Performance measurement and evaluation for cultural non-profit organisations.

A model developed for Swedish Museums
Abstract

This study highlights the difficulty for non-profit cultural organisations to measure and evaluate the performance of their operations. The goal was to suggest and test a model for performance evaluation that can be used by museums, more specifically it was developed for Swedish Museums.

The theoretical framing of the study is Operations Management. With this being a practical and problem-solving research discipline, the pragmatic approach with Design Science research was chosen as the methodological foundation. Based on this strategy several research methods were used in the process of solving the problem and designing the model.

Based on previous models for performance evaluation, with the adaptation to the setting of Swedish Museums a model was presented, tested and evaluated in the study. The study was delimited to the design phase and implementation was not part of the report.

After having tested the model, a follow-up interview was conducted. In the interview, the test results were presented to a museum manager in order to validate that the model can be used as a tool for decision support and as a way to report non-financial results to stakeholders such as politicians or their representatives.

Key Words:

Performance measurement, evaluation model, non-profit, cultural organisations, museum, operations management, arts management, cultural economics
# Table of Contents

1 INTRODUCTION........................................................................................................5

1.1 Background...........................................................................................................5

1.2 Problem..................................................................................................................7

1.3 Research Questions and Purpose..........................................................................7

1.4 Structure of the Report..........................................................................................8

2 FRAME OF REFERENCE ..........................................................................................9

2.1 Operations.............................................................................................................9

2.2 Kulturavspolitik - Museilagen..............................................................................11

2.3 Performance measurement...................................................................................11

3 RESEARCH METHODS AND PROCESS ...................................................................19

3.1 Design Science Research (DSR)..........................................................................19

3.2 Research Design and Process..............................................................................21

4 RESULTS AND ANALYSIS ....................................................................................27

4.1 Analysis of secondary textual data......................................................................27

4.2 Survey....................................................................................................................27

4.3 Interviews..............................................................................................................33

4.4 Performance Evaluation Model adapted for museums .........................................33

4.5 The model..............................................................................................................34

4.6 Model testing........................................................................................................41

5 DISCUSSION AND CONCLUSION ......................................................................45

5.1 Answer to research question 1.............................................................................45

5.2 Answer to research question 2.............................................................................45

5.3 Answer to research question 3.............................................................................45

5.4 Fulfilling the goal and purpose............................................................................46

5.5 Suggestions and implications...............................................................................46
6 CHALLENGES, LIMITATIONS AND FUTURE RESEARCH .................. 47
6.1 Challenges of the Study .......................................................... 47
6.2 Limitations of the Study .......................................................... 47
6.3 Future Research .................................................................. 48

7 REFERENCES ............................................................................. 49

8 APPENDICES ............................................................................. 52
Introduction

The following chapter introduces the notions of non-profit organisations and the problems of performance measurement and evaluation they face, which motivates the work described in this thesis.

1.1 Background

When a group of people comes together to achieve something they often create an organisation. The nature of the organisation may be formal or informal and the size may differ but never the less it is an organisation (Stevenson, Oxford dictionary of English, 2011). The organisation was formed with a purpose to achieve something, for a business that something may be profit for the owner, for a charity it may be to improve the environment for marine life. For most organisations, monetary funding is essential in order to run operations and achieve their mission. Funding might be obtained in different ways. The individuals or organisations that fund non-profit organisations usually do so with a purpose and an idea of what the resources are intended for. Therefore, in order to ensure continuous funding, it becomes important for the non-profit organisation to maintain a high level of trust from the contributors (García, González, & Acebrón, 2012; Bernstein, Buse, & Bilimora, 2016; Krug & Weinberg, 2004). Regardless of what the purpose of the non-profit organisation is, all strive to earn the trust from their contributors and one way to achieve trust and to assure that their work is carried out right is to measure the performance of the organisation (García, et al. 2012; Bernstein, et al. 2016; Krug & Weinberg, 2004).

When measuring performance, first the meaning of the word performance needs to be defined, in order to know what to measure. Performance can simultaneously be an action, the result of an action and the level of success of said action put in relation to a benchmark (Lebas & Euske, 2002). Context can be used to help clarify what is meant by performance in the specific case (Lebas & Euske, 2002). The purpose of the organisation sets the context for how to evaluate performance.

An organisation's performance might be evaluated in several ways, a common and easy way is to benchmark against last year's performance as well as against other similar organisations performance. There are different types of numerical measurements that could be used. These can be both financial measurements such as growth, profit margin and Return on Investment (ROI). There are also non-financial measurements such as customer satisfaction, employee satisfaction and customer retention which can be made numerical. Other ways to evaluate organisations are through measuring their efficiency and effectiveness compared to resource usage. Another perspective of performance for non-profit organisations is impact, sometimes called social impact depending on the nature of the organisation. Impact can be both relevant and important when assessing how a charity organisation uses its resources and if the resources were spent on promoting the purpose of the organisation. When using the term impact in association with performance measurement at a museum or any other cultural organisation is it easy to interpret or misinterpret that the evaluation is determining the artistic qualities of the work (Turpide & Laurin, 2009).

The term non-profit organisation encompasses many different types of organisations, all having in common that their purpose is not to generate profit for owners and investors. They can be charities, associations, political organisations or governmental agencies, museums and clinics amongst others (LII, 2017). With some non-profit organisations, the purpose is clear and easy to understand; whilst others, such as museums, there might be many different purposes (Paulus, 2003; Barrio, Herrero, & Sanz, 2009) and therefore these organisations may be more difficult to grasp. A mission statement usually defines the organisations' objectives and how to reach them (Kaplan & Norton, 2004; Bain & Company, 2017). A mission statement is therefore, a starting point when developing a strategy for the organisation’s activities in order to achieve their purpose. This strategy can then be used both for operational and evaluation purposes. (Kaplan & Norton, 2004).
1.1.1 Swedish museums

One branch of the cultural sector are museums, which are defined by International Council of Museums (ICOM) as: "A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment." (ICOM, 2007). Another definition presented by the Swedish government, formulated in a law about to be accepted in 2017: "A museum has in this law reference to an institution that is open to the public, which acquires, preserves, investigates, communicates and exhibits the tangible and intangible evidence of people and their environment." (Regeringen, 2016).

Although there is a large variety of museums, this report will cover those defined as community funded museums (Sveriges Regering, 2016) including governmental-, regional- and municipal museums as well as museums where the board of directors is politically appointed with up to 50 percent (Sveriges Regering, 2016; Kulturanalys, 2016).

The governmental museums, also called central museums (Kulturanalys, 2016), are museums considered of special interest for Sweden, for example, The Wasa Museum and The Museum of Swedish history. Regions and municipalities are also funding museums of interest, sometimes in joint ventures (Kulturanalys, 2016). These museums were defined as regional museums (Länsmuseum) or municipality museums (kommunala museum). Apart from these museums, there are also other types of museums but this report will not cover them.

In the early 1980s, there was a general progression within the international world of museums for a shift in management philosophy within the tax-funded sector. In order to achieve this, the funders looked towards the realms of for-profit businesses. The museums started to adapt and formalise goals and management processes (Köping, 2007). This change in management philosophy required the managers of the respective organisation to account for how the funds granted had been used (Köping, 2007) and prove that it had been used the way the funders intended. The managers were often required to account for reached goals, financial results, market plans and number of visitors each year. They were also asked to evaluate their organisation in both financial and qualitative terms (Köping, 2007). At the same time, the funds have not been increased at the same pace as costs have risen, and some museums have even had their funding decreased (Köping, 2007). Another financial issue for museums is that their external income from archaeological consultations was opened up for competition from the private sector. Museums that have not successfully met the competition have lost a large part of their external income due to this. For example, Jönköpings läns museum has had a decrease in external income with almost 40 percent between the years 2007-2015.

Decreased funding means that museums have had to adapt their costs accordingly, often by cutting down on staff. In the same time, the demand from funders of increased reporting has meant that staff with specialist competences needed in a museum are laid off while the support functions are kept and the same trend has been seen in Swedish museums (Köping, 2007; Lindqvist, 2007; Matarasso, 2007; Narduzzo & Zan, 2007).

The politicians in Sweden are governing the tax-funded museums by the "arms-length" principle (Köping, 2007; Matarasso, 2007). This means that politicians are not involved in the running of the museums nor the content, but rather they have left those decisions to the manager (Köping, 2007). The “arms-length” principle is about to become institutionalised in the new law for museums (Sveriges Regering, 2016). A problem with the “arms-length” principle is that the funder becomes distanced from the organisation leaving it adrift. One manager at a large central museum stated that the only time the funders were interested in the museum where when the financial results were negative (Lindqvist, 2007).

Apart from granting funds, the politicians set down the general direction for the organisations in form of mission directives (uppdagbeskrivning). These are based on the main directives from the government and what local politicians want the museum to achieve. These mission directives are often general and not prioritised, making difficult for managers to divert the funds according to the funders intent (Lindqvist, 2007; Matarasso, 2007). Some museums use these generic missions from the funder as a base for creating their own mission statement (Jönköpings läns museum, 2005 - 2015).
1.2 Problem

Many non-profit organisations are funded by the public or donations and it is therefore in the interest of the non-profit organisations to show the financial contributors that the money is being used as intended. In order to keep the public and the funders trust in the organisations, it is necessary for the organisations to be able to show them that the resources granted are being used properly. A good way for organisations to prove this is to measure and evaluate their performance according to their mission, in a formalised way. This ensures transparency of the organisation’s transactions and operations and is a way for management to increase credibility.

In a for-profit organisation, performance measurement is quantifiable and there are a number of different Key Performance Indicators (KPI) that can be used to measure how the organisation is performing (Atkinson, Waterhouse & Wells, 1997; Chen, 2010). For non-profit organisations, many of these KPIs are not as relevant, or even possible to use, when assessing the performance of the organisation (Kaplan, 2001; Chen, 2010; García, et al., 2012; Turpide & Laurin, 2009). That does not mean that performance measurement is not important for non-profit organisations but it may prove to be a more difficult process.

Most non-profit organisations do not have a traditional production process where productivity, efficiency and effectiveness can be defined. The output from the organisation’s operations could be immaterial and therefore difficult to measure. One KPI often used to evaluate the performance of an organisation is the financial result of the organisation, where positive (profit) are considered good and negative (loss) bad. The problem with accounting for the financial result of a non-profit organisation is that if they end up with a positive result it could be as bad as making a loss since a positive result mean they have not used all available funds to achieve their mission.

Therefore, it is necessary for non-profit organisations to have an alternative method for measuring and evaluating their performance.

1.3 Research Questions and Purpose

The background and problem description above describes the difficulties of measuring and evaluating organisational performance when profit is not the goal for an organisation. It also describes the importance for a non-profit organisation of gaining and maintaining the trust from those granting funds to the organisation. One way of gaining and maintaining trust is to account for efficiency and effectiveness in the organisation’s operations. This can be done by evaluating the organisational performance with the aim of reporting back to those that grant funds. The difficulty lies in having a structured and relevant method that is suited for a non-profit organisation within the cultural sector.

Therefore, the purpose of this study is formulated as follow:

The purpose of this study is to increase both theoretical and practical knowledge for how non-profit organisations within the cultural sector can measure performance and evaluate their operations.

To reach the purpose, which is more general in its formulation, a more concrete goal with the study has been established.

The goal is to suggest and test a model for performance evaluation to be used by cultural non-profit organisations.

The focus of this study is to reach the goal and by doing so creating both theoretical and practical knowledge for performance evaluation as a tool to improve operations in non-profit cultural organisations. The setting for the development and testing of the model will be Swedish museums. Answering the following research questions will contribute to reaching the goal and suggesting a model for performance evaluation to be used by non-profit organisations in the cultural sector.

1. To what extent do Swedish Museums measure and evaluate their performance today?
2. Which non-financial factors and criteria are important to include when evaluating and measuring performance in a cultural non-profit organisation?
3. Is there already an established model that can be improved or adapted for Swedish museums?

Research question 1 will serve to prove relevance and business need which is a criterion for the chosen methodology of Design Science Research as described in the guidelines explained in Table 1 in section 3.1.

Research question 2 will help in the design process and in the testing and iteration part of the process where the model is adapted to better suit the intended organisations and their needs.

Research question 3 will also help the design process, particularly in the initial part where the model is formulated.

1.3.1 Delimitations

The report was delimited to measuring the performance of the museum as efficiency or effectiveness. The report did not delve into measuring the impact of museums, such as increasing the awareness of democratic ideas, enhanced learning and understanding of the historical context of the society. In order to measure the impact of a museums activities, it would be necessary to collect data from several external sources which is beyond the scope of this report.

Since the model was supposed to evaluate performance there would be a need for the collection of data to be systematic and consistent in order for the evaluation to be relevant. But as this model was supposed to be generic it only stated what data to be collected not what methods should be used collecting it, since this may differ between different organisations. Neither did the report develop implementation methods for performance measurements in museums.

When conducting research within the cultural sector, artistic quality would often have to be considered. This was also true for this study. In a report, Nordgren (2015), discussed this question. According to Nordgren (2015), artistic quality was not actually defined so there was no clear answer to what it is. She has through research found that there was a strong sense of importance within the sector that it should not be defined. If it was to be defined in a discursive context the definition would be based on the actor with the highest amount of power to decide. This power could be expertise, systematic or hierarchal. She also points out that the definition of artistic quality was not defined in law or from the government but rather by the actors within the cultural sector. Based on the research by Nordgren (2015) the authors of this report were of the opinion that artistic quality was not possible to measure. As this report was about performance evaluation and large parts of performance evaluation are about knowing what you are measuring this report delimited itself from artistic quality as a part of the model and KPIs in the model.

For practical reasons based on time and geographical limitations, only Swedish museums were investigated. All museums selected for the study abide by the principle of public access and thus facilitating the availability of data.

1.4 Structure of the Report

The remainder of the report is structured as follows:

Chapter two cover the frame of reference and related work. Chapter three explains the methodology and chosen methods used for the study. In chapter four, the results of the study are presented along with the suggested model for performance evaluation. Chapter five covers discussion and conclusions drawn from the study. Finally, chapter six describes challenges, limitations and possible future studies.
2 Frame of Reference

As outlined in the introduction, the topic of the study is performance evaluation for cultural non-profit organisations. To gain a deeper understanding and in order to build a theoretical framing as well as identify gaps in knowledge, a literature review was performed.

There are different types of literature reviews, systematic and traditional (Easterby-Smith, Thorpe, & Jackson, 2015). The one performed for this study was more traditional since snowballing and reference tracing was allowed after the first round of articles reviewed. More articles were found after going through references of already read articles related to performance evaluation for cultural organisations.

![Illustration of search words used in the literature review](image)

*Figure 1 Illustration of search words used in the literature review*

As illustrated in Figure 1 the initial search was done with search words related to performance measurement in combination with either non-profit or cultural organisations.

