

Master Thesis Economics, Specialization Accounting & Control:

EVALUATING PERFORMANCE OF KNOWLEDGE MANAGEMENT IN A NON- PROFIT ORGANIZATION

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Preface and Acknowledgements

This thesis is the final requirement for graduating in Economics from the Radboud University. The topic of this thesis is knowledge management in non-profit organizations. A reason for having chosen this subject is the experience I have gathered from working at a housing corporation, which is in the Netherlands categorized as a non-profit organization. As knowledge management was developed in this organization, I became more interested in studying this topic.

As writing a thesis is something that you can't do alone, I would like to thank those who had an important role in my writing process. First of all, I would like to thank my supervisor mr. R.A. Minnaar, as his insights, remarks and advice were very valuable in this writing process. Furthermore, I would like to thank housing corporation Talis and especially those that have made available some of their valuable time to provide me with the information needed. My parents, sister, grandmother and friends also deserve a word of appreciation, as they were always there for me to provide distraction, say words of encouragement and pride. My friend Foruq deserves a special thanks, as our breaks were energizing, relaxing and kept me focused at the same time.

I hope you will enjoy reading this thesis,

Tim van de Burgwal

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1 Introduction

Over the last decades, the amount of non-profit organizations (further: NPO) have seen a large growth in both Europe and the United States (Defourny & Nyssens, 2008). Specifically, in the European Union roughly 10% of businesses are socially oriented (European Commission – Enterprise and Industry, 2011). According to the EMES network, social enterprises are *“not-for-profit private organizations providing goods or services directly related to their explicit aim to benefit the community. They rely on collective dynamics involving various types of stakeholders in their governing bodies, they place a high value on their autonomy and they bear economic risks linked to their activity”* (as summarized by Defourny & Nyssens, 2008). In this type of organization profits are subordinate to the social goal they are pursuing (Thompson et al., 2000). Where the traditional firm sees the social purpose as either a mean to profits, or a constraint to achieving them, the NPO sees the social as its main goal (Arena, Azzone & Bengo, 2015). An NPO has a very close relationship with its stakeholders. Those stakeholders are focused on the achievement of the social goals of the organization.

This focus on results by the stakeholders, makes it important to be able to measure performance (Borzaga & Tortia, 2006). In accounting literature, the measurement of performance is a popular topic (Bititci et al., 2006). Performance might sometimes seem easy to measure, but almost always it appears to be harder than originally thought, due to the complexity of performance. This complexity has led to multiple studies looking for the effects of imperfect performance measurement systems and their impact on organizations. Multiple scholars describe performance measures as *‘noisy representations of underlying goals that are affected by uncontrollable events’* (Rojas, 2016, p. 353). Not only are measures imperfect at giving a full representation of performance, they can also lead to changes in behavior. These changes are caused by people wanting to meet targets. Most people will try to do their best at meeting a certain target, thereby neglecting unmeasured aspects of performance (Eisenhardt, 1989). Literature on this topic is mainly trying to find ways to design performance measurements in such a way that these behavioral effects are minimized, and ultimate goals are met. Most studies in performance measurement are focused on private firms instead of public or NPOs enterprises. Measuring performance of an NPO can be a harder task than measuring performance of a for-profit organization, as different kinds of stakeholders, industry, and organizational structure are involved (Arena, Azzone & Bengo, 2015). These

differences mean there is a different and extended demand for information in NPOs. These differences ask for specific ways of measuring performance (Herman & Renz, 1997).

Increasing organizational performance and increasing competitive advantage is often a major concern for an organization. This leads organizations to look for ways to change processes to increase performance and gain competitive advantage. One possible method for increasing performance is knowledge management (further: KM). The reason for this focus is the increased importance of knowledge management. This trend is mainly due to a possible increase in productivity achieved by paying more attention to knowledge management (Teo, 2005). Although there are multiple definitions available to define knowledge management, this paper will use the definition provided by Alavi and Leidner (1999). This definition is as follows: *"KM is the systemic and organizationally specified process for acquiring, organizing, and communicating both tacit and explicit knowledge of employees so that others may make use of it to be more effective and productive."* Teo (2005) identifies multiple reasons for the importance of KM: KM allows for faster, better and cheaper services, innovations become more and more important, so sharing knowledge for these innovations must be more smoothly organized. The final reason he gives is the increased complexity of services and products, which makes information more and more important. To organizations, the benefits of a well-integrated knowledge management system are clear, which can be seen by the large investments made in the implementation of knowledge management systems. Despite these investments, companies still lose large amounts of money due to poorly implemented KM (Babcock, 2004). Organizations invest in measuring performance because those systems are important for evaluating whether performance objectives have been achieved (Oyemomi et al., 2016). Ahmed, Lim & Zairi (1999) point to the importance of measuring knowledge for organizations. Measurement allows for evaluation, control and improvement of performance. Research rarely addresses the impact of implementing a knowledge management, or any type of organizational change on performance measurement (Wang & Noe, 2010). An example of a case study in which the effect of change on performance measurement is shown is a paper written by Chenhall & Langfield-Smith (1998). They show that multiple accounting techniques can help the manager to deal with change, and that the influence of these accounting techniques depends on different factors of the organization. Since this research is only limited to private firms, further research is needed to find whether performance measurement of KM is different in other types of organizations. The goal of this thesis is not to describe what

performance measures can be used in an NPO, it is to understand what aspects of performance in NPOs are influenced by KM and whether/how this influence is measured.

To increase understanding of how an organization uses KM and what it does to the organization in terms of performance and performance evaluation, this case study will look at the implementation of such a system at a Dutch housing corporation. The main question can be formulated as follows: what aspects of performance in NPOs are influenced by KM and (how) is that influence measured? To gain a deeper understanding of the possible influences KM has on NPO performance and performance measurement, this thesis uses a case study in which an NPO implements KM. This thesis uses existing literature on performance measurement in NPOs and applies it to the implementation of KM.

Since this study is focused on gaining an in depth understanding of the affects a KM has on performance evaluation and performance measurement itself, interviews are held among those persons responsible and/or influenced by KM. The interviews will be held among employees of a medium-sized housing corporation in the Netherlands during the implementation of a new system for sharing knowledge within the organization and its tenants.

The thesis will start with a discussion of existing literature on performance measurement in NPOs and of literature on knowledge management. The third chapter will describe the methodology used in this thesis and will describe the case study. The fourth chapter will discuss the results found during the interviews. The final chapter will consist of a conclusion and discussion of the findings.

2 Literature

To be able to find an answer to the research question in this thesis, a further elaboration on the affect of KM on performance evaluation for NPOs is needed. As no framework has been developed for measuring performance of KM in an NPO, the framework will be based on existing frameworks for measuring performance of KM on the one hand and on a framework for performance measurement for NPOs on the other hand. The frameworks on KM performance measurement describe the aspects of KM performance that are important for an organization, and how this can be measured. Combining these aspects of KM with the measures of performance that are important for overall performance of an NPO, lead to multiple measures. Combining these measures can lead to a description of the performance measures used to evaluate the performance of KM in an NPO. This can be graphically shown in Figure 1.

