here.

Firstly, authority of decision making in projects can differ significantly from that for products. Decision making in major projects is often directed to the top of the organisation, resulting in the direct involvement of top management and responsible politicians. This aspect is clearly documented in the Spatial Planning case study. Aldermen, Council members, and civil directors participated actively in many projects, ranging from zone planning to zone development.

Secondly, management information of projects can differ significantly from product-related information. The cases documented standard approaches for planning and reporting of both projects and products at an operational level. At an operational level, products and projects are planned and reported by using pre-defined standards and rules, but on an organizational level, both planning and reporting approaches seem to differ. Products appeared to be regularly planned and reported in an aggregated standard form by applying standard rules, but projects were reported often on a more individual basis. Specific information on major projects was documented in all organizational planning and reporting documents.

Combining these two interpretations, top management and politicians seem to be more directly involved in the management of projects than in that of products, and seem to receive more non-standard information on projects than on products. This could explain the relatively higher level of user satisfaction at the top of the organization in these situations.

On the other hand, operational managers have to manage many individual projects, which often cannot be easily aggregated. The Spatial Planning case study documented this challenge most clearly. Operational managers of Spatial Planning recalled the limited availability of management information for managing large numbers of projects. Information to support the operational management of a portfolio of projects was not well developed, which could explain a lower level of user satisfaction at an operational level.

The above interpretations of the differences in perceived quality in the organization give some additional insight into information use, but do not reveal the relationship between the information use and the roles of BPM, or between the information use and the antecedents of the roles of BPM (the control context and the routineness of tasks).

Limitations

The interpretations, suggestions and conclusions in this study must be evaluated by taking into account the strengths and limitations of this research.

The main strength of this study is its combination of theoretical foundation and case-based research methods. The theoretical foundation offers a sound basis for conceptualizing management control and accounting information use. The case research approach offers an analysis of both quantitative and qualitative findings, which was helpful in connecting the open research framework with several theories and empirical findings.

This study also has some serious limitations. A more general limitation is related to the subject of this study: the relevance of budgeted performance measures for management control. The domain reached by management control is huge¹⁸⁴, and formal controls are only a part of the management control devices. But formal controls can not be studied in isolation; they are used by and for people and social and cultural forms of control are always present and relevant in one form or another. And lastly, budgetary control is only one type of formal control and is always operating in socially and politically characterized situations. Researching the relevance of budgeted performance measures for organizational control, and the role of performance measures attached to them, is thus likely to be incomplete or imprecise.

This study is incomplete because of its applied methodology (a more functional explorative case research approach) and focused use of theories (mainly mainstream accounting and organizational theory), and many behavioral scientists will miss the, in their opinion essential, theories (e.g. economics, sociology and psychology) and interpretive analyses. This study is imprecise, among other things, because of its inability to quantify organizational control in general (which is, to my opinion, an omission in management accounting theory), and its choice not to quantify the relative importance of budgetary control in achieving organizational control (which was seen as beyond the scope of this research).

This general limitation is accompanied by some more specific ones. This study has researched one particular organization within a specific timeframe, and composed a static picture of this organization. Limited information is presented on the historical and future developments of the researched organization, and the change in information use through time is not shown. The organization could be going through a process of change, with pertinent influences on this research, without being observed by the researcher. The selection of the organization and the case protocols have paid special attention to this issue, and did rule out major changes, but can not rule out this effect completely.

The study of only four groups of organizational functions researched is another limitation. This has limited this study to some pre-defined important tasks, but leaves many tasks unaddressed. An additional aspect of this selection of one organization, one

¹⁸⁴ It relates to “*all the devices that managers use to ensure that the behavior and decisions of people in the organization are consistent with organization's objectives and strategies*” (Merchant, 1998).

timeframe, and four organizational functions is that findings are hard to evaluate objectively. References to other organizations, tasks, and developments in time, are basically missing. Objective calibration of measurement instruments is therefore replaced by subjective interpretation.