Performance Measurement in a public-sector organization

A case study investigating the benefits and challenges

ALEXANDER DEXWIK
Performance Measurement in a public-sector organization
A case study investigating the benefits and challenges

by

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Mätning och styrning i en verksamhet inom offentlig sektor
En fallstudie som undersöker fördelar och utmaningar

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Abstract
Performance measurement has been a subject of interest for industrial organizations yet not been applied to the same extent within public-sector organizations. One of the biggest challenges, for public-sector organizations specifically, has been to measure outcome, meaning the effectiveness of operations, as output, to determine factors such as resource efficiency, is much easier to quantify.

Within the Swedish Police Authority, there are improvement possibilities to increase the efficiency and effectiveness within debriefing process for the intervention police unit by utilizing performance measurement. The purpose of this study is therefore to elaborate on how the debriefing process can be managed and controlled by using performance measures. To provide an answer to this question, an inductive research approach has been used by conducting semi-structured interviews and doing observations on several parts within the debriefing operations.

The result of the study suggests that the debriefing operations is most favourably managed and controlled by measuring the effectiveness of the process. More specifically, all the specific debriefing documents should be measured according to controllable and non-controllable variables, by the time they are initially scrutinized. Moreover, the study suggests that measurement of efficiency, such as the number of documents produced per individual, cannot be regarded as being a favourable way to manage and control the organization. One of the most prominent reasons is the risk for wrongful prioritization in the everyday work of the policemen.

Lastly, this report present a conceptual framework that illustrates how performance measurement can be realized by using investigation templates. By using this approach to manage and control the organization, decisions regarding developmental and educational activities can be based upon data that summarizes the effectiveness of the debriefing operations, i.e. if the purpose of the activities are fulfilled or not, to improve the process.

Key-words: Performance Measurement, Performance Measurement Management, Public-sector, Police Authority, Efficiency, Effectiveness
Sammanfattning

Mätning och styrning har varit ett ämne av intresse för, i synnerhet, industriella organisationer genom tiden och har inte varit applicerat i samma utsträckning inom offentlig verksamhet. En av de största utmaningarna har varit att det är enklare att mäta ett kvantitativt resultat, såsom resurseffektivitet, snarare än att syftet efter utförande av en specifik process eller handling uppfyllts eller inte.

Inom den svenska polismyndigheten finns utrymme för just ökad mätning och styrning, specifikt inom avrapporteringsprocessen för polisens ingripande verksamhet, för att kunna öka effektiviteten. Denna studie syftar därför till att besvara hur avrapporteringsprocessen systematiskt kan hanteras genom att använda mätning och styrning. För att besvara frågan har studien använt sig av en induktiv forskningsapproach genom semistrukturerade intervjuer och observationer inom olika delar av avrapporteringsprocessen.


Nyckelord: Mätning, Mätning och Styrning, Offentlig Sektor, Polismyndigheten, Effektivitet
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1. Introduction

This study explores measures to assure quality of operations and how performance measurement can facilitate management of activities within the Swedish Police Authority. This section will therefore introduce the background and problematization of the study, followed by stating the research question to be answered by the end of the report.

1.1 Background

The Swedish Police Authority is facing strong demands to manage its operations while developing and sustaining a high-quality level of services, increase cost efficiency and increase flexibility (Statskontoret, 2016). It is furthermore said that the operations within the police force are costly while financial constraints are set on the budget by the government (Adler, Hakkert, Kornbluth, & Sher, 2012). These constraints pose as a pressure for alteration and is argued to derive from a requirement to solve more police cases and crimes, which is one of the Swedish Police Authority’s purposes (Statskontoret, 2016). The Swedish Police Authority has during the past couple of years transformed its organization, from being a grand total of 23 separate authorities to only being one yet divided into seven regions (ibid). The overall goal was set to decrease the barriers for increased efficiency and create unified processes to reach a better organizational result (ibid).

The private sector and traditional manufacturing companies possess a history of using performance measurement, such as the Balanced Scorecard, to effectively manage and lead their organizations (Robert S. Kaplan & Norton, 2004; Lonnqvist, 2004). It is accomplished by having indicators in the process that illustrate how well the organization is achieving its goals and objectives (ibid). Solely relying on financial measures or a group of ad-hoc measurements does not appropriately assess if an organization’s mission is being accomplished or not, nor does facilitate managing the organization and encourage development and organizational learning (R. Kaplan, 2001). Scholar such as Paramenter (2015), Kaplan & Norton (2004) and Kennerley & Neely (2002) therefore emphasize the need for comprehensive measures that are aligned with each other to reflect the reality in which workers operate to develop capabilities and activities.

Additional research illustrates that performance measurements can and has been implemented in public sector organizations, such as in hospitals, governmental agencies and police authorities like the Australian Police Organization (Brignall & Modell, 2000; Fleming & Scott, 2008; Kaplan, 2001). The performance measures translated organizational missions into tangible and quantified objectives to be achieved, both on an organizational level but also on a task specific level (Fleming & Scott, 2008).

1.2 Problematization

There are several different aspects that are measured within the Swedish Police Authority such as the amount and what types of crimes that are reported, how many of the reported crimes that are administered as well as how many reported crimes that lead to prosecution among others (Brottsförebyggande rådet, n.d.). By only observing such output measures, managing and controlling activities and tasks is difficult as the output
(efficiency) measures does not consider the outcome (effectiveness) of the same activities (Rantanen, Kulmala, Lönnqvist, & Kujansivu, 2007). It is furthermore hard to define what a public organization produces or creates, mainly as there are a broad spectrum of varying values that it creates. For example, measuring what a hospital does can be illustrated from perspective by looking at how many people that get surgery every year, but from another perspective how many resources that are used to perform the surgeries, two entirely different aspects of the same activity (ibid).

Previous research has illustrated the challenge of making use of both output and outcome measures within the Finnish public sector (Rantanen et al., 2007). Additional studies have illustrated that public sector organizations more often use measures describing output (efficiency) rather than outcome (effectiveness) as output is easier to quantify in relation to the objectives (Lilian Chan, 2004; Pollanen, 2005). One explanation to only use output measures derives from the fact that it is hard to control the variables within the context and environment in which public sector organizations are performing its work, hence predict the results (Siltala, 2013). In such a context, the organization relies heavily on the highly-skilled individuals to solve complex societal problems and make rational and effective decisions. Therefore, if management sets strict guidelines on how to perform certain tasks, it may have harmful effects. Even though a problem may be solved less efficiently, the fact that it is solved justifies the actions of the workers to continue performing activities as they usually are. Implementing diverse performance measures may have harmful effects, as they reduce the complexity of reality (De Bruijn, 2002). But on the other hand, it is also difficult to know if progress has been made without the monitoring tasks and activities. Therefore, using outcome measures is important as well, as they indicate the ability an organization achieves serving its customers (Lilian Chan, 2004).

Responding to the pressure of achieving its goals when performing tasks and activities while maintaining a high level of quality, the Swedish Police Authority need to establish indicators that measure both the outcome and the output of its operations. More specifically, the debriefing process possess the challenges described, both in terms of measuring efficiency and effectiveness.

1.3 Purpose

The purpose of this thesis is to investigate how the Swedish Police Authority can use performance measurements to indicate how well their objectives are met to manage their daily operations more efficiently and effective. The objective is to provide insight to the benefits and challenges of using performance measurements in the police authority’s daily activities.

1.4 Research Questions

MRQ: How can tasks performed by the intervention police unit within the Swedish Police Authority systematically be managed and controlled by using performance measures?

Firstly, to comprehend how the organization today monitor and measure its daily operations that are carried out by the intervention police unit (IPU), Research Question 1 has got to be answered

RQ1: What is currently being measured?
Secondly, it is imperative to understand what information that measures should encompass to manage operations within the IPU. Therefore, Research Question 2 below has got to be answered.

**RQ2: What measures should be used?**

Thirdly, when knowing what to measure, it is of importance to know how performance measures can be realized to manage operations within the IPU. Therefore, Research Question 3 below has got to be answered.

**RQ3: How can performance measures be realized to manage and control the organization?**

By answering these three questions, an analysis can be presented that describe how performance measures can be used to manage and control the organization.

### 1.5 Delimitations

Due to the time constraints of the study, a specific part of the Swedish Police Authority's organization will be subject for investigation called the IPU and how their performance can be measured. The activities performed by the specific unit is diverse and include many different ones. This is also the reason why this study is delimited solely on the debriefing process specifically and will not include the other activities. The study also delimits itself from the rarer crime types and will focus on those which occurs more daily, meaning volume crime as the investigative activities are not as complex as for the crimes such as murder. Lastly, due to financial and time constraints, the report focus solely on the organization within the Stockholm City area. Lastly, this report excludes any investigation to the technological aspects of performance measurement as the width of
1.6 Disposition

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Table 1. Disposition of the report

1.7 Thesis Collaboration

This master thesis is written individually by the author but has collaborated with a parallel thesis-student, Emil Karlsson, whom also is a KTH Royal Institute of Technology student at the Industrial Technology and Management department writing for the Swedish Police Authority. The form of collaboration has primarily been when gathering empirical material through observations as both investigations concern similar problems. Even though some of the literature study is similar in both theses, the analysis and conclusion is made individually.
2. The Swedish Police Authority

This chapter will introduce the Swedish Police Authority and will elaborate how it is organized and what makes the organization unique in comparison to other service providers and organization. This chapter will also describe the department which the case study is based upon.