2.1 Knowledge management

As shown shortly in the introduction of this thesis, knowledge management is a powerful device for organizations to increase productivity and gain competitive advantage. This leads organizations to be more concerned with proper management of available knowledge (Teo, 2005). Recently, knowledge is seen more as one of a company’s assets, as for example brand identity, reputation, or management systems (Pascarella, 1997). There are two types of knowledge in organizations, tacit and explicit knowledge. Smith (p, 314, 2001) defines tacit knowledge as “technical or cognitive and is made up of mental models, values, beliefs, perceptions, insights and assumptions”. It is the type of knowledge that is difficult to transfer to others, but which is of great value. Explicit knowledge on the other hand can be defined as “technical or academic data or information that is described in formal language, like manuals, mathematical expressions, copyright and patents” (Smith, p. 315, 2001). This type of

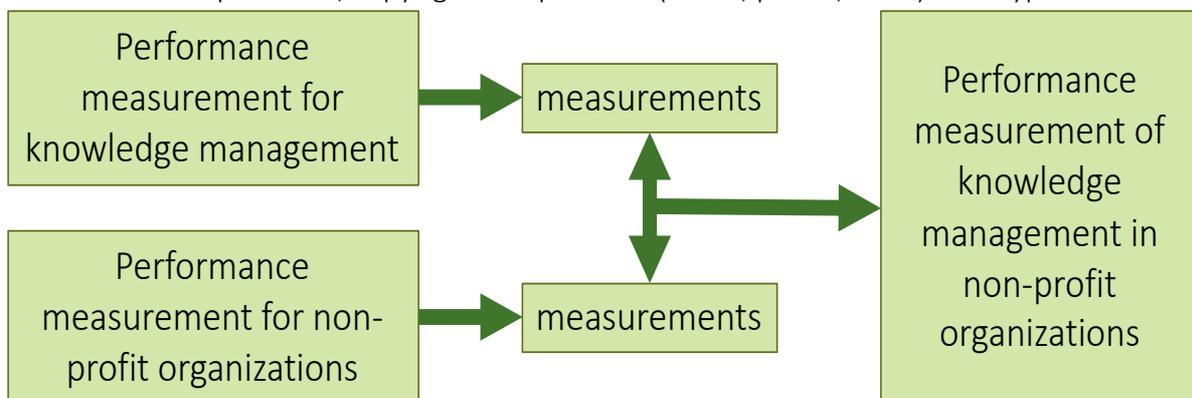


Figure 1 Combining existing measures

knowledge is easier to transfer to others than tacit knowledge. The definition of KM used in this thesis is the one provided by Alavi & Leidner (1999): *“Knowledge management is the systemic and organizationally specified process for acquiring, organizing, and communicating both tacit and explicit knowledge of employees so that others may make use of it to be more effective and productive.”* Effective KM will thus allow the organization to work more effectively and increase productivity. The increased importance of KM can be assigned to the increased importance of innovations, increased complexity of products and improved efficiency of the organization (Teo, 2005). As large amounts of money are lost on bad implementation of KM, it is important for an organization to measure the performance of KM.

2.1.1 Knowledge management in non-profit organizations

KM can be applied in all possible types of organizations. To take advantage of the use of KM, there is no limitation to only large multinationals or only small corporations. This means that also NPOs can use KM (Wong & Aspinwall, 2006). However, KM literature is strongly focused on for-profit organizations, which leaves NPOs relatively uninvestigated. This leaves a knowledge gap on the domain of knowledge management, as the effects of KM can be different for NPOs, due to the numerous differences between for-profit organizations and NPOs. Examples of these differences are procedures, managerial structures, taxation and legal compliance (Hume, Clarke & Hume, 2012). In particular, the financial aspect of the implementation of KM is likely to be different for NPOs as these systems are often priced too high for an NPO. This causes KM to be generally not as frequently implemented in NPOs in comparison to for-profit organizations. Another reason is the assumption that knowledge is hard to handle and may distract the NPO from achieving its mission (Helmig, Jegers & Lapsley, 2004).

2.2 Performance measurement and knowledge management

Multiple studies show the importance of evaluation of the performance of KM for managers of an organization (Ahn & Chang, 2004; Schultze & Leidner, 2002; Holden & Shin, 2001). Performance measurement of KM is important, as it allows managers to see the problems in their knowledge management practices, find out about the parts that hold back further development and show how the system can be further improved (Lyu, Zhou & Zhang, 2016). Also, for researchers this topic has gained attention over the years (Chen & Chen, 2006). Firm’s management is interested in the measurement and evaluation of KM performance (Brynjolfsson, Renshaw & Alstynne, 1997). As Chen & Chen (2006) state, this draws attention

to the question how the firms that have implemented KM are evaluating this system. What kind of measures do they use for this evaluation? Quantitative measures of KM and financial measures in particular are the main methods for evaluation, though the focus is shifting more towards non-financial indicators. They also show that firms are not only focused on their own KM performance but are looking at competitors as well. This can be done through benchmarking for example.

2.3 How to evaluate the performance of knowledge management?

Performance measurement is important for firms, as it helps them evaluating the performance of their systems. It allows them to make decisions about what parts are working as intended, what parts need improvement and what parts should be ended (Andone, 2009). Since the answer to the question

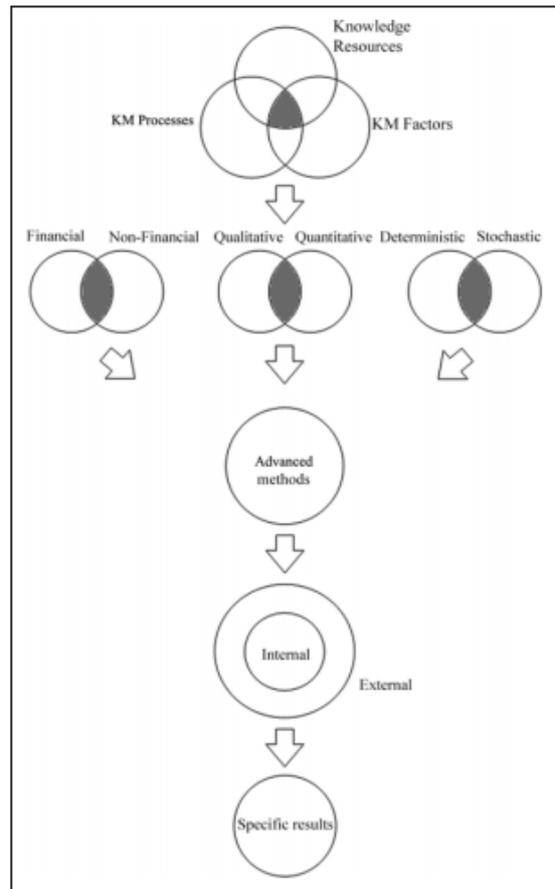


Figure 2 Framework for KM performance measurement

what performance is, is hard to answer and depends on the specific characteristics of the firm, the measurement of this performance will be even harder. Due to the intangible and subjective character of KM performance, the evaluation of the system will be a difficult task to perform (Kluge, Stein & Licht, 2012). The amount of research performed on the field of performance measurement of KM is little (Wang & Noe, 2010). However, three frameworks for the measurement of performance have been developed. The next three subparagraphs will shortly describe these frameworks.

2.3.1 Framework by Wong et al. (2015)

Wong et al. (2015) developed a framework that shows how performance of a KM should be measured. They developed this framework to help both managers and researchers with the performance measurement of KM. For managers, this framework could help them with the evaluation of their KM and it may help them to create better measurements of KM. For researchers the framework helps them to enhance their knowledge on KM and can therefore lead to new knowledge. This framework combines all three aspects of KM measurement:

knowledge resources, KM processes and the factors that influence KM. All of these aspects contribute to the KM and are equally important according to the authors. The framework then continues to the indicators that should be used to describe KM. It advises to use both financial and non-financial indicators, quantitative and qualitative methods and deterministic and stochastic variables. This allows for the production of a more thorough result. When in the future new and more advanced measurement methods are available, these should be used according to these authors, as these measurements will be able to solve current difficulties in measurement in the future. The framework further advises to use tools that can be used both to measure internal and external performance. The results of this framework are specific to the manager, who can assess the performance of the organization based on the output.

