Measuring Police Performance: Exploring the Use of New Public Management Techniques in the Norwegian Police Service

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Abstract
The aim of this study was to investigate the effects of New Public Management (NPM) reforms, in the form of the key performance indicator system PSV (police management tool), on employees in the Norwegian police force, and to, based on the study’s findings, make recommendations for the further development of the PSV system. A bottom-up thematic analysis of interviews with police employees resulted in a nine factor model describing how the PSV system is perceived by police employees. Results show that the use of PSV is associated with several negative side effects. Among these are a shift in focus away from actual police tasks to measurement criteria, reduced willingness to cooperate across police districts, and counterproductive and unethical behavior. These results echo findings from previous international research on NPM’s effects on public sector employees. However, this study also found that although critical of the PSV system, employees in the Norwegian police are aware of benefits of quantitative performance measurement. The results revealed significant differences between employees on different organizational levels, with those on higher organizational levels being more aware of the positive effects, while lower-level employees were more concerned with the negative.

Based on the results, the following recommendations were formulated for the further development of the PSV system: (1) revise measurement criteria, (2) improve communication between upper management and lower level employees, (3) promote focus on task, not numbers, and (4) exercise caution in implementing reward systems based on PSV results.

*Keywords*: new public management, performance management, KPIs, police performance, performance measurement.
Measuring Police Performance: Exploring the use of New Public Management Techniques in the Norwegian Police Service

In July 2013, a committee appointed by the Norwegian Ministry of Justice and Public Security issued a report on the current state of the Norwegian police service. The aim of the report was to analyze the challenges facing the Norwegian police, and to suggest measures to improve problem solving and resource use in the police organization (NOU 2013:9). Among the suggested measures were increased flexibility, increased accountability through key performance indicators and an action plan for responding to failure to achieve organizational goals. These are all typical features of the management paradigm New Public Management. The suggestions in the report hence seem to be based on the assumption that New Public Management is the most effective form of public sector management. However, international research has documented several adverse effects of New Public Management in many areas of the public sector, including the police organization. On this background, the aim of this thesis is to assess the effects of New Public Management implementation in the Norwegian police, as perceived by police employees themselves.

New Public Management

New Public Management (hereafter NPM) can be described as a set of management techniques based on private sector practice, applied in public sector organizations (Lapsley, 2009). There are several descriptions and definitions of what components NPM consists of, the essence being ‘managers, markets and measurement’ (Butterfield, Edwards & Woodall, 2005). One of the most widely cited articles in the public sector literature points to seven key elements, or doctrines, of NPM (table 1). The doctrines somewhat overlap and are not fully consistent (Hood, 1991). For instance, detailed performance management systems intended to help managers monitor and control the professionals, conflict with the private-sector practices such as devolution and flexibility (Hoggett, 1996). Such doctrinal inconsistencies occur because NPM is a collective term for a set of management techniques, rather than one homogenous reform programme (Christensen & Lægreid, 2001).
## Table 1. Doctrinal components of NPM (Hood, 1991)

<table>
<thead>
<tr>
<th>Doctrine</th>
<th>Meaning</th>
<th>Typical justification</th>
</tr>
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<tbody>
<tr>
<td>1. Hands-on professional management.</td>
<td>Active, visible, discretionary control of organizations from named persons at the top, ‘free to manage’.</td>
<td>Accountability requires clear assignment of responsibility for action, not diffusion of power.</td>
</tr>
<tr>
<td>2. Explicit standards and measures of performance.</td>
<td>Definitions of goals, targets, indicators of success, preferably expressed in quantitative terms, especially for professional services.</td>
<td>Accountability requires clear statement of goals; efficiency requires ‘hard look’ perspectives.</td>
</tr>
<tr>
<td>4. Shift to disaggregation of units.</td>
<td>Breakup of formerly ‘monolithic’ units, unbundling of U-form management systems into corporatized units around products, operating on decentralized ‘one-line’ budgets and dealing with one another on an ‘arms-length’ basis.</td>
<td>Need to create ‘manageable’ units, separate provision and productivity interests, gain efficiency advantages of use of contract or franchise arrangements inside as well as outside the public sector.</td>
</tr>
<tr>
<td>5. Shift to greater competition.</td>
<td>Move to term contracts and public tendering procedures.</td>
<td>Rivalry as the key to lower costs and better standards.</td>
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<tr>
<td>7. Stress on greater discipline and parsimony in resource use.</td>
<td>Cutting direct costs, raising labour discipline, resisting union demands, limiting ‘compliance costs’ to business.</td>
<td>Need to check resource demands of public sector and ‘to more with less’.</td>
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Historical and theoretical foundation

The NPM movement began with the implementation of certain management techniques in several European countries and the USA in the 1980’s. These reforms took place relatively independently of each other; only later did academics bring attention to the fact that the reforms had common characteristics, and collectively identify them as ‘New Public Management’ (Gruening, 2001). Although NPM as it is described here rose in the late 1970’s to early 1980’s, it contains features stemming from older traditions and perspectives on public administration. Gruening (2001) gives a comprehensive overview of the contributors to NPM’s theoretical foundation. Among these are public-choice theory, rational public management, and the neo-Austrian school, with its ideas of privatizations and budget cuts. NPM is also influenced by rationally oriented management scholars like Ostrom and Drucker, whereof the latter is especially known for the concept of management by objectives, a management strategy of aligning organizational operations with overarching goals (Drucker, 1995, 2012) Other features of NPM, such as performance management and rationalization of administrative structures, can trace its origin back even further, to the school of classical public management originating among others in Taylor and Weber’s scientific management in the early 1900’s. Hence, when NPM emerged, the basic concepts of the paradigm were not new in themselves, but combining them in the way NPM does, was (Gruening, 2001).

Antecedents of NPM

NPM began to take form in the late 1970’s and early 1980's, with UK, Australia and New Zealand as pacesetters (Hood, 1991; Lapsley, 2009), and has since been adopted by many Western European and North American countries (Pollitt, 1995). Although the modernization of the public sector in OECD countries has had many similarities, there are national differences in the degree and nature of NPM implementation (Schedler & Proeller, 2010). All seven elements presented in table 1 are not equally present in all countries or in all parts of the public sector, but it is argued that many OECD countries will be exposed to some extent by most of them (Hood, 1991). The differences in exposure to the different paradigms lead to differences in NPM practices. For example, the emphasis in Scandinavia has been more on performance management, while it in the US, the UK and New Zealand has been focused more on contractualization of the public services and the improvement of service quality (Pollitt, 1995). Internationally, NPM was implemented somewhat later in the police service than in other parts of the public sector, carrying with it structural changes similar to those in other public sector organizations: organizational de-layering, decentralization and
devolution of operational responsibilities, and control and accountability through key performance indicators and strategic objectives (Butterfield et al., 2005).

Several societal and economical factors in the late 20th and early 21st century are thought to have contributed to the popularity of NPM. Among these are the liberalization of the Eastern Block, the impact of large international corporations such as Microsoft and IBM, the emergence of China and India as major producers and markets (Lapsley, 2009), as well as the 1980’s recession in several western countries (Christensen & Lægreid, 2001). Globalization weakened economic management from a national perspective, thereby making policy makers eager for a more efficient public sector – as is a main purpose of NPM (Lapsley 2008; Lapsley 2009). This view that NPM is attractive to the public sector because it is a tool to improve performance, takes a technical-rational perspective on management (Hoque, Arends & Alexander, 2004). However, research indicates that the technical-rational theories alone cannot explain the motives to use NPM (Feldman and March, 1981; March and Olsen, 1989). An alternative, or rather complementary, theoretical framework for explaining the popularity of NPM is legitimacy theory. From this perspective, NPM is applied not to achieve efficiency, but in order for the public sector organization to legitimize itself to external institutional factors such as electorate, citizens, government and media (Broadbent and Guthrie, 1992; Deegan, 2002; Lapsley, 1999). The organization’s need to legitimize its practices can stem from both direct and indirect external pressures and from internal uncertainty (DiMaggio & Powell, 1983). In the case of internal uncertainty, implementation of NPM is thought to be an attempt to model or imitate other public sector organizations that are perceived to be legitimate (Covaleski & Dirsmith, 1988; Hoque et al., 2004). The technical-rational and legitimacy perspectives are complementary, and to combine them enables a more holistic approach to understanding the appeal of NPM to public sector organizations (Ansari & Euske, 1987; Carpenter & Feroz, 2001; Hoque & Hopper, 1994). The legitimization aspect might be especially potent in the police service, as this part of the public sector is under great public scrutiny. Research have in fact found that features from both the technical-rational perspective and legitimacy theory prompted the implementation of NPM in the Australian police service (Hoque et al., 2004).

**NPM in Norway**

The implementation of NPM practices in Norway began later, and was less prominent, than in many other European countries. One reason for this is that Norway at the time of NPM’s rise did not have an economic crisis creating pressure for public sector reforms
In addition, Norway has been, and is, characterized by a strong belief in an interventionist and planning state with a large, tightly controlled public sector. In this sense, the Norwegian work life model is culturally incompatible with the international criticism of the public sector (Olsen, 1996, cited in Christensen and Lægreid, 2001). According to the transformative perspective on administrative reform, the cultural norms, traditions and values of political-administrative systems effect the process and effects of reform (Christensen & Lægreid, 2001). In Norway, the state and public sector has been characterized by a strong state, mutual trust between political and administrative leaders, peaceful cooperation, strong workers’ unions, slow changes and a de-emphasis on economic factors in civil service. From a transformative perspective, this can explain why NPM reforms in Norway were implemented slower, more reluctantly and in a modified version compared to other countries (Christensen & Lægreid, 1998; Christensen & Lægreid, 2001). Another contributing factor might be that the forceful implementation of reforms is more likely in two-party political systems, than in multiparty systems such as the Norwegian (Christensen & Lægreid, 2001). An example of the modified NPM in Norway is the use of management by objectives, which has been labeled a “soft” form of NPM contracting, compared to that in for example New Zealand (Christensen & Lægreid, 2001).

NPM in the Norwegian Police. In spite of the above mentioned incompatibilities of NPM and the Norwegian public administration, NPM reforms have been implemented in several public sector organizations, like the Norwegian school system and health service. NPM techniques have also been applied in the Norwegian police service, for example in the form of reforms on performance measurement and management (Vatne & Norheim, 2013). A noteworthy example of NPM reform in the Norwegian police, is the implementation of the Police Management Tool (hereafter PSV), a key performance indicator (hereafter KPI) system developed by the Norwegian National Police Directorate (hereafter POD) in 2012. This will be the focus of this thesis when exploring NPM measures in the Norwegian police.

PSV. PSV is a computerized system for monitoring police operations and results. It was developed as a means to improve management in the Norwegian police, and to enable a more knowledge based, rather than incident based, management. The development, headed by the Governance and Management Section of POD, started in the fall of 2011. Implementation in the police districts started in the spring of 2012. At this time, many of the KPIs included in

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1 See appendix A for an overview of abbreviations and Norwegian translations of terms used in this thesis.
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PSV had already been in use in the police districts as performance measurement criteria for several years.

At the core of PSV are 23 KPIs, which all police districts are measured on. These include percentage of crimes solved, absence due to illness, number of controlled vehicles and number of days spent to complete cases (NOU 2012:14). Special units, such as the National Criminal Investigation Service, the Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime, the International Police Immigration Service, and the Central Mobile Police Force use modified versions of PSV where the KPIs are adapted to the units’ tasks. The KPIs for police districts were determined partly in cooperation between POD and the Ministry of Justice and Public Security. Other measurement criteria were set by the Norwegian government and parliament. Several of the measurement criteria predate PSV, and have been measures for quantifying police work in Norway for several years prior to the system’s development.