2.1 The mission of the Swedish Police Authority

The Swedish Police Authority is a government agency which primary mission is to decrease the rate of crime and increase the public safety around the country and investigate reported crimes among other things (Polisen, 2015; Polisen, 2016). The organization is one entity on a national level that is divided into seven different geographical areas that each is responsible for intervention operations, investigative activities, crime prevention and more general services such as issuing passports (ibid).

2.2 Organization

Alongside the different regions there are several different support departments that the regions all share between each other (Polisen, 2015). These are illustrated in Figure 1 and include an HR-department, an IT- department, a national forensics center, a finance department and a national operative department (ibid). To clarify, the latter department is responsible for the processes of law enforcement within the regions, whereas the regions themselves are responsible for the operative activities (ibid). The organization consist of a grand total of 28 500 employees (Polisen, 2016a) and had an allocation of over 21 MSEK to its disposal in 2015 (Polisen, 2015).

2.3 Intervention Police – the department for the case study

This case study will focus of the intervention police unit (IPU) which is the ones with uniform and work as patrols that circulate around in society, both working proactively and reactively to crimes and other events. By observing their operations and work environment it is evident that the IPU have got various of customers to serve, where the primary ones are the society, whose safety depends on police activity (both by proactive and reactive actions), but also prosecutors, who are the receivers of debriefing reports. These two main customers of the organization need different tasks and actions to be performed and require the IPU to possess various of different types of expertise to perform their daily tasks.

Figure 1. The organizational chart for the Swedish police force
The workflow of the IPU is illustrated below in Figure 2 and represents a generalization of nine cases. These were documented through an initial investigation and was conducted by observations during three different shifts by two persons. This generalization merely reflects the actual workflow as cases differ from each other quite substantially, especially when drilled down in greater detail both in terms of what tasks and activities that are performed, over what period, who the involved police employees were as well as what tools and systems that were used. However, it was later confirmed by several police employees that this workflow illustration can be used for brief understanding of a case. What every case have in common is that the flow of information to be reported in the last step, is initiated at the first step and continuously built upon as the case proceeds all the way to the last step. After the last step, Debriefing & police station actions, a debriefing report is handed over to police station commanders who performs a quality check of the report before being handed over to an investigation officer. These reports are the material upon which further investigation is being made. If their quality and content of the report is solid and includes enough information, a simplification of the following step, is that these are then sent to prosecutors for prosecution.

Moreover, certain systems and tools to gather information are repeatedly used and can be found in every single case, whereas other tools and systems are used less often. Upon observation, it was noted that the activities that differ from each other the most in the cases, in terms of procedures and tools, were within the Information gathering & crime/event scene measures as well as Debriefing & police station actions.

Figure 2. High-level & generalized case workflow illustration for the intervention police
3. Literature review

*This section presents the literature review as well as the theoretical models that were used to comprehend Performance Measurement Management and the underlying themes deemed relevant for the study.*

3.1 Performance Measurement Management

Performance Measurement and Management (PMM) is defined by de Waal & Kourtit (2013) as the process of steering and managing an organization systematically according to the organizational mission, strategy and objectives. It is a way to evaluate the accomplishment of both financial and non-financial goals, but also to develop competencies and skills as well as to continuously improve the processes within the organization (de Waal & Coevert, 2007). The purpose of using PMM is for organizations to gain a competitive advantage and continuously respond and adjust to changes that affect the organization (de Waal & Kourtit, 2013). Organizations, whether it is a private or a public organization, use PMM to create coherent understanding of strategy which is achieved by dissecting and translating it into performance measures that provides feedback to managers that determine if goals are accomplished (Brewer & Speh, 2000). PMMs effects on organizations and main reason to use are according to de Waal & Kourtit (2013), to enhance the quality of outputs within the organization, increase efficiency, improve the accountability for actions and achieve a higher commitment to strategy.

The challenge of using an operations system management model derives from the multi-dimensional characteristics that organizational performance encompasses (Pinheiro de Lima, Gouvea da Costa, & Angelis, 2009). These characteristics include a complex mix of factors, such as the dynamics related to internal and external variables that outline the strategic management of an operations system, the external environment of the organization, the inter-relationship between short and long term perspectives of operations strategy planning systems (ibid).

Researchers have reported both successful and unsuccessful implementations of PMMs. Some papers, such as Banker, Potter, & Dhinu (2011), de Waal and Coevert (2007), Pinheiro de Lima et al. (2009) among others, has found that organizations that are using PMM perform better than those that lacks such a system. Whereas other, such as Davis and Albright (2004) and Kaynak (2003), among others, questions if PMM even enables organizations to analyze financial and non-financial measurements in organizations. Therefore, there seems to be a rather ambiguous viewpoint on PPM and the value and benefits it contributes. However, it has been concluded by de Waal & Kourtit (2013) that there are both benefits and advantages as well as challenges and disadvantages in using PMM. The main advantages are increased profit, increased operational efficiency, improvement within the decision-making process, among others (ibid). On the other hand, the main negative effects that can occur are too much internal competitions, being too expensive and bureaucratic, ambiguous definition of the right performance indicators as they are a subject of being too biased hence being unreliable, among others (ibid). Regardless if researchers agree or not, Ukkko (2009) reported that using performance measurement factors which possess a positive effect on an operational level, meaning on individuals and teams, lead to higher financial and strategic performance.
3.1.1 Task Control

Control of tasks within operations, has been defined by Anthony (1965), as the process by which managers ensure that resources are obtained and used effectively and efficiently in the accomplishment of the organizations’ objectives.” The management control system serves as a basis for planning, monitoring activities as well as measuring performance (Langfield-Smith, 1997). Controls are classified in various of different types; formal and informal control, output and behavioral control, administrative and social controls, among others and are related to each other (Anthony, Govindarajan, & Dearden, 2007; Hopwood, 1974; Ouchi, 1977). Possessing formal control of activities involve setting rules, standardizing operation processes as well as having a budget system. It enables a clear visibility of operations and an objective way for performance evaluation within control systems. Consequently, control of the output is achieved by receiving feedback to ensure that precise results are accomplished by structurally monitoring, measuring and taking appropriate responsive actions. On the other spectrum of control systems are informal control systems which is not deliberately created. These consist of unwritten rules that often derive from the organizational culture that include shared values and norms among the employees, hence much harder to realize in a performance measurement system (Langfield-Smith, 1997). A formal mission or objective within an organization may be reflected in the culture by their values and attitudes. It is therefore said that these possess an inter-relationship between each other and that informal controls are an important characteristic of the control system where the effectiveness of formal control can be reliant on informal control (ibid).

3.2 Performance Measurement

Performance Measurement is regarded as a fundamental tool for managers to comprehend if the organization is successful or unsuccessful in its path to accomplishing its goals (Marr, 2012). Performance measurement is described as the method of quantifying actions within an organization that reflect operational efficiency and effectiveness (Marr, 2012; Neely, Gregory & Platts, 1995). It is being achieved by using individual performance measures, which within the performance measurement system where performance is achieved and where attention is needed (ibid). Marr (2012) cites “What gets measured gets done” and “if you can’t measure it, you can’t manage it”, to illustrate its importance to managers for them to navigate properly and ensure alignment of strategic objectives. Historically, performance measurement has focused on financial and monetary measures but has in modern time also come to encompass other perspectives such as measuring quality of output in operations (Amaratunga, Baldry, & Sarshar, 2001). Performance measurement is regarded as the procedure to quantify historical activities to monitor and sustaining organizational control to ensure that goals and objectives successfully are met (ibid).

Based on the paragraph above, the following definitions will be used within this thesis and are based upon Neely, Gregory & Platts' (1995) ones, illustrated in Table 2 below.
There is no single and definite reason to why organization and businesses focus on performance measurement (ibid). According to research by Neely (1998) the seven foremost reasons to use performance measurement are changing organizational roles, transformation pressure from information technology, initiatives for specific improvements, increasing competition, the nature of work changes, quality awards on a national or international level and change in external demands.

Further down in the report, in Chapter 3.3 Performance measures, a deeper presentation of performance measures and its links to effectiveness and efficiency is presented and defined.

### 3.2.1 Performance Measurement System

Performance Measurement System (PMS) is defined as “the set of metrics used to quantify both the efficiency and effectiveness of actions” by Neely, Gregory and Platts (1995). Amaratunga and Baldry's (2002) definition complements the one above and provides a deeper insight to the consequences of using PMS; “…the use of performance measurement information to effect positive change in organizational culture, systems and processes, by helping to set agreed-upon performance goals, allocating and prioritizing resources, informing manager to either confirm or change current policy or programme directions to meet those goals”.

According to Neely, Gregory and Platts (1995), PMS as a model can be viewed in three different levels which is illustrated in Figure 3; individual measures, the performance measurement system and the environment that surrounds it. The first level encompasses the individual performance measures on a detailed level that collectively make up the PMS (ibid). It is furthermore imperative that these are aligned in a strategic setting as they affect the work carried out by the employees (ibid). Questions such as “what performance measures are used?”, “what are they used for?”, “how much do they cost?” and “what benefit do they provide?” need to be answered when analyzing on the individual level (ibid). The dimensions that these typically include are quality, time, flexibility and cost and one popular way to organize these is by using the Balanced Scorecard framework, which is presented in greater detail in Chapter 3.2.4 Balanced Scorecard (Kaplan & Norton, 1992; Neely et al., 1995).