2.3.2 Framework by Lyu et al. (2016)

The above-mentioned framework is not the only framework designed for measuring KM performance. Lyu, Zhou and Zhang (2016) also designed a framework for measuring KM performance. This framework is based on the Balanced Scorecard (BSC) as developed by Kaplan & Norton (1996) and fuzzy comprehension methods. The BSC is an improved measure of performance, as it doesn't only look at financial

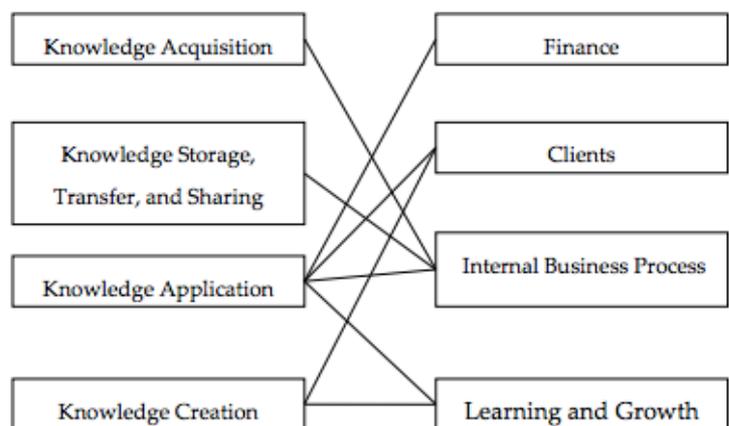


Figure 3 the mapping between the processes of KM and measurements of the BSC

measures, but it also takes clients, internal business processes and learning and growth into account. Lyu et al.(2016) combine these factors of the BSC with the four processes of KM identified by Alavi & Leidner (2001). This leads to the relationships as shown in Figure 3. Lyu et al. (p, 34, 2016) point to the importance of the financial aspect. According to them this is 'the ultimate strategic goals of KM can all be reflected through its financial benefit'. For measurement of KM with regard to a firm's clients, customers must be retained, and new customers must be recruited to expand market shares. The internal business process can be measured by looking at the per capita management cost and per capita profit. The last aspect, learning and growth, can be measured by using four measures: per capita training

investment, per capita profit generation, employee turnover rate and new product selling rate. Figure 3 thus displays the impact of KM on different performance aspects of the BSC.

2.3.3 Model by Yiu & Pun (2014)

Yiu & Pun (2014) have created an Integrated Knowledge Management model. This model is mainly focused on measuring performance of KM in industrial enterprises. This model is based on self-assessment, which consists of a set of five concepts of KM practices, which are adopted from previous research (Pun & Lau, 2003). The first of these five concepts of KM practices, senior management leadership, drives KM and performance measurement to result in an ongoing increase in performance and stakeholder value. To achieve this increased performance, three other concepts play a role, KM processes, people development and continuous improvement. For an organization to keep improving the fifth concept is important, namely results oriented measures (Pun & Lau, 2003). In the table presented in their paper, the relevance to the performance measures is described. The method used to gather data to evaluate organizational performance is self-assessment. The most used measure of self-assessment are questionnaires, but audit lists with questions are also an example of self-assessment measurements. The advantages of using self-assessment are an increase in response, productivity and it prevents organizational efforts from fragmenting (Chin et al., 2003). Self-assessment helps the organization to find out where it can improve and where its already performing well (Neely, 2005). For this model a questionnaire was developed to gain insight in each of the five concepts. When all questions have been answered, the results indicate whether the organization is still a “starter”, or whether the KM system is an “achiever”. The advantage of this model is its big ability for organizations to adjust the questions to match their objectives. This is a fundamental difference from other types of measures like, that aren't based on a questionnaire, but on accounting numbers, that don't display underlying processes.

Core concepts	Relevance to performance measures
1. Senior management leadership	<p>Top management recognises its roles and responsibilities to set directions, management principles and vision and develops strategies and policies</p> <p>Management should exercise its involvement and commitment in developing the management structure and environment in which the organisation and its people can excel to achieve the organization's objectives</p>
2. Management by processes (business/operations and KM)	<p>Using reliable information and analysis of data make effective decisions for the current operations and planned improvements</p> <p>Vital components of the KM processes are the acquisition, manipulation, distribution, storage and use of knowledge</p> <p>KM processes stress benchmarking (sensing and acquiring new knowledge), cross-functional process improvement teams (modifying and using knowledge), training (distributing knowledge), and procedures and records (storing knowledge)</p> <p>More predicable results can be obtained and achieved more efficiently when the inter-related activities are managed as a process</p> <p>Improvements are made through sharing of information and knowledge and effective implementation of organisational strategies and policies</p>
3. People development	<p>Through shared values, trust and empowerment, which encourages the involvement of people in all levels in the organisation to best release their full potential to be used for organisation's benefit</p> <p>Achieving the highest levels of employee performance requires well-developed people education and training and adoption of ethical approach to promote people well-being and satisfaction</p>
4. Continuous improvement	<p>The resources are planned, managed and improved with continuous review and update of strategies and policies</p> <p>The importance of continuous innovation with the emphasis of learning culture should be developed and maintained</p> <p>Excellence is dependent upon balancing and satisfying the needs of all relevant stakeholders</p>
5. Results orientation	<p>Service quality and customer loyalty, retention and market share gain are best optimised through a clear focus on the needs of current and potential customers</p> <p>An organisation works more effectively when it has mutually beneficial relationships with its people and partners focusing on both financial and non-financial results and organisational effectiveness</p> <p>The long-term interest of the organisation and its people are best served by exceeding the expectations and regulations of the community at large</p>

Source: Adopted with modification from Pun and Lau (2003, p. 321)

Figure 4 Core concepts of self-assessment and performance enablers from Yiu & Pun (2014)

2.3.4 Comments on Frameworks

Similar to the framework discussed by Wong et al. (2015), the framework developed by Lyu et al. (2016) is mainly focused on the use of financial measures and financial results to evaluate performance of KM. This makes those frameworks probably well applicable to for-profit organizations, but this focus makes it harder to apply them to NPOs, which don't see financial performance as their main goal. It is crucial for an organization to use the right measures, because this will allow the organization to know how to use its limited resources in such a way that performance will be improved (Yiu & Pun, 2014). For this reason, these frameworks aren't directly applicable to NPOs. Gooijers (2000) attempted to develop a knowledge management performance framework. This framework has however the same problem as the frameworks discussed previously: only small adjustments have been made to for-profit frameworks to make them applicable to NPOs. These alterations are however ignoring the very specific characteristics of NPOs. Therefore this framework is only of little use in practice.