PSV has three main functions: a planning function for goals and action plans, an operational function for logging the district’s operations, and a reporting function for further communicating on goals and operation not covered by the standard KPIs (A. Gloppen & B. T. Norheim, personal communication, December 16, 2013).

Planning: Directions for the operations of the Norwegian Police come from several sources. Instructions from POD, the Director of Public Prosecutions, and the government all impact the management of the police districts. A central feature of PSV’s planning function is gathering all such instructions in one place, in order to simplify planning and goal setting. PSV thus contains all central documents related to management of the Norwegian police. This “rulebook” forms the basis for planning the districts’ operations. With this as the foundation, the police districts analyze local challenges and criminal development, in order to set goals for the districts’ performance on the different criteria measured by PSV. Goals on some of the KPIs are centrally dictated, while most are adapted locally. The districts’ goals are entered into PSV, along with risk assessments and action plans for reaching the set goals. Results on the KPIs are also entered in PSV, and are available for system users, so that planning and analysis can more easily be based on previous results and challenges. To increase accountability for results, who is in charge of the different planned measures is also entered into the system.

After the police districts have entered their goals, and means to reach them, into PSV, negotiations with POD follow. Representatives of the police district, typically the police chief and other personnel he or she chooses, meet with representatives from POD to discuss the
districts plans. Through negotiations with POD, the final action plans and KPI goals for the
district are determined. One object for POD in this process, is to encourage the police district
to set ambitious goals on target areas (A. Gloppen & B. T. Norheim, personal communication,
December 16, 2013).

Operational. This part of PSV has the same structure as the planning function,
showing the KPIs, with goals and action plans to obtain them. The operational part of the
system functions as a work log, where the districts record their operations and
accomplishments. The districts are required to comment on goals and operations in the
operational function every four months, but POD recommends that they do so more often, in
order to monitor their own progress. An important feature of the operational function is that it
helps monitor connections between applied measures and results. For example, Oslo police
district used PSV to document changes in occurrence of home invasions when resources was
allocated to and from this target area (A. Gloppen & B. T. Norheim, personal communication,
December 16, 2013). Such use of the system allows the police to make more qualified
assumptions about the effects of different measures.

Reporting. This part of PSV is for communication on issues not covered by the KPI
structure in the planning and operational parts of the system. Here, the organization can enter
or request information on issues such as economy, staff, immigration issues and others. The
reporting function can be adapted according to the organization’s needs, but as the districts
are already required to report on a number of KPIs in the planning and operational parts of
PSV, POD requests that the organization is cautious not to request to much additional
information in the reporting function (A. Gloppen & B. T. Norheim, personal communication,
December 16, 2013).

Further development of PSV. POD is planning further development and alterations to
PSV over the following years (A. Gloppen & B. T. Norheim, personal communication,
December 16, 2013). One planned alteration is adding parameters for economy to the already
existing KPIs. Another goal is to use the PSV’s analytical properties to establish best practice
routines for dealing with different types of criminality. For example, analysis of the
connection between results and applied measures directed at for instance burglary, will be
used to establish routines for what measures to apply in the future to target this issue. POD
also intends to extend the amount of qualitative reporting – that is, reporting not only on
numbers and KPIs, but qualitatively on what measures or strategies were applied, and why.
POD have received feedback from the police districts requesting fewer, more clearly defined
goals. As a consequence of this, POD is planning to assess and possibly modify the KPIs of
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PSV. Another intended development to enforce PSV, is to establish a system for punishment and reward based on achievement on PSV results. At the same time, POD tries to encourage the police districts to set ambitious goals for performance. For the districts, this implies a greater risk of not reaching the set goal, than if the goal were set based on what the districts expect to attain. Herein lies a possible conflict of interest, as enforcing stricter consequences based on PVS results may make the districts more reluctant to set high goals. POD also wishes to increase police employees’ awareness of PSV’s properties as not only a tool for reporting results to upper management, but as a tool for planning and self-monitoring within the districts.

**Future NPM reform.** The future appears to hold further NPM reforms for the Norwegian police. Investigations in the aftermath of the terrorist attacks in Norway in July 2011 revealed several shortcomings in the functioning of the Norwegian police force. In response to this, the Norwegian government in March 2012 appointed a committee to assess the challenges facing the Norwegian police, and to suggest measures to improve the organization’s functioning. The result was a report titled *One Police – Prepared to Meet the Demands of the Future,* issued in July 2013 (NOU 2013:9). The report proposes two major reforms of the Norwegian police: a structural reform of the police organization, and a quality reform aimed at improving knowledge and effectiveness in the police work. The report suggests that the quality reform is achieved through measures such as standardized procedures and report systems, increased accountability through KPIs, and action plans for responding to failure to achieve organizational goals. More specifically, the suggested reform includes:

- Improving routines for performance measurement and analysis
- Establishing KPIs for all of the organization’s core tasks
- Performing regular comparison of results within the organization
- Establishing more clearly defined goals, set by management
- Enforcing consequences for failure to meet organizational goals

Such techniques are all typical of the NPM tradition, and largely correspond to the planned further development of PSV. This indicates that in spite of a slow start, NPM has found solid foothold in the administration of the Norwegian police organization.

**Effects of NPM**

Although NPM is widely acclaimed and adopted, there have been few large-scale evaluations of its effects on organizational outcomes. As Pollitt (1995) points out, it is a paradox that while NPM techniques stress the importance of measurable outputs, the outputs
of NPM reforms themselves have gone largely unevaluated. The bulk of existing research on the topic does however indicate that NPM does not fulfill its promise of efficiency and effectiveness in public sector processes and results (Christensen & Lægreid, 2001; Pollitt, 1995). Meanwhile, large-scale evaluations are few, and there are several methodological problems with evaluating the effects of NPM on organizational output (Pollitt, 1995):

1. *NPM reforms are usually multifaceted.* Therefore, it is difficult to establish what element of the reform caused the observed effect.
2. *At the same time as NPM reforms, there are often other changes in the political or administrative environment going on as well.* Observed effects may have been caused by these changes, not the NPM reforms.
3. *What is the baseline against which one evaluates the outcomes of NPM?* The organization’s performance before implementing NPM may not be appropriate as a baseline, since the performance is likely to have changed over time due to other factors, regardless of NPM.
4. *The politico-organizational context must be taken into account.* A reform that is successful in one context is not necessarily successful in a different context.
5. *It is difficult to define and measure the costs and benefits of NPM programs.*
6. *What criteria should be evaluated?* Measuring the effects against the stated goals of the reform means that the unintended effects go unnoticed. The goals may also prove difficult to operationalize.

An alternative approach to evaluating NPM is to investigate its effects not on organizational output, but on the public sector employees themselves. As effects on employees are likely to affect both economic results and the service provided to the sector’s clients, this in an important area of research from any perspective. Yet, it has received relatively little attention. While most research on NPM has focused on either performance results or the management process, there has been less research on how NPM impacts the public sector managers and professional themselves, and how they carry out their roles (Butterfield et al., 2005). Among the studies exploring this topic, some have found that NPM leads to positive outcomes for managers and professionals. One study found that NPM techniques allowed middle-managers in the UK National Health Service to be more proactive, with better opportunities to plan and more control over their staff (Currie & Procter, 2002). Others have found that professionals used role expansion and performance management resulting from NPM to enhance their professional status (Brooks, 1999; Casey & Allen, 2004).
However, adverse effects of NPM have been widely documented. In the UK, the implementation of a performance indicator stating that patients should be treated within four hours of admission to the accident and emergency unit of hospitals, has allegedly lead to a practice of unwillingness to admit patients if they cannot be treated within the appointed timeframe (Campbell, 2008). It has been found that centrally dictated targets – a typical NPM feature – restrict the autonomy of public sector managers (Currie, 1999; Hoque, Davies & Humphries, 2004). Research has also shown that detailed performance indicators can lead to inflexibility, goal distortion and data manipulation (Butterfield et al., 2005; Woxholm, Holgersson & Dolmén, 2007). In 2012, two criminologists, one of whom a former captain in the New York Police Department, published a book on the effects of the management strategy Compstat – a typical NPM system based on computerized data, crime analysis, and holding middle-management accountable for results (Eterno & Silverman, 2012). The book, based among others on surveys with New York police officers, describes a culture of widespread data manipulation with serious consequences for both police and citizens. An example from closer to home is found in a Swedish study of the police’ work against drug crime The results showed that KPIs on “uncovered offences”, lead to manipulation of numbers, for instance by reporting cases as drug offences although no drugs had been found on the suspected person (Holgersson & Knutsson, 2011). NPM implementation has also been found to spark the emergence of subcultures resisting bureaucratic control (Butterfield et al., 2005; Kitchener, Kirkpatrick & Whipp, 2000). In the UK, such resistance has become prominent, with several UK police forces going as far as to boycott the use of performance indicators (Lapsley, 2009).

The negative effects of NPM techniques were a main topic of discussion at the UK 2007 National Police Conference (Lapsley, 2009).

Broadening of roles is a well-documented effect of NPM. The role of the professional has been found to expand through added features of management, resulting in a hybrid “practitioner-manager” role (Adams, Lugsden, Chase, Arber, & Bond, 2000; Casey & Allen, 2004; Butterfield et al., 2005). Several case studies have also found a tendency for NPM to lead to a broadening of the middle-manager role (Butterfield et al., 2005). That is, middle-managers under NPM have increased responsibilities for managing people, performance, finance and business strategy. It is however uncertain to what extent the managers have the ability and motivation to deal with this role expansion. Studies indicate that they may lack the expertise, motivation, incentives and resources to handle the added responsibilities (Edwards & Robinson, 1999, 2001; Hoque et al., 2004). Hence, role expansion has been found to lead to role overload, conflict and stress, among others in first line managers in the UK police service.
The same study found that NPM’s demands for routine monitoring and control of performance indicators lead to police sergeants becoming more internally focused, having less contact with their subordinates and being less aware of what was going on “on the ground” (Butterfield et al., 2005). The control and performance indicator systems did not lead to better planning or control of subordinates. While the sergeants could hold the constables accountable for their results on performance indicators, the way these results were achieved was mostly unsupervised. In addition, the increased bureaucracy created an environment in which negative subcultures and ‘the informal organization’ became highly active. Other research has argued that NPM leads to a ‘compliance culture’, in which officers feel pressured to meet targets – whether they are sensible or not, where serious charges are made against minor trivial acts, and where the focus on performance indicators overshadow strategic management (Lapsely, 2009).

There has been less research on the topic on the Scandinavian police service, but the results from several Swedish studies echo the findings from international research. The findings indicate that NPM performance indicators can be counterproductive, because they lead to a focus on reaching the measured criteria, rather than what the criteria is intended to measure (Holgersson, 2005, 2007; Holgersson & Knutsson, 2008). For example, one study investigated the Swedish police’ work to reduce alcohol-induced traffic accidents. It was found that measuring this work in number of controlled drivers lead to controls being conducted at times and places when drivers being intoxicated were unlikely, as the KPI only stressed number of controls (Woxholm et al., 2007). In Norway, studies of NPM effects are scarce. One relevant study is a 2012 master thesis targeting management by objectives in Hordaland police district (Valland, 2012). The study concludes that overarching goals, operational goals, and KPIs are too loosely connected, that the applied KPIs does not sufficiently cover the tasks of the police organization, and that the performance measurement system does not facilitate cooperation between organizational units. Although little research has been conducted on NPM in the Norwegian police, international findings about its effects has sparked a debate about applying further NPM measures in the planned quality reform of the police organization. Critique of NPM implementation in the Norwegian police service has mainly been directed at the implementation of the PSV system (NOU 2012:14; Politiets kriminalitetsforebyggende forum, 2013). Professor of police science at the Norwegian Police University College, Johannes Knutsson, recently directed criticism at the current KPIs used in
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PSV to assess police performance (Knutsson, 2014). Two recent feature articles in the Norwegian financial newspaper Dagens Næringsliv also address the topic of NPM in the Norwegian police; Anne Lise Fimreite, professor of political science at the University of Bergen, cautions against the NPM approach to solving large, complex societal issues such as climate, health and national security. She points to fragmentation and conflicting demands on leaders as examples of negative consequences (Fimreite 2014). Shortly after, Roger Bjørnstad, chief economist at the political science analysis firm Samfunnsøkonomisk analyse, highlighted the incompatibility of NPM with the Norwegian work life model characterized by flexibility and negotiation. The article specifically mentioned the planned police reform, questioning the appropriateness of a NPM approach to quality improvement (Bjørnstad, 2014).