Table 2. Definitions terms by Neely et al. (1995)

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<td>Performance Measurement System (PMS)</td>
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<td>Performance Measurement</td>
<td>“the process of quantifying the efficiency and effectiveness of action”</td>
</tr>
<tr>
<td>Performance Measure</td>
<td>“a metric used to quantify the efficiency and/or effectiveness of an action”</td>
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Performance Measurement System (PMS) is defined as “the set of metrics used to quantify both the efficiency and effectiveness of actions” by Neely, Gregory and Platts (1995). Amaratunga and Baldry's (2002) definition complements the one above and provides a deeper insight to the consequences of using PMS; “…the use of performance measurement information to effect positive change in organizational culture, systems and processes, by helping to set agreed-upon performance goals, allocating and prioritizing resources, informing manager to either confirm or change current policy or programme directions to meet those goals”.

According to Neely, Gregory and Platts (1995), PMS as a model can be viewed in three different levels which is illustrated in Figure 3; individual measures, the performance measurement system and the environment that surrounds it. The first level encompasses the individual performance measures on a detailed level that collectively make up the PMS (ibid). It is furthermore imperative that these are aligned in a strategic setting as they affect the work carried out by the employees (ibid). Questions such as “what performance measures are used?”, “what are they used for?”, “how much do they cost?” and “what benefit do they provide?” need to be answered when analyzing on the individual level (ibid). The dimensions that these typically include are quality, time, flexibility and cost and one popular way to organize these is by using the Balanced Scorecard framework, which is presented in greater detail in Chapter 3.2.4 Balanced Scorecard (Kaplan & Norton, 1992; Neely et al., 1995).
At the second level the PMS, the system is analyzed all together by scrutinizing its different perspectives. Kaplan and Norton (1992) suggest the financial perspective, the internal business perspective, the customer perspective and the innovation and learning perspective, which altogether has got to be aligned with each other. Some of the questions that are used on this level are; “have all the appropriate elements ... been covered?”, “have measures which relate to the rate of improvement been introduced?”, “have measures which relate to both the long- and short-term objectives of the business been introduced?” and “do any of these measures conflict with one another?” (Neely et al., 1995).

Finally, on the third level, as the PMS has been developed according to the first and second level, it is being put into a broader context. The broader context encompasses two different dimensions; the internal and the external environment. The internal environment includes the fit within the organizational context and entails aspects such as the culture and functional structure. For example, if an organization possess a blame culture and introduces a PMS that measure the defects by individuals, then the system would promote operatives to lie to cover their own skin. The managerial question is therefore if there is any point in introducing that measure. The external environment on the other hand include the market in which the organization operates in and involve perspectives from both customers and competitors. Generally, at the third level, assessment of the system is achieved by asking questions such as; “whether the measures reinforce the firm’s strategies”, “whether the measures match the organization’s culture”, “whether the measures are consistent with the existing recognition and reward structure”, “whether some measures focus on customer satisfaction” and “whether some measures focus on what the competition is doing”. (Neely et al., 1995)

There are two fundamental assumptions which the performance measurement and operations management fields are built upon. The first is that organizations have got an interest in pursuing success and the second is that operations management towards success is not coincidental (Catacús, Gröjer, Högberg & Johrén, 2008). Catacús,
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Gröjer, Högberg and Johrén (2008) underlines that when defining and commencing the journey towards success, there are three questions that need to be answered:

1. What are the conditions for the organization? – what is the current state?
2. Where is the organization heading? – what is regarded as success?
3. How is the organization achieving success? – what are the success factors?

The first question is used to examine the current state and the circumstances are for an organization. The second question is related more to organizational strategy and the definition of success. The last question is the one most relevant for performance measurement as an organization needs to know what success factors that need to be highlighted to steer towards that direction. (Catacús et al., 2008)

3.2.2 Strategic Performance Measurement System

The definition of a PMS by (Neely, et al., 1995) “the set of metrics used to quantify both the efficiency and effectiveness of actions” has been broadened since it was introduced. Additional scholars have provided additional definitions which place PMS as a component of a control system for management. For instance, Pinheiro De Lima, Gouvea Da Costa, Angelis and Munik (2012) propose a model, illustrated in Figure 4 below, in which the PMS is placed, where it is a part of a larger control system and how it relates to other sub-systems. It forms the strategic performance management system which encompasses business strategy, operations strategy, operations strategy realization, operations system, system performance, operational performance measurement and strategic performance measurement. A specific business strategy is chosen whereas there are numerous of strategies to operationalize it. Once a specific operations strategy is chosen, then it becomes realized in the organization and influences the operations system which in turn influence the system performance. The chosen unit or organizational department is the operating system and is managed by an operations strategy and thereafter measured accordingly.

![Figure 4. Operations Strategic Management System (Pinheiro de Lima, et al., 2012)](image)

One of the main purposes of PMM and the utilization of PMS is to facilitate organizational learning and development (Kaplan, 2001). Therefore, PMS is part of a broader system within the organization that involves setting objectives, creating feedback loops and enable rewards to employees (Neely, et al., 1995). More specifically, using a PMS should enable an increased understanding of the needs of its customers (both internal and external) and what they perceive as value, as well as serve as an enabler for positive change of the culture, systems and processes within the organization (Pinheiro De Lima, et al., 2012). Therefore, feedback loops within
the systems are a crucial part as the management system is placed in a dynamic context where changes in the organizational demand occur.

The system called Operations Strategic Management System (OSMS), illustrated in Figure 4, contains of two sets of feedback loops for learning, both operational performance measurement and strategic performance measurement. The single-loop learning refers to the operational performance measurement and encompass the how the organization, teams and individuals adjust tasks and activities depending on the anticipated and actual outcome (Pinheiro De Lima, et al., 2012). Essentially it measures the efficiency of the performance by the specific unit, hence if the unit is “doing things right”. One the other hand, strategic performance measurement, the double loop learning, takes a broader perspective and encompass the basis upon which the operations strategy is built on and questions the activities and task performed by the organization (ibid). Essentially strategic performance measurement evaluates the effectiveness of the system hence if the organization is “doing the right things”.

3.2.4 Balanced Scorecard

The Balanced Scorecard (BSC) was published in 1992 by Kaplan and Norton and is a widely-used tool to measure and control performance within organizations and is built upon the strategy (Kaplan & Norton, 2007). It is a complement to the financial performance measurements that also covers three additional sides, which are; the customer perspective, internal business processes as well as learning and growth (ibid). The framework facilitates alignment of the various perspectives and their individual implications to the overall strategy in the organization (ibid). For managers, it provides a fast and broad understanding of the organization or business (ibid). An analogy that describe the BSC is the dials and indicators in the cockpit of an airplane. Navigating and flying requires comprehensive information to the pilot about various of aspects, such as the fuel level, air speed destination, altitude, current course among others (Kaplan & Norton, 1992). Only relying on one aspect can be considered disastrous as it does not provide a comprehensive overview of the current state (ibid). The same way of thinking can be applied in organizations and businesses as managers need to understand the performance in several areas at the same time (ibid).

The BSC compiles the various aspects into a one single report for managers that reflects the agenda to, for instance, improving quality, reducing the time for product launches and becoming customer oriented to lead for long term success (Kaplan & Norton, 1992). It also makes managers consider the full range of measurement spectrum and how one variable influence another, for instance if success in one area directly affect another negatively – hence forcing trade-offs in the decision-making process (ibid). Given a certain organizational or business objective, there are various of ways to achieving it. The objective to reduce the time for new product development can for instance be accomplished by improving the management of new product introduction or by releasing new products that only are incrementally different from the current ones (ibid). How the different paths effect other parts of the organization will therefore be illustrated in the cockpit dials in the airplane.
There are similarities between implementing a BSC within the public-sector or a non-profit organization and the private-sector (Kaplan & Norton, 2004). However, there are some distinct differences between them as well due to the nature of the organization’s goal. Firstly, according to Kaplan & Norton (2004), the definition of success for public-sector and non-profit organizations is their performance in accomplishing their mission, in comparison to the private-sector where the strategy is the end-goal. A concrete example within the private-sector is the achieving a financial result to increase the shareholder value, whereas in public-sector and non-profit organizations the mission encompasses a wider set of aspects, to achieve a social impact (ibid). As in the private-sector, the mission for public-sector and non-profit organizations is accomplished by meeting the requirements of its customers. It is achieved by performing in their internal organizational processes and is supported by the utilizing and developing intangible resources by learning and growing. The financial perspective in the private-sector is replaced by a fiduciary perspective, which contains the objectives of the taxpayer or supporting donors who provides the financial capital. The relationships between the mission and the different perspectives are illustrated above in Figure 5.

Figure 5. Strategy map for public-sector and non-profit organizations
3.3 Performance measures - efficiency & effectiveness

Performance measures need to satisfy two criteria to be valid. Firstly, it must be a numerical value to measure it quantitatively and secondly is must describe a relationship between two or more variables, otherwise it cannot be called a performance measure. Performance measures seek to describe and reproduce a reality of actions and events that an organization constructs or represents. However, it is imperative to understand that performance measures by nature not are exact replicas of reality as they cannot encompass the complexity of relationships between variables. Performance measures are instead an incomplete simplification of reality from which a basic understanding can be drawn from, which also is one of the limitations of the method. (Catacús, et al., 2008)

Even though a performance measure has got to be a numerical value, it can derive from either a quantitative or a qualitative base of data (Kueng, 2000; Otley, 1999). Quantitative measures reflect hard numbers such as the cycle-time and defect rates in a production system or on-time delivery from a customer perspective (Otley, 1999). Qualitative measures are data that derive from data such as questionnaires or surveys that in contrast to quantitative measures, reflect aspects such as the employee motivation and morale, customer satisfaction and brand awareness in the marketplace (Kaplan & Norton, 2004; Otley, 1999). There are furthermore some practical guidelines when formulating performance measures to make them usable and understandable. Neely, Richards, Mills, Platts and Bourne (1997) suggest that measure of performance should:

- “Derive from strategy”
- “Simple to understand”
- “Clearly defined”
- “Focus on improvement”
- “Visible to all”
- “Provide timely and accurate feedback”
- “Be precise”
- “Be based on quantities that can be influenced, or controlled by the user alone or the user in cooperation with others”

There are furthermore no general success factors upon which performance measures are built upon, that guarantee organizational success, instead these are highly dependent on the context and organization in which they are used (Catacús, et al., 2008). Additionally, the performance measures are not guaranteed to function forever but need to be updated according to the setting and context in which they are in (ibid).