2.4 Differences between NPOs and for-profit organizations for performance measurement

As already mentioned in the introduction of this thesis, performance measurement studies are mainly focused on for-profit organizations, which are focused on the creation of value, which can then be distributed to shareholders (Cordery & Sinclair, 2013). The focus on for-profit organizations means that NPOs performance measurement issues are less often discussed in literature. A possible explanation for this lack of studies may be the diversity in goals of those entities. Since the goals of NPOs are different from for-profit organizations, the way performance is measured should be different as well. Performance measures that work properly when it comes to for-profit organizations, don't have to work for NPOs (Henderson, Chase & Woodson, 2002). Differences in stakeholders, industry, and organizational structure make performance measurement more difficult (Arena, Azzone & Bengo, 2015). An example of a performance measure for NPOs can be the ratio between costs spend on the ultimate goal of the organization and costs of fundraising and management. The more the firm spends on the ultimate goal, the better this firm performs (Henderson, Chase & Woodson, 2002). However, this example still depends on traditional financial measures to evaluate performance. The Financial Accounting Standards Board noticed this problem already in the 1980s and mentioned the need for development of new measurements (Financial Accounting Standards Board, 1980). The development of new measures is not the only challenge faced by NPOs, as shown by Cordery & Sinclair (2013). NPOs often face high costs of data collection,

which reduces the availability of money for achieving its mission. Another problem with performance measurement of NPOS is that the results of operations of an NPO will often be visible after several years. That makes it hard to attribute performance to a specific year. To avoid these problems, most organizations are using measures that are easier to use, but which will decrease the information about true performance. Performance measurement can be done in different ways. In for-profit organizations, the most popular method for measuring performance is using the Balanced scorecard. The advantage of this system is the ability to measure both financial and non-financial performance. The application of the BSC method has been applied in multiple papers. The steps needed from an NPO are described by Oliveira (2001) who studied the implementation of the BSC in a healthcare organization. The organization first needs to formulate a business case, identify its strategy, tactical objectives, performance measurements and data sources. Then it needs to create a data warehouse and select an information technology. When these steps are taken, the BSC can be made. After the creation of the BSC the strategy needs to be managed, and the BSC can be refined and reused. Oliveira (2001) found the positive effects of the implementation of a BSC on customer satisfaction and an organizations' financial results.

Another type of performance measurement is the performance prism, as developed by Neely, Adams & Crowe (2001). This framework looks at five aspects: stakeholder satisfaction, strategies, processes, capabilities and stakeholder contribution. Stakeholder satisfaction goes further than only shareholders, as does the BSC framework. Neely et al. (2001) mention employees, suppliers, community or pressure groups. These are important to consider, as they can all have an impact on firm performance. The strategy aspect looks at the needs and wants of the stakeholders. Only when an organization is aware of the needs of its stakeholders it can define a strategy to fulfill these needs. When the strategy is defined, the organization needs to look at which business processes it needs to achieve the strategies. The combination of technology, people, practices and infrastructure is called the capabilities of the organization, which will allow the business processes to be carried out properly. The final aspect, the stakeholder contribution, deals with the relationship the stakeholders have with the organization. Not only is the organization fulfilling the needs of the stakeholders, the stakeholders also have to contribute to the organization for it to function. Neely et al. (2001) show some case studies in which the performance prism is applied. The prism is not only applied in FPOs, but also in a charity organization, The London Youth. In this case four

workshops were needed to implement the prism. One was needed to identify the needs of its stakeholders and the needs of the organization from the stakeholders. The second was used to identify the measures of stakeholder satisfaction the following workshop was needed for the identification of the organizations processes and capabilities. The final workshop was used to refine and converge the measures.

2.4.1 Performance evaluation in NPO's

Lee and Nowell (2015) developed a framework for assessing firm performance in NPOs. For the development of this framework the scholars used all previous research on this topic they could find. This led them to determine six core performance perspectives. These perspectives are inputs, organizational capacity, outputs, outcomes, public value accomplishments and network/institutional legitimacy. For the input perspective, the use of the inputs, the way they have been gathered and the expenditure of the inputs should be measured.

Organizational capacity is about the way an organization uses its processes to achieve its mission in an efficient and effective manner. Measurements of this perspective are employee satisfaction, education of employees and the organizations capacity to innovate. The output perspective is measured by looking to what extent the targets have been achieved, this can for example be measured by the amount of people that have received a service/good. The outcome perspective needs to be divided into behavioral and environmental changes and customer satisfaction. The outcome perspective looks further than the amount of people who received a service/good, it looks at the entire target population to determine the impact the organization had on that population. The measurement of customer satisfaction is not only an important dimension to measure, as this is the focus of most NPOs, it is also a dimension that's hard to measure. Therefore, most scholars measure customer satisfaction by surveys and counting customer complaints, but also the amount of newly recruited customers and the ability to keep customers are measurements that can be used. The accomplishment of public value is the fifth perspective of performance measurement. It looks at the outcomes for the community and the rest of society, so this perspective looks further than the outcomes perspective. The final perspective looks at how the organization maintained its relations to stakeholders and whether it increased its reputation.

The creation of a performance measurement system requires generally 4 steps that need to be taken (Henderson, Chase & Woodson, 2002). The first step is the identification of the purpose of the organization. In this step the organization needs to find out what it wants to

do for its community. The next step is the development of qualitative requirements for indicators and measurements. This step is important for the connection between the indicators or measures and the purpose of the organization. After this the third step can be taken, which is the development of indicators and measures. For this step it is important to involve enough managers and employees to create support from within the organization. The final step is the implementation of the newly designed system into the organization.

2.5 Performance measurement of knowledge management in non-profit organizations

The gap in existing literature on the relationship between performance measurement of KM for NPOs becomes more striking as NPOs are increasing involvement in KM. As literature on performance measurement and KM, and KM in NPOs exists, combining the previously discussed frameworks, can lead to a new framework for measuring the performance of KM in NPOs which acknowledges the characteristics of NPOs. According to the framework by Lee & Nowell (2015), there are six aspects of performance that matter for the evaluation of performance of an NPO: inputs, organizational capacity, outputs, outcomes, public value accomplishments and network/institutional legitimacy. These six aspects show great similarity to the performance aspects as described by Neely (2001).

According to the framework by Wong et al. (2015) there are three aspects of a KM that should be considered: knowledge resources, KM processes and factors influencing KM. These aspects should be measured with both financial and non-financial indicators, based on qualitative and quantitative methods, by using deterministic and stochastic variables. Lyu et al. (2016) look at the four processes of KM: knowledge acquisition, knowledge application, knowledge creation and knowledge storage, transfer and sharing. The ultimate strategic goal of KM is, according to Lyu et al. (2016), the financial aspect. This is very different from the goals of an NPO. The framework as proposed by Lyu et al. (2016) will be inappropriate for measuring KM performance in an NPO, as the financial aspect is seen as the driver of KM. Their framework will need substantial adjustments to be applicable to an NPO. Another downside of their proposed framework is the focus on knowledge processes, instead of looking at the knowledge resources and KM factors as proposed by Wong et al. (2015). This however doesn't mean the framework as proposed by Wong et al. (2015) can be directly applied to NPOs. The framework they proposed remains at a very abstract level and is therefore more of a guideline for measuring performance of KM. Yiu & Pun (2014) on the

other hand developed a framework for measuring KM performance in industrial enterprises. At first sight this seems inapplicable to NPOs, however, Yiu & Pun (2014) base the framework on the importance of proper management of KM for successful KM. This means the focus on financials is largely absent in their review, which makes it better applicable to NPOs, as the focus on financials for them is mostly absent as well. Nevertheless, the framework by Lyu et al. (2016) is useful in practice, which makes it a good base for the development of another framework. Therefore, the combination of the framework as proposed by Yiu & Pun (2014) and the framework as developed by Lee & Nowell (2015) in combination with the design by Lyu et al. (2016) would result in a framework that can be used for evaluating performance measurement of KM in NPOs. To be able to develop this framework, an important step is to identify what the influence of KM, as identified by Yiu & Pun (2014), is on the aspects of performance as described by Lee & Nowell (2015). Therefore, in Figure 5, the influences of each concept of KM practices on KM, and the results of KM on performance aspects of an NPOs are drawn. The following paragraphs of this thesis will discuss these relationships in more detail.