Scope and research question

In sum, the results from previous research are inconclusive as to whether NPM results in the intended effectiveness and efficiency in public sector organizations. A line of research focusing not on organizational output, but on the effects on public service employees, has found many adverse effects of NPM techniques. Prominent among these are:

- Role conflict and stress due to broadening of roles
- Increased focus on measured criteria, at the expense of attention to ongoings and results which are not measured
- Increased bureaucracy
- Subcultures resisting the applied NPM measures
- Counterproductive behavior

This line of research is based largely on interviews, case studies and survey research. These studies suffers from some of the same methodological challenges as research on NPM’s effect on organizational results. It is hard to establish a baseline against which to compare the observed effects, and it can be difficult to establish what exactly caused the effects if there are several NPM reforms at play at the same time, as well as other ongoing organizational changes. The question of causality may be especially challenging when using interviews and surveys, as the informants may have established their own, possibly faulty, beliefs about causality and communicate these to the researcher. It also likely that the effects of NPM will vary between different countries, organizations and organizational levels. For instance, studies have showed that NPM reforms were much more critically regarded by those at middle and
lower levels of the organization, than by senior managers (Auditor General of Canada, 1993; Pollitt, 1995).

**Research questions.** The scope of this thesis is the effect of application of NPM techniques in the Norwegian police service. Due to the previously mentioned methodological issues related to evaluating the effect of NPM on organizational output, this study will focus on employees’ experience of implemented NPM measures. International research shows that as a part of the public sector, the police service is affected by NPM reforms. Studies have also found that the implementation of such reforms can stem from both an economic need for organizational effectiveness, and serve as a means to legitimize the organizations practices. It can be argued that the undesired effects of NPM is a more serious case for concern in the police than in other public service organizations, due to the nature and importance of police work. It is however not clear to what extent the documented effects are present in the Norwegian police. Detailed, centrally dictated targets, like those in the Norwegian PSV system, have been associated with restricted autonomy, inflexibility, goal distortion and data manipulation. Yet, NPM has been practiced more moderately in Norway than in countries such as UK, Australia and New Zealand, where much of the research on the topic has been conducted. It is therefore possible that the results from international studies do not apply to the Norwegian police service. As planned reforms in the Norwegian police service entail further implementation of NPM, this is an important time to assess the effects of NPM on police employees in a Norwegian context. This study aims to do so by exploring how the use of NPM techniques are perceived and described by the police employees themselves. The management tool PSV is chosen as an operationalization of NPM in the Norwegian police. The focus of the thesis can be divided into four research questions, or objectives.

1. The first objective will be to *systematize and describe the effects of KPIs and the PSV system on employees in the Norwegian police*. The interview data will be analyzed, and the results presented both quantitatively and qualitatively.

2. The second objective will be to *investigate whether there are differences in how employees on different organizational levels experience the NPM measures*. Based on existing research, it is expected that employees on higher levels with management responsibilities, will experience NPM differently than those without such responsibilities. It is assumed that higher level employees will experience more stress and role-conflict, and therefore potentially be more negative to NPM measures than lower level employees.
3. The third objective will be to compare the results of this study with previous research, discussing potential similarities and differences. It is expected that several of the same basic effects of NPM implementation found in other countries and organizations, also will be found in the Norwegian police. Norway has however had a different history in regard to NPM implementation than many other countries. On one hand, the incompatibilities between NPM and Norwegian public sector might make Norwegian public sector employees react more negatively to NPM than public sector employees in other countries. On the other hand, the same incompatibilities have lead to NPM measures being applied more moderately in the Norwegian public sector, which in turn may have reduced its potential negative effects.

4. The fourth objective will be to make recommendations for the further use and development of PSV, based on the study’s results. It is expected that the results will not be compatible with all the planned measures for development of PSV and police management described by POD and the Ministry of Justice and Public Security’s 2013 report. Given that the results of this study corresponds to previous findings, further NPM reforms may not be recommendable.

Method

Data

The data collection was conducted over a four year period from 2009 to 2012, as part of an ongoing research projects lead by the research department of the Norwegian Police University College. The data material consists of 89 semi-structured interviews with police personnel from all of Norway’s 27 police districts. The informants are a strategic selection, representing three organizational level; level 1) investigator, level 2) crime investigation officer (hereafter CIO), and level 3) police chief. Table 2 shows the distribution of informants from the different organizational levels in each district. From each district, except one, at least one employee from each level was interviewed. One district was significantly larger than the others and is therefore represented by eight informants, while the other districts are represented by three or four.

The informants were asked open-ended questions about their perception of the quality of criminal investigations in their district, phrased as follows:

1. Describe what you today see as functioning well in the investigative work of this district. We call this the strength of the investigative work.
2. Describe what you today see as not functioning well in the investigative work of this district. We call this the weakness of the investigative work.

3. Describe what you today see as opportunities to improve the quality of the investigative work of this district. We call this the opportunities of the investigative work.

4. Describe what you today see as threats to improving the quality of the investigative work of this district. We call this the threats of the investigative work.

The questions were based on the SWOT (strengths, weaknesses, opportunities and threats) framework, a commonly known tool for strategic planning, typically used to evaluate business projects and ventures (Hill and Westbrook, 1997). The SWOT categories can be divided into positive and negative, strengths and opportunities being positive, and weaknesses and threats being negative. At the same time, strengths and weaknesses refer to the current situation, while opportunities and threats refer to the future. It is also common to divide the dimensions into internal and external factors, but this distinction was not made in this study.

The SWOT structure was chosen because it encourages the informants to reflect upon many different aspects of the subject, whilst still allowing an open interview form. In addition to the four main questions, the interviewers used follow-up questions to make the informants clarify or elaborate upon previously mentioned topics. Care was taken by the interviewers not to introduce new topics through follow-up questions, as this could bias the data. Two interviewers were present for each interview. The main interviewer was the same each time, ensuring consistency in the way the interviews were carried out.

Table 2. Number of informants from the different organizational levels (N=89)

<table>
<thead>
<tr>
<th>Level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Investigator</td>
<td>30</td>
</tr>
<tr>
<td>2. CIO</td>
<td>30</td>
</tr>
<tr>
<td>3. Police chief</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>89</strong></td>
</tr>
</tbody>
</table>

The interviews were recorded, and later transcribed. The transcriptions are verbatim, including everything that is said during the interview, but not non-verbal communication such as gestures and facial expressions. Sounds such as laughter and coughing were also excluded. The transcribed interviews were then unitized, a process consisting of dividing whole interviews into smaller units of information. In the unitizing process, a unit, or statement, was defined as “a part of a sentence, a whole sentence, or several sentences expressed by the interviewee, that constitutes a coherent, meaningful point of view that describe an aspect of the work environment” (Hoff, Strausheim, Bjørkli & Bjørklund, 2009, p. 14). In total, the
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interview data consists of 18,929 units. The use of such small units allow for a high level of detail in data analysis. Each unit have been coded on the SWOT and IGLO frameworks. The IGLO model is a four-factor framework structurally similar to SWOT, separating between individual, group, leaders and organization. The average inter rater reliability for the coding on the SWOT and IGLO frameworks are 73.72% and 67.58%, respectively. All units are also coded on organizational level and police districts of the informant.

Limitations of the data. The informants represent a strategic selection of police employees from all police districts in Norway, and are therefore a suitable population for making inferences about the Norwegian police service as a whole. However, most informants, except for the police chiefs, mainly work with investigative police work. The population may therefore not be representative of police employees occupied with operative, rather than investigative, police work. Another issue concerning the representativeness of the data is that the interviews were conducted over a four year period. During this time, the police organization’s use of KPIs and PSV has been in continuous development. Therefore, it might be that the result do not reflect all aspects of the current situation in the Norwegian police.

Procedure

The data material is of considerable size, and contains information about many different topics. The first step of the analysis was therefore to identify the parts of the data material relevant to the study’s topic of PSV or KPIs. It was decided to assess each data unit individually, and select the relevant ones for analysis. The collection of data in some districts started prior to the implementation of PSV. Only including data referring specifically to this system would therefore exclude all data from these districts. As several of the KPIs from PSV was already in use prior to its implementation, it was decided to analyze all data referring to either the PSV system, or the use of KPIs in general without specific reference to PSV. The statements chosen for analysis were hence all those containing information about PSV or KPIs, including how it was applied, whether the informants’ considered it useful or not, and why. Through this process, a smaller dataset was identified for the next stages of analysis. This is the data set on which all further analyses was performed.

The thesis’ first objective is to describe and systematize the informants’ perception of PSV and KPIs. As the object was to convey the experience as perceived by the informants, a non-theory driven inductive qualitative analysis of the data was considered appropriate (Willig, 2008). The data set was subjected to a simplified version of content analysis as described by Braun and Clarke (2006). This method uses an bottom-up approach of reading
and re-reading the material whilst developing a list of underlying themes present in the data. The themes are continuously checked against the data, and refined, until one reaches saturation and no other or additional themes can be identified. The product of the analysis is a content model, or list of themes, describing the data material’s most prominent topics, and their frequencies. As previously research has already identified a set of topics relevant to public sector employees’ experience of NPM, an alternative approach could have been to use a top down analysis, simply checking the data for occurrences of these topics. However, this method does not identify possible new themes found in the data, and one therefore risks missing important information. A bottom-up approach was therefore considered more suitable.

The second objective was to investigate whether there are differences in how employees on different organizational levels experience the NPM measures. This was done by cross-tabulating the informants’ organizational level with the content model developed in the previous stage of analysis, as well as both the SWOT and IGLO frameworks respectively. This generated an overview of the occurrence of the categories of the different models, sorted by the informants organizational level. Following the procedure described by Pallant (2007), chi-square tests were performed to control the statistical significance of the observed differences. In the data set, the information units vary in length, and whether the interviewer asked follow-up questions about a certain topic affects the number of units contain information on that topic. Because of this, the number of informants addressing a given topic was considered to might be more informative than the number of units addressing it. However, to achieve statistically significant results, it is desirable to have a larger population size than the number of informants in this study. This could however be achieved through analysis on unit level, as the number of units as far greater than that of informants. The between-group analysis for both content model, SWOT and IGLO were therefore performed at both informant and unit levels.

The third objective was be to compare the results with previous research, and the fourth to make recommendations for the further use and development of PSV, based on the study’s results. These objectives are not approach through analysis per se, but are addressed in the discussion following the presentation of results.
Results

Occurrence of statements about KPIs and PSV

55% of the informants in the original data set mention KPIs or PSV in their interviews. Only in three districts do no informants mention these topics. When analyzed by number of informants, there are no significant difference between the organizational levels in occurrence of statements about KPIs or PSV. However, when analyzed at a unit, rather than informant level, an effect is evident. As table 4 shows, although approximately as many informants from the different levels mention KPIs, the extent to which they talk about KPIs or PSV varies significantly according to organizational level.