3.4.1 Effectiveness

Measuring effectiveness means assessing the outcome within an organization (Lilian Chan, 2004). Effectiveness within an organization is defined as the extent that objectives are reached and to what degree that targeted problems are solved (Business Dictionary, n.d.-a). Effectiveness can also be defined in more general terms as “doing the right thing” and fulfilling the adequate purpose of the organization’s mission (ibid).
There are a lot of examples that explain effectiveness. In an industrial organization for instance, when producing and assembling a car with a high level of quality, then the tasks and operations need to be designed and outlined in a way that assures high quality, otherwise there is no effectiveness as the purpose of the production is not fulfilled. In a hospital, being effective, hence doing the right thing, can mean finding new ways to increase the health of the patients from a long-term perspective (Rantanen, et al., 2007).

3.4.2 Efficiency

Measuring efficiency means assessing the output within an organization (Lilian Chan, 2004). Efficiency is an assessment of what is performed with what can be achieved with the same consumption of resources such as money, time, labor, etc. (Business Dictionary, n.d.-b). Efficiency can also in more general terms be defined as “doing things right” (ibid).

There are many examples that can explain efficiency. In an industrial organization for instance, when producing and assembling cars in great volume in a manufacturing plant, an increase in efficiency means that with the same number of workers and tools, being able to increase the number of cars produced over a given time frame. In a hospital, high efficiency can mean carrying out a lot of operations during a given time frame with a given amount of resources (Rantanen, et al., 2007).
4. Research design and method

This chapter entails a description of the research process and its design by relating to research methodology literature to point out its validity, reliability and generalizability.

4.1 Research design

The study was performed on the foundation of a problem which was identified by the researcher. It has been performed with an inductive approach to assess how a public-sector organization can use performance measurements to manage and control the tasks by a specific unit within the organization. To understand the phenomenon, a single case study approach was chosen. The rationale behind a single case study is to gain depth and insights that are based on a unique situation and context (Farquhar, 2012) which characterizes the Swedish Police Authority. Via an interpretive research approach, the theoretical foundation and subject, performance measurement management, served as a basis to explore how performance measures can be utilized. The inductive approach meant that the empirical findings were used to establish patterns that eventually lead to explorations that extend the current academic literature (ibid) within performance measurement management within public-sector organizations.

4.2 Research process

The research process has been an iterative process and is illustrated in Figure 6. As the problem was identified and defined a literature preview was performed to comprehend and narrow down its focus. As the problem formulation was defined and literature preview was performed, a comprehensive literature review was followed.
to identify relevant theoretical frameworks. Subsequently empirical material was gathered by conducting interviews and performing observations. This data was analyzed to provide an answer to the research question.

4.2.1 Pre-study

The pre-study was performed to increase the understanding of the organization, the context in which the unit is performing its tasks and activities and the challenges they are facing. To grasp the challenges the author had initial meetings with both a process leader, IPU policemen as well as operational experts within the organization. Upon the findings, a research question was formulated and literature preview was performed that served the purpose of both academia and the commissioning organization.

4.2.2 Literature review

The literature review was made within performance measurement management. The more detailed perspectives within the field were performance measurement systems, performance measurement, performance measures, task control, performance measurement in public-sector organizations, new public management, and KPIs. The literature was gathered by using KTH Primo, Google Scholar and through KTH library. From these articles, theoretical frameworks were extracted, such as the operations strategy management system, performance measurement and strategy maps within public sector organization as well as definitions on efficiency and effectiveness.

4.2.3 Data collection

The data collection consisted of both interviews with various of employees in the organization which were complemented with observations of the operations during work shifts. The following section describes more in detail the data collection and the two methods used in the study.

Furthermore, quantitative data was also gathered from Holgersson’s (2005) previous study as it contains qualitative data to illustrate efficiency measures. Holgersson’s data was collected during a longer time frame than this study and possessed more human resources than within this report. Therefore, it seemed fit to include it in the analysis, based upon empirical findings.

Interviews

The interviews were the primary source of data that was collected. The data was collected via a semi-structured interview approach. These varied from a minimum of 40 minutes to the longest being over 3 hours and was performed in person with everyone. The semi-structured and open-end question-method was used to explore the specific phenomena in greater detail by letting the interviewee speak freely and provide their own opinions. However, to avoid derailing out of focus and to gain depth and deeper insight to the interviewees thoughts, introductory, probing, interpreting and specifying questions were posed throughout the interviews. That setup enabled the interviewees to be flexible, yet remaining with focus on the specific area of discussion (Collis & Hussey, 2014). To perform the interviews a template of questions was prepared and many of the interviews were recorded, yet not all, due to some inconvenience in the surrounding environment.
To gain the right type of insight from the organization and targeting the right stakeholders, a conversation with the Head of IT and several other experts was performed. The interviewees that participated in the study is illustrated in Figure 7 below where each box represents one interviewee.

Observations

Throughout the study, the author participated in six observations sessions with the observer as participant-methodology. This was performed during the work shifts by IPU and allowed not only to observe the performed tasks and activities, but also to interact with the employees yet not performing any of their activities (Blomkvist & Hallin, 2015). Throughout these sessions, additional questions were posed to complement the formal and recorded interviews that was performed with IPU. These observations were furthermore vital to understand the work flow of debriefing and was documented as well as translated into the work process illustrated in 2. The Swedish Police Authority.

4.2.4 Data analysis

The qualitative empirical material that was gathered from the interviews were analyzed via a thematic methodology. This methodology was used as it enables the findings to be categorized into themes which makes it easier to find similarities and dissimilarities in the empirical material (Blomkvist & Hallin, 2015). When a statement was made in an interview, the author looked for similar statements to strengthen certain aspects around performance measurement as well as dissimilarities to either reduce those statements’ influence of the analysis due to low correlation between others.

Validity

To gain validity in the study, the literature and theory presented in the report originates from well-reputed research and academic sources, mentioned in 4.2.2 Literature review. Furthermore, triangulation is a method that increases the validity of the study (Collis & Hussey, 2014). Constructing validity, refers to the extent different and relevant data sources that was used to avoid biased answers (Farquhar, 2012). This method was used by interviewing many people across the organization, as illustrated in 4.2.3 Data collection. Internal validity on the
other hand refers to theoretical triangulation, meaning that the theoretical frameworks and literature was investigated rigors to find a suitable framework to build upon (ibid). The OSMS model was used as a basis for the analysis and was complemented with additional definitions within performance measurement management to interpret the empirical findings. Therefore, it can be argued that the research design increase the validity of the study.

**Reliability**

Reliability of the study refers to the extent of minimizing errors, meaning that if the study was performed again, scholars would reach the same insights and results (Farquhar, 2012). This is achieved by being transparent in the way the study has been performed by disclosing the interviewers, the organization, the interview questionnaire and raw data. The data collection was performed by letting the participants be anonymous. Many participants explicitly wanted to be anonymous in order to participate in the study, whereas a smaller group of participants were ok with disclosing their names. But as many interviewees required to be anonymous, that was the way data was presented in the study. Furthermore, due to time constraints, all the raw empirical data was not transcribed as it would take too long for this report to be finished within the time horizon. This can therefore be argued to decrease the reliability of the study and thus the validity, as reliability is a pre-requisite for high validity. However, by disclosing the organization, reliability of the study increases according to Farquhar (2012).

**Generalizability**

Generalizability, also referred to as external validity, is defined as the extent the results of the research can be generalized, meaning transferred to other organization, contexts and people (Farquhar, 2012). With a single case study, it is impossible to gain as the statistical foundation to generate generalizability (Blomkvist & Hallin, 2015). This is the situation for this study. However, Blomkvist and Hallin (2015) states that analytical generalizability can be generated from a single case study. It means that a discussion regarding if the findings may be valid for other types of organizations as well (ibid).
5. Empirical findings and analysis

This chapter analyses the main research questions, “How can tasks performed by IPU within the Swedish Police Authority systematically be managed and controlled by using performance measures?”. To answer this question, it is further divided into three sub-questions where the empirical material is presented in three different sections. The first section, Chapter 5.1 Current performance measures, discusses research question 1, “What is currently being measured?”. The second section, Chapter 5.2 What to measure, discusses research question 2, “What measures should be used?”. This section analyses and discusses what information that measures need to encompass and what factors that influence the way relevant performance measurement can be achieved. The third section, Chapter 5.3 Realization of performance measurement, discusses research question 3, “How can performance measures be realized to manage and control the organization?” The last section, 5.4 Discussion answers the main research question and presents the proposition on how performance measure can be used as well as how operations relate to a PMS on a broader perspective, by using the OSMS concept.

5.1 Current performance measures

When gathering empirical material about the current measures used in IPU, it is also imperative to understand the context and environment in which they are operating.

5.1.1 Description of IPU’s operations

The context and environment in which the Swedish Police Authority is managing its operations differ substantially from traditional industrial organization in which performance measures commonly are used. The complexity of its operations derives partly from the nature of the variation of tasks performed with different purposes as well as the difference in output when having completed their tasks.