2.6 The influence of knowledge management practices on knowledge management

2.6.1 Senior management

Senior management can be seen as the driver of both knowledge management and performance measurement. Managers are able to create an environment in which the people

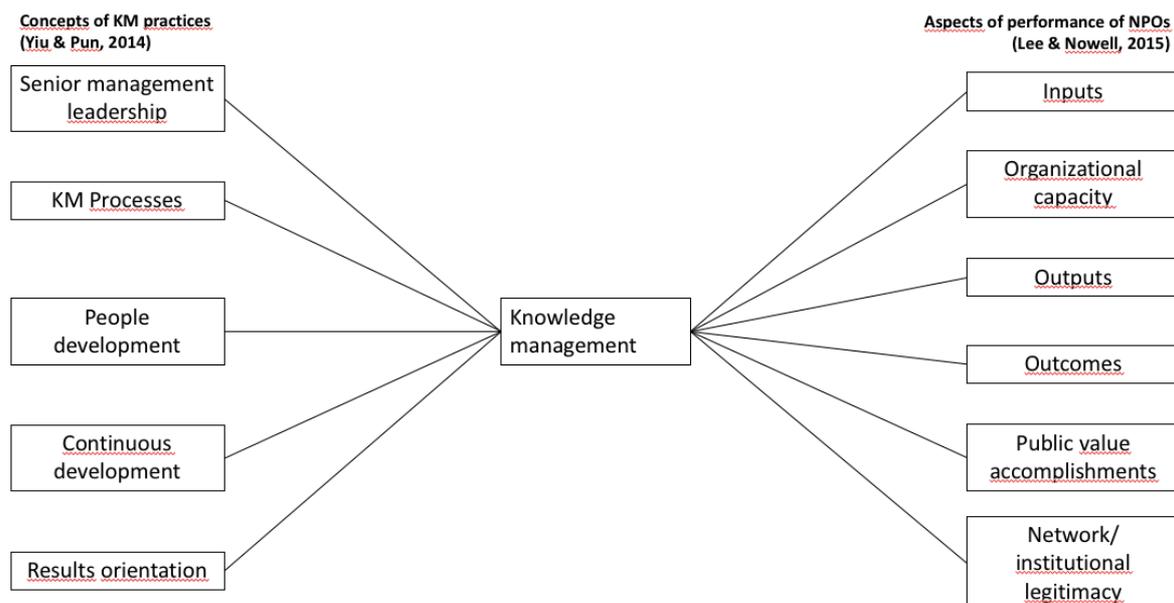


Figure 5 The relationship between performance measurement for KM in NPOs

can achieve the objectives of the organization and thus increasing organizational capacity (Carneiro, 2000). If management doesn't initiate KM, the knowledge of the organization will remain statically in the functional areas where the knowledge has always been. This means the organization doesn't achieve the advantages it could from managing available knowledge.

2.6.2 KM processes

Management increases the organizational capacity by gathering, changing, distributing and storing of knowledge (Yiu & Pun, 2014). The better these processes are functioning in the organization, the higher the level of KM, which may lead to higher performance. KM processes also help to make business processes function more efficiently, which improves and increases the outputs of the organization (Lee & Choi, 2003).

2.6.3 People development

Education, training, trust, shared values and empowerment makes people more involved in the organization. People are an important factor of KM to get the most out of it. The people of the organization need to be encouraged to share their knowledge in the system (Moffett, McAdam & Parkinson 2003). The skills of people in the organization, their training and their knowledge are important for the development of KM (Becker & Gerhart, 1996). People development thus needs to be considered as one of the concepts of KM.

2.6.4 Continuous improvement

The management of knowledge in an organization, leads to the continuous improvement of the resources of the organization, as knowledge becomes more widely available throughout the organization. Knowledge management is both a medium between organizational factors and effectiveness and it is a driver of organizational effectiveness (Zheng, Yang & McLean, 2010). KM benefit from an environment that promotes innovations and creativity, which leads to the continuous improvement of both the organization and the KM (Soderquist, Chanaron & Motwani, 1997).

2.6.5 Results orientation

The focus on results in an organization allows it to be able to pursue the needs of the target population. It therefore will have a positive impact on the outcomes of the organization. The relationships with its partners both within the firm, the organizational capacity, and the outside of the firm, the network, will allow the organization and its KM become more efficient and effective. Exceeding the expectations of both the community, the public value accomplishment and the people in the organization will be good for the long-term interest of the organization (Yiu & Pun, 2014).

2.7 The influence of knowledge management on aspects of performance

Since the relationship between KM and performance measurement is diverse, the impact of knowledge management on each aspect of performance should be measured separately to be able to develop a full representation of true performance of KM. Figure 6 displays the different measures that can be used for the evaluation of KM performance in an NPO as identified by Lee & Nowell (2015). Each aspect of performance should have its own measures.

2.7.1 Input

Input of the organization can be measured by different measures. One of them is the number of employees that are required for an activity, because if the number of employees that are required for an activity decreases, the inputs of the organization can be used more efficiently, so the value of the input will increase. Other input measures are the increase in financial means available, the diversity of income streams, and the net surplus of financial reserves. KM that is implemented properly will make the people of the organization work more efficiently, thus increasing the amount of work that can be done with the same amount of input. On the other hand, it also allows for better management of network relations, which increases the stream of financial means provided to the organization.

2.7.2 Organizational capacity

The impact of knowledge management on the organizational capacity of the firm can be measured by looking at employee satisfaction, employee education, the organizations capacity to innovate and the staff and executives' perspectives on operational capabilities. A proper managed KM will be likely to involve increases in these measures, as it will cause employees to be more educated, the organization to innovate and, due to the increased ability to innovate, to increase performance on the area of organizational capabilities.