Table 3. Total number of informants from the different organizational levels, compared to number of informants from different organizational levels mentioning KPIs or PSV

<table>
<thead>
<tr>
<th>Level</th>
<th>1. Investigator</th>
<th>2. CIO</th>
<th>3. Police chief</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>30</td>
<td>30</td>
<td>29</td>
<td>89</td>
</tr>
<tr>
<td>Mentioning KPIs*</td>
<td>16</td>
<td>18</td>
<td>15</td>
<td>49</td>
</tr>
</tbody>
</table>

Table 4. Number of statements about KPIs or PSV from each organizational level (N=785)

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Investigator</td>
<td>136*</td>
<td>17%</td>
</tr>
<tr>
<td>2. CIO</td>
<td>247*</td>
<td>32%</td>
</tr>
<tr>
<td>3. Police chief</td>
<td>402*</td>
<td>51%</td>
</tr>
</tbody>
</table>

*Significant difference between levels 1 and 2 (p<.01), 1 and 3 (p<.01), and 2 and 3 (p<.01)

Content model

Thematic bottom-up analysis conducted for this study resulted in a content model consisting of nine themes, or topics, related to the use of KPIs in the Norwegian police. These are shown in table 5. Each of the content categories are describes in further detail below, illustrated with example statements from the interviews representing each category. Appendix B shows the original quotes in Norwegian.
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Table 5. Main themes in statements about KPIs or PSV. N=49

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of informants mentioning theme*</th>
<th>Percentage of informants mentioning theme**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Measurement criteria</td>
<td>26</td>
<td>53%</td>
</tr>
<tr>
<td>2 Communication with upper management</td>
<td>20</td>
<td>41%</td>
</tr>
<tr>
<td>3 Too much focus on KPIs</td>
<td>18</td>
<td>37%</td>
</tr>
<tr>
<td>4 Prioritizing the wrong cases</td>
<td>15</td>
<td>31%</td>
</tr>
<tr>
<td>5 Benefits</td>
<td>15</td>
<td>31%</td>
</tr>
<tr>
<td>6 Strain</td>
<td>12</td>
<td>24%</td>
</tr>
<tr>
<td>7 Cooperation between districts</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>8 Counterproductive or unethical behavior</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>9 Procedure</td>
<td>36</td>
<td>73%</td>
</tr>
</tbody>
</table>

*The sum of informants exceeds 49 because most informants mention more than one theme. **The sum of percentages exceeds 100% because most informant mention more than one theme.

1. Measurement criteria. Discussed by 53% of the informants who mention PSV, the measurement criteria is one of the most predominant themes in the data material. This refers to statements about the choice of KPIs, and how they are operationalized and measured. One reoccurring issue is the time limit for completion of cases. Several informant point out that it is problematic to keep within the time frame on cases requiring DNA analysis, as the waiting list for an analysis can be as long as nine months.

«So we hope we don’t get a case, a case with a deadline, where for example a knife has been used, so that we have to do a DNA analysis. Then your KPIs goes out the window right away.»

A consequence of this is, according to the informants, lowered motivation and reduced incentive to prioritize cases requiring DNA analysis.

Several informants discuss whether the measurement criteria correspond to what they perceive as quality in investigative work. It seems to be the general opinion among the informants mentioning the measurement criteria, that today’s KPIs are insufficient in capturing what constitutes “high quality policework”. This is, according to the informants, because PSV focuses on what is easily quantifiable and measurable, rather than what truly defines quality. It is pointed out that serious and highly prioritized cases such as murder and sexual offences, often are complex. Therefore, the quality of investigations in such cases are especially prone to be misrepresented by the use of simple measurement criteria, such as those in PSV.
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“It’s very difficult to measure for example sexual offences. You can of course measure case processing time, you can measure percentage of cases solved, but it’s not a given that this says anything about how good the investigation has been.”

“I think that POD through their KPIs have chosen to do what Colonel Arne Pran once said, that when what is important cannot be measured, one makes what can be measured important.”

Although several point out that not all important aspects of investigative work are in fact measurable, the informants who express discontent with the current PSV often suggest alternative ways to operationalize and measure police work. Among the suggestions are separate KPIs for different types of criminality, to prevent prioritizing of cases that are “easy” to solve in order to reach KPIs. This could entail allowing for longer time spent on complex, time-consuming cases than on simpler ones. Informants point out that using measurement criteria that capture the actual amount of work and effort put into a case, rather than just the number of days from start to finish, would be both more motivating and a better representation of performance. Many suggest improvement by the use of more qualitative measures. For instance, instead of just counting the number of controlled vehicles, one should document what the control entailed; why was the car stopped, what was the result of the control? This prevents meaningless use of resources by stopping vehicles for no purpose other than to obtain the KPI.

“It’s decided that this many vehicles are to be controlled each year. And it’s almost like, you can potentially just wave them in, and let them drive on, and then you’ve controlled one.”

“I’m thinking that maybe we should work with traffic in a different way, instead of standing by the roadside stopping Granny on her way to the co-op to buy milk, and maybe stop her on the way home just to make sure, and then you have two controlled [drivers]. (…) That doesn’t do the police any good.”

Other suggestions include adding KPIs for crime prevention, and incorporating a prognosis function into PSV, to enable better planning. Also, several informants express that they want KPIs to be more open to be adapted locally, to better reflect the crime levels and focus areas of the different districts.

2. Communication with upper management. This theme refers to the communication between the police districts and the upper management, on matters related to PSV. ‘Upper management’ typically refers to POD, but can also point to The Director of Public Prosecutions, government or other organs the police take directions from. Mentioned
by 41% of the informants, this is a commonly occurring theme in the data set. When talking about communication with upper management, many mention the procedures for following up PSV results. It is pointed out by several informants that there is a lack of consequences or response from POD both when a district fails to meet KPIs, and when they perform better than what is expected.

«And it’s that lacking, somewhat lacking, handling of consequences that I think the management should be challenged more on. That is, what products one delivers. (...) That there’s an openness to being held accountable in a slightly different way.»

«It’s something to think about that you’re not rewarded for the big, serious organized crime cases, in what the police chief is held accountable for at the dialogue meeting with POD.»

Yet other informants are satisfied with the dialogue with POD, and feel that they are given adequate guidance, although the responsibility for reaching KPIs ultimately lies with the district itself.

«Then we had to go home and do our homework again in some areas, after the dialogue with the management last fall. And we thought that was fine, because that’s the point of having a management dialogue. That they don’t just sit there and nod and say “Until next time” and go home, but that they actually started to point out whether it was in keeping with the trend report.»

Another recurring aspect of this theme is the fact that the police districts are given directions by several organs on how to prioritize, and that these directions are reflected in PSV. These directions do not always coincide, and they are often not specific enough, resulting in a larger number of prioritized areas than the districts are able to manage. Several informants express a wish for fewer prioritized areas, as they do not have the resources to focus on all the priorities defined by PSV.

«I perceive POD and Director of Public Prosecutions to be on somewhat different tracks, considering what demands they have.»

«They think that we should prioritize everything that’s criminal, but you can’t do everything. You have to choose.»

Others express a wish for less upper management control and more autonomy in deciding what areas to prioritize in ones own district. This is related to the statements under the theme measurement criteria about locally adapted KPIs. Another recurring issue when talking about communication with upper management about PSV, is resources. Several informants stress the importance of aligning resource allocation with the KPIs and prioritized areas.
«There really is a connection between management and leadership and resources and people. That connection is there. If you dare to lead and be clearer on how you manage your resources according to the prioritized goals.»

3. **Too much focus on KPIs.** 37% of the informants talk about an excessive focus on KPIs, at the expense of the quality of the investigative work. Many express worry for the tendency to hurry the investigation to meet the time criteria, as it increases the risk of not investigating the case thoroughly enough.

«I’ve seen enough examples of police districts in the media proclaiming «the case was solved in twenty-four hours». And I know that in several of these cases, one has overlooked important things that should have been further investigated, simply because one’s been so set on running it through quickly».

«What I see in smaller places, is that they can have many, three thousand, theft cases that they’ve gotten through the system quickly², and then they’re measured on that. And then assaults, general assaults against adults, are poorly investigated. Because it’s the numbers that count. I think that’s entirely wrong.»

It is emphasized by several informants that retaining quality in their work requires the ability to at times ignore KPIs.

«I think it’s important to have the ability to look away from these numbers when it comes to investigation. We, we mustn’t become so ‘Yes, now we have to hurry and get it done like this and that, because we’ll be measured soon’.»

This theme is linked to the previously discussed theme of **measurement criteria**, as it seems that the informant link the use of quantitative KPIs are to the shift in focus away from the quality of the investigative work.

4. **Prioritizing the wrong cases.** This theme is mentioned by 31% of informants. The theme is related to **measurement criteria**, but focuses on how the criteria facilitates prioritizing, rather than what the informants think about the criteria per se. Several informants say that less serious, routine cases are prioritized over more serious crimes, because that is most beneficial to reach the PSV indicators. There is a concern that PSV facilitates a prioritizing of cases that does not coincide with what cases the informants perceive as more important.

«I feel that, to me, that they come, that domestic violence cases come second to these bar fight cases, I think that’s very wrong.»

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²Cases such as theft are often routinely closed without investigation. Prioritizing such cases over cases that require investigation therefore allows a district to process and a large number of cases quickly (Knutsson, 2014).
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It is also pointed out that when PSV encourages focus on specific targeted areas, such as violent offences, the investigative work on other areas suffers.

«It’s the wrong cases that you constantly have on these statistics. Like here, aggravated assault, they are prioritized, and they are highly prioritized, but for a while only that was important. Sexual offences were neglected because assaults had to be investigated.»

5. Benefits. Although many of the statements about PSV are critiques of the system, 31% of informants also emphasize the benefits and positive outcomes of KPIs. Several talk about PSV’s potential as a tool for monitoring one’s own performance. This enables the district to evaluate their work, thereby improving future performance.

«Reporting deviations isn’t for singling out individuals, but for learning. It’s a learning process. That we, reporting deviations on any little thing, that may seem like a bagatelle, but if we, if we do that, it contributes to making us better.»

«And then this is typed into PSV, so that when, we see what the goals are, and then it’s finding the right approaches and measures, and then we do that for a while, and then we see after a while if it has worked. ‘No, this didn’t work’ – then we have to go back and see ‘Should we do something different?’»

Others point to KPIs as helpful to ensure effectiveness, as it gives investigators incentive to complete cases on time. KPIs are also described as a way of improving quality by holding the police accountable for their results. Benefits of PSV as a goal setting system is also mentioned.

«We have an understanding that, that PSV is a management tool. It’s a good control tool, also for team leaders and the head of section, to see whether we’re on our way to reach the goals we have, that the police chief has set.»

Several of the informants who express discontent with aspects of PSV say that they recognize the use of KPIs as necessary. It seems that they do not object to the use of KPIs in general, but rather criticize specific aspects of PSV.

As mentioned under communication with upper management, the police operate on basis of a large set of directions from several different organs. One informant point to the fact that PSV provides a useful way to summarize all these instructions, so that they are manageable and easily available to police personnel on all organizational levels.

«PSV has given us a manageable overview of our goals. Our tasks are clearly defined.»

Another mentioned benefit of PSV is that it facilitates analysis of the crime situation in the district, making the police work more knowledge based.
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«At least for the last couple of years, our work has been organized according to trends and analysis and criminal, or situational analysis. We are more knowledge driven than we were before. Our goals are set on a completely different basis now than they were a few years ago.»