2.1 Operations

In most organisations, there is some sort of operations function, even if not mentioned or thought of as operations. Part of what operations are could be explained as the activities within the organisation that provide value to customers, either through services or products. According to Slack, Chambers and Johnston (2007), there are three core functions within any organisation and operations is one of them. A major function of an organisations operations is the transformation of input into output, and it is this transformation that is adding value for the customer (Slack et al. 2007). How well an organisation is exploiting its operations in alignment with customer needs is what can make or break the organisation (Slack et al. 2007). Therefore, it is vital for any organisation to manage its operations effectively.

2.1.1 Operations Management

According to Slack and Lewis (2011), by satisfying the customer demand the customer will use the organisation and make it possible for the organisation to fulfil its mission. The processes that create value for the customer, such as production, services and sales are part of the operations (Slack & Lewis, 2011). Managing the operations with the customer as the focal point is called operations management (OM). OM also focus on making sure the processes are efficient and effective in order to create as much output as possible from the input (Slack et al. 2007). All processes have a customer (Jonsson & Mattsson, 2016) and one definition of customer is that they are paying for the organisation’s services or products. According to Matarasso (2007), the government buys cultural services from the institutions on behalf of the citizens. And by doing so the contract between the
purchaser (the citizen) and the supplier (the cultural institutions) becomes more complicated since the government have few and limited means of knowing if the citizens are satisfied with the services offered by the institutions (Matarasso, 2007).

A common management philosophy in for-profit organisations is the business model where the core idea is to make a profit by generating revenue (Slack & Lewis, 2011). Another management philosophy is the operating model which has a different focus. The focus with an operating model is customer demand and how the operations and capacity of the organisation need to align with those, rather than assuming a profit motive (Slack & Lewis, 2011). This makes the operating model viable for all types of organisations, including non-profit and the public-sector organisations (Slack & Lewis, 2011). This stems from the fact that all operations need to take the same form of decisions, no matter if there is a for-profit or non-profit perspective (Slack, Chambers, & Johnston, 2007). According to Slack et al. (2007) a problem for operations management within non-profit organisations is the fact that their strategy is more complex than for-profit organisations, therefore it is a larger chance that the operations manager need to make decisions based on conflicting goals (Slack et al. 2007).

By adapting to an operating model, an organisation will have to define what the organisation does both in their business and in their processes. According to Slack and Lewis (2011), this knowledge will make it possible to clearly examine the organisation in terms of a key relationship between structures, processes and business functions.

Slack and Lewis (2011) presents elements that are normally included in an operating model:

- Key Performance Indicators (KPIs) – with an indication of the relative importance of performance objectives;
- Core financial structure – profit and loss (P&L), new investments and cash flow;
- The nature of accountabilities for products, geographies, assets, etc.;
- The structure of the organisation – often expressed as capability areas rather than functional roles;
- Systems and technologies;
- Processes, responsibilities and interactions;
- Key knowledge and competence.

In order to align the organisation with customer demands, an organisation following the operating model will need to coordinate and plan capacity usage with customer demands in mind (Slack & Lewis, 2011), since it is the customers that evaluate the performance of the organisation (Jonsson & Mattsson, 2016).

2.1.2 Capacity

Capacity is the ability of an organisations operations to produce service or products and by doing so create value for the customer (Jonsson & Mattsson, 2016). By trying to foresee or interpret the demand from customers, anticipated capacity can be planned for ahead. This means that it is necessary for the organisation to adapt the availability of capacity when the demand changes (Jonsson & Mattsson, 2016; Slack & Lewis, 2011; Jacobs, Berry, Whybark, & Vollmann, 2011).

Capacity is calculated based on a production group or other unit within the organisation. Capacity is a value that is used for planning how much that unit or production group will be able to produce during a set period (Jonsson & Mattsson, 2016; Jacobs et al, 2011). The calculated capacity value could either be presented as machine hours or man hours depending on the processes and/or organisation (Jonsson & Mattsson, 2016). When calculating the capacity of units, it is necessary to divide the capacity into different levels in order to know how much of the capacity that it is possible to plan (Jonsson & Mattsson, 2016). The first level is Maximum capacity which is the theoretical production capacity of the unit if it is to run for 24 hours a day every day of the year (Jonsson & Mattsson, 2016). The level below is called the Nominal capacity and is defined as the capacity that the
organisation normally plan to use (Jonsson & Mattsson, 2016). Nominal capacity is often calculated with these four variables according to Jonsson and Mattsson (2016):

- The number of machines or other production units
- The number of work shifts per day
- The number of hours per work shift
- The number workdays per period of planning

An example of how this calculation could be used is to take a Swedish employee with a standard work week. The employee is alone in the production unit and works only one shift a day. The employee works for eight hours during the shift and for five days during the period of planning, in this case, one week. This leads to the formula \((1*1*8*5=40)\) meaning that the worker will have a nominal capacity of 40 hours per week.

When planning ahead it is not advisable, according to Jonsson and Mattsson (2016) to use the nominal capacity since it is unlikely that all of it can be used for production. There may be machine breakdowns, short time absence, maintenance et cetera. When considering these factors and deducting them from the nominal capacity, a level of capacity called Gross capacity has been reached (Jonsson & Mattsson, 2016). In order to get the last level of capacity, it is necessary to account for other activities in the organisations. Such as waiting for material, communication with supervisor, breaks et cetera. It will also be necessary to account for non-planned activities that may be necessary, for example, reworking defective products or emergency repairs that may occur (Jonsson & Mattsson, 2016). When all that have been accounted for, the organisation has reached the lowest level of capacity called Net capacity and it is this value that can be used for planning value adding production (Jonsson & Mattsson, 2016).

2.2 Kulturarvspolitik- Museilagen

In 2016, the Swedish government proposed a new law in regard to cultural heritage politics and museums called Museilagen, prop. 2016/17:116. Prop. 2016/17:116 is to take effect as of July 1st, 2017. Parts of prop. 2016/17:116 are directed directly towards museums and what the Swedish government intend for them to do. Prop. 2016/17:116 defines and makes it clear that politicians are not to influence the content of the museums in any way but rather to govern at an “arms-length” distance.

The part of prop. 2016/17:116 which is of most interest for this report are the paragraphs six to ten, that are divided into three sections named Publik verksamhet (Public activities), Kunskapuppbryggnad (knowledge acquisition) and Samlingsförvaltning (Collection management) (Sveriges Regering, 2016).

Within public service, it becomes clear that the Swedish government intends exhibitions and other activities be aimed towards the public. Prop. 2016/17:116 states that these activities should be knowledge based, being broad and accessible for everyone. If necessary the activities should be adapted to fit the users.

In the section knowledge acquisition, prop. 2016/17:116 explains that the museums shall contribute to research and other knowledge acquisition. This shall be achieved by having a high level of competencies within their organisations.

The last section on collection management defines that the museums shall have an active management of their collections (Sveriges Regering, 2016).

2.3 Performance measurement

Most organisations that use resources will need to account for how these resources are being used. It becomes even more important if the individuals or organisations granting funds for the organisations are not a part of daily operations. One way to organise is for the funders, to use a board of directors (BoD) to evaluate the organisation. The running of daily operations of the organisation is often left to the manager. An important role for the BoD is to monitor the organisation’s
performance and make sure that the organisation is effective and uses the resources allocated in the way the funder/owner intended (Miller, 2002; Bernstein, Buse, & Bilimora, 2016). Although there has been research made on the BoD monitoring behaviour in for-profit organisations the same cannot be said about BoD behaviour in Non-profit organisations (Miller, 2002).

The owner or funder of an organisation have a clear idea of what the organisation is meant to do with the funds and this is often defined as the organisation’s mission which in turn is decided by the BoD (Bernstein et al. 2016). Performance evaluation or measurement is a way for the funder/owner making sure that the organisation is fulfilling its mission (Bernstein et al. 2016). By measuring the performance and reporting back to the fundraisers, their trust in the organisation will be maintained (Bernstein et al. 2016; Basso & Funari, 2004). Maintaining the trust of fund granters is vital for organisations, especially non-profit organisations since this is one of the main ways to raise new funds necessary for the organisation’s survival (Kaplan R. S., 2001).

Apart from being a way of measuring the performance of the organisation performance measurement is a way to manage that the organisation is working towards the strategy set up for the organisation and support the managers in decision making (Otley, 2002; Blackbourne, Molnar, Herrick, Fiori, & Matthew, 2004; Kaplan R. S., 2001; Krug & Weinberg, 2004).

For-profit organisations have traditionally used financial measurements as a way of evaluating performance, ROI being one of the most common (Otley, 2002; Neely & Austin, 2002). During the late 1990s it became more recognised that financial measurements are not enough as they do not give a complete picture of an organisation’s performance; there was a need for a more multidimensional performance measurement method (Neely & Austin, 2002; Kaplan & Norton, 1992). For Non-Profit organisations, financial factors are even less useful as a measure of performance, since the mission and strategy for them do not include making a profit.

Performance is a commonly used word but it has different meanings depending on the organisation’s mission and context (Otley, 2002; Pignatoro, 2011). Lebas and Euske (2002) present a list of definitions of performance, whereas this report will focus on the first five:

1. Measurable by either a number or an expression that allows communication (e.g., performance in management is a multi-person concept);
2. To accomplish something with a specific intention (e.g., create value);
3. The result of an action (the value created, however measured);
4. The ability to accomplish or the potential for creating result (e.g., customer satisfaction seen as a measure of the potential of the organisation for future sales);
5. The comparison of a result compared with some benchmark or reference selected – or imposed – either internally or externally;
6. A surprising result compared to expectations;
7. Acting out in psychology;
8. A show, in the “performing arts”, that includes both the acting or actions and the result of the actions as well as the observation of the performers by outsiders;
9. A judgement by comparison (the difficulty here is to define who the “judge” is, and to know by which criteria the judgement will be formed).

For each organisation, it is necessary to clearly define what is meant with performance in order to be able to measure it and get accurate results. The definition should be so clear that it is possible for a third party to understand it, or at least so there is no discrepancy between the manager’s interpretation and the workers’ interpretation (Kennerly & Neely, 2002). In order to measure performance, it is necessary to find Performance Indicators (PI) (Jääskeläinen & Roitto, 2015), also referred to as Key Performance Indicators (KPI). When deciding for which KPis the organisation should use in its evaluation, it is important to consider the mission of the organisation in order to avoid measuring unimportant factors (Pignatoro, 2011). Another important aspect when deciding KPIs will be what method to use when collecting data and being consistent in this data collection (Pignatoro, 2011). When using a single KPI it is important to be aware of the fact that the KPI is only a single dimension
of what most probably is a multidimensional phenomenon, and therefore does not give the whole picture (Pignatoro, 2011).

When measuring the performance of an organisation there are different methods to use, that can be put into two different categories, quantitative or qualitative. Quantitative methods often collect data in form of numbers and present them by themselves or in correlation to another number. By presenting the evaluated phenomenon in correlation to another phenomenon it is possible to decide if it is good or not. Qualitative methods to collect data are mostly in form of interviews or surveys. The data collected are in form of individuals’ perception of a phenomenon and are collected to gain a deeper understanding.

2.3.1 Efficiency and Effectiveness

Both effectiveness and efficiency can be used when evaluating the performance of an organisation but they describe different things and it is important to know the difference. Effectiveness is “the degree to which something is successful in producing a desired result” and Efficiency is the ability to “achieving maximum productivity with minimum wasted effort or expense” (Stevenson, Oxford Dictionary of English, 2010). Both may be useful measurements of organisational performance.

**Efficiency** is usually described as how well the organisation are using its resources and avoiding waste (Lebas & Euske, 2002). Efficiency can also be described as getting the most output with the minimum amount of input, or to keep output at the same level while lowering input (Basso & Funari, 2004). Input is in the case of efficiency to be considered all kind of resources such as time, money and materials. While output is what is generated using the material provided. For organisations with multiple outputs and inputs efficiency will be more difficult to define and measure (Basso & Funari, 2004).

**Effectiveness** is sometimes defined as; is the organisation doing the right thing. This can be redefined as whether the organisation’s output is in line with what the organisation is intended to do. In a for-profit organisation, this might mean delivering what the customers want to buy at the right price at the right cost. While for a non-profit organisation it might mean that using the resources available to achieve the mission set out by the funders (Kennerly & Neely, 2002)

2.3.2 Performance Measurement Systems (PMS)

In order for an organisation to measure its performance, it will be necessary to use some form of system or method for the evaluation to be purposeful. Kennerly & Neely (2002) presents a set of characteristics that is necessary for a performance measurement framework. The characteristics are:

1. The system should reflect efficiency and effectiveness measures and therefore reflect financial and non-financial measurements as well as internal and external measurements. The idea is to provide a "balanced” picture of the business.
2. The system should provide an easy to understand overview of the organisation’s performance
3. The system should measure all areas of performance that are vital to the organisation’s success, meaning the system must be "multi-dimensional”.
4. The system should provide a picture of the organisation in order to make it able to identify areas where there is need of a greater focus. Giving the managers and stakeholder comprehensiveness.
5. The system should be an integral part of the organisation’s functions and throughout the hierarchy.
6. The system should show that the results are a function of the determinates. And therefore, it will be possible for management and stakeholder not only to get a correct historical picture but also using the system to plan the future.
These characteristics have been broadened and developed in later literature to include more factors and criteria, thus giving a broader perspective. Cocca and Alberti (2010) present a wider set of design characteristics for use when designing a PMS.

1. Performance Measurement Characteristics:

   a) Derived from strategy
   b) Link operation to strategic goals
   c) Simple to understand and use
   d) Clearly defined / explicit purpose
   e) Stimulates continuous improvement / right behaviour
   f) Relevant and easy to maintain
   g) Monitoring past performance
   h) Planning future performance
   i) All stakeholders considered
   j) Promote integration
   k) Defined formula and source of data

2. PMS design requirements:

   a) Strategic objective identification
   b) Top management support / commitment
   c) Key users / employee involvement / support
   d) Facilitator
   e) Maintenance structure
   f) Targets / Benchmark settings
   g) Timescale settings
   h) A responsible for the measurement
   i) Alarm signal / corrective actions
   j) Double loop learning
   k) Relationship between measures
   l) Linking performance to compensation process
   m) Procedures defined
   n) IT infrastructure support

A PMS intended for non-profit organisations, such as museums, will be more difficult to design since their goals are more complex than for a for-profit organisation (Paulus, 2003). In order to design a PMS for museums Paulus (2003) presents five design demands that need to be fulfilled and how to fulfil them:

- **Validity.** Paulus (2003) proposes that the following characteristics must be included in order for the PMS to be valid:
  - Multidimensionality
  - Role of employees
  - Value of collection
  - Future generations

- **Reliability.** In order for a PMS for museums to be reliable, it is necessary for the system to be coherent and deliver the same result if no variables are changed. The system should also have a high level of sensitivity and precision.