Evaluating performance of knowledge management in a non-profit organization

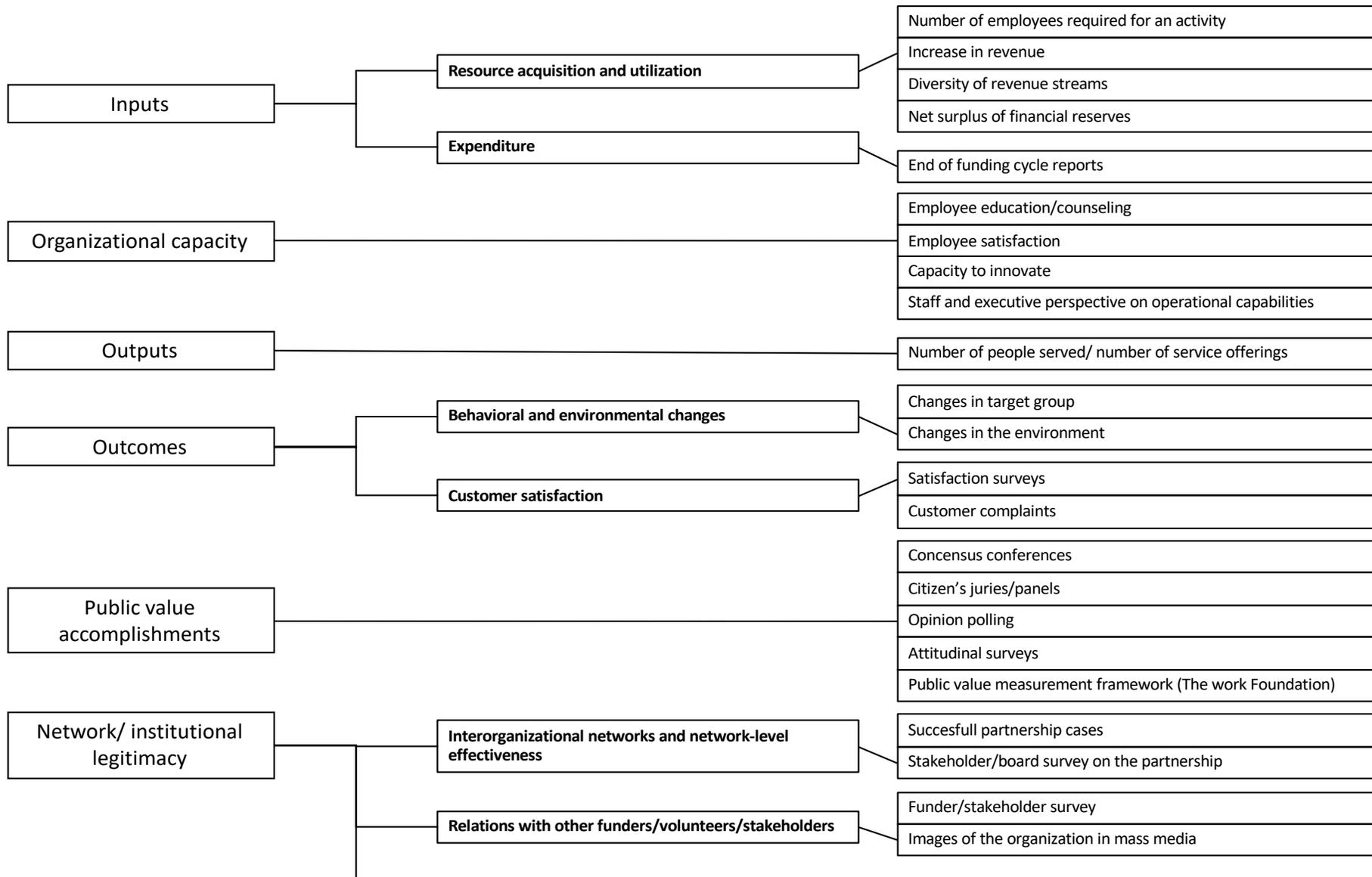


Figure 6 Measurement of performance of KM for NPOs (Lee & Nowell, 2015, p. 302-303)

2.7.3 Outputs

The number of people served, goods provided is also likely to increase due to KM, as the organizations inputs are more efficiently used. This allows the organization to provide more goods and services to the people it wants to serve. Chen and Huang (2009) find that KM has an influence on the innovating performance of an organization. Innovations play an important role in improving firm performance (Wang, Z. & Wang, N, 2012).

2.7.4 Outcomes

The outcomes of the organization, thus the effect it has on the behavior and environment and on customer satisfaction are also likely to be positive, as the means of the organization can be used more efficiently due to KM, the outcomes are likely to be positive. Research shows that KM is able to influence the green innovativeness of the firm in a positive way. However, not all KM practices influence the green innovativeness of the firm equally (Stanovcic, Pekovic & Bouziri, 2015). Customer satisfaction is also likely to increase, as the organization is better able to use existing knowledge for and from a customer to help that customer in a better manner (Gebert, Geib, Kolbe & Brenner, 2003).

2.7.5 Public value accomplishments

As the NPO works in a more efficient manner, more resources can be used for the mission of the organization. The positive influence KM has on innovations, causes an increased public value of the NPO (Hartley, 2012). The effect of KM on public value is thus likely to be positive. This can be measured by looking at consensus conferences, citizen's juries/panels, opinion polling, attitudinal surveys and using a public value measurement framework. Consensus conferences are used to incorporate the opinions of lay people, they are mainly used in Denmark. According to Hills & Sullivan (p. 37, 2006), a consensus conferences works as follows: "a panel of around six to ten laypeople questions experts about a controversial scientific or technological subject, assesses the experts' responses, reaches a consensus about the subject and reports its conclusions."

2.7.6 Network/Institutional legitimacy

According to the framework, there will also be a positive impact of KM on this aspect. Stakeholders will for example value the company more, as it is better able to indicate how it performs, due to the increased knowledge the firm gathers on this topic. Legitimacy is also very important for an NPO, as an event that leads to a downfall in legitimacy can in severe cases lead to the end of an NPO (Lecy, Schmitz & Swedlund, 2012). Legitimacy can be different among organizations due to differences in industry, time, location and population

(Ruef & Scott, 1998). The final performance aspect of KM can be measured by looking at successful partnership cases, stakeholder surveys on the partnership, stakeholder surveys, images of the organization in the media and how well the organization complies with the law. An organization can measure its legitimacy by checking whether it hasn't violated any of these rules with its operations (Lee & Nowell, 2015).

2.8 Aspects of performance measurement for KM in an NPO

According to the above drawn relations between KM concepts, KM and the performance aspects of an NPO, it seems reasonable that KM has an influence on each aspect of performance of an NPO. To check whether these relationships exist, a case study can bring clarity. Therefore, in the next chapter, the design of the case study will be discussed, after which a description of the results of the case study will be demonstrated.

2.9 Conclusion

The topic of performance measurement of knowledge management in NPOs is not a topic on which a lot of literature exists. It is therefore valuable to develop a framework to help future research in assessing performance of knowledge management in NPOs. In this chapter a framework is developed to accomplish that. The first step to come to a framework is the identification of the core concepts of KM. These core concepts are senior management, KM processes, people development, continuous improvement and results orientation. To continue, these concepts were linked to aspects of performance measurement in NPOs. Those aspects are inputs, organizational capacity, outputs, outcomes, public value accomplishments and network/institutional legitimacy. The final step is to combine these concepts with different measures as discussed by Lee & Nowell (2015). The framework, as displayed in Figure 5, shows which measurements might be used for each aspect of KM performance.

3 Research Methods

As mentioned in the introduction, the goal of this thesis is to understand how an NPO evaluates the performance of its KM system. To be able to increase understanding of this evaluation, the previous chapter discussed performance measurement frameworks for both KM and NPOs. The measures of performance in an NPO have already been shown by Lee & Nowell (2015). This thesis is not only focused on determining what measures NPOs use for performance measurement, it also tries to understand how KM affects performance measurement and performance evaluation. Literature suggests an increase in performance due to the KM system, which would result in an increase in performance measurement. Among others, Yiu & Pun (2014) show that performance measures used in NPOs are, more than in for-profit organization, focused on non-financial measures. The way these measures should be measured is mainly described in the framework by Yiu & Pun (2014). They advocate self-assessment as method of gathering the information for these measures. To be able to understand what a KM does to an organizations performance evaluation and measurement, a study of the existing, changed and new processes provides the most insight in these processes. Thus, the way to gain this understanding is by using qualitative research. The purpose of this study is thus not to make any generalizations from the findings of this research. The character is more explorative; it may provide new insights in differences between NPOs and for-profit organizations when it comes to KM and its evaluation, but these insights have to be further investigated to be able to draw conclusions about more than this single organization.

The study is based on non-structured interviews, as well as management papers on the implementation of a knowledge management system at a medium sized housing corporation in the Netherlands. Housing corporations in the Netherlands are focused on housing those who can't afford rent payments that would be needed to cover expenses of the houses. The mission of the housing corporation is helping people by offering them affordable houses. Though some housing corporations do report profits, the focus of the organizations is not on making profit, but on housing those people. The organization that was selected for this research has implemented the KM system several weeks before the interviews were held. This means all information on how the system works and how its performance is measured are on top of the minds of those involved in the implementation. The KM system implemented was mainly focused on two parts of the housing corporation: repair requests,

and neighborhood nuisance. Among those interviewed there is a desire for expanding the areas of the KM system when the current system operates as desired. For this research the data of the interviews held is combined with written notes and a management case study, which provided additional information on the implementation and the functioning of the KM system.