6. Strain. 24 % of the informants mention stress or strain caused by the use of PSV. Included in this theme, is increased pressure and responsibility or change in roles caused by the use of KPIs. It is mentioned by several that centrally dictated targets and pressure to report on results restrict autonomy for investigators, and thereby is harmful to motivation and work environment on lower organizational levels.

«I think there are too many centrally dictated directions that put an unnecessary pressure on investigators.»

Informants state that the role of the middle managers includes managing the amount of such pressure their subordinates are put under. It is pointed out that the pressure from upper management should mainly fall on the middle managers, but that pressure must also be applied to subordinates in order to lead and give directions.

«That pressure should be on the head of section and middle managers.»

It is stated that the middle manager role has been expanded to include more administrative tasks, and that the added responsibilities for reporting results are time-consuming. It is also said that there is a lack of support for middle managers.

«It has become so much, that’s it not done in a flash, answering all these reports, writing all these feedback reports, doing all the controls in PSV, in PAL, you name it. And still be a good leader.»

«As a middle manager, you often feel alone.»

7. Cooperation between districts. The interview data shows that 16 % of informants perceive PSV to influence the cooperation between police districts. The general opinion of the informants talking about this is that separate KPIs for the different districts can be an obstacle when cooperating across district borders. Informants link this to the fact that different districts have different focus areas and budgets, and report results separately, as this gives less incentive for the districts to assist each other.

«We aren’t able to cooperate across police districts, because we are seven units that function almost like benchmarking with regard to KPIs. (...) We’re not interested in lending personnel to other units if it’s not a case that affects my goals.»

Several informants point out that they are less willing to use resources on cases in other districts because PSV only measures the results obtained in one’s own district.
There are some instances, and especially where the goals work counterproductively, as in the case of using resources in neighboring districts, so that’s unfortunate.

To reduce this effect, one informants suggests expanding PSV to include KPIs for number of cases cooperated on with other districts.

8. Counterproductive or unethical behavior. 16% of informants talking about KPIs mention counterproductive or unethical behavior resulting from the use of such measures. One example of such behavior is to register a case as “offender unknown”, instead of sending DNA evidence for analysis, because to wait for the laboratory results will cause the investigation to exceed its PSV time limit. Others talk about falsely coding or duplicating cases in order to meet KPIs. Informants also mention a tendency to “strategically” choose which cases to investigate, depending on what will have the desired effect on PSV results.

“We see that some districts stops with primary cases, and duplicate and have an extreme focus on what generates numbers, short processing time and a high percentage of [solved] cases.”

“These statistics and stuff, they can easily be manipulated, and I think that occurs too. To reach the numbers (…), or please those higher up in the system.”

9. Procedure. 73% of the informants mention procedures related to the use of PSV. Statements in this category describe PSV itself, or practical procedures and routines for using the tool.

“It’s on reduction of theft, it’s on how many assaults you have, it’s on the time it takes to close a case, and percentage of cases solved.”

The category also includes statement about how the informant’s evaluate his/her or other districts’ performance on PSV, when the statement does not contain evaluation of PSV itself.

“We have good results on PSV, we perform well on the KPIs.”

Organizational level differences

Content model. The data from the content analysis was analyzed by organizational level, to investigate whether informants employed at different levels were concerned with the same issues. Table 6 shows the results of this analysis. Table 7 shows the same analysis, conducted at unit rather than informant level. Hence, table 6 shows how many informants on the different levels mention a given topic, while table 7 shows for how many statements they talk about it. Focus is on categories 1 through 8 of the content model, excluding the category Procedure. Statements in this category describe PSV itself, or practical procedures and
routines for using the tool. However, it does not contain information about how the informants evaluate PSV or these procedures. Statements in the Procedures category are hence related to KPIs, and were therefore included in the first stage analysis (tables 3, 4 and 5), which only assessed the extent to which KPIs were mentioned by informants. In this stage of analysis, however, where the goal is to describe the informants’ evaluation of KPIs, this category is not useful, because it does not contain such information. For the further stages of analysis, this category is therefore treated as belonging to the Residual category, and hence excluded from analysis. Residuals are however included in the calculations. This means that the percentages of informants or statements referring to a given theme on either the content model, SWOT or IGLO, is assessed based on the total number of informants or units, residuals included.

Table 6. Percentage of informants (N=49) on different organizational levels mentioning the content model categories

<table>
<thead>
<tr>
<th>Content model category</th>
<th>Level</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (N=16)</td>
<td>2 (N=18)</td>
<td>3 (N=15)</td>
<td>Total (N=49)</td>
<td></td>
</tr>
<tr>
<td>1. Measurement criteria</td>
<td>63%</td>
<td>39%</td>
<td>60%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>2. Communication with upper management*</td>
<td>19%</td>
<td>39%</td>
<td>67%</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>3. Too much focus on KPIs</td>
<td>44%</td>
<td>33%</td>
<td>33%</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>4. Prioritizing the wrong cases**</td>
<td>38%</td>
<td>44%</td>
<td>7%</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>5. Benefits</td>
<td>13%</td>
<td>33%</td>
<td>47%</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>6. Strain</td>
<td>13%</td>
<td>28%</td>
<td>33%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>7. Cooperation with other districts</td>
<td>19%</td>
<td>11%</td>
<td>20%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>8. Counterproductive or unethical behavior</td>
<td>32%</td>
<td>11%</td>
<td>7%</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>

*Significant difference between levels 1 and 3 (p<.05)
** Significant difference between levels 1 and 3 (p<.05), and 2 and 3 (p<.05)
Table 7. Percentage of statements (N=785) from informants on different organizational levels mentioning the content model categories

<table>
<thead>
<tr>
<th>Content model category</th>
<th>Level 1 (N=136)</th>
<th>Level 2 (N=247)</th>
<th>Level 3 (N=402)</th>
<th>Total (N=785)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Measurement criteria</td>
<td>23%</td>
<td>19%</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td>2. Communication with upper management*</td>
<td>16%</td>
<td>13%</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>3. Too much focus on KPIs**</td>
<td>12%</td>
<td>6%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>4. Prioritizing the wrong cases***</td>
<td>8%</td>
<td>8%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>5. Benefits****</td>
<td>3%</td>
<td>8%</td>
<td>20%</td>
<td>13%</td>
</tr>
<tr>
<td>6. Strain*****</td>
<td>3%</td>
<td>6%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>7. Cooperation with other districts</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>8. Counterproductive or unethical behavior****</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>

*Significant difference between levels 2 and 3 (p<.05)
** Significant difference between levels 1 and 3 (p<.01), and 2 and 3 (p<.01)
***Significant difference between levels 1 and 3 (p<.01), and 2 and 3 (p<.01)
****Significant difference between levels 1 and 2 (p<.05), 1 and 3 (p<.01), and 2 and 3 (p<.01)
******Significant difference between levels 2 and 3 (p<.01)
*******Significant difference between levels 1 and 2 (p<.05), and 1 and 3 (p<.01)

In table 6, the number of informants mentioning the different themes appears to be similar across organizational levels for several categories of the content model. The number of informants from each level is roughly the same for measurement criteria, too much focus on KPIs, and cooperation with other districts. In several of the categories, however, there are significant differences. The CIO police chiefs seem to be more concerned with communication with upper management, than the investigators. The difference between investigators and police chiefs is statistically significant (p<.05). Investigators and CIO mention prioritizing the wrong cases significantly more often than police chiefs do (p<.05). Higher level employees talk about the benefits of PSV of KPIs more often than those on lower levels. Significantly more police chiefs than investigators (p<.05) and CIOs (p<.05) mention benefits. More CIOs and police chiefs than investigators talk about strain caused by KPIs. Also, counterproductive or unethical behavior is mentioned more often by investigators than by employees on the higher organizational levels.

3 0.2%, rounded down to 0%
Table 7 shows most of the same tendencies as table 6. Because the number of units is far higher than that of informants, this analysis yields more results that are statistically significant. First, police chiefs make significantly fewer statements about the topic of *too much focus on KPIs* (*p*<.01). The number of statements about *communication with upper management* is significantly higher for police chiefs than for CIOs (*p*<.05). As for *prioritizing the wrong cases*, police chiefs make significantly fewer statements (*p*<.01). In the category *benefits*, investigators make significantly fewer statements than both CIOs (*p*<.05) and police chiefs (*p*<.01), and police chiefs make significantly more statements than CIOs (*p*<.01). CIOs make more statements related to *strain* than do police chiefs (*p*<.01). Lastly, investigators talk more about *counterproductive or unethical behavior* than CIOs (*p*<.05) and police chiefs do (*p*<.01).

**SWOT.** Differences in the perception of KPIs between employees on different organizational levels were as also analyzed by use of the SWOT model. All interview data is coded on the SWOT model categories *strengths, weaknesses, opportunities* and *threats*. How many informants make statements that are coded as each of these, is shown in table 8. Table 9 shows the number of units belonging to each SWOT category. In table 8, there are few differences between both organizational levels and total number of informants mentioning the different SWOT categories.

Table 8. *Percentage of informants (N=49) on different organizational levels mentioning the SWOT categories*

<table>
<thead>
<tr>
<th>SWOT category</th>
<th>Level</th>
<th>1 (N=16)</th>
<th>2 (N=18)</th>
<th>3 (N=15)</th>
<th>Total (N=49)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths*</td>
<td>44%</td>
<td>56%</td>
<td>93%</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td>Weaknesses</td>
<td>75%</td>
<td>78%</td>
<td>73%</td>
<td>76%</td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>56%</td>
<td>72%</td>
<td>67%</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Threats</td>
<td>69%</td>
<td>61%</td>
<td>53%</td>
<td>61%</td>
<td></td>
</tr>
</tbody>
</table>

* Significant difference between levels 1 and 3 (*p*<.05) and 2 and 3 (*p*<.05)
Table 9. Percentage of statements (N=785) from informants on different organizational levels coded as the SWOT categories

<table>
<thead>
<tr>
<th>SWOT category</th>
<th>Level 1 (N=136)</th>
<th>Level 2 (N=247)</th>
<th>Level 3 (N=402)</th>
<th>Total* (N=785)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths**</td>
<td>16%</td>
<td>28%</td>
<td>36%</td>
<td>30%</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>29%</td>
<td>27%</td>
<td>21%</td>
<td>24%</td>
</tr>
<tr>
<td>Opportunities</td>
<td>18%</td>
<td>18%</td>
<td>19%</td>
<td>37%</td>
</tr>
<tr>
<td>Threats***</td>
<td>32%</td>
<td>18%</td>
<td>9%</td>
<td>32%</td>
</tr>
</tbody>
</table>

*Significant difference between strengths and weaknesses (p<.05), strengths and opportunities (p<.01), strengths and threats (p<.01), weaknesses and opportunities (p<.01), and weaknesses and threats (p<.01).

**Significant difference between levels 1 and 2 (p<.01), 1 and 3 (p<.01), and 2 and 3 (p<.05).

***Significant difference between levels 1 and 2 (p<.01), 1 and 3 (p<.01), and 2 and 3 (p<.01).

The only statistically significant difference on the informant level analysis in table 8 is that police chiefs mention more strengths than investigators (p<.05) and CIOs (p<.05). Organizational level differences are more prominent in table 9. This table, illustrating analysis on unit level, shows that investigators mention fewer strengths than both CIOs (p<.05) and police chiefs (p<.05). Police chiefs also talk about strengths significantly more than CIOs (p<.05). The category threats show the opposite tendency, with higher occurrences on lower organizational levels. The number of statements in this category is significantly higher for investigators than for both CIOs (p<.01) and police chiefs (p<.01). Police chiefs also make significantly fewer statements about threats than CIOs (p<.01).