- **Feasibility.** Describes how possible it is to perform the activity

- **Externality:** In order to keep the system reliable, it is necessary to involve a third party in either the collection of data or the evaluation. This should be done in order to avoid self-evaluation.
- **Synthesis.** A good PMS for museums should also synthesise the data rather than letting the user do this. This is done in order to minimise personal subjectivity.

### 2.3.3 The Balanced Scorecard

The Balanced Scorecard (BSC) was created and further developed by Kaplan and Norton (1992, 1996 and 2001) as a performance measurement tool that was multidimensional and taking more than financial result into account. It is intended to give the managers a tool for evaluating the organisation and if it is performing in accordance with the set strategy (Kaplan & Norton, 1992; Kaplan & Norton, 1996). To achieve this, it is necessary for the organisation to identify a mix of performance drivers and the outcome to measure (Kaplan and Norton, 1996). Kaplan and Norton (1992) also intended to make the system easy to use and to give the managers a comprehensible number of measurements that still gives a good picture of the whole organisation (Kaplan & Norton, 1992).

BSC introduced in 1992 uses four different perspectives of an organisation’s performance. The first three perspectives are non-financial: the customer perspective, internal perspective and the innovation and learning perspective. The fourth perspective, the financial perspective offers insights into economic aspects for the organisation (Kaplan & Norton, 1992). In the articles regarding BSC, Kaplan and Norton (1992, 1996) stresses the importance of detailing each organisation’s own unique situation when deciding which KPIs to measure. The customer perspective, Kaplan and Norton (1992) argues, involves the lead time before the customer can have the product but also the quality of the product delivered to them. The performance of the organisation and also the services provided is a part of the customer perspective. The last part of the customer perspective is cost (Kaplan & Norton, 1992).

The internal perspective of the BSC is the activities the organisation must excel at in order to excel at the previously mentioned customer perspective (Kaplan & Norton, 1992). The internal perspective measures the operations of the organisation and how it runs. Therefore, the organisation needs to identify KPIs that measures the core competencies and technical skills that are needed to achieve the organisation’s goals. Examples of these KPIs could be cycle time, productivity and quality (Kaplan & Norton, 1992).

In order for the organisation to adapt to a changing market and bring new products to a more discerning customer base, it is, according to Kaplan and Norton (1992), necessary to measure the performance of the organisation’s innovation and learning. This measurement could be done by using KPIs such as the number of sales of new products or the time to market for a new product.

The fourth perspective in the BSC model is the financial perspective. In the article where BSC is presented Kaplan and Norton (1992) criticises the use of financial KPIs arguing that they are short term and do not give a fair perspective on how the organisation is actually performing. However, Kaplan and Norton (1992) further argues that the financial perspective needs to be included into the BSC model as it is of equal importance as the other perspectives for the organisation. It is necessary to find financial KPIs that show relevance to the KPIs in the other perspectives of the BSC in order to be able to see how the changes made are changing the financial situation for the organisation (Kaplan & Norton, 1992; Kaplan & Norton, 1996). The BSC and its perspectives are presented in Figure 2 below.
Since evaluating performance for non-profit organisations is different from evaluating for-profit organisations and the BSC is multi-dimensional, it is possible to adapt it for non-profit organisations. In 2001 Kaplan acknowledges that the BSC has successfully been used by non-profit organisations and support them by enhancing the BSC to incorporate non-profit organisations (Kaplan, 2001). Kaplan claims that by using BSC the non-profit organisations have been able to transfer their usually vague mission and strategy statements into functional day-to-day operations. "It has helped organizations avoid the illusion that they have a strategy because they are managing a diverse and noncumulative set of programs and initiatives." (Kaplan, 2001).

Lin, Yu and Zhang (2014) presents results of how BSC performed when used as a PMS for hospital administration in China. Positive impact and an increased effectiveness was found in the organisations using BSC and recommended an expansion of the trial runs (Lin et al. 2014). Grigoroudis, Orfanoudaki and Zopounidis (2011) adapted the BSM system for use in the Greek healthcare while using the UTASTAR algorithm for calculations in their BSM.

Zorloni (2012) adapted BSC for use in museums. In the article, it is clearly stated that it is necessary for the museums to have a clear mission to properly measure the performance against (Zorloni, 2012). From that mission, it will be possible to find the perspectives that are unique not only to the branch but also the organisation (Zorloni, 2012). From these perspectives, it is possible to acquire a few different Critical Success Factors (CSF) to measure. These CSF share many traits with KPI presented earlier and to minimise confusion this report will use the terminology KPI instead of CSF. In order to identify KPIs to measure, Zorloni (2012) conducted several interviews and presented a set of KPI areas which could be used and which covered the whole span of activities of a museum. Zorloni
(2012) further defines four perspectives to use in a balanced scorecard model for museums. These are:

- **Intellectual**: This perspective is about the stewardship of the collection, but also the scholarship and development of new knowledge. Whereas the stewardship can be viewed as an internal dimension and the scholarship and new knowledge can be viewed as an external perspective.
- **Public**: The public perspective relates to the museum’s relationship with the community it dwells within. It is also about the museum’s activities, such as lectures and visitor services which are aimed at the public.
- **Governance and financial**: All organizations need to be held accountable for its use of resources and museums are no different. In order to keep the public trust, the museum needs to use its resources toward its mission in an efficient matter.
- **Learning and growth**: In order to build an organisational culture that aligns with the mission it is necessary to adopt a perspective that focuses on organisational learning. Meaning that apart from providing equal opportunity it is accountable, transparent and agile.

### 2.3.4 Weighted Strategic Policy Matrix

Gilhespy (1999) presents an unnamed evaluation method and several KPIs to be used by museums. Due to the content of the method where policies are weighted against each other and placed in a matrix, the authors of this report have chosen to call it the Weighted Strategic Policy Matrix. The model is based on the organisation’s mission transformed into policy objectives (Gilhespy, 1999). The chosen policy objectives where:

- **Access maximization**: As many as possible should have access to the organisation, including disabled, elderly and young, but it also includes new users.
- **Attendance maximization**
- **Diversity/Multiculturalism**: Apart from the artistic activities it also includes content aimed at groups who are generally not heard within the community.
- **Economy maximization**
- **Education**: Apart from classes and workshop, conversation activities could be considered a part of this policy objective.
- **Excellence/quality**: This Policy objective should include artistic quality and be quantitatively measured by the management group. But it is necessary to devise an in a subjective method for how the measurement should be made.
- **Innovation**: This policy objective share similarities with Research and Development in for-profit organisations. Meaning that the output is hard to measure. But according to Gilhespy (1999), it is necessary for the management to devise a method of measurement.
- **Revenue Maximization**: Apart from funding from the governmental funders it should include other external funders like sponsors, but also internal funding like sales of service and merchandise should be included.
- **Service Quality maximization**: Like Excellence, the quality of service provided is hard to measure but still necessary.
- **Social Cohesion**: Gilhespy (1999) defines this policy objective as being part of the democratic society.

The core idea of the method is not only to measure the policy objectives but accepting that some of them are in opposition to each other (Gilhespy, 1999). Therefore, there is a need to weight them against each other based on the mission of the organisation. The weighting uses standard economic weighting based on the sum of all weighted policy objectives comes to 100 % or 1. By defining the measured score of the policy objective as \( y \) and the weighting as \( x \) the weighted sum of the policy objective will be \( xy \). This weighting makes it possible to decide the importance of the different policy
objectives (Gilhespy, 1999). This, in turn, will make it possible to alter the organisation’s behaviour in the future.

### 2.3.5 Data Envelopment Analysis (DEA)

DEA is a method of evaluating the efficiency of an organisation by using linear programming. By finding a quantitative value for the organisation and comparing it against other organisations is it possible to find an efficiency frontier. All organisations that do not reach the efficiency frontier are defined as inefficient (Basso & Funari, 2004). In order to find the efficiency value in DEA it is necessary to set up a mathematical formula where as one of the easiest formulas is Farrell’s productivity efficacy, presented 1957 (Basso & Funari, 2004):

\[
\text{Productivity} = \frac{\text{output}}{\text{input}}
\]

This formula can later be adapted with more variables in order to cover more variance and give a broader picture.

Although the method had previously never been tried for measuring the efficiency of museums it has had extensive use for measuring the efficiency of public administration (Basso & Funari, 2004). In 2009, the method of DEA was for the first time tried out for measuring the efficiency of 76 museums in Spain. By using the variables: staff, size (rooms), size (m²), Equipment, winter opening hour, summer opening hour, admission, social impact, collection impact and visitors, it was possible to organise the museums in relativity similar clusters. By using the variables above the researchers calculated the museum’s function including for example staff and collection. From there the researchers could use the number of visitors as a part of the mathematical formula. By using the DEA method, the researchers concluded that it was possible to use the method to acquire a measurable efficiency ratio for museums and using these to calculate an efficiency frontier to measure against (Barrio et al. 2009).
3 Research Methods and Process

The purpose of this study was to find out how non-profit cultural organisations can evaluate their operations and measure performance and to suggest a model adapted for this type of organisation. The overarching topic in the frame of reference and the theoretical foundation in this report is Operations Management (OM) and the suggested model that is the practical outcome of the work is intended as an aid to improve operations and support management.

OM research is to a high degree focused on problem-solving that creates knowledge based on solutions to practical managerial problems (van Aken, Chandrasekaran, & Halman, 2016). There is an ongoing debate regarding research paradigms and their respective superiority for certain research (Burke & Onwegbuzie, 2004) where the two main research paradigms are positivism and social constructionism (Easterby-Smith et al. 2015). For this study, a third paradigm, Pragmatism, was chosen as the philosophical starting point of the research design. It was deemed an appropriate way to design a study where the key objective and outcome is to suggest a theoretical model with practical implications.

Pragmatism is a philosophical perspective where the emphasis is on the impact of the findings and generated theory rather than the ontological and epistemological debate. It is a philosophy that offers a practical and logical alternative where it attempts to combine insights from quantitative research as well as qualitative research. It offers researchers a method to use mixed methodology when designing a study. This allows researchers to gain insights and procedures both from quantitative and qualitative approaches (Burke & Onwegbuzie, 2004).

It is a commonly used approach in engineering research to go for a pragmatic or mixed methods approach, combining several different methods of data collection with the objective to design a solution to a problem (Hevner, March, Park, & Sudha, 2004). This is what is referred to as Design Science Research (DSR) and can be an appropriate approach also in OM research when the desired objective is to improve present operations and develop generic knowledge about organisational improvement by applying engineering research strategies.

3.1 Design Science Research (DSR)

DSR is not a specific research method, rather a strategy on how to combine and use other research methods to get the desired outcome and design a product intended to solve the problem for the actual study (van Aken et al. 2016). DSR is a fundamentally multidisciplinary research strategy with a pragmatic approach to solving a problem, commonly used by engineers. DSR researchers are interested in creating an artefact that by solving a practical problem also explains it and thus generates knowledge (Holmström & Ketokivi, 2009).

DSR is not the most commonly used strategy in social sciences research to which OM belongs but it is nevertheless an appropriate and relevant strategy than can be used when conducting research in the OM field. OM research is usually modelled after the natural sciences and the humanities but this research base has received criticism for lacking relevance for practice and being fragmented. DSR is made relevant for OM research by producing knowledge aimed at designing solutions for organisational problems (van Aken & Romme, 2009).

OM is a research discipline where generic knowledge is created by interacting with the real world and solving practical management problems (van Aken et al. 2016) and DSR is about finding and designing solutions to practical problems in a systematic manner (Holmström & Ketokivi, 2009). DSR can be viewed as a way to bridge theory to practice rather than the other way around (Holmström & Ketokivi, 2009). O’Keefe (2014) argues that DSR is a viable method within the field of OM research when the focus is on design.

There are examples of where a DSR approach have been successfully used for OM research. One of the most well-known cases is the systematic development of Activity Based Costing and the Balanced Scorecard Model by Robert Kaplan and his colleagues (Holmström & Ketokivi, 2009).
Hevner et al. (2004) present a conceptual framework for Information Systems (IS) research where they combine behavioural-science and design-science paradigms. This framework includes seven guidelines to follow when applying DSR. These guidelines are applicable for this study since the aim is to suggest a model for performance evaluation and that can be considered an artefact as discussed by Hevner et al. (2004). An essential aspect in DSR is that anything that embodies knowledge can be regarded as an artefact (O’Keefe, 2014).

### Table 1 Design Science Research Guidelines

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline 1: Design as an Artefact</td>
<td>Design science research must produce a viable artefact in the form of a construct, a model, a method or an instantiation.</td>
</tr>
<tr>
<td>Guideline 2: Problem Relevance</td>
<td>The objective of design science research is to develop technology-based solutions to important and relevant business problems.</td>
</tr>
<tr>
<td>Guideline 3: Design Evaluation</td>
<td>The utility, quality and efficacy of a design artefact must be rigorously demonstrated via well-executed evaluation methods.</td>
</tr>
<tr>
<td>Guideline 4: Research Contributions</td>
<td>Effective design science research must provide clear and verifiable contributions in the areas of the design artefact, design foundations, and/or design methodologies.</td>
</tr>
<tr>
<td>Guideline 5: Research Rigor</td>
<td>Design science research relies upon the application of rigorous methods in both the construction and evaluation of the design artefact.</td>
</tr>
<tr>
<td>Guideline 6: Design as a search process</td>
<td>The search for an effective artefact requires utilising available means to reach desired ends while satisfying laws in the problem environment.</td>
</tr>
<tr>
<td>Guideline 7: Communication of Research</td>
<td>Design science research must be presented effectively both to technology-oriented as well as management-oriented audiences.</td>
</tr>
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</table>

(Hevner et al. 2004)

The guidelines take into consideration both the environment the designed artefact is intended for as well as the existing knowledge base. Organisational needs are combined with applicable knowledge in the development phase. These guidelines were used for the research design and outlining the research process, how each guideline contributed to the process is illustrated in Table 1.
Table 2 Use of the DSR guidelines by Hevner et al. (2004) in the research process

<table>
<thead>
<tr>
<th>Guideline</th>
<th>How the guideline was used in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline 1: Design as an Artefact</td>
<td>The artefact designed in this study is the evaluation model presented in chapter 4.</td>
</tr>
<tr>
<td>Guideline 2: Problem Relevance</td>
<td>The results from the survey and interviews served to prove relevance for the research and that there is a use-case for the proposed evaluation model.</td>
</tr>
<tr>
<td>Guideline 3: Design Evaluation</td>
<td>The evaluation model was tested with input data from several museums as described in section 4.6. This was then compared to a fictional organisation with goals set on the base of the new museum law that is described in section 2.2.</td>
</tr>
<tr>
<td>Guideline 4: Research Contributions</td>
<td>The literature review showed that there is little researched and written regarding performance evaluation for non-profit cultural organisations. This study contributes to that field.</td>
</tr>
<tr>
<td>Guideline 5: Research Rigor</td>
<td>The research process was structured and methodical as described in Figure 3. Data collection and data analysis were conducted scientifically and with rigor. The response rate of the survey was high, see 4.2 and interviews were performed to triangulate and confirm initial model findings.</td>
</tr>
<tr>
<td>Guideline 6: Design as a search process</td>
<td>The model was developed as a continuous process starting with theories taken from the literature review and adapting to context after input from results of the survey and the interviews. A combination of information from the different steps of data collection was used jointly to develop with the model presented in section 4.5.</td>
</tr>
<tr>
<td>Guideline 7: Communication of Research</td>
<td>The practical and managerial implications of the study are described in section 5.5 of this report.</td>
</tr>
</tbody>
</table>

3.2 Research Design and Process

Guideline 6 describes the design process as an iterative process searching for the best or optimal design. A test cycle where the design is generated and tested and improved is described as a method to discover an effective solution to a problem (Hevner et al. 2004). This iterative way to design an artefact was part of the research design and a way to come up with the model. As a result of the initial literature review, the Balanced Scorecard was chosen as the base for the model. Input from the survey result and the interviews were then used to adapt the content of the model to the setting of Swedish museums.