The interviews were held in June 2018 and were semi-structured, allowing for a more dynamic interview and to gather as much information as possible about the interviewee and his or her knowledge about the system, relevant organizational processes, relevant decisions and relevant actors. The questions asked to respondents related to the persons own ideas about the reason for the implementation of the KM system, the importance of measuring results, whether people are evaluated on the basis of the results and whether the person sees why the KM system is important for the organization. The interviews were held among people that designed the system, its users and responsible management. To be able to analyze the interviews in a later stage, the interviews were recorded after which they have been transcribed. Remarks about the impact of the KM were then subdivided in each 'aspect of performance' as Lee & Nowell (2015) have identified. Subsequently, the interviews were scanned for remarks about the concepts of KM, and relevant remarks were marked as well. To avoid attributing too much weight to single remarks, and thus drawing biased conclusions, interview data was analyzed intertextually. To do this, data from management documents or other interviews was used to review the remark. This didn't mean the remarks had to be made exactly the same, when the second interviewee mentioned the aspects, but didn't elaborate on it as much as the first, the remark was evaluated as useful. Furthermore, due to experience as former employee, remarks made by interviewees could be judged in a more thorough manner. The role as former employee was minimized as much as possible, as it is the purpose of this study to see in what way the system influences current employees. The former employment led to a more open dialogue, as interviewees didn't have to explain each and every procedure in detail as most of them were clear beforehand. This also created an opportunity to keep the interviews focused on useful information.

The interviews combined with the case study written by the responsible manager give a complete rendering of the system, its goals, its effect on the organization and its measurement.

4 Results

In this chapter the results of the case study will be presented. As the main goal of this thesis is to investigate the relationship between KM practice and performance in a specific NPO it makes sense to discuss whether indications could be found in the data for the relationships drawn and explained in paragraph 2.8. This chapter will be structured as follows. First, each aspect of performance of NPOs will be discussed in a separate paragraph and illustrated with a quote taken from the interviews held. The aspects discussed are: inputs, organizational capacity, outputs, outcomes, public value accomplishments and network/institutional legitimacy. After these aspects have been discussed, some other findings will be discussed.

4.1 Inputs

As discussed in paragraph 2.7.1, the performance on inputs can be divided into two parts: resource acquisition and utilization and expenditures.

4.1.1 Resource acquisition and utilization

To be able to achieve its mission, an organization needs resources. These resources can be very diverse, they can be financial resources, but also people or materials are organizational resources. The first aspect of inputs measures how well the organization is able to gather these resources, and how it uses them for achieving its mission. As discussed in paragraph 2.7.1, based on literature, a positive relationship between KM and inputs of an NPO would be expected. In the case of a housing corporation, the most likely resource to be gathered are financial resources from renting more houses. The KM system that was reviewed in this case, did not have an influence on recruiting new tenants and thus acquiring more resources. The system was built solely with a focus on providing better information to current tenants, without a focus on future customers. However, as multiple interviewees described, there is the possibility of expanding the KM system, to also cover areas in which new tenants could be involved. The advantage of expanding the current system would be a gain in customer satisfaction of more than current tenants, as future tenants will also be able to take advantage of the new system.

4.1.2 Expenditures

A KM system can also have an influence on the spending of the NPO. The desirable effect of this part of performance would be an increase in output, while maintaining or decreasing expenditures (Chen & Huang, 2009). This would allow the organization to use its resources more efficient, and thus allowing the organization to get closer to achieving its mission. In this

case study, efficiency is not the main goal for implementing the KM system, but the people in the organization were aware of the possibilities of working more efficient. Over time, one of the functions in the organization could become redundant, which would result in a cut in labor costs, meaning a more efficient use of resources.

“the new system is efficient, in the end it means a saving on labor costs, as we might need less people for the same job. I think that at least some labor hours will be saved, as that part of the job is now integrated into the system”

4.2 Organizational capacity

The organizational capacity of an organization describes how it has organized its processes and structures and whether these processes and structures are organized in such a manner that the achievement of its mission will become a step closer (Lee & Nowell, 2015). For this aspect of performance measurement, literature indicates three areas of performance that should be considered: its ability to grow, learn and innovate, and on the improvement of internal processes (Lee & Nowell, 2015). When looking at the organizational capacity, there is a need to look at both at its management and its operational processes to evaluate whether it works in an effective manner (Sowa, et al., 2004). As mentioned in paragraph 2.7.4, innovations lead to an increase in performance of the organization in the area of organizational performance. Though the interviews don't point to the development of new innovations, the KM system itself may be considered the innovation that improved organizational capacity, as the newly implemented system improves the internal process of creating a repair request. The system also makes the search for information easier and faster, which both increase organizational capacity.

“I think it's also an improvement for my colleagues, as colleagues experience high levels of work pressure because of the difficult search for information within the organization. I think they still have to look at multiple places because not all modules of the system have yet been implemented, but the new system means quite an improvement on this area”

4.3 Outputs

The output part of performance of an NPO deals with what the achievements of the organization by looking at the organizations mission achievements and the goods/services delivered (Bagnoli & Megali, 2011). The output of a housing corporation is the number of houses it has been able to rent. Because the KM system is basically focused on current tenants, it won't have an effect on this type of output. This doesn't mean there is no effect on

other types of output of the organization. Due to easier accessible information and a more efficient way of planning, the number of tenants served on the phone increases, just like the amount of people served who have to have things fixed in their house. This is due to a better description of the problem, which leads to a better-informed mechanic, which allows him to do his job more efficient. It also helps the organization to gain insight in what its customers might need. If there is an increase in people asking a specific question, the organization can anticipate to this question by carrying out preventive maintenance.

“The system indicates about what topic tenants asked most questions. This could help us decide what our tenants need most from us. If a lot of tenant call for problems with taps, this could help us decide to renew all our taps”

4.4 Outcomes

4.4.1 Behavioral and environmental changes

The outcomes of the organization are concerned with whether there are benefits of the operations of the organization to the intended population (Bagnoli & Megali, 2011). In the current case study, the implementation of KM was focused on improving customer satisfaction by helping the tenant in a more efficient manner. Therefore, no results of the system on behavior or the environment could be measured. Some interviewees pointed to the possibility of letting the tenant file their repair request digitally when the system would be extended in the future. This would result in a change in behavior of tenants, as they would be able to file their request digitally instead of having to call the organization.

4.4.2 Client/customer satisfaction

Customer satisfaction is for most NPOs another important part of outcome performance. Customer satisfaction is usually harder to measure than the amount of goods produced, or the amount of services provided (Poister, Aristgueta & Hall, 2015). To obtain customer satisfaction organizations can use multiple sources. They can use customer councils, look at complaints, surveys. In this case study the organization looks at customer complaints and makes use of an agency that calls customers to ask about their experience with their contact with the housing corporation. Most interviewees pointed to the likely increase in customer satisfaction from implementing the system. This was, according to most of them, the main goal of implementing the system. Striking about this aspect of performance is that the performance on this aspect couldn't be measured according to some of them, because of the lack of a proper “before-measurement”. So, the increase in performance on this aspect

couldn't be measured. However, all interviewees were convinced about the increased customer satisfaction.

"The system helps us providing the correct information to our customer when we pick up the phone. So, our customer gets the best and most recent information available"

"Before we developed the system we've thought about how to show the gains of the newly developed system. But in order to do this we needed a proper before-measurement, which we just couldn't get. [...] That's a pity, because we can't see the increase in performance we've made"

4.5 Public value accomplishments

Multiple authors describe the main difference between public and private firms as the public value goal of the organization. But since the public value is often a hard to achieve goal, measuring progression can be difficult (Meynhardt, T, et al., 2017; Spano, 2014). If the performance of the organization related to the public value achievement is hard to measure, the influence of KM on the achievement of the public value will be even harder. As the collected data shows, interviewees are unaware of the impact of KM on the progress of achievement of the public value of the organization. One interviewee pointed to the effect of working more efficiently, which would result in a cost saving. According to the interviewee, this cost saving wouldn't result in lower rents, as the rents do not depend on cost savings in the organization.