We are the unit that should maintain order in society, be the first unit at a scene and collect information through investigative activities, work proactively against crime as well as to save lives, our number one priority. …every day we get smaller missions that we are responsible for, which are more secondary as we need to attend whatever event that occurs. (Policeman 1)

The tasks and activities performed by IPU are completely driven by the events that happens in society, which means that activities and task are initiated stochastically. When an event is initiated, as described in the high-level work flow illustration in Figure 2, the IPU patrol unit essentially transports to the scene and starts gathering information by about the situation meaning that the debriefing process is initiated at this point.

The debriefing process already starts out in the field. What we essentially do is to gather information in many forms, by interviewing and hearing the involved people, collect and store confiscated goods, arrest people, among other things. (Policeman 1)

Every event or crime, in the absolute majority of cases, differ from each other in some ways. Even though the same type of crime has been committed, the amount of people involved, the way the suspected crime has been carried out, the goods involved, if there was any surveillance footage, etc. differ. Adding another layer to that
complexity, one event can furthermore include many different classifications and types of crimes. This became clear in when participating in the workflow and daily activities that were performed, during a total of twelve work shift observations (including Emil Karlsson’s observations). The consequence for IPU in the debriefing is that the content of each debriefing report varies when describing and reproducing in text and documents what happened, what crime that was committed, who the involved people were (witnesses, suspected perpetrators and plaintiffs), under which circumstances everything happened and how they themselves, IPU, has interpreted the situation. These components, when transcribed and achieved at the police station, make in total up the final product, the debriefing report that is sent for further investigation and include the formal report, the hearings, protocols for confiscation, memorandums, among other things.

To illustrate the complexity of debriefing events, two different cases with the same crime committed, can include totally different content. For example, in a simple theft case (one of the common crimes committed daily in society) there can be on one hand just one perpetrator, one whiteness, one plaintiff while the crime is easy to prove and can be strait forward in what to include. On the other hand, another theft case may include three suspected perpetrators, four different witnesses, one plaintiff and the situation is much harder to comprehend, like who the perpetrator was and at what sequence the activities has taken place. These both cases are classified as the same in the formal report (hence adding to the same statistics of what crimes that has been reported by the police) although the content and complexity of them differ quite a lot. Therefore, the time, effort and resources needed to produce the report differ from case to case.

Other factor that adds to the complexity of the operations and contributes to the diverse content in the debriefing reports, are for instance time constraints due to priority in events to attend and the condition of the people that are a subject for being questioned or heard. These are factors that cannot be controlled by the organization, but must be managed accordingly. For example, a person at a scene that is about to be heard, can be in a condition which does not suit being heard, such as being in shock or being intoxicated. Therefore, these activities may be postponed to a later stage, after the initial debriefing activities has been performed. These are saved for investigators to perform at a later stage, another day. Therefore, in some cases the debriefing may be completed entirely when leaving the scene, while in other cases additional investigative activities are required to be performed.

5.1.2 Quality assessment

The debriefing reports goes through initial quality checks before arriving at the investigators table. Along the way, the material flows within the organization, these are carried out by various of people, both to sort out which cases that should be proceeded to investigators, but also to distribute them to the right investigation department.

The first quality check is performed by the inspector at the police station. It is the first instance to review the complete report and determine the quality of each debriefing report.

My experience is that the inspectors at the police stations tend to place focus on different quality aspects depending on who that individual is, before approving it. ...it is not entirely consistent,
the things, structure and aspects that you should be included and in which document certain statements should be put in every single case. (Policeman 1)

Similar statements about the debriefing report reviews has been confirmed by other Policeman 2 and Policeman 3, Policeman 4, and therefore strengthens the description of the situation. Moreover, when the interviewees were asked about quality inspections, even though the quality check is performed, there seems to be a lack of documenting the quality and perceived value of the debriefing material as there is no system that supports it at this point. Having an implemented PMS is argued by scholars to increase the accountability of every employee’s work (de Waal & Kourtitm, 2013) and requires clear standardization of processes to realize it.

5.1.3 Performance evaluation

The measures that are used within the debriefing operations are based on the amount of crime types that formally has been reported, how many of these that has been investigated further and how many that has been sent over for prosecution (Brottsförebyggande rådet, 2015).

According to the interviews with IPU, there are no structural and longitudinal measures upon which individuals and patrols are evaluated within the debriefing operations. However, there are local initiatives to measure performance of individuals and patrols. These are often coupled with specific missions or tasks outside the debriefing operations. Management can evaluate the quantified output on a higher level, in terms of quantified cases formally reported, how many that has been investigated further and how many that has been solved. It implies that the management possess limited measurement information that reflect the efficiency and effectiveness on an operational performance measurement level. Measuring output solely on a higher level, correlates with the studies of performance measurement within the Finnish public sector (Rantanen, et al., 2007), as it is difficult to measure the outcome of specific operations.

5.2 What to measure

This section will be structured by presenting the empirical findings and analysis about efficiency and effectiveness on a narrow operational level, the debriefing process.

5.2.1 Efficiency

Measuring efficiency of the debriefing operations, meaning assessing if IPU are “doing things right” can be performed in various ways. According to the definition of efficiency, it would assess what is performed with a given amount of resources, such as amount of labor (Business Dictionary, n.d.-b). Within the OSMS model, this would classify as operational performance measurement. Examples of information the performance measure can encompass include, the time spent on a report and the amount of reports produced, particularly on an individual and patrol level.
A study performed by Holgersson (2005) measured the debriefing operations on an individual level by assessing the amount of time spent on reports, but also the amount of reports produced by IPU on volume crimes. Therefore, the data collected by Holgersson’s study is of interest when assessing what to measure within the debriefing operations. During three months, Holgersson (2005) collected quantitative information about individual performance about how many primary reports, on-spot-fines, arrests and small narcotics crime/drunken driving. These types of reporting activities resonate with the term volume crimes, hence being relevant for this analysis. His data is illustrated in Figure 8 and Figure 9 and the first one illustrates the amount by the 13 policemen that produced the highest amount whereas the second illustrates the ten policemen that produced the lowest amount over the same period.

Figure 8. Number of reports, on-spot-fines, arrests and small narcotics crime/drunken driving by the 13 policemen performing the highest amount (Holgersson, 2005)

Figure 9. Number of reports, on-spot-fines, arrests and small narcotics crime/drunken driving by the ten policemen performing the lowest amount (Holgersson, 2005)
Furthermore, during one of the interviews, the following was said about measurement of number of reports produced by individuals.

> Measuring the amount of reports, on-spot-fines, hearing protocols, etc. is a blunt measure. But the data highlights something that itches in the process. (Process leader)

Even though this provides quantitative data on individual performance, it is unclear what learnings that can be drawn from this data input alone. There are several reasons why such differences can occur after observing work shifts as well as interviewing police personnel. Some of the most prevalent reasons and factors are describes in the Table 3 below and derives from both interviews and observations throughout work shifts.

**Table 3. Factors influencing measuring the efficiency of IPU**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cases varies in the amount of formally produced reports and documents</th>
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<tbody>
<tr>
<td></td>
<td>Variation of IPU-resources from case to case</td>
</tr>
<tr>
<td></td>
<td>All police activities do not generate formal documents</td>
</tr>
</tbody>
</table>

These are explained in greater detail below.

**Cases varies in the amount of formally produced reports and documents**

During one day, a patrol can be involved in a high-speed car chase to two persons that has made an assault, whereas another patrol can initiate a traffic control during a couple of hours. The former patrol works on a reactive mission that increases the public safety by arresting two robbers, whereas the quantitative measure may result in one piece of report each during that work shift. The latter patrol performs a mission to increase traffic safety which, according to the observations, possess a greater ratio of time spent at each controlled car and produced quantitative report. The variation of mission result, according to quantitative measures, varies in output from case to case and is not entirely controlled by the IPU alone as the missions are most circumstantial.

**Variation of IPU-resources from case to case**

One day, a patrol may include two persons, whereas another day, the patrol may consist of three or four persons. Additionally, there may be other patrols included in a case, meaning that the amount of input resources varies to the degree that some individuals perform less output, relative to others, within for instance an assault. A patrol that consist of two people may handle a case by themselves, thus generating a greater deal of report outputs. On the other hand, if there are an increased amount of individual resources involved, it may result in less individual work from a relative perspective. The amount of resources at a case is not controlled by IPU themselves and are like the previous factor, circumstantial.

**All police activities do not generate formal documents**
Looking from a broader perspective, not all the police work performed by IPU generate formal documents. This is due to the variation of missions which the patrols are engaged in. For instance, one patrol may be assisting someone to get home, whereas another patrol may at the same time be engaged in an assault-case. Therefore, IPU are not entirely in control over the amount of report outputs that can be produced.

**Implications**

When writing about the factors in Table 3, the explanations and examples involve the hypothetical expression “may”. The reason for using this expression is due to the difficulty of generalizing the activities and cases performed by IPU. The factors described in Table 3 does not explain entirely neither the discrepancy between the highest and the lowest number of performing individuals, nor does it explain why some individuals perform a greater amount of quantified outputs. It simply explains the difficulty of generalizing the police work as well as why the measurement of single and narrow outputs of performance cannot consider the entire complexity of the work.

The difficulty of measurement is related and can be explained by the literature. As mentioned by Pinheiro de Lima, Gouvea da Costa and Angelis (2009) the environment in which the organization operates in influences the operation system. Furthermore, as mentioned by (Neely et al., 1995) when describing the BSC, the surrounding environment influences what can and should be measured. The multi-dimensional characteristics of the environment that IPU works within include, a deep inter-relationship between internal and external factors.