Hevner et al. (2004) describe several methods that can be used when iterating the design and evaluating the model. Several of the mentioned methods can be used for OM research and this particular study in the design process.
• Descriptive evaluation method in form of Informed Argument. As mentioned, the literature review was used to create a knowledge base in order to build a convincing argument for the configuration and usability of the suggested model.

• Analytical evaluation method in form of Static Analysis, Optimisation and Dynamic Analysis. A survey was sent out to Swedish museums with the intent to find out how they currently evaluate performance and what factors and criteria are important to include in a model when designing it. The analytical evaluation of the model was done by using the responses from the survey for the first round of iteration of the model and its qualities and features.

• Functional and structural testing of the model is part of the evaluation process in order to ensure the design and the functionality.

O’Keefe (2014) proposes, as illustrated in Table 3, a Design Science methodology for design-oriented Operational Research that served as the base for the research design of this study.

Table 3 O’Keefes DSR methodology

<table>
<thead>
<tr>
<th>Activity</th>
<th>Sub-activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Problem identification and motivation</td>
<td>(a) Identify the problem in its natural environment including the problem owners</td>
</tr>
<tr>
<td></td>
<td>(b) Identify prior theory that may be applicable</td>
</tr>
<tr>
<td></td>
<td>(c) Understand the costs of acquiring data, and its accuracy and validity</td>
</tr>
<tr>
<td></td>
<td>(d) Understand necessary process changes</td>
</tr>
<tr>
<td></td>
<td>(e) Identify future users</td>
</tr>
<tr>
<td></td>
<td>(f) Define the artefact</td>
</tr>
<tr>
<td>2. Define the objectives for a solution</td>
<td>(a) Specify the benefits that the artefact must deliver</td>
</tr>
<tr>
<td></td>
<td>(b) Define the future users and the process changes that will contribute to a solution</td>
</tr>
<tr>
<td></td>
<td>(c) Specify the boundaries and the boundary crossing of the potential solution and artefact</td>
</tr>
<tr>
<td>3. Design and development</td>
<td>(a) Create the artefact in which the research contribution is embedded</td>
</tr>
<tr>
<td></td>
<td>(b) Specify the associated process and data</td>
</tr>
<tr>
<td>4. Testing and demonstration</td>
<td>(a) Test and verify the model component of the artefact</td>
</tr>
<tr>
<td></td>
<td>(b) Demonstrate the system to users, problem owners and others</td>
</tr>
<tr>
<td></td>
<td>(c) Validate the system’s efficacy</td>
</tr>
<tr>
<td>5. Evaluation</td>
<td>(a) Evaluate the utility of the system</td>
</tr>
<tr>
<td></td>
<td>(b) Return to further design and development if required</td>
</tr>
<tr>
<td>6. Generation of theory</td>
<td>(a) Consider if the designed artefact is generalisable, or part of it (such as the model) can be generalised</td>
</tr>
<tr>
<td></td>
<td>(b) If not generalisable, consider if it is transferable to other contexts</td>
</tr>
</tbody>
</table>
The research design was as previously stated of a mixed methods character where each method contributed with additional knowledge and aid towards reaching the goal of the study. The process is illustrated in Figure 3 and each element is described in further detail in the sections below1.

1 With the exception of the literature review that is described in Chapter 2.
Figure 3: Research process design

Data Collection

Problem Definition
- Pilot Study
- Literature Review
- Analysis of textual data
- Interviews
- Survey

Model development
Activity 1:
1. Activity 1(a): Identify the problem in its natural environment, including the problem owners.
2. Activity 1(b): Identify prior theory that may be applicable.
3. Activity 1(d): Understand necessary process changes.
5. Activity 1(f): Define the artefact.

Activity 2:
- Activity 2(a): Specify the benefits the artefact must deliver.

Activity 3:
- Activity 3(a): Create the artefact in which the research contribution is embedded.
- Activity 3(b): Specify the associated processes and data.

Activity 4:
- Activity 4(a): Test and verify the model component of the artefact.

Activity 5:
- Activity 5(a): Evaluate the utility of the system.

Activity 6:
- Activity 6: Generation of theory

Results and Analysis
- Model
- Model testing
- Results of test
- Follow-up interview
- Discussion

Legend
- Activity
- Outcome
- Artefact

Connection to O’Keefe’s Design Science methodology
1. Activity 1(a): Identify the problem in its natural environment, including the problem owners.
2. Activity 1(b): Identify prior theory that may be applicable.
3. Activity 1(d): Understand necessary process changes.
5. Activity 1(f): Define the artefact.
- Activity 2(a): Specify the benefits the artefact must deliver.
6. Activity 3(a): Create the artefact in which the research contribution is embedded.
- Activity 3(b): Specify the associated processes and data.
7. Activity 4(a): Test and verify the model component of the artefact.
- Activity 5(a): Evaluate the utility of the system.
8. Activity 6: Generation of theory
3.2.1 Analysis of Secondary Textual Data

Secondary textual data are written sources of information that may be of relevance for a research project even though the main purpose of writing them was not research. This type of data may include archival data, government reports, articles and books (Easterby-Smith et al. 2015).

Secondary textual data has been used in order to better understand the particular settings of a Swedish museum. Some of the material used to build this knowledge is:

- Referrals from the Swedish government to the council of legislation with suggested law concerning cultural heritage.
- Reports from the authority for cultural analysis.
- Annual reports from Swedish museums
- Program declarations from Swedish Museums including vision and mission statements as well as organisational strategies.

The textual data was necessary as it provided essential information about Swedish museums which has a central role in this study.

3.2.2 Survey

Surveys are often used for hypothesis testing (Easterby-Smith et al. 2015) but that was not the main purpose of the survey performed for this study. The preconceived thoughts regarding the lack of performance evaluation at Swedish museums can be considered a hypothesis that the survey did confirm. The motivation for using a survey for this study was to obtain as many answers as possible to the important questions for the study, obtaining this information from interviews would have been too time-consuming and not possible. The survey was used to determine if performance evaluation is important for Swedish museums, the level of standardisation of this measurement and whether a structured method was being used.

The survey used in this study served two purposes. First, it answered to what extent and how Swedish museums currently evaluate their performance from an organisational perspective. Secondly, it provided insights into what factors and criteria are important for their organisations and thus important to include in a suggested evaluation model.

The survey was designed to fulfil these two purposes. First, respondents had to answer whether they do evaluate their organisational performance and if so, what type of method is being used. The group of respondents who answered that they do evaluate where further given follow-up questions on how they used the result of their evaluation and what factors and criteria are important to include when evaluating performance. The respondents currently not evaluating organisational performance by a specific method where asked why not, if they would like to start doing it and if so what factors and criteria they would want to have included in a model. For all questions, see Appendix 2.

With that purpose and the configuration of the survey, it can be classified as a descriptive survey according to Pickard (2013). A descriptive study is performed with the purpose to describe a situation and look for patterns within the group that is used as sample (Pickard, 2013). In a descriptive survey, the sample size has to be sufficient to represent the population of interest and the return rate ought to be more than 50% of the population under investigation (Dresch, Pacheco Lacerda, & Valle Antunes, 2015).

3.2.2.1 Choice of respondents

The respondents in the survey were selected from the museums listed by the authority for cultural analysis (Kulturanalys, 2016). These are all museums that receive governmental funding. The survey was sent to managers in the respective museum and the survey was limited to central and regional museums. As the total population and possible respondents for this survey were 51 persons it was
decided to send the survey to the entire population, thus improving the chance of obtaining a representative sample.

All respondents received their invitation to participate by e-mail and with a personal link to the survey. The answers were not anonymous as follow-up questions may have been needed if the participant agreed to be contacted. No names of persons or museums have been disclosed in the results chapter or appendices thus guaranteeing their integrity.

3.2.3 Testing

There are various methods for evaluating the artefact once the first version has been developed. One evaluation method suggested by Hevner et al. (2004) is testing. This is done to verify the artefact or model, demonstrating it to users and establishing the validity of its efficacy; meaning, are the features in line with the original objectives? (O’Keefe, 2014).

There are different types of testing; *White Box Testing*, structural testing, that evaluates the internal processing of input to the system and *Black Box Testing*, functional testing, that evaluates how a system performs from a user’s point of view. With *Black Box Testing* the user is only required to understand the utility and functionality of a system or model, not the internal structure (Dresch et al. 2015).

In the iteration and evaluation process when developing the model, Black Box testing was used to ensure that the relevant factors and criteria were being included. Since design is an incremental and iterative process, the evaluation phase of it provides essential feedback (Hevner et al. 2004).

3.2.4 Interviews

In the process of developing and evaluating the model, interviews were carried out with specialists in the field. These interviews served to prove relevance of the work and to ensure that the model included relevant facts and criteria. The interviews were of an unstructured character as the purpose was to get feedback on ideas previously presented to the interview subjects.

In the evaluation phase of the study was a follow-up interview conducted to verify the results after having tested the model with data from selected museums. This interview was conducted with a museum manager and served the purpose of validating or rejecting the test results and to get comments on the model and its usefulness.

Unstructured interviews are often used to gain an understanding of the thoughts and opinions of the interviewee and to learn about their point of view (Pickard, 2013). There are different approaches to unstructured interviews, for this study was conducted as an informal conversation as described by Pickard (2013) where the interviewees were allowed to elaborate freely their thoughts on the work related to this study. The purpose of the interviews was to prove relevance and get insights from professionals in the field, they were recorded if the need to go back to the conversation should occur but were not transcribed.

3.2.4.1 Choice of respondents

The reason for this selection of museum curators and managers as respondents is to prove relevance with respect to a constituent community as discussed by Hevner et al. (2004) in the seven guidelines. No names or positions of the respondents have been disclosed in the study.
4 Results and Analysis

As described in Figure 3, the results from the collected data were used to create the model that is the goal of this study. In the following sections are first results from the data collection presented, followed by the model, its content and testing of it.

4.1 Analysis of secondary textual data

Several sources of secondary textual data were used to create an overall picture of the problem and as the basis when designing the evaluation model.

Referrals from the Swedish government to the council of legislation with suggested law concerning cultural heritage.

The analysis of the legislation gave an insight into what the government intended the public funded museums to be doing. From the legislation, it was possible to develop questions for the interviews and the survey.

Reports from the authority for cultural analysis.

By analysing the content of the annual report, it was possible to gain insight into the market the museums are working within in order to gain a deeper understanding. It also made it clear that the museums are collecting data and send it to the Agency for Cultural Policy Analysis. By using this information, it was possible to create questions for the survey and for the interviews.

Annual reports from Swedish museums

The authors collected and read several annual reports from museums dating back up to ten years. Analysis of these was done in order to understand how and what museums report to the public considering their activities. The findings from the reports gave input for questions for the survey and interviews.

Program declarations from Swedish Museums including vision and mission statements as well as organisational strategies.

As the mission was important in order to measure a museums performance it was necessary to understand how missions for museums are written. By analysing program declaration, the authors came to the understanding that museums get mission statements from the funders called uppdagsbeskrivning. Some museums use it to develop their own mission statement.

4.2 Survey

The survey was sent to 51 museum managers for central and regional museums. This was the total population of possible respondents for these types of museums and it was decided to send the survey to all of them to ensure that the sample is large enough to represent the population of interest.

28 of the 51 selected respondents completed the survey, giving a response rate of 55 percent. With a total population of 51 and the 28 responses being the sample size, the margin of error is calculated to 13 percent within a 95 percent confidence interval at a normal distribution of 50 percent.

4.2.1 To what extent do Swedish Museums measure and evaluate their performance today?

The first question of the survey was: Do you currently use any type of established, structured model to evaluate your operations and measure performance and goal fulfilment? The results show that 50 percent of the responding museums do not evaluate their performance and 50 percent use some sort of evaluation model as seen in Figure 4.
The respondents answering that they did evaluate their performance received the follow-up question: Which model do you use? Where the answer options were: (1) An existing model, for example, The Balanced Scorecard or a modified version of an existing model and (2) A model developed specifically for our organisation. 36 percent of the evaluating museums are using an existing model and 64 percent are using a model developed specifically for their organisation.

Since these models developed specifically for individual organisations are unknown as well as the included factors and criteria being measured it could not be determined whether they fulfilled the formal requirements for a PMS as described in section 2.3.2. Therefore, it was decided that these responses could not be counted with the ones using an established evaluation method but had to be considered together with the ones where the organisations did not evaluate their performance.

When adding together the results from the first question with the results from the follow-up question is the outcome that only 18 percent of the museums evaluate according to what is considered as a proper evaluation model, this is illustrated in Figure 5.
4.2.2 Important factors and criteria to include in an evaluation model

Both respondents that evaluate and those that do not were asked which factors and criteria are important to include in an evaluation model. The respondents who are currently using some sort of evaluation model, including one developed for their organisation, were also asked to rank the importance of each factor and criteria on a scale from 1 to 6. The results of their responses, ranked in order of answered importance, are shown in Figure 6 where the colour codes each corresponding to one of the sections in the new museum law as follows and the perspectives in the balanced scorecard for museums illustrated in Figure 10.

- Financial / Stewardship
- Public Activities
- Knowledge Acquisition
- Collection Management

Respondents not currently evaluating performance were asked which factors would be important to include in an evaluation model of they were to start using one for the operations at their respective museum. The results ranked in order of the number of answers each factor/criterion received and are shown in Figure 7. As seen by the colour coding both groups of managers highly favour factors related to public activities and financial factors. Factors regarding knowledge acquisition and collection management have received a lower ranking in both groups of managers.
Figure 6: Ranked results of evaluation criteria from managers evaluating performance.
Figure 7: Ranked results of evaluation criteria from managers not evaluating performance
4.2.3 What is an acceptable result?