In addition to differences between the different organizational levels, there are also differences in the occurrence of the different SWOT categories in table 9. There are significantly more statements coded as strengths, than as weaknesses (p<.05), opportunities (p<.01) and threats (p<.01). There are also significantly more statements about weaknesses than opportunities (p<.01) and threats (p<.01). Combined, this means that there are significantly more statements about the present state (strengths and weaknesses) than about the future (opportunities and threats).

IGLO. Following the same procedure as for the SWOT analysis, the data was also analyzed by the IGLO model. This framework sorts statements by which aspect of the organization they refer to; individual, group, leader or organization.
Table 10. Percentage of informants (N=49) on different organizational levels mentioning the IGLO categories

<table>
<thead>
<tr>
<th>IGLO category</th>
<th>Level 1 (N=16)</th>
<th>Level 2 (N=18)</th>
<th>Level 3 (N=15)</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>19%</td>
<td>22%</td>
<td>33%</td>
<td>24%</td>
</tr>
<tr>
<td>Group</td>
<td>19%</td>
<td>28%</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Leader</td>
<td>63%</td>
<td>61%</td>
<td>67%</td>
<td>63%</td>
</tr>
<tr>
<td>Organization</td>
<td>88%</td>
<td>94%</td>
<td>93%</td>
<td>92%</td>
</tr>
</tbody>
</table>

*Significant difference between individual and leader (p<.01), individual and organization (p<.01), group and leader (p<.01), group and organization (p<.01), and organization and leader (p<.01)

Table 11. Percentage of statements (N=785) from informants on different organizational levels coded as the IGLO categories

<table>
<thead>
<tr>
<th>IGLO category</th>
<th>Level 1 (N=136)</th>
<th>Level 2 (N=247)</th>
<th>Level 3 (N=402)</th>
<th>Total* (N=785)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual**</td>
<td>3%</td>
<td>2%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Group</td>
<td>4%</td>
<td>7%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Leader***</td>
<td>19%</td>
<td>34%</td>
<td>22%</td>
<td>25%</td>
</tr>
<tr>
<td>Organization****</td>
<td>74%</td>
<td>60%</td>
<td>57%</td>
<td>61%</td>
</tr>
</tbody>
</table>

*Significant difference between individual and leader (p<.01), individual and organization (p<.01), group and leader (p<.01), group and organization (p<.01), and organization and leader (p<.01)

**Significant difference between levels 2 and 3 (p<.01)

***Significant difference between levels 1 and 2 (p<.01), and 2 and 3 (p<.01)

****Significant difference between levels 1 and 2 (p<.01), and 1 and 3 (p<.01)

Table 10 shows the results by number of informants, and table 11 by number of units. The informant level analysis (table 10) shows no significant differences between the different organizational levels. However, in total, there is a difference in occurrence of the different IGLO categories. Significantly fewer informants make statements in the individual category than about leader (p<.01) and organization (p<.01). There are also fewer informants mentioning group than leader (p<.01) and organization (p<.01), and more informants mentioning organization than leader (p<.01).
The unit level analysis in table 11 show the same differences between the IGLO categories as those in table 10, with organization occurring significantly more often than individual \((p<.01)\), group \((p<.01)\) and leader \((p<.01)\), and leader more often than individual \((p<.01)\) and group \((p<.01)\). This analysis also shows differences between organizational levels within the IGLO categories. Police chiefs make significantly more statements related to individual than do investigation leaders \((p<.01)\). As for statements referring to leader, investigators make fewer statements than investigation leaders \((p<.01)\), and investigation leaders fewer statements than police chiefs \((p<.01)\). Investigators also make significantly more statements about organization, than both investigation leaders \((p<.01)\) and police chiefs \((p<.01)\).

**Discussion**

**Prevalence of statements about PSV and KPIs**

The results show that 55\% of the informants in the original dataset \((N=89)\) mention KPIs or PSV when interviewed about strengths, weaknesses, opportunities and threats in the investigative work in their district. Only in three of 27 districts do no informants mention it. It is uncertain why. There are differences in when, and how rigorously, PSV was implemented in the different districts. It may be that the districts from which no one mentions performance management was using this management technique to a lesser extent than other districts at the time the interviews were conducted. The number of informants from each district is considered too small to be reliable for a district-level analysis of the data. That open-ended questions result in such a high prevalence of statements about this topic, indicates that PSV and KPIs are indeed perceived as an important factor effecting the work of police employees.

**Organizational level differences on the content model**

For the analyses on both informant and unit level, the number of informants mentioning the different themes is different across organizational levels for several categories of the content model. The number of informants or units from each level are roughly the same for measurement criteria and cooperation with other districts. In the remaining categories, differences were revealed.

Too much focus on KPIs. The unit level analysis found significantly fewer statements from police chiefs \((p<.01)\), than the other organizational levels on this topic. This category of the content model largely refers to KPIs taking time and focus away from investigations and practical police work. As it is mainly investigators and CIOs who are charged with the actual
practical investigative work, it makes sense that they are more aware of focus being shifted away from these tasks. In addition, administrative tasks like managing KPIs may culturally or traditionally be perceived as a more natural part of the police chief’s role, thereby making police chiefs tolerate far more focus on KPIs before they consider it “too much”.

*Communication with upper management.* For communication with upper management, the informant level analysis found significant differences between investigators and police chiefs \((p<.05)\), and the unit level analysis between police chiefs and CIOs \((p<.05)\). The tendency is that higher level employees have a higher representation in this category. This is perhaps not surprising, as “upper management” in the content model mainly refers to the Director of Public Prosecutions and POD – bodies which investigators have little contact with. Hence, it is not unexpected that higher-level employees talk more about the communication with upper management, because they engage in it more often than employees on lower levels.

*Prioritizing the wrong cases.* Investigators and CIOs mention prioritizing the wrong cases significantly more often than police chiefs do, in both the informant and unit level analyses \((p<.05\) and \(p<.01\) respectively). This may be due to the fact that they are closer to the actual investigative work and therefore are more aware of how cases are prioritized. This can be related to the differences in too much focus on KPIs, which might also be attributed to closeness to practical investigative tasks.

*Benefits.* CIOs and police chiefs talk about the benefits of PSV of KPIs more often than investigators do. The informant level analysis showed significantly more police chiefs talking about benefits \((p<.05)\), and the unit level analysis showed fewer statements on this topic from investigators, than from both CIOs \((p<.05)\) and police chiefs \((p<.01)\). The content analysis shows that the benefits typically mentioned are related to self-monitoring and strategy. These are largely managerial issues, and it can therefore be expected that these topics occur less often in interviews with lower level employees, whom to lesser extent experience these benefits in their daily work.

*Strain.* Another difference between organizational levels occur in the category strain. The informant level analysis indicated that more higher-level employees mention this, but the differences are not statistically significant. The unit level analysis however, shows significant differences. There are significantly more statements on this topic from CIOs than from police chiefs \((p<.01)\). That employees with management responsibility would be more represented in this category, was expected. This is concurrent with the research literature, and might have to do with the fact that it is employees on higher levels who experience the most role.
broadening, and thereby added pressure, by the implementation of NPM measures. According to the same research, one would expect police chiefs, who have a mid-level manager role, to be more affected by this than CIOs. That CIOs have the highest occurring number of units relating to this topic is therefore a surprise. However, there is no significant difference between the organizational levels on the informant level analyses.

Counterproductive or unethical behavior. In both analyses, mentioning of counterproductive or unethical behavior occur less often in interviews with investigators than with employees on the higher organizational levels. The results are not statistically significant in the informant level analysis. In the unit level analysis, however, result are significant for the difference both between investigators and CIOs ($p<.05$), and between investigators and police chiefs ($p<.01$). An explanation for this finding might be that the behaviors described in this category of the content model is mostly conducted, and therefore mostly known, by lower-level employees.

SWOT analysis

Differences between organizational levels. Compared to the content model, the SWOT analysis shows relatively few differences between the different organizational levels. The informant level analysis show that significantly fewer investigators ($p<.05$) and CIOs ($p<.05$) than police chiefs make statements coded on the SWOT model as strengths. The unit level analysis indicate the same, with investigators uttering fewer statements in the strength category than both CIOs ($p<.05$) and police chiefs ($p<.05$). Police chiefs also make more strength statements than CIOs ($p<.05$). The same analysis shows an opposite tendency in the threats category, with more statements from investigators than from the CIOs ($p<.05$) and police chiefs ($p<.05$). This echoes the tendencies found in the content model analysis. Here, investigators were overrepresented in the categories too much focus on KPIs, prioritizing the wrong cases and counterproductive or unethical behavior – all of which can be described as threats to the police’s investigative work. Investigators were also underrepresented in the category benefits, which contains statements likely to be codes as strengths on the SWOT framework. Hence, the SWOT and content model analyses give a similar depiction of the differences between the organizational levels. That the content model seems to capture the same tendencies as the more established SWOT framework, can be said to support the model’s validity.

It is noteworthy that higher-level employees did not talk significantly more about the future, i.e. opportunities and threats, than employees on lower organizational levels. A police
Chief’s job is more concerned with matters such as planning and strategy, than that of for instance an investigator. Therefore, one would perhaps expect police chiefs to be more concerned with the future state than the investigators are, and for this to be reflected in the interview data. However, the results shows no such effect.

**Differences on the SWOT framework.** Apart from differences between organizational levels, the analysis shows differences in the occurrence of the different SWOT categories. The unit level analysis shows that significantly more statements are strengths, than weaknesses \((p<.05)\), opportunities \((p<.01)\) and threats \((p<.01)\). This supports the finding from the content analysis, that although critical, informants are not categorically opposed to KPIs and do recognize beneficial outcomes of using PSV. Yet, as the content analysis uncovers mostly disadvantages of KPIs, it is unexpected that statements coded as strengths would have a significantly higher occurrence than all other SWOT categories. This particular finding may however be somewhat confounded by the fact that police chiefs, who have a larger total number of units about KPIs, are overrepresented in the strengths category. This might make the total number of strengths higher than it would have been, had all organizational levels been represented by equally many statements.

**IGLO analysis**

**Differences between organizational levels.** The informant level IGLO analysis show no significant differences between the organizational levels, with roughly the same number of informants from each level mentioning each IGLO category. In the unit level analysis, some differences emerge. Police chiefs make significantly more statements related to individual than CIOs \((p<.01)\) do. A possible explanation for this is that employees on higher levels, i.e. police chiefs, experience more autonomy in the use of KPIs and PSV, and hence based on their own perspective regard it as an issue more closely related to the individual employee.

Police chiefs also make more statements than CIOs \((p<.01)\) about on the leader category. Investigators make fewer leader statements than CIOs \((p<.01)\). It may be that the importance of leadership in relation to the use of KPIs is perceived as more important to those who themselves have leadership functions, or who are closer to the organization leaders. Hence, this finding can perhaps be explained by the same mechanisms as the tendency shown in the in the content analysis, for higher-level employees to be more concerned with communication with upper management. In contrast, results also show that investigators talk more about organization than both CIOs \((p<.01)\) and police chiefs \((p<.01)\) do. This can indicate a fundamental difference in how higher and lower-level employees perceive the use of KPIs,
with those on higher organizational levels viewing it more as a matter of leadership and individual effort, and those on lower levels seeing it as more dependent on the organization as a whole.