According to (Neely, Richards, Mills, Platts and Bourne (1997), it is suggested that measures of performance should, “Simple to understand”, “Clearly defined”, “Focus on improvement”, “Provide timely and accurate feedback”, “Be precise”, “Be based on quantities that can be influenced, or controlled by the user alone or the user in co-operation with others”. Evaluating the efficiency measurement in terms of amount of produced reports possess some of these characteristics. The amount reports produced is a precise measurement, it is clearly defined and simple to understand. However, the performance measure does not correlate with “Be based on quantities that can be influenced, or controlled by the user alone or the user in co-operation with others” due to the variation of missions that IPU engage in when carrying out their work. As noted above in Table 3. Factors influencing measuring the efficiency of, they do not control all variables of their work, meaning that it is difficult to evaluate the difference in efficiency between two individuals. This strengthen the statement by the Process Leader and implies that focusing on a single measure such as produced output, reduces the complexity of operations to the extent that it cannot be valuable when assessing individuals and patrols.

**Consequences of efficiency performance measure**

Implementing performance measures based on efficiency performances has been done before, according to one of the interviewed experts.

> Earlier we had something called “pin-hunting” [meaning a chase to issue more on-spot-fines and get a specific number of people convicted for that offense] to boost and show on statistical measures that we were doing our job. This is something we stopped doing, chasing 30 or 40 pins,
since it does not increase the public safety and decrease the amount of committed offenses, according to the policemen I have talked to. But it is a very good way to illustrate on statistical measures that we are doing good things. (Expert)

It is debatable if “pin-hunting” increase the public safety and decrease the amount of committed offences. Regardless if it does, the fact that pin-hunting is a narrow measurement may incentivize IPU to boost their performance in terms of issuing on-spot-fines. The same reasoning can be done with measuring the amount of written formal reports or taking people in custody due to drunkenness.

This statement has furthermore been strengthened and highlighted by other interviewees as well during the observations. Some interviewees also added that it shifts the incentives to a narrow and quantifiable action that boosts their individual performance and illustrates that they are effective.

The problem is that it does not reflect the reality as a person illustrating good performance measures in terms on on-spot-fines or any other quantifiable that is easier to hunt for, also has other duties such as saving lives or attending prioritized life-threatening events in society, and this is not reflected when measuring the amount of produced reports or the time spent on debriefing. (Policeman 5)

Similar reasoning and statements has been made by Policeman 6 and Policeman 7, which strengthens its importance and relevance.

Therefore, the empirical findings do not strengthen the use of measuring number of produced documents or on-spot-fines, as it is a narrow and blunt way that does not reflect the reality of IPU’s work situation. From a customer perspective in the strategy maps for public-sector and non-profit organization by Kaplan & Norton (1992), illustrated Figure 5, statistical figures illustrating for instance an increased number of on-spot-fines or formal debriefing documents written by the police illustrate for the public that the organization is doing a good job within a specific and narrow area. However, it does not say anything if the IPU is achieving its overall mission as it encompasses a broad variety of missions that are difficult to quantify in numerical figures.

An additional reason to why this measurement is inappropriate can be made by referring to the definition of efficiency, “...is an assessment of what is performed with what can be achieved with the same consumption of resources such as money, time, labor, etc.” (Business Dictionary, n.d.-b). The inappropriateness derives from the factors expressed in Table 3. Factors influencing measuring the efficiency of , meaning that the work performed by the police authority does not resonates with a systematic chart of activities that look alike in every single case. When comparing the writing and formulation of a debriefing report with a factory producing for example cars, the variables such as time, effort, resources and money put into every single car are known and much easier to trace back to an individual’s work performance. Whereas in the debriefing of a volume crime, both the amount of resources put into every case and the context and content of every case varies to the extent that time spent
or the amount of produced debriefing reports, does not reveal for management the performance of the individuals or patrols.

5.2.2 Effectiveness

Effectiveness in theory refers to the extent to which customer requirements are met according to (Neely, Gregory and Platts 1995). Pinheiro De Lima, Vouve da Cosa, Angelis and Munik (2012) continues to describe PMS as a system that enable an increased understanding of the needs of its customers (both internal and external) and what they perceive as value. As this thesis is delimited to the Swedish Police Authority, the internal customers are defined as the investigators and has been a subject for investigation. Therefore, narrow effectiveness in this report specifically refers to how well the purpose of the debriefing operations, is fulfilled within the Swedish Police Authority.

Purpose and components of debriefing reports

The internal customer of the debriefing report is investigators at the Swedish Police Authority. The purpose of a debriefing report is essentially to provide the investigators with information and material about a case. According to the interviews performed with investigators, a high level of quality in debriefing reports as an output from the debriefing operations are perceived as valuable to them.

To fulfill the purpose, several components must be included. The central component is a formal report that describe what type of crime(s) that has been reported as well as a brief description of the sequence of events. Additional components that varies with the type of crime include a formulation of who the involved people were (witnesses, plaintiffs and suspected perpetrators) and their contact information. Moreover, it includes a hearing and interrogation protocols of the involved people. Some cases also include confiscated goods, surveillance footage, memorandums that describe how individual policemen has interpreted and observed the happenings at the scene, among other things. The components of a debriefing report vary with the type of crime although the components listed above are often reoccurring.

The debriefing report is supposed to reflect the events and happenings in text and footage so that the investigator can continue the investigation after the first-hand actions has been performed. The level of quality determines what continuous action that will be taken by the investigator. Therefore, high quality of reports is a critical success factor in performance measurement (Catacús, et al., 2008).

Definition of quality

Table 4 below is a summary of the aspects that the interviewees regarded as high-quality of reports. However, below the table follows a more comprehensive description from a statement by an interviewee.

Table 4. Aspects that define high quality of reports

Quality aspects

| Structural logical flow |
Clear hearing/interrogation protocols – including questions that support the legal requisites

Photo documentation – described in detail to support the legal requisites

Gods confiscation – described why it is important for investigation

Relevant and updated contact information to involved people

Memorandums that describe what IPU themselves has observed and how they interpreted the situation

The following statement was made about what good quality of reports is.

A good report reflects the situation that has occurred in a manner that is easy and logical to follow in text with complementing pictures and footage that describe the scene and event. The success of achieving quality is determined by asking the right questions in hearings (for example, why the crime or event occurred), confiscating goods and describing why it is important, taking pictures that describe the scene providing insight to if surveillance footage is available and if it has been collected (but if not, why, as well as for how long it is available upon request from the footage owner), having the latest contact details – all in all to determine what legal requisites that can be substantiated in the investigation material (debriefing material). The list of factors that determine good quality is long and complex to understand as almost every case is unique and every individual receiving the material views it with its own eyes.

The definition of high quality is therefore hard to generalize both since different individuals interpret quality of report differently and that legal questions are a subject of subjective assessment. Comparing quality of debriefing operations with for instance the quality of assembly operations within a car factory, the former is a subject of being more subjective whereas the latter assessment is objective. When formulating performance measures of debriefing operations, this fact needs to be put into consideration.

The following statement has been made by an investigator that described and compared quality of debriefing reports as well as described the continuing actions that person took.

This report [showing the entire report] is excellent and I know exactly what to do with it. Due to the detailed material documenting the event I will discontinue the investigation as the first-hand actions were comprehensive enough and I cannot find anything else that would make the case move forward to prosecution. Another case with excellent quality [describing it in detail] gives me input to where (in what end of the material) to allocate my time and effort to continue the investigation. …this report on the other hand possess a lower quality [showing the entire report] as I firstly do not completely understand what has happened in detail, who the suspect is or even if a crime has been committed. I therefore need to contact the policeman who created the report and ask for clarifications, such as if surveillance footage was available as well as ask the person to write a memorandum to strengthen the story. Moreover, I need to call the involved people again for additional hearings to gain knowledge about the investigation.
This statement implies that high quality is not conditioned upon material that leads to prosecution. High quality is therefore interpreted as performing the right tasks from the start when creating a debriefing report. Otherwise, some work will be left to be either redone by the IPU or performed again but by the investigator. Ultimately, high quality of reports provides insight to if more resources should be put on a case. In the case of putting more resources into the case, the debriefing reports gives an indication to where time and effort should be put into the investigative activities.

**Influencing variables of quality**

There are many variables that influence the quality variation of the debriefing reports. Whilst observing as a participant and throughout the interviews the following factors were identified as the most common influencers, illustrated in the tables below. These are divided into controllable and non-controllable factors by the IPU. The non-controllable variables influencing the quality are listed in Table 5 and derive from the environment in which the policemen are working.

*Table 5. Non-controllable variables influencing the quality of debriefing reports*

<table>
<thead>
<tr>
<th>Non-controllable variable</th>
<th>Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time spent on scene</strong></td>
<td>When being on a scene, a new priority to attend another case can occur, meaning that surveillance footage can be left uncollected, hearings and interviews can be postponed to a later stage.</td>
</tr>
<tr>
<td><strong>A person’s ability to retell the event, including level of detail in the story</strong></td>
<td>The ability for a person to have a common thread or provide a detailed explanation to the event varies from person to person. Some people provide good and relevant information whereas other have a harder time providing answers relevant for the investigation.</td>
</tr>
<tr>
<td><strong>The state of people on scene &amp; willingness to participate as a witness</strong></td>
<td>Intoxication, shock or any other state of mind or body that make people at the scene not being appropriate to interview or hear</td>
</tr>
<tr>
<td><strong>Environmental context</strong></td>
<td>The environmental context can be inappropriate to continue investigative activities in, such as proceeding with hearings, if it is tumultuous and chaotic. A hearing can therefore be more suited to take place another time and on another location.</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>The language of the involved people not always is limited to Swedish, meaning that the ability and level of detail in a person’s story is affected by this variable.</td>
</tr>
</tbody>
</table>
The variables that are controllable by IPU are listed in Table 6 below. The controllable variables are influencers that the organization can manage.