The respondents answering that they did evaluate their performance received the follow-up question: *Is it within the framework of the model specified which measured values that represent an acceptable result?* with yes and no as answer options. The results showed that out of the museums doing some sort of performance evaluation had 58 percent not specified what would be an acceptable result. If adding the museums that do not evaluate at all to that number, the result is that 81 percent of the respondents have not established what is an acceptable result for the operations as shown in Figure 8. This is a reasonable assumption as it would be impossible to determine an acceptable result without having evaluated performance in the first place.

![Pie chart showing the frequency of specifying an acceptable result.](image)

*Figure 8 The frequency of specifying what an acceptable result is when evaluating*

4.2.4 Why not evaluate performance

The respondents that answered no to the first question of the survey, whether they *currently use any type of established, structured model to evaluate your operations and measure performance and goal fulfilment*, were asked why not. There were four pre-set options as well as a free text field. The answers from the free text field written by the respondents were formulated so they could be interpreted into the pre-set options and easier presented in the results as shown in Figure 9. None of the respondents chose the option: *There is no demand for it from the board/owners.*
Figure 9 Why not evaluate performance

The same respondents were also asked the question: *Would it be interesting and useful for your organisation to start to evaluate your operations and measure performance and goal fulfilment if there was an appropriate model that was adapted to your operations and easy to use?* With the answering options, *yes* and *no*. 100 percent of the managers answering that question answered *yes*.

### 4.3 Interviews

The unstructured interviews with selected specialists in the field served the purpose of proving relevance to the research and to verify that the design process was done using correct information and included appropriate factors.

The respondents were in forehand sent drafts of the report and did comment on content as well as providing additional information that had previously not been included. The result from the interviews supports the result from the survey that museum managers are mainly interested in performance related to public activities and less in knowledge acquisition and collection management. It was also pointed out that well-formulated evaluation criteria in these sectors would be useful.

Other results from the interviews were that even though there is a need for an evaluation model as the one being presented in this study and that there is a general interest to know more about it would implementation likely be difficult and could possibly face resistance from the affected organisations. As this report is delimited from implementation is this result of marginal importance for the study but nevertheless worth mentioning.

The final interview that was conducted was done with a museum manager as part of the evaluation process after having designed and tested the model which is described further in sections 4.5 and 4.6. The manager was presented with a brief presentation of the model and the results from the test museums. It was then discussed how this could be used both as a decision support tool and when reporting back to the board of the museum. This final interview concluded the design process and the feedback that was given was that it could be a useful tool for museum managers, both with public and private ownership.

### 4.4 Performance Evaluation Model adapted for museums

The literature review showed that there are criteria of what performance is considering PM and that efficiency and effectiveness were good indications of performance of an organisation. In order to
construct a PMS, there are criteria to consider in order for the PMS to be viable. Paulus (2003) presents five design demands that must be fulfilled when designing a PMS for non-profit organisations. The literature review presents OM as a good management model for museums as it focuses on the value creation for the customer rather than purely financial decisions. The OM also fits well with prop. 2016/17:116 as both consider competencies to be of utmost importance. In Chapter 2, there are a couple of alternative PMS presented from which BSC has been researched if it is possible to use for museums. In section 2.3 it is described the research done on different KPIs for use within PMS for museums.

Using the definitions of what criteria is needed for a performance evaluation model as presented in Chapter 2, the Balanced Scorecard model was chosen as a basis. BSC was chosen since it fulfilled many of the criteria set up by Kennerly and Neely (2002) as well as Cocca and Alberti (2010), presented in section 2.3.2. The fact that Zorloni (2012) had presented a model using BSC for museums proved that it was viable to use it as the foundation for the model in this study.

As presented in Chapter 2, for an evaluation model to be valid it needs to be grounded in the strategy of the museum using it. As Zorloni (2012) points out, not all museums have or use a strategy and therefore in order to make a general BSC, the authors must find some other way to give the model a way to prove the museum are working the way the funder intended to. As presented in section 2.2, there will be a new law aimed for museums. Prop. 2016/17:116 will be the basis politicians funding museums will use when defining what they want the museums to be doing. This is often presented in an “Uppdragsskrivning” which translates into the English word, mission.

According to Slack and Lewis (2011), in order for an organisation, in this case, a museum, to achieve its mission, it is necessary to fulfil the customer demands. As presented in chapter two, the funder can be considered the customer of a museum. This makes the mission statement by the funders even more important for museums. As Matassoro (2007) points out, the arms-length distance and the fact that the politicians are buying for the public means that the mission statements are very general and hard to interpret for the managers. This is as, presented in chapter two, supported by Lindqvist (2007).

In order for the managers to properly be able to analyse how the museum is performing as well as getting as broad a picture as possible, it will be necessary to incorporate several variables into each KPI. By building the model in a calculation program like Excel it will be possible to synthesise the calculations, which is a criterion according to Paulus (2003).

4.5 The model

As presented in section 2.2, prop. 2016/17:116 intended for museums, is the starting point of how a museum’s mission is created. Therefore, it was decided to use three sections from prop. 2016/17:116 as three of the perspectives used in the BSC, presented and illustrated in Figure 10. The reason for doing this is that many stake holders’ perspectives are incorporated into these sections. It also fulfils the criteria; the system should provide an easy to understand overview of the organisation’s performance, Kennerly & Neely (2002). The fourth perspective Financial/Stewardship is maintained as it was in the original model described in section 2.3.3. This was done since there will always be a financial aspect to organisations and for this type of organisations, a part of operations will be dedicated to administration and overhead and then covered in this perspective.
Figure 10 The Balanced Scorecard (BSC) adapted for Swedish Museums

The model was built in excel where one page was used to add data needed called Data, and another page was built up using the four perspectives presented below called performance. The information in the Data page was designed to be inserted manually. In the performance page, the formulas presented in the BSC model were set up in such manner the model collected the right information from the Data page and made all calculations, without human interference. Paulus (2003) called this synthetize and it was part of one of the design demand for a PMS for museums, which can be found in section 2.3.2.

When designing the model an assumption was made, that the measurable period is one year as a standard and the KPIs were designed with this in mind.

4.5.1 Public activities (Publik verksamhet)

Relying on theories presented by Zorlioni (2012) and prop. 2016/17:116 the KPIs used in this perspective should be based on the museum’s users and how the community perceives the museums.

4.5.1.1 Market share

The result of the survey shows that both the managers that do evaluate and those that do not evaluate the organisational performance, consider the number of attendees to the museum as a very important KPI and according to Gilhespy (1999) attendees can be used as a KPI measuring the effectiveness of
a museum. The problem is that the attendance alone does not tell the museum if it is performing well or not. This can be corrected somewhat by looking at attendance over time. Even so, it is not possible for a museum to know if the changes in attendance are just normal variance or if the change to attendance is driven by external changes to the market such as tourism or populace growth, or if it is the museum’s activities that drive the changes. This problem is illustrated in Figure 11 where, when the tourism increases the attendance goes up, and when tourism decreases attendance to the museum goes down making it hard to decide if the change of attendees to the museum are a product of their activities (Jönköpings läns museum, 2005 - 2015). The number of accommodation nights has been reduced with 140 000 per year in order to make the picture clearer.

![The relationship between tourism and total attendance](image)

*Figure 11: The relation between tourism and attendees to a museum.*

In order to minimise that problem and to try to measure the museum’s activities excluding external changes, the BSC model measures the market share of the museum. By using the formula presented below, it will be possible to calculate a market share in percentage for the museum which will decrease the impact of changes in tourism.

\[
\text{Total Attendance} = \frac{\text{Total Attendance}}{\text{Populace} + \text{Nights Spent}} \times 100
\]

Populace used in the formula is acquired through Statistics Sweden (Statistiska Central Byrå) statistical database and based on the area the museum is meant to serve, for a regional museum the region is a rational choice. This KPI assumes that all inhabitants should attend the museum or one of their activities at least once during the measured period. For a national museum, the area that is plausible for the populace to have easy access to the museum is also necessary to decide. Just as regional museums the region the museum is situated in would be a good choice.

The variable nights spent are also acquired from SCBs statistical database using “Nights spent. All hotels, holiday villages, hostels, camping sites, commercially arranged private cottages and apartments by region/county Year”, from where it is possible to choose the period and region necessary. This KPI assumes that each night represents one person that is a presumptive attendee to the museum or one of its activities during the measured period.

The KPI called market share will give the managers a better view of how large part of the community they are intended to reach out to, they actually manage to reach.
4.5.1.2 Knowledge-based public activities

As a part of prop. 2016/17:116 the Swedish government pushes for knowledge-based activities within the public activities. This is supported by Zorloni (2012) as she discusses lectures within public activities. This means that there is a need for developing a KPI that measures the museum’s Effectiveness within the knowledge-based public activities. This KPI measures attendees to the museum’s activities that are not exhibitions. Gilhespy (1999) presents several KPIs for use within museums that are part of the effectiveness measurement. These two are of interest for the development of an effectiveness KPI for knowledge based public activities.

\[
\frac{\text{Students}}{\text{Total Attendance}} = \text{effectiveness}
\]

\[
\frac{\text{Educational Expenditure}}{\text{Program Costs}} = \text{effectiveness}
\]

By modifying and adding to these formulas it is possible to make a KPI that cover a broad part of the museum’s public based activities that are not an exhibition. As the KPI is intended to cover more than just activities aimed at students, it is necessary to replace it with a new variable called activity attender.

\[
\frac{\text{Activity Attenders}}{\text{Total Attendance}} = \text{effectiveness}
\]

The second formula Gilhespy (1999) presents is also a purely economic perspective and as this system has an operational point of view measuring the usage of capacity is more interesting. Therefore, it is divided up into two formulas.

\[
\frac{\text{Man hours Invested}}{\text{Total Capacity (Manhours)}} = \text{effectiveness}
\]

\[
\frac{\text{Public Activity Costs}}{\text{Total Costs}} = \text{effectiveness}
\]

By combining these with funding, it is possible to obtain a KPI that gives a broad performance measurement of the museum’s knowledge based public activities.

\[
\frac{\text{Total Income} \times \frac{\text{Man hours Invested}}{\text{Total capacity (Manhours)}} \times \frac{\text{Public Activity Costs}}{\text{Total Costs}}}{\text{Public Funding}} = \text{effectiveness knowledge based public activity}
\]

4.5.2 Knowledge acquisition (Kunskapsuppbyggnad)

As presented in the theoretical framework according to prop. 2016/17:116 this perspective involves both research and acquisition of knowledge. The perspective also includes a high level of competencies within the organisation. Zorloni (2012) in her article calls this perspective for the intellectual perspective but she puts the competency part in her learning & growth perspective. The BSC presented in this report will use prop. 2016/17:116 definition but use parts from Zorlonis (2012) learning & growth perspective.

As prop. 2016/17:116 clearly states competencies within the museum, the KPIs developed for this perspective will have to include capacity usage internal rather than externally or temporarily employed expertise. The KPIs will also have to include measurement of expertise.
4.5.2.1 Research contribution

Since prop. 2016/17:116 states that museums should contribute to research and knowledge acquisition, a KPI measuring this is necessary. It also states that this should be done by having a high level of competencies within the organisation. By adopting the operation model position, it is possible to develop a KPI for capacity usage of the museum.

\[
\frac{\text{Man hour Invested in Research Activities}}{\text{Total Capacity (man hours)}} \times 100
\]

4.5.2.2 Competency development

As both Zorloni (2012) and the government (2016) considers that the competency level of the employees in museums to be important, there is a need for a KPI measuring the knowledge acquisition through competence development.

Although the OM perspective makes it possible to measure it through the use of capacity it would leave out costs the organisation has made in lecturers. Also by using a financial perspective, it will be possible to spread knowledge to the public.

For the first step, we can use one of Gilhespy’s (1999) suggested KPI’s for effectiveness.

\[
\frac{\text{Educational Expenditure}}{\text{Program Costs}} = \text{effectiveness}
\]

And by transforming it into a cost perspective, it is possible to reach the following formula. In this formula, the total cost, including salaries is to be used as the cost for competence development. By exchanging the program cost with the cost of operations a measurement of the effectiveness is reached.

\[
\frac{\text{Cost of Competence Development}}{\text{Operational Cost}} = \text{effectiveness}
\]

The other part of the formula focus on the public aspect and includes direct public activities such as lectures and programs aimed at classes. Gilhespy (1999) developed a few KPIs that were of interest and the one this model uses as a base is the following:

\[
\frac{\text{Students}}{\text{Total Attendance}} = \text{effectiveness}
\]

By exchanging students with public activities attendees, this formula includes as many attendees as possible who are attending an activity aimed at knowledge contribution. By dividing the public activity attendees with the total attendees, a ratio is reached.

\[
\frac{\text{Public Activities Attendees}}{\text{Total Attendees}}
\]

By constructing a formula using these two ratios and the funding of the museum by grants a measurement of effectiveness have been reached.

\[
\frac{\text{Total Income} \times \frac{\text{Cost of Competence Development}}{\text{Operational Cost}}}{\frac{\text{Public Activities Attendees}}{\text{Total Attendees}}} = \text{Competence effectiveness}
\]

4.5.3 Collection management (Samlingsförvaltning)

Gilhespy (1999) does not present any perspective that clearly ties into the collection and its usage. Although it could be argued that it is a part of what is called the intellectual perspective since the
collections are used for research purpose. Since prop. 2016/17:116 states that museum shall have an active management of their collections, the BSC needs to include KPIs that presents the museum’s collection related activities. By connecting this perspective to OM it will be possible to use capacity usage as a measurement.

### 4.5.3.1 Collection capacity efficiency

In order to measure if a museum has an active collection management, it is necessary to calculate the number of man-hours spent on activities directly connected to the collection, the number of man-hours is then multiplied with 360 to find out how many seconds are used. The number of seconds is then divided by the number of artefacts in the collection.

$$\frac{\text{Man hours} \times 360}{\text{Number of Artefacts}}$$

### 4.5.3.2 Collection usage

For those museums that have a collection, one interesting KPI that can be used as a performance measurement is how it is used during the measured period. By considering the museum’s storage as a warehouse and the usage of artefacts as a demand for the content of the warehouse, as in the industry sector, it is possible to use those theories to find a KPI that indicates the performance of the museum in using its collection, seen as a quantitative measurement.

By using the Inventory turnover formula, it is possible to determine how many times the museum would have to change its exhibitions in order to present all of its collection.

$$\frac{\text{Mean Stock Level}}{\text{Demand}}$$

The mean stock levels in this formula are the number of artefacts that the museum have in its collection. While Demand is the number of artefacts used in exhibitions or on loan to other museums during the period. In this formula only the fact that it has been used is considered when calculating and not for how much time of the chosen period the artefact has been used. In order to count an artefact as being used it needs to be easily accessed by a visitor. This means that although so-called open storages are not technically exhibitions, it should still be counted as such. The result, here called collection turn-over rate, will range from as low as 1 up to the mean stock level. The lower collection turn-over rate, the better performance for the museum.

$$\frac{\text{Number of Artefacts in Collection}}{\text{Number of Artefacts in Exhibition or on Loan}} = \text{Collection turnover rate}$$

This KPI makes it possible for museums to benchmark against each other since it levels out the differences in collections that museums have. It is also clearer than using an ordinary percentage usage since it also indicates just how many times the museum will need to make changes to their exhibitions in order to show as much of their collection as possible.