**Differences on the IGLO framework.** Both the individual and unit level analyses show the same differences in occurrence of the IGLO categories. Both analyses found that *organization* occurred significantly more often than *individual* ($p<.01$), *group* ($p<.01$) and *leader* ($p<.01$), and *leader* occurred more often than *individual* ($p<.01$) and *group* ($p<.01$). Hence, *organization* can be said to be recognized as the most important aspect related to PKIs, across organizational levels. The second most occurring category is *leader*. These two occur far more often than group and individual, indicating that *individual* and *group* are seen as less relevant to the use and success of KPIs. A possible consequence of this is that measures directed at the use of PSV should be concentrated at the organization as a whole, rather than groups and individuals.

**Comparison with previous research**

International research on the effect of NPM techniques on public service employees, point to several adverse effects. As previously mentioned, the most commonly found are:

- Role conflict and stress due to broadening of roles
- Increased focus on measured criteria, at the expense of attention to ongoings and results which are not measured
- Increased bureaucracy
- Subcultures resisting the applied NPM measures
- Counterproductive behavior

A comparison of these effects and results of this study, reveal many similarities. Role conflict and stress due to broadening of roles has been found in several previous studies (Butterfield et al., 2005; Woodall, Edwards, & Welchman, 2002). These effects are also found here, and are presented in the category *strain* in the content model. Increased focus on measurement criteria, at the expense of attention to ongoings and results which are not measured, is also a main theme in the interview data, found in categories *too much focus on KPIs*, and to some extent *prioritizing the wrong cases*. This echoes the findings of previous research on NPM in the police in (Butterfield et al., 2005; Holgersson, 2005, 2007; Holgersson & Knutsson, 2008; Lapsely, 2009; Woxholm et al., 2007). For instance, the findings about the KPI on number of controlled drivers is parallel to those on a similar measure in the Swedish police in a 2007 study (Woxholm et al.). Occurrences of counterproductive behavior is also a documented
effect of NPM implementation (Campbell, 2008; Butterfield et al., 2005; Holgersson & Knutsson, 2008; Lapsely, 2009; Woxholm et al., 2007). The result of this study shows similar tendencies, covered by the category *counterproductive or unethical behavior*.

The results of the SWOT and content model analyses indicate that investigators have a less positive perception of PSV than employees on higher levels. This can be interpreted as a sign of resistance against NPM measures among organizational subcultures, as has been found in previous studies (Butterfield et al., 2005; Kitchener et al., 2000). It is also in keeping with previous studies that have found senior managers to be generally less critical of NPM reforms than employees on lower organizational levels (Auditor General of Canada, 1993; Pollitt, 1995). Increased bureaucracy is a known potential effect of NPM (Butterfield et al., 2005). This did however not occur as a theme of the content model developed in this study. There were statements mentioning the issue, but they were far too few for it to be considered a main theme. “Increased bureaucracy” is however a wide description that captures a range of effects and behaviors. Themes such as *too much focus on KPIs, cooperation with other districts* and procedure all contain descriptions of what can be labeled as increased bureaucracy, although the informants do not explicitly describe it as that. Therefore, although this study does not identify increased bureaucracy as a main theme in the informants’ perception of PSV, it does not propose that this phenomenon is not present.

The content model also describes themes not commonly found in previous research on NPM. These are *communication with upper management, benefits, and cooperation with other districts*. Out of those talking about KPIs or PSV, 41% of the informants mention communication with management on higher organizational levels, which indicates that this factor is important to the use and evaluation of KPIs. It is however, a prerequisite for, rather than a consequence of NPM implementation. Thus, it is given that this category in the content model differ from what previous research has identified as main effects of NPM techniques. This study found that many, especially police chiefs, perceive PSV as beneficial, and appreciates it as a means to better control and plan the districts’ operations. This is not a commonly found effect of NM reform in previous research, although one study found similar effects among middle managers in the British National Health Service (Currie and Procter, 2002). Given that existing research has rarely found such positive effects, it was surprising that the content analysis of the data in this study revealed benefits of KPIs to be a commonly occurring theme, mentioned by 31% of the informants talking about KPIs. This finding is important, as it indicates that the informants do not object to the concept of KPIs itself, but rather criticize specific aspects of PSV and its implementation and use. It is however
important to note that benefits of NPM measures were perceived differently by employees on different levels, the police chiefs being significantly more attuned to benefits in their interviews. The content model found that the use of PSV caused problems in between-district cooperation. As mentioned, this can to some extent be attributed to increased bureaucracy, but by far in its entirety. That NPM techniques have adverse effects on cooperation between different organizational units and districts, is a finding that has not been addressed by much previous research. It does however coincide with the findings from the previously mentioned 2012 study of performance measurement in Hordaland police district (Valland, 2012). This strengthens the conclusion that the current PSV system does in fact hinder between-district cooperation in the Norwegian police.

As previous research has shown that especially middle-managers are affected by NPM implementation, it was expected that more informants on higher organizational levels would mention KPIs or PSV. However, there were no significant differences between organizational levels concerning the number of informants mentioning these topics. This indicates that NPM reforms affect employees on all organizational levels. Yet, when analyzed by units, informants on higher levels are shown to talk significantly more about KPIs and PSV, supporting the hypothesis that these issues are especially important to higher-level employees.

Foundation of NPM

The results of this and other studies all indicate that there are negative side effects related to the use of NPM. A possible explanation for this may lie in NPM’s theoretical foundation – or rather, lack thereof. As previously pointed out, NPM is not a single, theory driven management ideology, but rather a collective term for a set of management techniques that gained popularity in the 1980’s (Gruening, 2001). NPM strategy draws on several earlier traditions from the organizational and administrative sciences, but lacks an underlying theoretical framework to support it. As a result, NPM consists of techniques and paradigms out of which some are inconsistent, or even conflicting (Christensen & Lægreid, 2001; Hood, 1991). NPM also stands out from other management traditions in that it does not formulate a clear perspective on the social and interpersonal aspects of organizational life. The lack of a unison theoretical perspective on management might to some extent be the reason why NPM, although popular, seems not to have been successful in achieving its intended goals of organizational effectiveness. Similarly, from an employee perspective, the perceived negative effects of NPM may be related to the fact that this form of management does not take social and interpersonal aspects of work life and organizations into account.
Implications for the further development of PSV

The findings of this study may have implications for the use of NPM measures in the Norwegian Police, and especially for the further development of the PSV system. Based on the study’s results, the following recommendations are made:

- **Revise measurement criteria.** One important finding is that police employees on all organizational levels included in the study are concerned with how police performance is operationalized and measured through PSV. The current measurement criteria appears to have been decided through a combination of tradition, convenience and politics. The KPIs should be a representation of what constitutes quality in police work, but it appears that some of the current KPIs of PSV are not perceived as such. A revision of the measurement criteria is therefore advised. The revision should be knowledge based and take a scientific approach to establishing criteria for defining police performance. Employees at all organizational levels should be included in the revision process. This recommendation concurs with the plans to revise KPIs suggested by both POD and the committee behind the 2013 police report (NOU 2013:9). It is important that the KPIs not only capture important organizational goals and tasks, but that they are operational and can be measured properly.

- **Improve communication between upper management and lower-level employees.** The results clearly indicate that there are significant differences in how employees on different organizational levels perceive PSV and its use. Results show that upper level employees who are more in contact with upper management are more aware of the strengths and benefits of PSV, while employees on lower levels are more aware of the systems negative effects on investigative work. This point to two target issues for improved communication between upper management and lower level employees:

  1. Improve the lower-level employees understanding of PSV’s purpose and uses.
  2. Get feedback from lower-level employees on the practical application and adverse effects of PSV.

A better understanding of the purpose and strategy behind PSV will hopefully enable the lower level employees to better utilize the system, and be more aware of its benefits. The opportunity to give management feedback on PSV might also improve their perception of the system, as it leads to increased autonomy. This is also in keeping with the Norwegian work life model principle of employee participation, as
stipulated by the Norwegian Working Environment Act, (Arbeidsmiljøloven, 2005). In addition, feedback from employees on the PSV’s functioning is essential to the management for the improvement and further development of the system, as discussed above. POD has expressed increasing the employees’ awareness of PSV’s properties and function as part of the planned future development of PSV. Improving communication with lower-level employees serves to contribute to this.

- Promote focus on tasks, not numbers. An important finding in this study was that reporting KPIs leads to an increased focus on numbers, at the expense of investigative tasks. This is a serious threat to the police work, especially as it is revealed that employees have been known to engage in unethical behavior and manipulation of numbers, due to the excess focus on KPIs. To counter this effect, it should be clearly communicated to all organizational levels that the main focus of the organization should be the completion of tasks, not the reporting of KPIs. This is related to the recommendation above, about increased communication between upper management and employees. Conveying the purpose of PSV as a tool for self-monitoring and learning, rather than a mere score board, may reduce the excessive focus on reaching KPIs. This, in turn, will hopefully reduce the incentive to engage in unethical or counterproductive behavior to achieve “green numbers”. Promoting focus on tasks rather than numbers does however have implications for the use of PSV as basis for a reward system. This issue is addressed below.

- Exercise caution in implementing reward systems based on PSV results. The report by the Ministry of Justice and Public Security (NOU 2013:9) proposes increased use of reward systems based on achievement of organizational results. Specifically, the report states that there should be consequences for leaders who fail to reach the organizations defined goals, expecting this form of performance management to increase organizational performance. Based on the results of this study, there is reason to believe that such an approach could seriously worsen the adverse effects of NPM present today. Punishing failure to achieve KPIs is likely to enforce the already existing culture of excessive focus on numbers at the expense of quality in the investigative work. This may in turn lead to an increase in unethical behavior and untruthful reporting of results. In addition, results indicate that the current KPIs of the PSV may not sufficiently operationalize quality in police work. Enforcing performance on the PSV measurement criteria may therefore not mean enforcing good
police work. This thesis hence strongly cautions against using PSV in its present form as the basis for an organizational reward system.

Limitations

The population contains informants from all of Norway’s 27 police districts, and can therefore be considered representative for the Norwegian police force as a whole. This strengthens the generalizability of the results. As mentioned, the data was collected over a period of four years, from 2009 to 2012. The use of KPIs and PSV has been in continuous development during and after this period, and it may therefore be that the result do not fully reflect the current situation in the police. However, the development has been in the direction of more, not less, use of KPIs and PSV. The opinions expressed by informants about these issues are therefore still highly relevant to the current situation.

The underlying assumption for the thematic analysis is that topics mentioned more often are either more prevalent in the investigative work, or of more importance to the subjects interviewed. These results only hold up to the extent this assumptions is correct. A threat to the content model’s validity is hence that the most frequently recurring themes are not those of greatest perceived importance to the informants, but those that are easiest to verbalize. For instance, this may explain why a broad concept such as increased bureaucracy did not emerge as a main theme in the interviews, even though it is commonly known as a typical effect of NPM measures. This content model is therefore not proposed as an exhaustive list of all effects of NPM implementation, but rather a summary of the most prominent effects as described by the employees themselves. Further studies may identify additional, or other, themes than those described here. Another potential limitation with interviews as a data collection method is that the informants may have their own agendas in the interview, answering in a fashion they expect to result in a beneficial outcome. The motivation for this can for example be to portray one-self in a socially desirable manner, or to prompt desired changes in the workplace. In addition to willful manipulation of answers, informants may not be aware of the reasons for their opinions and preferences. For example, it could be argued that the police employees’ expressed resistance to NPM implementation can in part be attributed to general resistance to change, and not NPM in itself.