Table 6. Controllable variables influencing the quality of debriefing reports

<table>
<thead>
<tr>
<th>Controllable variable</th>
<th>Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearings/interrogations</td>
<td><strong>Theme 1</strong>: The questions asked to witness(es), plaintiff(s) and suspected perpetrator(s), are an essential part in strengthen the legal requisites for a specific crime, thus determining the quality of the debriefing report.</td>
</tr>
<tr>
<td><strong>Theme 1: Interview questions</strong></td>
<td><strong>Theme 2</strong>: The various people involved in a case possess different statuses, such as being biased or unbiased in relation to the witness(es), plaintiff(s) and perpetrator(s). It is an important aspect to determine the credibility of a person’s story in a hearing or interview.</td>
</tr>
<tr>
<td><strong>Theme 2: Status of involved people.</strong></td>
<td><strong>Theme 3</strong>: Contact information (e.g. mobile phone number) and potentially when during the daytime the person is available, is essential for investigators to continue an investigation.</td>
</tr>
<tr>
<td><strong>Theme 3: Accurate and up-to-date contact information.</strong></td>
<td><strong>Theme 4</strong>: Informing witness(es), plaintiff(s) and suspected perpetrator(s) of their rights and obligations to formally and legally make the collected information in hearings valid for the continuation of the investigation.</td>
</tr>
<tr>
<td><strong>Theme 4: Informing the rights of the involved people.</strong></td>
<td></td>
</tr>
<tr>
<td>Interviewing sufficient amount people on scene</td>
<td>Making sure that people on scene are interviewed - if they cannot participate, give an indication to why and add how and when a suitable time for a hearing would be.</td>
</tr>
<tr>
<td>Securing surveillance footage</td>
<td>Either looking at the security footage to determine if it is of use or securing that it is available for pickup in the near future. If not possible, communicate that in memorandum.</td>
</tr>
<tr>
<td>Documenting the scene taking pictures</td>
<td>Taking pictures at the scene, both those for an overview but also those illustrating in detail, and describing in detail their relevance for the investigation.</td>
</tr>
<tr>
<td>Confiscating goods</td>
<td>Confiscating goods and describe in detail why it is of interest for the investigation.</td>
</tr>
<tr>
<td>Memorandums</td>
<td>Writing memorandums provides a greater insight to how the individual policeman interpreted the situation on scene as it can be of vital importance to continue or discontinue the investigation.</td>
</tr>
</tbody>
</table>
**Challenges with performance measures**

These controllable variables are examples of factors that a PMS would be suitable to measure. Measuring if these are included or fulfilled or not poses as a challenge. The first reason is that reports does not look alike and content varies. It means that measuring to what extent a debriefing report is satisfactory or not would be dependent on the receiver’s (investigator’s) perception if it is fulfilled or not. Therefore, such a performance measurement would be subjective, rather than objective. It makes it more difficult to compare case to case, yet it would reveal if the purpose of a debriefing report is fulfilled or not. It is a challenge that cannot be solved since law itself is a topic of subjective assessments. The second challenge is the non-controllable variables that influence the performance measurement. As the name implies, these are not controllable by IPU, so if the perceived quality is lower due to one of these reasons, then the policemen do not need to be accountable for that.

**What to measure**

The foundation upon which a performance measure is formulated upon is the perceived expectation by the investigator on the debriefing report. After IPU has performed its debriefing operations, a suitable performance measure in the process is to what extent the debriefing report was “right the first time”. The debriefing report can therefore be evaluated by investigators according to controllable variables. The variables serve as sub-measures that in greater detail are used for evaluation.

According to Neely, Richards, Mills, Platts and Bourne (1997), the performance measure should possess the certain characteristics. The performance measure “right the first time” is clearly defined, precise and simple to understand. It is not entirely based on quantitates that can be influenced or controlled by the IPU. Variables that are non-controllable should therefore be excluded from the assessment of quality and being right the first time. It means that if such a variable influence the quality, IPU should not be accountable for the lack of quality. This performance measure focus on improvement as it highlights what of the controllable variables that lack in quality and are a subject of being improved. By assessing if reports lack in quality the first time, according to the sub-measures (controllable variables), it provides accurate feedback on points for developments in the debriefing operations by IPU.

**5.3 Realization of performance measurement**

Specific performance measures should according to Neely, Richards, Mills, Platts and Bourne (1997) derive from strategy. The authors’ statement correlates with the OSMS model by (Pinheiro De Lima, Gouvea Da Costa, Angelis and Munik (2012). Operation strategy derives from the business strategy and is formulated to maximize the efficiency and effectiveness of operations. The suggested performance measures in section 5.2.2 Effectiveness resonates with securing effectiveness of its operations.

The following statement was made by one of the investigators and similar statements was made by two other investigators throughout the interviews.

*Previously there was an initiative to have investigation templates for a hand-full of crime types that stated what needs to be included in a debriefing report. Different crime types had different*
templates with checkboxes stating what is needed to be done to fulfill high quality and not miss details that can be of significance for the investigation. These are not systematically used today and are seen help, if wanted, for the IPU. They were formulated by investigators to explain what is needed from an investigation point of view to make their job easier.

The statements from the interviewees are interpreted from an OSMS perspective for the remainder of the paragraph. Firstly, from an operations strategy point of view, the organization wanted to communicate clearly what is expected to be fulfilled in debriefing operations. Secondly, this was realized by creating templates that the IPU had access to throughout the debriefing operations. According to one of the interviewees, the effect it had on the debriefing reports was positive as the perceived quality increased. As many of the IPU and Investigators stated during the interviews, there are no explicit ways to evaluate the performance of the methodology other than by asking investigators about the perceived quality. It is interpreted as adhoc measurements that are hard to generalize since there is no data to back up the perceived value.

Systematic control of operations is according to Anthony (1965) the foundations upon which performance measurement is built upon to evaluate efficiency and effectiveness. Formal control entails, among other things, standardizing operations processes which enables the operations to be evaluated objectively (Anthony, et al., 2007). By structurally adding the content of the templates into the formal debriefing operations, meaning implementation of formal control, enables control of the process. The control is gained by formally and systematically measuring what factors, listed in Table 5 and Table 6, that influence the quality. Additionally, monitoring and analyzing the factors influencing the quality furthermore enables data collection of what crime types or controllable variables that generally is perceived to lack in quality. This enables the organization to take appropriate action to increase the overall quality. This resonates with Amaratunga and Baldry (2002) definition of implementation of performance measures as they seek to affect positive change in the system and processes within the organization.

The first consequence of a PMS on a higher level, is that the quality of reports can be compared between the various crime and event types. In detail, this means being able to distinguish if the overall perceived quality in reports differ, for example between assaults and traffic crimes. Secondly on a detailed level, the PMS system will identify certain factors that more often lack in quality. The overall effect of the PMS is that feedback can be provided from investigators to IPU and the management within the organization, based on quantitative measures to enhance the quality of reports.

Implementing performance measures emphasizes what controllable variables that need to be improved to sustain long-term success. The concept of implementing templates for different crime types suggest that high-quality is achieved more often than without. Therefore, these are a vital part of the realization of performance measurement as it contributes to communication of what expectations investigators has in debriefing reports. Because without communicating expectations, it would be harder for IPU to include vital investigation aspects into the material, thus harder to systematically measure the effectiveness in the process.
5.4 Discussion

The Swedish Police Authority and more specifically IPU operates in a complex environment. Firstly, IPU possess various of different missions with different purposes. The unit can be described as generalists with specialized competence within law. Secondly, the environment in which they perform their tasks is characterized by complexity and circumstance. These facts contribute to the difficulty of managing and controlling the operations and more specifically the debriefing process with performance measures. However, as stated by interviewees, investigation templates as a mean to create methodological support. However, this methodological support does not include the quality-influencing factors stated in Table 5 and Table 6. Therefore, a PMS is suited to entail measurement of the controllable and non-controllable variables.

The proposition below is based upon the perspectives within the strategy maps for nonprofit organizations Kaplan and Norton (2004). It focuses on the “Internal Perspective” and entails the debriefing operations whereas the development and educational activities within the organization derives from the “Learning and Growth Perspective”. The two other, “Fidiciary Perspective” and “Customer Perspective” was left out due to the delimitations of the report.

5.4.1 Proposition

Managing and controlling the debriefing operations performed by IPU requires both the methodological support high level of quality, but also a PMS that encompass and consider the quality influencing factors, both controllable and non-controllable. To illustrate how performance measurement can be realized, a conceptual system, illustrated in Figure 10, was developed. It builds upon the OSMS concept by Pinheiro De Lima, Gouvea Da Costa, Angelis and Munik (2012). The methodological support derives from the operations strategy and the realization of it. The operations system is set to encompass the activities performed by the IPU and the investigators. The operational performance measurement in this concept encompass both controllable and non-controllable variables. The first step when creating a debriefing report is that IPU document if any and if so, which non-controllable variables that affected the collection of information. Secondly, when investigators receive the
reports and performs an initial review of the documents, then a quality check according to the controllable variables should take place. Thereby, an analysis can be made to understand what crime and case types that possess room for higher quality, but also if there are certain quality aspects, such as the ones listed in Table 4, that the organization can become better at fulfilling.