### 4.5.4 Financial and stewardship

The results from the survey showed that the managers of museums that did evaluate their organisational performance prioritise financial factors as a valuable KPIs, whilst managers of museums that did not evaluate rated them lower. As museums are non-profit organisations and this report and model assumes an OM perspective, purely economic results are irrelevant. The Financial and stewardship perspective is not part of prop. 2016/17:116 for museums and is a perspective kept from Kaplan and Norton’s (1992) original BSC and Zorloni’s (2012) BSC for museums.

In OM, adding value to the customer is the main focus for an organisation, and therefore it is important to find KPIs measuring administration and financial stewardship.
4.5.4.1 Administration efficiency and effectiveness

By adapting the view that much of the activities a museum does are for the public, it is necessary to find a KPI that measures that. Administration of the organisation is necessary but as it does not add value for the visitors (Slack et al. 2007) it is of interest to measure the performance of the administration in order to see how the organisation are following its mission.

Gilhespy (1999) suggested using administration and total attendance as means to measure the efficiency of the administration part of the museum.

\[
\frac{\text{Administration}}{\text{Total Attendance}}
\]

Gilhespy (1999) also suggested using total attendance through gross operating expenditure as a measure of the effectiveness of the museum.

\[
\frac{\text{Total Attendance}}{\text{Gross Operating Expdidenture}}
\]

By combining these and modifying them, it is possible to make a KPI that covers the effectiveness of the overhead of the museum.

By combining the first formula with the second formula, it is possible to get the amount of total costs that make up for administration costs.

\[
\frac{\text{Administration}}{\text{Total Attendance}} \times \frac{Tota\text{l attendance}}{\text{Gross Operating Expdidenture}} = \frac{\text{Administration}}{\text{Gross Operating Expdidenture}}
\]

By transforming administration into the administration’s cost and gross operating expenditure into the museum’s cost of operations during the same period the formula will derive the ratio of the period costs that make up administration costs. Gilhespy (1999) uses the definition Box office income in the KPIs he presents but as most Swedish museums are publicly funded and do not charge entrance fees it can be transformed into funding provided by the “owner”.

The final formula will measure the efficiency of the administration, which can be used for bench marketing against other museums.

\[
\frac{Tota\text{l Administration Costs}}{\text{Operations Costs}} \times \frac{\text{Total Income}}{\text{Public Funding}} = \text{administration efficiency}
\]

By using the total operating cost rather than total cost, it is possible to exclude costs that most museums cannot control, for example, rent for the buildings they use. The location of the museums is often a political decision that might go years back, and moving to a cheaper building is seldom the manager’s choice. By using the formula presented above, it will be easier to benchmark museums against each other since the operating costs are strategic choices made by management.

4.5.4.2 Financial efficiency and effectiveness

How an organisation is handling its finances is usually a way to measure the efficiency and effectiveness of that organisation. An easy and commonly used way of measuring is to put the financial result or the owners return on investments as a KPI. As most museums do not have that kind of demand upon them it is necessary to find another way. By adopting the operation model perspective presented by Slack and Lewis (2011), we can see that only the core financials are necessary in order to measure the performance. Therefore, the basis for a KPI need to be derived from the operational income and operational costs of the museum, excluding the financial posts like earnings
from stocks, bank accounts, rent on facilities et cetera. By subtracting the operational income with the operational costs the result will be an operational result.

\[
\text{Operational income} - \text{Operational costs} = \text{Operational result}
\]

There is a high probability that the operational result end up negative and therefore it is used as an absolute figure and not as a ratio. Further by using the operational result and divide it by the operational cost for the same period it becomes possible to measure the museum’s financial efficiency. Both Kennerly and Neely (2002) and Cocca and Alberti (2010) stated that a PMS should be easy to understand. As the formula in its present state would mean that a high level is good, it is necessary to invert it.

\[
1 - \left( \frac{\text{Operational Result}}{\text{Operational Costs}} \right) = \text{Financial efficiency}
\]

4.6 Model testing

In order to test the model, data was collected from three museums that were classified as regional museums according to the definition by Swedish Agency for Cultural Policy Analysis “Myndigheten för Kulturanalys”. Data needed for KPIs were collected in accordance with the descriptions of each KPI used by the model. As all museums used for the test were regional museums, the additional data needed was collected from SCB and relates to the respective region the museums were located in.

As the museum’s data were historical and therefore they had not collected or structured it in accordance with the model and the fact that their documentation differentiated from each other, there was a necessity to go through as much data as possible to get the test as accurate as possible. In the presented result below, there are assumptions made and there are discrepancies in what budget posts were used. But as the intent is not to make an assessment of the real performance of the respective museum but rather to test the model, it was deemed as acceptable.

The data needed for evaluating the usage of the collection was unavailable at the test museums and are therefore disclosed from the test. To test the KPI concerning collection usage, Jönköpings läns museum was used as an example where the number of collection objects on display was counted in their current exhibitions. The result of this test is described in section 4.6.2.

4.6.1 Test result and analysis

All data was manually entered into the corresponding field in the formulas and the excel sheet calculated the data according to the pre-set mathematical formulas. In order to calculate the right capacity, the formula was the same as presented as an example in chapter 2.1, and the number of workdays 2016 were 228 days. The result of each museums KPI was summed up in Table 4 below to create an overview of the result and for easy comparison.
Table 4 Results from testing the performance evaluation model

<table>
<thead>
<tr>
<th>Museum</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Activities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Share</td>
<td>2.88%</td>
<td>8.78%</td>
<td>7.91%</td>
</tr>
<tr>
<td>Public Activities</td>
<td>0.24%</td>
<td>11.72%</td>
<td>5.84%</td>
</tr>
<tr>
<td><strong>Knowledge Acquisition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Contribution</td>
<td>28.27%</td>
<td>7.43%</td>
<td>11.26%</td>
</tr>
<tr>
<td>Competency Development</td>
<td>0.07%</td>
<td>0.07%</td>
<td>0.15%</td>
</tr>
<tr>
<td><strong>Collection Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collection Capacity (s/a)</td>
<td>21.88</td>
<td>98.43</td>
<td>47.25</td>
</tr>
<tr>
<td><strong>Financial and Stewardship</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration Efficiency</td>
<td>57.81%</td>
<td>27.99%</td>
<td>40.27%</td>
</tr>
<tr>
<td>Financial Efficiency</td>
<td>57.43%</td>
<td>11.54%</td>
<td>46.62%</td>
</tr>
</tbody>
</table>

**Public activities**: The results presented in the table are in line with how the model is meant to function. The lower result for museum A results from it being located in a region where there are a high number of tourists while having approximately the same number of attendees as the other test museums. The total number of visitors is in line with the other museums. The low level of public activities for museum A comes from two things. They have not included temporary and voluntary staff in their total numbers of available man-hours and by doing that, not accounting for all available capacity. This gives a lower ratio. As the KPI also includes the market share KPI the ratio will become lower as market share are not 100. Museum B has a higher ratio for the Public activities due to being more focused on public activities and therefore using a higher level of capacity for public activities than the other museums.

**Knowledge Acquisition**: The difference between the museums are in line with how the model is meant to function. The higher level in Research Contribution for museum A comes from the fact that they are heavily involved in research projects, although externally funded. Museum B, on the other hand, have a low number of personnel involved in research or research-related activities. The competency development is on almost the same level for all three museums whereas museum C invested slightly more in this area than the other two museums.

**Collection Management**: The number presented in the table shows how much time each museum puts into managing their collection. Museum A is investing more man-hours into collection management than museum B and C, but as they have much larger collections their ratio are lower.

**Financial and Stewardship**: The results of these test are also in line with how the model is meant to function. The low results for museum B in Administration- and Financial Efficiency are derived from the fact that they are more reliant on public funding than museum A and C. The differences are quite large which is what the model are showing. The difference between museum A and C are more interesting. Museum A is putting a larger part of their cost into administration than museum C are doing and should have a lower ratio then museum C. On the other hand, they have a much higher ratio of external funding than museum C which drives up their ratio for that KPI.
4.6.2 Evaluation of the test

Measures and results need to be evaluated against a goal in order to give meaningful information. The model is meant to be a decision support for managers and the results of the evaluation are meant to be compared to the goals of the organisation. The model is also intended as a possibility to benchmark similar organisations against each other.

In order to evaluate the test results and have something to compare them with, the fictional museum X, with as even distribution of resources as possible was constructed. Some data for museum X was calculated using the mean of the test museums. Other factors were decided, grounded in the data collected from the test museums, sometimes by calculating ratios necessary to make assumptions of distribution needed. Lastly, capacity and costs were distributed evenly between the KPIs, the reason for doing is grounded in prop. 2016/17:116 where the three areas of interest for museums is outlined. The results for museum X are presented in Table 5.

Table 5 Evaluation of the test with museum X

<table>
<thead>
<tr>
<th>Museum</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Activities</strong></td>
<td></td>
</tr>
<tr>
<td>Market Share</td>
<td>5.21%</td>
</tr>
<tr>
<td>Public Activities</td>
<td>10.0%</td>
</tr>
<tr>
<td><strong>Knowledge Acquisition</strong></td>
<td></td>
</tr>
<tr>
<td>Research Contribution</td>
<td>25.0%</td>
</tr>
<tr>
<td>Competency Development</td>
<td>0.11%</td>
</tr>
<tr>
<td><strong>Collection Management</strong></td>
<td></td>
</tr>
<tr>
<td>Collection Capacity (s/a)</td>
<td>46.33</td>
</tr>
<tr>
<td><strong>Financial and Stewardship</strong></td>
<td></td>
</tr>
<tr>
<td>Administration Efficiency</td>
<td>44.0%</td>
</tr>
<tr>
<td>Financial Efficiency</td>
<td>50.0%</td>
</tr>
</tbody>
</table>

The result from museum X shows that the model will lower the ratio of public activities if the market share is low. This is as the model is intended to do in order to give the organisation and its fund granter a KPI that can be used for deciding between strategies that improve market share or not. The KPI will also make investments in public activities that are not raising the market share less effective which is the intention of the model. On the other hand, investments that are improving the market share will raise the KPI faster due to that both factors are improving, which will show that the investment of resources was effective.

The KPIs within Knowledge Acquisition shows how the museum is distributing its resources and the Research Contribution of 25 percent indicates a museum that is using a quarter of its capacity for activities related to research. This KPI can serve as a basis for discussions between the museum and its fund granter how the museum are relating to their mission of contributing to research. The KPI are not modified by any other factors because if the research is externally funded it will have an effect on the Financial and Stewardship KPIs.
The Competency Development KPI result is designed to not only give museums a KPI measuring how they are developing their personnel but also how they are actively spreading knowledge to the public. This KPI will also give museums a possibility to benchmark between museums of different size, which is also an important according to the frame of reference.

The collection management KPIs shows that with an even distribution of resources, museum X will invest approximately 46 seconds per artefact. Since these seconds per artefact are calculated on the nominal capacity as mentioned in the reports frame of reference, the KPI is probably too high. As the Collection Management perspective is an important part of prop. 2016/17:116 for museums presented in the frame of reference, for a museum with a lower KPI than museum X it could be used as grounds for discussion if Collection Management is a part of their strategy and how they fulfil the mission of having an active collection management.

The KPI collection usage that is not included in the table above were calculated manually and the number of objects in the collection was taken from Jönköpings läns museums webpage 2017-05-15 (www.jkpglm.se). The number of displayed artefacts were 1862 and the number of objects in the collection was 100 000. Giving a collection usage ratio of 54. The ratio shows how many times the museum would have to change everything in their exhibitions in order to show their collection fully. This ratio will go down if either more artefacts are displayed or if the number of artefacts in the collection are reduced, giving a measurement that shows how the museum uses its physical collection towards the public.

The administration cost used for museum X were based on a ratio calculated from the test museums. Museum X got half of its finance from public funding which was in line with two of the test museums. The Administration Efficiency for museum X were 44 percent which is a good number. The KPI is set up in a way that a museum that gets half of its income from public funding will get a ratio of 50 percent if they use 25 percent of their operational costs for administration. As museum X have lower than 50 percent it uses less than 25 percent of the costs for administration. Which in turn means fewer resources to use for fulfilling the museum’s mission. The Financial Efficiency for museum X is precisely 50 percent which it should be considering museum X’s distribution of resources. If the KPI goes higher than 50 percent it shows that the museum has to use less of the public funding to cover the operational costs of the museum giving it a higher Financial Efficiency.
5 Discussion and conclusion

As outlined in Figure 3, the results are both presented and analysed in Chapter 4. This chapter discusses the findings in relation to the purpose, goal and research questions of the study. The chapter is concluded by managerial implications and practical suggestions.

5.1 Answer to research question 1

To what extent do Swedish Museums measure and evaluate their performance today?

As the results seen in section 4.2.1 shows, there are not many museums on a national and regional level that evaluate performance by using a standardised method. The reasons for not doing this is mainly that they lack an easy enough model for it or that they do not see the use of it.

With a response rate of 55 percent and an error of margin of 13 percent does the survey satisfactory answer research question 1.

5.2 Answer to research question 2

Which non-financial factors and criteria are important to include when evaluating and measuring performance in a cultural non-profit organisation?

The results illustrated in Figure 6 and Figure 7 show that both managers that do use some sort of evaluation method and those that do not evaluate organisational performance but would like to, favour the factors concerning public activities and financial performance over those concerning collection management and knowledge acquisition.

This result was confirmed by the interviews where it was pointed out that there is a tendency to focus on public activities at the expense of collection management and knowledge acquisition. This is especially so in times of budget cuts when prioritisations need to be made.

With the combined results from the survey and the interviews can it be said that research question 2 has been answered.

5.3 Answer to research question 3

Is there already an established model that can be improved or adapted for Swedish museums?

The literature review showed that there exist a few models for performance evaluation for museums, but as they were developed for museums in other countries they were less applicable for Swedish museums. And as prop. 2016/17:116 is about to change the context for Swedish museums by re-focusing from public activities to inclusion of collection management and knowledge acquisition it was necessary to develop a model adapted for Swedish museums and this new context.

After having reviewed several different models for performance evaluation that could be used for non-profit organisations and be adapted to the setting of a Swedish museum was the Balanced Scorecard (BSC) deemed as the most suitable model to adapt for this setting. In section 4.5 is a general adaptation made for Swedish museums including a few KPIs that are not specific for any museum but can be used by all.

That together with the testing and evaluation of the model in section 4.6 answers research question 3.
5.4 Fulfilling the goal and purpose

The goal is to suggest and test a model for performance evaluation to be used by cultural non-profit organisations.