Before analyzing the data, a list of themes likely to occur in the data had already been identified, through studies of previous research. It is likely that this may have biased the bottom-up analysis in the sense that the analysis was entered with a preexisting idea of what themes might emerge. However, the purpose of using a bottom-up analysis rather than a top-
down in this case, was the possibility of discovering new themes not identified by previous research. As the aim was this, rather than formulating a theory, the analysis’ validity is not considered to be compromised by the study of previous research. Even so, interpretation and analysis of qualitative data is an inherently subjective process that will necessarily be biased by the researcher’s own preexisting knowledge, attitudes and frame of reference. This may be especially true when analyzing verbatimly transcribed interview data, as all non-verbal communication is lost. A certain level of subjectivity on part of the researcher is unavoidable, but it has been attempted to make the analytic process transparent by the use of example statements from the interviews to validate the presented conclusions. However, the interview data is in Norwegian, and it is possible that information is lost, or even added, in the English translations of data presented in the analysis. For the sake of transparency the original statements in Norwegian are therefore submitted in appendix B. The grade of subjectivity in the thematic analysis could also be assessed through the estimation of inter-rater reliability. This would be an interesting topic for further studies, and would contribute to establish the content models validity.

The scope of the thesis limits the study to the exploration of effects of PSV and KPIs as described by police employees themselves. This means that the study has not addressed the effects on objective measures for organizational output or results. The data can therefore not be used to conclude on how the use of PSV and KPIs effects performance, but rather how police men and women at different organizational levels perceive it to effect theirs performance, daily work life and professional role. Investigating the effects of PSV on objectively measured organizational performance would be methodologically difficult, as the best objective measure of police performance available at this time is PSV itself. Targeting the perceived effect on PSV on employees can therefore be argued to be a scientifically viable approach to evaluating PSV.
Conclusion

The results indicate that the effects of NPM implementation on employees in the Norwegian police resemble the effects previously found in international studies. Such effects include excessive focus on numbers at the expense of the quality of the work, strain on the employees caused by added pressure and role broadening, and employees engaging in counterproductive or unethical behavior in order to reach KPIs. The police employees do however recognize benefits and positive outcomes of the use of KPI reporting systems, although they are critical of specific aspects of it. Analyses show that there are differences in the perception of PSV between employees on different levels of the organizations. Generally, employees on lower levels are more concerned with the adverse effects of PSV, while those on higher levels are more oriented towards its benefits. The findings lead to four recommendations for the further development of the PSV KPI system.

1. Revise measurement criteria. Establish KPIs that are measurable, and that capture the important organizational goals and tasks of the police service.
2. Improve communication between upper management and lower-level employees. This can contribute to improving the lower-level employees understanding of PSV’s purpose and uses, as well as allowing management to receive feedback on the application and effects of PSV.
3. Promote focus on task, not numbers. Shifting focus away from just KPIs will hopefully reduce the employees’ incentive to engage in unethical or counterproductive behavior to achieve KPI goals.
4. Exercise caution in implementing reward systems based on PSV results. Using PSV in its present form as the basis for an organizational reward system might seriously worsen the adverse side effects documented in this and previous studies.

In sum, this thesis concludes that the use of NPM techniques in the Norwegian police is perceived by the employees to have several negative, and in some cases serious, effects on the police’ investigative work. It is advised that management take these effects under careful consideration before implementing further NPM based measures in the police organization.
References


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## Appendix A

Translations and abbreviations

<table>
<thead>
<tr>
<th>English</th>
<th>Norwegian</th>
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<tbody>
<tr>
<td>The Central Mobile Police Force</td>
<td>Utrykningspolitiet (UP)</td>
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<tr>
<td>Criminal Investigation Officer (CIO)</td>
<td>Etterforskningsleder</td>
</tr>
<tr>
<td>The Director of Public Prosecutions</td>
<td>Riksadvokaten</td>
</tr>
<tr>
<td>The Governance and Management Section of POD</td>
<td>Seksjon for etatsledelse i Politidirektoratet</td>
</tr>
<tr>
<td>The International Police Immigration Service</td>
<td>Politiets utlendingsenhet</td>
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<tr>
<td>Investigator</td>
<td>Etterforsker</td>
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<tr>
<td>Key Performance Indicators (KPIs)</td>
<td>Målstyringsindikatorer/prestasjonsindikatorer</td>
</tr>
<tr>
<td>Ministry of Justice and Public Security</td>
<td>Justis- og beredskapsdepartementet</td>
</tr>
<tr>
<td>The National Criminal Investigation Service</td>
<td>KRIPOS</td>
</tr>
<tr>
<td>The Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime</td>
<td>Økokrim</td>
</tr>
<tr>
<td>The Norwegian National Police Directorate (POD)</td>
<td>Politidirektoratet (POD)</td>
</tr>
<tr>
<td>Police chief</td>
<td>Politimester</td>
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<tr>
<td>Police Management Tool (PSV)</td>
<td>Politiets styringsverktøy</td>
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Quotes from content analysis in Norwegian

**Measurement criteria**

«Så vi håper jo da at vi ikke får en sak, en fristsak hvor det er snakk om bruk av for eksempel kniv så vi må foreta en DNA analyse. Så da ryker måltallet ditt med en gang»

«Det er veldig vanskelig å gi mål på for eksempel sedelighetssaker, man kan selvfølgelig måle saksbehandlingstid, man kan måle oppklaringsprosent, men det er ikke dermed gitt at det sier noe om hvor god etterforskningen er.»

«Jeg synes det at POD gjennom sine måltall har valgt å gjøre det som Oberst Arne Pran i sin tid sa at når det viktige ikke lar seg måle gjør man det som kan måles viktig.»

«Man fastsetter at så så mange bilførere skal kontrolleres hvert år. Og det er nesten en sånn, du kan potensielt bare vinke dem inn og la dem kjøre videre, og dermed har du kontrollert én.»

«Jeg tenker at vi kanskje burde ha jobba med trafikk på en annen måte i stedet for å stå på langstrekker og stoppe Bestemor når hun skal på Coop’en og kjøpe melk, og kanskje stoppe hun på veien hjem også for sikkerhets skyld, så har man to kontrollerte. Det gjør ingenting godt for politiet, for å si det sånn.»

**Communication with upper management**

«Og det er den manglende litt manglende konsekvenshåndteringen synes jeg at det lederkapet må utfordres mer, altså, på hva en leverer av produktene sine. (...) At det må være mer åpenhet for at vi blir liksom ansvarliggjort på en litt annen måte.»

«Så det er et tankekors i forhold til at du blir jo ikke honorert på de store alvorlige organiserte kriminalsakene på det som politimesteren skal svare på i drøftingsmøtet med POD.»
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«Så vi måtte hjem og gjøre leksa litt om igjen på noen områder etter styringsdialogen i fjor høst, og det syns vi var helt greit, for det er jo vitsen med å ha styringsdialog. At de ikke bare sitter inne og nikker og sier ‘Takk for nå’ også reiser hjem, men at de faktisk begynte å peke litt på om det var helt i tråd med trendrapporten»

«Jeg oppfatter det at POD og Riksadvokaten er litt på forskjellig kurs med tanke på på hvilke krav de stiller.»

«De mener at vi skal prioritere alt som er straffbart, men man kan jo ikke spise alle de kamelene som finnes rundt omkring. Man må velge noe.»

«Det er faktisk en sammenheng mellom styring og ledelse og ressurser og folk. Den sammenhengen er der. Hvis du våger å styre og være mye tydeligere på hvordan du styrer ressursene inn i det prioriterte målbilde.»

**Too much focus on KPIs**

«Jeg har sett nok av eksempler på politidistrikt som har stått frem i media og slått seg på brystet og sagt ‘Saken pådømt i løpet av fire og tjue timer’. Og jeg vet om flere av disse tilfellene så har man da oversett vesentlige ting som burde ha vært undersøkt videre, rett og slett for da har man vært så opptatt av og kjøre dette her igjennom med hurtig fart.»

«Det ser jeg på ute på de mindre stedene at det at de kan ha mange tre tusen vinningssaker som de har fått igjennom systemet så kjapt, så måles de på det, og så ligger voldssakene, altså de generelle voldssakene mot voksne, og blir dårlig etterforsket. For det at det er tallene som teller. Og det synes jeg er helt feil.»

«Jeg tror det er viktig å kunne ha evnen til å kunne se litt bort i fra disse tallene når det gjelder etterforskningen. Vi må ikke bli så ‘Ja, nå må vi forte oss og få avgjort sånn og sånn og sånn. For nå er det snart ny avlesning av tallrekken’»
Prioritizing the wrong cases

«Jeg føler at for meg så er det at de kommer, at familievoldssakene kommer bak de her slåss-på-byen-sakene, det synes jeg er det er feil for meg da.»

«Det er feil saker som, altså man har hele tiden denne statistikken sånn som her legemsbeskadigelser, de skal prioriteres og de skal prioriteres veldig høyt, men det var jo en stund så var det jo bare det som var viktig. Voldtektsaker ble liggende fordi legemssaker de måtte bli etterforsket.»

Benefits

«Avviksmeldinger er ikke for å henge enkeltpersoner, men for å lære. Læringsprosess er det. Det at vi, det å skrive avviksmeldinger for en hvilken som helst liten ting, kalt for filleting kanskje hos oss, men hvis vi, hvis vi driver sånne ting er det med og gjøre oss bedre.»

«Og så legges dette inni PSV sånn at når man vi ser hva som er målene, og så er det noe med å finne de rette tiltakene og virkemidlene og så gjør vi det en stund og så ser vi om en stund om dette har virka. ‘Nei, dette virka ikke’ – da må vi gå tilbake å se ‘Skal vi gjøre noe annet?’»

«Vi har en forståelse for at det er et styringsverktøy det med PSV. Og at det er en godt kontrollverktøy også for teamledere og seksjonsleder for å se at vi er på vei til å nå de målene vi har, politimester har satt.»

«PSV har gitt oss et overkommelig målbilde. Det er klart definert hva vi skal gjøre for noe.»

«Siste par åra i hvert fall så har jo arbeidet vårt vært lagt opp mer og mer i tråd med med trend- og analyse- og kriminalitets-, altså situasjonsbeskrivelse. Vi er mer kunnskapsstyrte enn vi var før. Målene våre settes jo på mye på et helt annet grunnlag nå enn de gjorde for noen år tilbake.»
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Strain

«Jeg synes det er for mye for mye sentrale føringer som legger et sånt unødvdendig press egentlig, på etterforskerne.»

«Det presset skal være på seksjonsleder og mellomleder.»

«Det er blitt så mye etter hvert at det er liksom ikke gjort på et øyeblikk å svare på alle de rapportene, skrive alle disse tilbakemeldingene, føre alle disse kontrollene med PSV med, med PAL, med you name it, og samtidig være en god leder.»

«Man føler seg alene som mellomleder mange ganger.»

Cooperation between districts

«Så klarer vi ikke samhandle på tvers av politidistriktene, fordi vi er syv driftsenheter som fungerer, nesten som benchmarking i forhold til sine måltall. (...) Vi er ikke interessert i å avgi personell til andre driftsenheter hvis ikke det er en sak som berører mitt målområde»

«Det jo noen sånne og særlig der målene virker direkte kontraproduktivt da, som det gjør i forhold til det å bruke ressurser i nabodistriktet for eksempel, så er det jo uheldig.»

Counterproductive or unethical behavior

«Vi opplever at en del distrikter de tar seg jo til rette her med førsteleddsaker og dupliserer og har et voldsomt fokus på det som gir tall, kort saksbehandlingstid og høy saksprosent.»

«Dette med statistikker og sånne ting, det kan lett fuseses med, og det tror jeg det blir gjort og. Å få tilfredsstilt de tallene, de som skal, eller, de lengre opp i systemet.»

Procedure

«Det går på reduksjon av vinning. det går på hvor mange voldssaker du har, det går på saksbehandlingstid, og oppklaringsprosent.»

«Vi har gode PSV resultater, vi holder måltallene våre bra.»