**Benefits**

There are several beneficial consequences when implementing such a PMS. For instance, it will increase the feedback and communication between IPU and investigators through developmental and educational activities. It should be a complement to today’s way of providing feedback. Another consequence of receiving quantified data on quality aspects is that management within the organization will have a foundation to base their decisions upon when developing the organization across all regions. For instance, it will reveal if certain regions are performing better at fulfilling high-quality debriefing reports and thus a benchmark of their operations can be performed, since all regions does not have the same exact methodologies within their operations.

Even though this measurement system does not suggest measuring efficiency, it will increase indirectly by increasing the effectiveness. As IPU increase in effectiveness, investigators can become more efficient. Firstly, investigators can make better decisions if a case should receive more resources for investigation. Secondly, within the cases investigators continue investigating, they will also get a better understanding to where their time should be placed, for example focusing on hearing specific people again and ruling out others.

**Shortcomings**

The system possesses a quality evaluation based on different individuals making the assessment subjective. With this, the evaluation will not be entirely consistent as two investigators will assess for instance legal questions differently, in comparison to a quality assessment in a car assembly plant where the torque on a bolt. However, collecting quantitative, yet subjective information about the satisfaction of debriefing operations according to the investigators’ perspective, provides implications to what developmental and educational activities that should be performed.

**Technological aspect**

One of the main reasons why this topic is of contemporary interest, is due to the level of technological advancement as of today. A key enabler to implement such a PMS is a technological solution that support this function. Without a PMS-solution that possess a seamless integration into the current system, the level of acceptance among current police employees could be regarded as being a risk. Generally in society, and within the Swedish Police Authority, the technological capabilities are strong which implies that there are many possibilities to implement such a technological solution into the current workflow without disrupting the current system by increasing the everyday workload substantially for the IPUs and investigators, nor drive cost. Therefore, the level of technological capabilities that society has reached today, enables solutions such as the one presented in this report, to be both organizationally feasible and cost efficient, hence making the topic a contemporary interest for public-sector organizations.
6. Conclusion

This concluding chapter presents the discoveries from the study performed in the organization to answer the main research question as well as describing the contemporary interest of this question in the discussion section. This chapter also includes separate sections with the empirical and conceptual contribution. Lastly, the limitations of the study and the suggested future research are discussed.

6.1 Summary

The intention of this study has been to expand the understanding of how a PMS can be used within a public-sector organization. More specifically, the study investigates how a PMS can be used in operations that are characterized by an environment in which the organization do not control every aspect of. To answer the main research question, three sub-research questions were formulated. These research questions were investigated by performing a single case study within the Swedish Police Authority by conducting interviews complemented with observations of the operational process.

RQ1: What is currently being measured?

Today, there are a limited amount of measures that reflects the work performed by the IPU. On a high level within the organization, output measures are used that entail how many formal reports that has been produced, how many that leads to further investigation and how many that proceeds for prosecution. Moreover, observations revealed that there are some local ad-hoc measurements to evaluate specific and targeted missions that reflect how well the IPU is performing. According to the interviews however, there is no existing structural system that documents the outcome of the debriefing operations, even though quality assessment is performed throughout the process. It is therefore of interest to conceptualize and develop such a PMS system that reflect the performance within the debriefing operations.

RQ2: What measures should be used?

According to Neely, Gregory and Plats (1995) a PMS should monitor both the efficiency and effectiveness within the organization and its processes. The empirical findings suggest that the debriefing operations performed by IPU is suitable to limit the performance measurement to narrow effectiveness, meaning if the purpose of the operations is fulfilled or not. This is achieved by measuring what controllable variables in the collection of debriefing material, listed in Table 6, that are satisfactory to withstand high quality of debriefing reports. Due to the complex and varying nature of the police work performed by IPU, there are certain uncontrolled variables, listed in Table 5 that the measurement need to take into consideration when measuring the effectiveness.

On the other hand, the empirical findings suggest that measuring efficiency of debriefing operations is less desirable as it provides a narrow and not entirely true reflection of the working performance. The argument strengthening this statement derives from the factors listed in Table 3.

RQ3: How can performance measures be realized to manage and control the organization?
A PMS is according to Pinheiro De Lima, Gouvea Da Costa, Angelis and Munik (2012) part of a larger control system that can be viewed from a process perspective, illustrated in Figure 4. The performance measurement of the operations system derives from an operations strategy and a realization of it. This study suggests that a comprehensive description of what information that is required for many different crime types are communicated from the investigators to the IPU, much like a quality requirement list. It serves as a foundation for quality inspection, complements the legal education that IPU possess and serves as a support for a methodological procedure during collection of information. The methodological support is important as the environment and context in which the information collection take place, can be deemed stressful, making it easy to forget certain aspects.

MRQ: How can tasks performed by IPU within the Swedish Police Authority systematically be managed and controlled by using performance measures?

By combining the methodological support for information collection with documentation of controllable and non-controllable variables, the Swedish Police Authority can develop a PMS within the debriefing process that entails the effectiveness of operations. Using such an approach, the organizational learning and development can be based on statistical data. With constant measurements of the debriefing operations, the organizational and individual learning as well as development is made possible through the concept of single and double loop learning. Thereby, the organization’s process will iteratively improve and reach its purpose.

6.2 Contribution

This section firstly presents the empirical contribution of this report. It is followed by the theoretical contribution and what aspects that the study has added to academia.

6.2.1 Empirical contribution

This section will firstly present the empirical contribution of the report to the Swedish Police Authority. It is divided into two main parts presented below.

1. Setting an outspoken standard with methodological support

Today, the quality assessment is made by investigators based on their specific expertise. The specific aspects that are a subject of being assessed are coupled with the specific crime type. There are some educational activities that teach and develop IPU’s skills for collecting information for the debriefing operations. However, as of today there is a limited amount of methodological support for collecting information. Based on the findings, it is recommended to continue develop and standardize these by extending the support for even more crime types. By doing so, the department for investigation can formally communicate their expectations of the debriefing content and support continuity in information collection. This is necessary to structurally being able to measure the perceived quality of reports. Without this standardization of expected quality, it is harder for IPU to formally know what to include in every single crime type as there are a great deal of them. Measuring without the methodological support can be compared with measuring if the torque of wheel nut is high enough in an assembly factory, although the employee does not formally know to what extent the wrench should be turned.
Thereby, measuring the performance would be to measure every individual based on their own way of working. With a greater standardization, it is easier to assess what quality aspects that generally need to improve within the organizational unit.

2. Performance Measurement for organizational learning

Measuring performance is the road to organizational learning and development. Marr (2012) cites “What gets measured gets done” and “if you can’t measure it, you can’t manage it”. Having a PMS within the organization is a vital tool for managers within the organizations to base their decision making on. Today, the feedback within the debriefing operations, both positive and constructive, occurs when investigators send comments and advice to the individuals in IPU upon specific cases they have reported. However, the feedback often occurs sporadically just between the individuals in the case without managers being directly involved. Operationalizing a PMS would serve as a complement to the existing method. Within the single-loop learning perspective, by measuring the narrow effectiveness, feedback will be received on more specific aspects of reports that need to increase in quality. Moreover, it will allow for different regions to compare their outcomes, based on their resources, methodologies and environmental context in which they operate. From a double-loop learning perspective, the PMS needs to be structured so that it entails a longitudinal perspective as new technology and methods for information gathering changes over time.

To conclude these recommendations, the organization should continue developing the already acknowledged methodological support needed for information gathering and then operationalize a PMS that recognizes both controllable and non-controllable variables within the debriefing operations.

6.2.2 Theoretical contribution

It is believed that Henry Ford said, “a customer can have any color they want, so long as it is black”. The quotation illustrates how Henry Ford reduced the complexity of the tasks that workers performed inside the production line. It also illustrates the how formal control can be gained by standardizing processes and controlling the variables influencing the system. In the case of this report, the significant aspect that influences the debriefing operations system is both the controllable and non-controllable variables. In organizations where there is a mixture of these variables, notably in organizational units with many different and complex missions that differ from each other, this needs to be considered in the OSMS by Pinheiro De Lima, Gouvea Da Costa, Angelis and Munik (2012). Therefore, when evaluating the operations strategy and realizing it in operations system, the system be conceptualized accordingly.

From a theoretical perspective, the contribution this report adds to within the field of performance measurement management and PMS is the consideration of controllable and non-controllable variables influencing the operations system. Consequently, it affects the performance measurement and what conclusions that can be made when analyzing the performance. Since there are not general success factors that performance measures are built upon, as they are dependent on the context and organization in which they are used (Catacús et al., 2008), there are no further implications to how exactly the controllable and non-controllable variables should be considered, yet that it should.
6.3 Limitations and further work

Public sector organizations, possess generally many stakeholders within the organization that can have conflicting requirements (Brignall & Modell, 2000; Lawton, McKeivitt, & Millar, 2000; Wisniewski & Stewart, 2004). According to Wisniewski and Stewart (2004), this creates at least two problems for the performance measurement system. Firstly, considering all stakeholders may result in producing a multitude of performance measures that satisfy no one (Wisniewski & Stewart, 2004). Second, it may be difficult to set targets or to make decisions based on the measurement results, because some of the stakeholders have conflicting objectives (ibid).

When implementing a PMS, the conflicting needs of different stakeholders must somehow be reconciled (Lawton, et al., 2000; Mettänen, 2005).” Due to the limitations of the report, the spectrum of involved stakeholders within the study was reduced to the ones directly involved in the process. Therefore, implementing such a system requires an additional legal study to formally determine the legal aspects that need to be covered within the methodological template support.

Lastly, to build on the conceptual idea of this report, an additional study from a technological perspective is desirable to practically implement it. This would require a study that involve the technological department to an even greater extent than in this study to resolve practical aspects of implementing a PMS.
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