The model presented in section 4.5 is based on the BSC presented by Kaplan and Norton (1992). The balanced score card model fulfills the criteria developed by Kennerly and Neely (2002) and later improved by Cocca and Alberti (2010), as presented in section 2.3. Zorloni (2012) used the balanced score card for museums and developed perspectives that are further developed in this study by using prop. 2016/17:116 for museums (Sveriges Regering, 2016). Paulus (2003) set up five design criteria for a PMS aimed toward museums. The validity criteria are fulfilled as the model take into consideration two out of three valid criteria. As the model deliver the same result if no variables are changed it fulfills the criteria of reliability. The model mostly uses data already collected by museums and it can be built up using software most museums already have, it is feasible for museums to use it and thus fulfilling the feasibility criteria. Paulus (2003) adds a criterion of externality which the model in itself does not fulfill. The suggestion is that as most museums use external accountants, to extend their mission to include the PMS model as well. As the model is meant to use Excel or similar for the calculations the model fulfills the synthesis criteria.

As presented in section 2.3.4 Gilhespy (1999) developed a large set of KPIs for measuring the efficiency and effectiveness of museums. These KPIs were modified by the authors to be used by Swedish museums, and also to take advantage of the DEA presented in section 2.3.5. One criterion presented for a PMS to be valid is that it measures efficiency and effectiveness according to Lebas and Euske (2002), which the presented model does.

Museums are non-profit organisations and the model is using capacity were possible rather than cost or income which is part of OM. The model is designed to measure against prop. 2016/17:116 and therefore uses prop. 2016/17:116 as its mission. The model is also designed to measure the perspectives and activities that add value to the customer which is part of OM (Jonsson & Mattsson, 2016). The presented model considers the politicians funding the museum as customers (Matarasso, 2007).

The purpose of this study is to increase both theoretical and practical knowledge for how non-profit organisations within the cultural sector can evaluate their operations and measure performance.

The literature review combined with the analysis of textual data, interviews and survey result has helped to increase the theoretical knowledge about performance measurement aimed at cultural non-profit organisations as described in section 4.4. This has resulted in the practical model presented in section 4.5 and the implications in section 5.5. The suggested model fulfills the criteria described in section 2.3 making it a valid model for performance evaluation. It has also been tested and evaluated according to the guidelines described in section 3.1 meaning that it fulfills the requirements for an artefact. With this can it be said that the purpose of the study is fulfilled and that it contributed to both theoretical and practical knowledge.

5.5 Suggestions and implications

A suggestion to museums is that they use the method and the KPIs presented in this report to measure their performance. The presented KPIs can serve as a frame to develop their own KPIs which corresponding to their mission set up the fund granter. By using the proposed model, managers can prove to the fund granters and employees that the strategy the museum are following is in line with their mission and that the museum is doing what it is supposed to. The model can also useful for the managers to plan and forecast how changes to resources, such as staff reduction, will impact how the museum is keeping in line with the mission.

The study shows that, in order for a museum to properly measure their performance, it is vital to have a clear mission that cannot be misinterpreted. Therefore, the authors suggest that museums do not invent or rewrite the mission from the fund granter, but rather use it to develop a strategy and
set goals based on the strategy. The suggestion is that the mission from the fund granters is written based on the same perspectives as presented in this model since they are taken from proposition 2016/17:116.

These suggestions do not mean that the fund granters should interfere in museum activities or its content, merely stating that a clear mission is necessary. Fund granters ought to decide what a museum should include in the evaluation model as a complement to economic and qualitative reports, describing the yearly activities of the museum.

By implementing these suggestions, the communication between the museum and its stakeholders will improve and therefore the trust between them will be improved. Standardisation of information in communication processes is generally a way to build trust between organisations or individuals.

6 Challenges, Limitations and Future Research

This chapter concludes the study and challenges and limitations are discussed. Future research that can build on the findings from this study is also identified.

6.1 Challenges of the Study

Developing a PMS for museums that have no obvious and recognisable output is always challenging. It becomes even harder as the museums have such a broad mission and diversified fund granters. It has been necessary to make choice what to include and what not to include. As the intent of the study always was to focus on the government’s perspective and the mission for the museums depicted in prop. 2016/17:116 we had to exclude KPIs more interesting for local fund granters. This might lessen the relevance of the model for individual museums. But we argue that the fact that we made a few KPIs on each perspective the model leaves room for modification for each museum, which strengthens the relevance of the model.

Another challenge has been finding museums to test the model. “We don’t have time” in different phrasing was a common answer when we presented them with the research and asked if they could participate. After finding museums who were willing to take the time to gather and send over the information asked for, it became apparent that they all had different systems and different names for posts in the budget. Going through the spreadsheets and result reports, trying to decide which posts are relevant was difficult. The fact that one of the authors of this study has worked at a museum for many years was essential and made it possible to exclude external expertise which would otherwise have been necessary for researchers without previous knowledge from the field.

Bearing this in mind, with one author having worked at a museum it was necessary to make sure that personal opinions were excluded and that all results and analysis was based on the frame of reference and the results of the data collection.

6.2 Limitations of the Study

As a PMS should measure the whole organisation against its mission. But as the model are to be general the choice was made to only use prop. 2016/17:116 as the stated mission. In order for the museum to gain more value of the model, it will be necessary to develop their own or use Gilhespy’s (1999) suggested KPIs. This might lessen the relevance of the report for the museums. But the way the authors have modified and built the KPIs used are thoroughly described and it is possible for museums to use the same reasoning and methods.

The preferred way to gather the data necessary for testing the model would have been to set up what data are needed and for the researchers to do the measurement as a part of the research process. The authors of the report decided that it was not possible considering the time frame of the research. This limitation could lessen the validity of the research. The authors worked to strengthen the validity by using more museums as tests.
As the capacity used are based on nominal capacity and the fact that individual’s capacity has been distributed to one perspective only there is a margin of error in the presented result from the test. The margin of error could lessen the validity of the research.

6.2.1 Transferability

The model presented is not directly transferable to other branches of the Swedish cultural sector. As museums need their own set of perspectives that are based on law, other types of institutions such as theatres do not have the same directives for their kind of activities. Therefore, a set of perspectives for their branch might be needed or perhaps the original perspectives of BSC are functional to use. This study shows that the BSC is adaptable enough to use for non-profit organisations. When adapting the BSC to non-profit cultural organisations, it is necessary that the organisations take their time and set up relevant KPIs and decide what their definition of a good performance is.

6.3 Future Research

Art management in Sweden for the Swedish cultural sector is an undeveloped area, where there are many interesting research possibilities. Therefore, we chose to focus on further research that can build on the findings of this study.

In order for any PMS to work well and be useful, the data collection will need to be systematic and reliable. Therefore, a possible future research area would be to find methods of collecting the data needed for this model. As most of the data already are collected by the museums although sometimes indirectly the research could focus on what data and why? But also, terminology and standardisation on the data in order to improve benchmarking in the sector.

The result of the survey showed that the satisfaction of the visitors to the museums is an important factor for the managers. Further research into the area of how to transform public satisfaction with the museum into a KPI that fulfil the criteria of PMS is a possible future research topic that will have a large validity in the cultural sector.

One of the external experts interviewed for this study gave feedback on issues in collection management in need of further research. The expert pointed out that museums are focusing resources toward digitalisation of the collection. There is a need for research if it is common enough to develop KPIs that gives museums the possibility to benchmark against other museums. Museums are also focusing on their availability on the internet and there is a need for research toward how to measure the performance of their digital strategy.

Lastly, a comment from one of the experts was that the hardest part would probably be the resistance towards PMS within the sector. Therefore, there is a need to investigate methods for implementation of PMS systems within the sector.
References


8 Appendices

Appendix 1
KPIs suggested by Ian Gilhespy (1999)

Appendix 2
Survey questions

Appendix 3
Survey result

Appendix 4
Test data
### Appendix 1

KPIs suggested by Ian Gilhespy (1999)

<table>
<thead>
<tr>
<th><strong>KPI</strong></th>
<th><strong>Measures</strong></th>
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</thead>
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<tr>
<td>Administration Costs / Total Attendance</td>
<td>Efficiency</td>
</tr>
<tr>
<td>Administration Costs / Turnover</td>
<td>Economy</td>
</tr>
<tr>
<td>Atmosphere; Sense of Community</td>
<td>Effectiveness</td>
</tr>
<tr>
<td>Attendance by Ethnic Minorities / Total Attendance</td>
<td>Effectiveness / Equity</td>
</tr>
<tr>
<td>Attendance of Community-Oriented Activities/ Total Attendance</td>
<td>Effectiveness / Equity</td>
</tr>
<tr>
<td>Attendance of User Panels</td>
<td>Effectiveness / Equity</td>
</tr>
<tr>
<td>Box Office Income / Total Attendance</td>
<td>Efficiency</td>
</tr>
<tr>
<td>Box Office Income / Turnover</td>
<td>Economy</td>
</tr>
<tr>
<td>Business Support / Turnover</td>
<td>Economy</td>
</tr>
<tr>
<td>Children / Total Attendance</td>
<td>Effectiveness / Equity</td>
</tr>
<tr>
<td>Cleanliness of Building</td>
<td>Effectiveness</td>
</tr>
<tr>
<td>Concession / Total Attendance</td>
<td>Effectiveness / Equity</td>
</tr>
<tr>
<td>Direct Income / Gross Operating Expenditure</td>
<td>Economy</td>
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<td>Educational Expenditure / Gross Operating Expenditure</td>
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<td>Educational Expenditure / Program Costs</td>
<td>Effectiveness</td>
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<td>Estimate of Lost Revenue</td>
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<td>Expected Attendance / Actual Attendance</td>
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<td>Expenditure on Multiculturalism / Gross Operating Expenditure</td>
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<td>Expenditure on Multiculturalism / Program Cost Expenditure</td>
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<td>Gross Expenditure / Total Attendance</td>
<td>Efficiency</td>
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<td>Local Users/ Total Attendance</td>
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<td>Metric</td>
<td>Category</td>
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<td>--------------------------------------------</td>
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</tr>
<tr>
<td>New Companies in Yearly Program</td>
<td>Effectiveness</td>
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<tr>
<td>New Visitors / Total Attendance</td>
<td>Effectiveness / Equity</td>
</tr>
<tr>
<td>Number of Volunteers</td>
<td>Effectiveness / Equity</td>
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<td>O.A.P / Total Attendance</td>
<td>Effectiveness / Equity</td>
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<td>Outreach Attendance / Total Attendance</td>
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<td>Quality of Sales Products</td>
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<td>Quality of Service Elements</td>
<td>Effectiveness</td>
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<td>Quality Ratings</td>
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<td>Regional Users / Total Attendance</td>
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<td>Sales Revenue / Turnover</td>
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<td>Sales Revenue / Total Attendance</td>
<td>Efficiency</td>
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<tr>
<td>Students / Total Attendance</td>
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<td>Subscription / Total Attendance</td>
<td>Efficiency / Effectiveness</td>
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<td>Effectiveness</td>
</tr>
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<td>Total Attendance / Capacity</td>
<td>Efficiency</td>
</tr>
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<td>Total Attendance / Gross Operating Expidentre</td>
<td>Effectiveness</td>
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<td>Unemployed / Total Attendance</td>
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</tr>
<tr>
<td>Willingness-to-Pay ratings</td>
<td>Effectiveness</td>
</tr>
</tbody>
</table>
Appendix 2

Master thesis survey questions

Q1 Do you currently use any type of established, structured model to evaluate your operations and measure performance and goal fulfilment?
☐ Yes (1)
☐ No (2)

If yes on Q1:

Q2 Which model do you use?
☐ An existing model, for example The Balanced Scorecard or a modified version of an existing model (1)
☐ A model developed specifically for our organisation (2)

Q3 For how long have you been using this model?
☐ Less than two years (1)
☐ Two-five years (2)
☐ Five-ten years (3)
☐ More than ten years (4)
Q4 Which factors or criteria are included in your model and how important do you think each factor is for the evaluation as a whole? Where 1 is completely irrelevant and 6 is highly relevant.

- Financial indicators such as revenue and expenditures (1)
- Financial result and surplus/deficit (2)
- Number of visitors (3)
- Visitor satisfaction (4)
- Number of visiting school classes / groups on educational visit (5)
- Employee satisfaction (6)
- Diversity among visitors and employees (7)
- Service Quality (8)
- Quality of exhibitions and other activities (9)
- Press clippings and exposure in social and other media (10)
- New acquisitions of for example objects, archival documents, photographs and books (11)
- Number of registrations (New entries and digitalisation of older) (12)
- Number of inquiries from the public (13)
- Number of lectures or programs (14)
- Competence building, staff (15)
- Number of documentation, inquiry and inspection assignments (16)
- Number of investigations, conservations, restorations (17)
- Number of referrals and professional opinions (18)
- Number of research projects and collaborations (19)
- Number of publications, books and scientific articles (20)
- Capacity management (21)
- Cooperation and collaboration with external actors (22)
- Other ________(23)

Q5 How satisfied are you with your model and the factors it measures? Where 1 is very dissatisfied and 6 is very satisfied.

Display This Question:
If How satisfied are you with your model and the factors it measures? Where 1 is very dissatisfied and 6 is very satisfied.. Answer scale Is Less Than or Equal to  3

Q6 Why are you not completely satisfied, what could be improved with your model? (free text answer)

Q7 Are you satisfied with the model and the factors and criteria included in it?
- Yes (1)
- No (2)

Display This Question:
If “Is/are one or several of these factors/criteria of more importance or higher interest than the others?” <o:p></o:p>   Yes Is Selected

Q8 Why not, what could be improved with your current model of evaluation? (free text answer)
Q9 Is it within the framework of the model specified which measured values that represent an acceptable result?
- Yes (1)
- No (2)

Display This Question:
- If “Is it within the framework of the model specified which measured values that represent an acceptable result?” Yes Is Selected

Q10 Do you have different levels of an acceptable result; meaning, do you distinguish between acceptable, good and really good?
- Yes (1)
- No (2)

Q11 Do you (personally or as an organisation) follow up the result of the evaluation? Where 1 is no follow up at all and 6 is a complete follow up.

_____ Degree of follow up (1)

Display This Question:
- If “Do you (personally or as an organisation) follow up the result of the evaluation?” Yes Is Selected

Q12 In this follow up, do you check if the obtained result is in line with or deviates from the mission of the organisation?
- Yes (1)
- No (2)

Display This Question:
- If “In this follow up, do you check if the obtained result is in line with or deviates from the mission of the organisation?” No Is Selected

Q13 Why not?
- There is no demand from board/owner (1)
- We don’t see the practical use of it (2)
- It takes too much time (3)
- Other (4) __________________

If no on Q1:

Q14 Why not?
- There is no demand from board/owner (1)
- We don’t see the practical use of it (2)
- We haven’t found an appropriate evaluation model (3)
- It takes too much time (4)
- Other (5) __________________
Q15 Would it be interesting and useful for your organisation to start evaluate your operations and measure performance and goal fulfilment if there was an appropriate model that was adapted to your operations and easy to use?

- Yes (1)
- No (2)

Q16 Which factors or criteria do you think it would be important to include in a model for evaluation and measurement of performance and goal fulfilment considering the type of organisation a museum is?

- Financial indicators such as revenue and expenditures (1)
- Financial result and surplus/deficit (2)
- Number of visitors (3)
- Visitor satisfaction (4)
- Number of visiting school classes / groups on educational visit (5)
- Employee satisfaction (6)
- Diversity among visitors and employees (7)
- Service Quality (8)
- Quality of exhibitions and other activities (9)
- Press clippings and exposure in social and other media (10)
- New acquisitions of for example objects, archival documents, photographs and books (11)
- Number of registrations (New entries and digitalisation of older) (12)
- Number of inquiries from the public (13)
- Number of lectures or programs (14)
- Competence building, staff (15)
- Number of documentation, inquiry and inspection assignments (16)
- Number of investigations, conservations, restorations (17)
- Number of referrals and professional opinions (18)
- Number of research projects and collaborations (19)
- Number of publications, books and scientific articles (20)
- Capacity management (21)
- Cooperation and collaboration with external actors (22)
- Other ________ (23)

Q15 Can we contact you with follow up questions if we need to?

- Yes (1)
- No (2)
Q37 - Använder ni för närvarande någon vedertagen, strukturerad modell för att utvärdera verksamheten och mäta prestation och måluppfyllelse?

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<th>Count</th>
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<td>Nej</td>
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Q17 - Vilken modell använder ni?

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<th>%</th>
<th>Count</th>
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<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>En modell utvecklad speciellt för vår organisation.</td>
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<td></td>
<td>Total</td>
<td>100%</td>
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Q18 - Hur länge har ni använt er av modellen?

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<td>2</td>
<td>Två-fem år</td>
<td>30.77%</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Fem-tio år</td>
<td>23.08%</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Mer än tio år</td>
<td>7.69%</td>
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</tr>
<tr>
<td></td>
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</tbody>
</table>
Q19 - Vilka faktorer eller kriterier mäter er modell samt hur viktiga bedömer ni varje faktor vara för den sammantagna utvärderingen? Där 1 är helt irrelevant och 6 är väldigt viktig.

<table>
<thead>
<tr>
<th>#</th>
<th>Finansiella indikatorer såsom intäkter och utgifter</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Annat</td>
<td>6.00</td>
</tr>
<tr>
<td>5</td>
<td>Antal besökande skolklasser</td>
<td>5.50</td>
</tr>
<tr>
<td>3</td>
<td>Antal besökte</td>
<td>5.58</td>
</tr>
<tr>
<td>16</td>
<td>Antal dokumentations-, utrednings-, inventerings- och besiktningsuppdrag</td>
<td>3.82</td>
</tr>
<tr>
<td>19</td>
<td>Antal forskningsprojekt/-samarbeten</td>
<td>4.42</td>
</tr>
<tr>
<td>14</td>
<td>Antal föreläsningar/program</td>
<td>4.83</td>
</tr>
<tr>
<td>20</td>
<td>Antal publiceringar: böcker och artiklar</td>
<td>3.83</td>
</tr>
<tr>
<td>13</td>
<td>Antal rådfrågningar från allmänheten</td>
<td>4.00</td>
</tr>
<tr>
<td>12</td>
<td>Antal registreringar (Ny- och digitalisering av äldre)</td>
<td>4.25</td>
</tr>
<tr>
<td>17</td>
<td>Antal undersökningar/ konserveringar/ restaurering</td>
<td>4.00</td>
</tr>
<tr>
<td>18</td>
<td>Antal utförda remisser, utlåtanden och övriga underlag</td>
<td>3.10</td>
</tr>
<tr>
<td>4</td>
<td>Besöknöjdhet</td>
<td>5.00</td>
</tr>
<tr>
<td>1</td>
<td>Finansiella indikatorer såsom intäkter och utgifter</td>
<td>5.60</td>
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<td>Finansiellt resultat och överskott/underskott</td>
<td>5.27</td>
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<td>21</td>
<td>Kapacitetsshantering</td>
<td>3.38</td>
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<td>15</td>
<td>Kompetensutveckling av personal</td>
<td>4.27</td>
</tr>
<tr>
<td>8</td>
<td>Kvalitet på service</td>
<td>4.55</td>
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<tr>
<td>9</td>
<td>Kvalitet på utställningar/övriga aktiviteter</td>
<td>4.73</td>
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<tr>
<td>7</td>
<td>Mångfald bland besökte och personal</td>
<td>3.67</td>
</tr>
<tr>
<td>11</td>
<td>Nyförvärv av exempelvis föremål, arkivhandlingar, fotografier och böcker.</td>
<td>4.09</td>
</tr>
<tr>
<td>6</td>
<td>Personalnöjdhet</td>
<td>3.73</td>
</tr>
<tr>
<td>10</td>
<td>Pressklipp och exponering i sociala och andra medier</td>
<td>3.91</td>
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<td>22</td>
<td>Samverkan och samarbeten med externa aktörer</td>
<td>5.08</td>
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</tbody>
</table>
Q27 - Hur nöjda är ni med modellen och de faktorer som modellen mäter? 1 innebär väldigt missnöjd och 6 väldigt nöjd.

<table>
<thead>
<tr>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nöjdhetsskala</td>
<td>2.00</td>
<td>6.00</td>
<td>3.75</td>
<td>1.01</td>
<td>1.02</td>
<td>12</td>
</tr>
</tbody>
</table>
Q28 - Varför är ni inte helt nöjda, vad skulle kunna förbättras med er modell?

<table>
<thead>
<tr>
<th>Varför är ni inte helt nöjda, vad skulle kunna förbättras med er modell?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Det finns inte en styrmodell som kan omfatta samtliga perspektiv och återrapporterings respektive uppföljningskrav. Idag används flera modeller för att kunna omhänderta de olika frågeställarnas krav och behov. Vi mäter inte samma saker som det ägarna/finansiärerna/Kulturrådet m fl efterfrågar. Synkroniseringen mellan instrumenten måste öka.</td>
</tr>
<tr>
<td>Bättre kvalitativa indikatorer och uppföljningar behövs. Bättre = pricksäkra + lätthanterliga</td>
</tr>
<tr>
<td>Det finns alltid andra saker som man skulle vilja veta mer om</td>
</tr>
<tr>
<td>vi borde vidareutveckla den och det har vi planerat att göra</td>
</tr>
</tbody>
</table>
Q22 - Finns det specificerat inom ramen för utvärderingsmodellen vilka uppmätta värden som innebär ett acceptabelt resultat?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td>41.67%</td>
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<tr>
<td>2</td>
<td>Nej</td>
<td>58.33%</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>12</td>
</tr>
</tbody>
</table>
Q23 - Har ni olika nivåer för godkända/accepterade resultat, det vill säga, skiljer ni mellan godkänt, bra och väldigt bra?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ja</td>
<td>20.00%</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Nej</td>
<td>80.00%</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td>5</td>
</tr>
</tbody>
</table>
Q24 - Följer ni (personligen eller som organisation) upp resultaten av utvärderingen? Där 1 är ingen uppföljning alls och 6 är fullständig uppföljning.

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>18.18%</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>9.09%</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>9.09%</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>18.18%</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>45.45%</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>11</td>
</tr>
</tbody>
</table>
Q24 - I uppföljningen, kontrolleras det om det uppnådda resultatet är i linje med, eller avviker från verksamhetens uppdrag?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ja</td>
<td>100.00%</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Nej</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>11</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Q25 - Varför inte?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Det finns inget krav från styrelse/ägare</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Vi ser ingen nytta med det</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Det tar för mycket tid</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Annat</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>0</td>
</tr>
</tbody>
</table>

Annat
Annat
Q27 - Varför inte?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Det finns inget krav från styrelse/ägare</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Vi ser ingen nytta med det</td>
<td>14.29%</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Vi har inte hittat någon lämplig utvärderingsmodell</td>
<td>50.00%</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Det tar för mycket tid</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Annat</td>
<td>35.71%</td>
<td>5</td>
</tr>
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<td></td>
<td>Total</td>
<td>100%</td>
<td>14</td>
</tr>
</tbody>
</table>

Q27_5_TEXT - Annat

Annat

Vi har inte tidigare värderat nyttan som tillräckligt stor men from början av 2016 söker vi en utvärderingsmodell
Vi har inte hunnit arbeta fram en struktur efter en stor förändring i ägande och organisation
Vi utvärderar och följer upp varje år men inte enligt någon särskild modell
Länsmuseer har ett mycket brett uppdrag. Att utvärdera alla de verksamhetsområden som vi har (med mycket liten personalstyrka) är komplicerat. Däremot har vi givetvis mål som vi utvärderas mot.
Har hittills inte känt något behov
Q25 - Skulle det vara intressant och användbart för er verksamhet att börja utvärdera verksamheten och mäta prestation och måluppfyllelse om det fanns en anpassad och lättanvänd modell?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ja</td>
<td>100.00%</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Nej</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td>11</td>
</tr>
</tbody>
</table>
Q26 - Vilken eller vilka faktorer eller kriterier tycker ni är relevanta att inkludera i utvärderingsmodell för er typ av verksamhet?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Finansiella indikatorer såsom intäkter och utgifter</td>
<td>45.45%</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Finansiellt resultat och överskott/underskott</td>
<td>45.45%</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Antal besökare</td>
<td>72.73%</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Besökarnöjdhet</td>
<td>100.00%</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Antal besökande skolklasser</td>
<td>72.73%</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>Personalnöjdhet</td>
<td>72.73%</td>
<td>8</td>
</tr>
<tr>
<td>----</td>
<td>---------------------------------</td>
<td>--------</td>
<td>---</td>
</tr>
<tr>
<td>7</td>
<td>Mångfald bland besökare och personal</td>
<td>72.73%</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>Kvalitet på service</td>
<td>90.91%</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>Kvalitet på utställningar/övriga aktiviteter</td>
<td>90.91%</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>Pressklipp och exponering i sociala och andra medier</td>
<td>63.64%</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>Nyförvärv av exempelvis föremål, arkivhandlingar, fotografier och böcker.</td>
<td>54.55%</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>Antal registreringar (Ny- och digitalisering av äldre)</td>
<td>63.64%</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>Antal rådfrågningar från allmänheten</td>
<td>72.73%</td>
<td>8</td>
</tr>
<tr>
<td>14</td>
<td>Antal föreläsningar/program</td>
<td>72.73%</td>
<td>8</td>
</tr>
<tr>
<td>15</td>
<td>Kompetensutveckling av personal</td>
<td>45.45%</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>Antal dokumentations-, utrednings-, inventerings- och besiktningsuppdrag</td>
<td>63.64%</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>Antal undersökningar/ konserveringar/ restaureringar</td>
<td>45.45%</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>Antal utförda remisser, utlåtanden och övriga underlag</td>
<td>54.55%</td>
<td>6</td>
</tr>
<tr>
<td>19</td>
<td>Antal forskningsprojekt/-samarbeten</td>
<td>54.55%</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>Antal publiceringar: böcker och artiklar</td>
<td>45.45%</td>
<td>5</td>
</tr>
<tr>
<td>21</td>
<td>Kapacitetshantering</td>
<td>27.27%</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>Samverkan och samarbeten med externa aktörer</td>
<td>81.82%</td>
<td>9</td>
</tr>
<tr>
<td>23</td>
<td>Annot</td>
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<td><strong>Total</strong></td>
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</table>

**Annot**

Mycket av detta redovisar vi redan idag (bl.a. till Kulturrådet och Myndigheten för Kulturanalys, vilket är ett krav).
Q48 - Får vi kontakta dig med uppföljande frågor om så behövs?

<table>
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<tr>
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<th>Answer</th>
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<th>Count</th>
</tr>
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<tbody>
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<td>2</td>
<td>Nej</td>
<td>20.00%</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
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</tr>
<tr>
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<td>%</td>
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No results to show
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<tr>
<td></td>
<td>4 000 000</td>
<td>68 673 000</td>
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<tr>
<td>-----------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Public activity costs (SEK)</td>
<td>8 000 000</td>
<td>7 850 475</td>
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<tr>
<td>Operations costs (SEK)</td>
<td>11 313 000</td>
<td>146 800</td>
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<tr>
<td>Total administrative costs (SEK)</td>
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<td>18 011 000</td>
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<tr>
<td>Operational income (SEK)</td>
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<td>67 068 800</td>
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<tr>
<td>Total income (SEK)</td>
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<td>67 068 800</td>
</tr>
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</table>

Data unavailable

<table>
<thead>
<tr>
<th></th>
<th>19 638 000</th>
<th>82 000</th>
<th>253 571</th>
<th>13 857</th>
<th>1 83 000</th>
<th>6 496 470</th>
<th>3 874 320</th>
<th>5 348 608</th>
<th>5 432 887</th>
<th>5 432 887</th>
<th>4 925 727</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of artifacts in collection</td>
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<td>82 000</td>
<td>253 571</td>
<td>13 857</td>
<td>1 83 000</td>
<td>6 496 470</td>
<td>3 874 320</td>
<td>5 348 608</td>
<td>5 432 887</td>
<td>5 432 887</td>
<td>4 925 727</td>
</tr>
<tr>
<td>Total capacit (man hours)</td>
<td>19 638 000</td>
<td>82 000</td>
<td>253 571</td>
<td>13 857</td>
<td>1 83 000</td>
<td>6 496 470</td>
<td>3 874 320</td>
<td>5 348 608</td>
<td>5 432 887</td>
<td>5 432 887</td>
<td>4 925 727</td>
</tr>
<tr>
<td>Capacity invested in collection (man hours, 360)</td>
<td>19 638 000</td>
<td>82 000</td>
<td>253 571</td>
<td>13 857</td>
<td>1 83 000</td>
<td>6 496 470</td>
<td>3 874 320</td>
<td>5 348 608</td>
<td>5 432 887</td>
<td>5 432 887</td>
<td>4 925 727</td>
</tr>
<tr>
<td>Capacity invested in research (man hours)</td>
<td>19 638 000</td>
<td>82 000</td>
<td>253 571</td>
<td>13 857</td>
<td>1 83 000</td>
<td>6 496 470</td>
<td>3 874 320</td>
<td>5 348 608</td>
<td>5 432 887</td>
<td>5 432 887</td>
<td>4 925 727</td>
</tr>
<tr>
<td>Capacity invested in public activities (man hours)</td>
<td>19 638 000</td>
<td>82 000</td>
<td>253 571</td>
<td>13 857</td>
<td>1 83 000</td>
<td>6 496 470</td>
<td>3 874 320</td>
<td>5 348 608</td>
<td>5 432 887</td>
<td>5 432 887</td>
<td>4 925 727</td>
</tr>
</tbody>
</table>

Nightshifts spent (individuals)  
Population (individuals)  
Activity attendees (individuals)  
Total attendance (individuals)  

MUSEUM