"You could say that working more efficiently, combined with making less mistakes means our craftsmen don't need to pay unnecessary visits to our tenants, would result in cost saving"

4.6 Network/Institutional legitimacy

NPOs are, more than for profit organizations, influenced by external factors (MacIndoe & Barman, 2012). This aspect of performance is thus more important to an NPO, which could cause the NPO to measure performance on this aspect more thorough.

4.6.1 Interorganizational networks and network-level effectiveness

The relationships an NPO has to other organizations are becoming more and more important, as networks can reduce costs for single organizations due to advantages of scale. Cooperation with other (social) enterprises can also help achieving the social goal of the organization quicker than it would be achieved if the organization would not cooperate with others (Moore, 2003). The implementation of KM at another housing corporation helped develop

the KM system in the current case study. The other housing corporation allowed the people in this case to see how the system works and what it does. This indicates the absence of a fear of sharing information in the non-profit sector. The implementation of the system may lead to more exchange of information with other organizations, though none of the interviewees mentioned this sharing of information in the interviews.

“It helps us getting more insight in what kind of repairs are carried out by our own craftsmen and what repairs are carried out by other firms. I think this is a nice system to monitor our performance and it can also help us with sending and receiving invoices to our partners”

4.6.2 Relations with other funders/volunteers/stakeholders

To an NPO the relations to funders, volunteers and stakeholders are of great importance. This is due to the advantages an NPO can get from these relationships. To measure how the NPO performs on this area, surveys among stakeholders can be held (Lee & Nowell, 2015). In the case study, it won't be stakeholder surveys that will decide what the impact of the KM system is on performance, but the stakeholders will be asked how they experience the new way of working, and whether they see this as an improvement.

4.6.3 Institutional legitimacy

Performance on the aspect of institutional legitimacy checks whether the organization operates in line with the law and its own mission and statute and other rules it has formulated (Lecy, Schmitz, Swedlund, 2012). Checking whether the organization conformed these rules is the main type of measurement for an organization. The case shows no changes in this part of performance. None of the interviewees mentioned any change in institutional legitimacy. This makes sense, as it is usually a change in the institutional environment of the organization that drives a change on this aspect of performance, instead of the other way around (Dowling & Pfeffer, 1975).

4.7 Performance measurement

In the above-mentioned part of this chapter, the found relationships between KM and performance in the case study have been discussed. In this part of this chapter, the evaluation of this performance will be discussed.

4.7.1 Existing measurement systems

The collected data shows the way the organization used to measure the performance on the above-mentioned aspects of performance. The main aspect of performance that was used, was customer satisfaction and it still is. The way the organization measures the performance

on the field of customer satisfaction is by looking at customer complaints, and by letting independent organization get in touch with those tenants that have been in contact with the organization. That organization asks the tenant a couple of questions about the quality of service. As mentioned by several interviewees, the organization doesn't have a goal when it comes to customer satisfaction, though the main goal of implementing was increasing customer satisfaction.

4.7.2 New measurement systems

The implementation of the KM system in this case would lead to an increase in customer satisfaction. For the development of the system, the initiators of the system of KM looked at the methods for measuring the increase of firm performance. However, this increase wouldn't be measurable, as there wasn't a proper before-measurement. So, the increase in performance wouldn't be measurable. The development of new measurement systems also wasn't part of the development of the KM system, which leaves the organization at the same measurement level as before. This is in line with literature on implementation of performance measurement in government organizations, as described by, among others, De Lancer Julnes and Holzer (2001), who state that cultural forces are responsible for the implementation of a performance measurement system. They describe two stages for the development of performance measurement in organization: developing measures and using the developed measures. Rational or technocratic factors can lead to the development of the measures but those aren't enough for the implementation of these measures. To implement the developed measures, political and cultural factors start to play a role. The political and cultural factors in the organization are the organizations internal stakeholders. For the implementation of performance measures, it is necessary that these internal stakeholders participate (De Lancer Julnes & Holzer, 2001). Multiple interviewees pointed to the problems of measuring performance, instead of looking at the possible methods of performance measurement. In this case study, the organizational culture was not focused on measuring performance, which resulted in no change of performance measurement due to the implementation of KM. As De Lancer Julnes & Holzer (2001) describe, an increase in performance measurement can be achieved by adoption of measures, even when these won't be used at first and focusing on the need to measure performance. This however doesn't mean the organization doesn't evaluate the performance of the KM system. As mentioned by multiple interviewees, the way

the KM works is evaluated by talking to contractors, employees that executing the products of the system and by looking at customer complaints.

4.8 Concepts of Knowledge management

According to the interviewees, the way the KM system was implemented in the organization was in line with literature on the concepts of KM. (Senior) management was the driving force of implementing the system, as literature suggested (Yiu & Pun, 2014). Central in the KM system is the desire to keep increasing customer satisfaction, as this was the main goal for implementing the system. The only concept of KM that was not as expected based on literature was the development of people. Due to the implementation, people don't have to think as much for giving an answer to a tenant as before. Furthermore, the new system requires less training for new employees, as the knowledge can now be found in the system, so it doesn't have to be learned to new employees. This shows that people development in this case is different from the effect which would be expected based on literature. On the other hand, the people in the organization that have to deliver the information needed in the system will be more empowered, as they are aware of the need of delivering the information in timely and correct.

4.9 Conclusion

At the end of this chapter multiple things about performance measurement of knowledge management in non-profit organizations have become clear. The case study shows that the implementation of KM doesn't lead to more performance measurement in this organization. However, the organization does evaluate the way the system works. This is not done by looking at measures, but more by asking those that work with the system and those that have to execute the outcomes of the system, such as contractors or other employees. Even when old measures weren't able to get a grip on real organizational performance, the organization didn't see this as an opportunity to develop new measures or improve old measures. Both management and staff are convinced of the improvements of the system and thus don't see the need for increasing performance measurement. Furthermore, the results of this case study indicate that there is a relationship between KM and performance aspects of the NPO. For all aspects deemed important for the performance of NPOs proof could be found. The performance aspect that would be most influenced by the KM system is customer satisfaction, as part of outcome performance. This is in line with the main goal of implementation of the measurement system.

5 Conclusion and Discussion

5.1 Discussion

The aim of this thesis was to decide what aspects of performance in NPOs are influenced by KM and whether/how that influence is measured. To be able to decide what the influence of KM was, this thesis started with a literature review on the aspects of performance of an NPO and what the possible effects of KM on the measurement of these aspects were. The literature review also described how each aspect of performance can be measured. To decide what aspects of performance are influenced by KM, and to understand whether or how the performance aspects are measured by the NPO, a case was selected.

5.1.1 Theoretical contributions

Academics have shown the importance of managing the knowledge an organization has for improving organizational performance and create competitive advantage. As described in the introduction of this thesis, knowledge management for NPOs is a topic that lacks empirical evidence when it comes to knowledge management. This thesis contributes to multiple bodies of literature. It contributes to the literature on KM as it clarifies how the concepts of KM played a role in implementing a KM. It further describes how KM was implemented in an NPO, which isn't investigated much till now. Though the study contributes most to the performance measurement literature, as it combines both KM and the characteristic of being a non-profit organization in the measurement of performance. In doing this, the different aspects of performance of an NPO have been discussed, which were later combined with the influence of KM on these aspects. As described in Chapter 4, each aspect of performance as identified by Lee & Nowell (2015) is in this case affected by the implementation of KM. This is in line with previous research, that reviewed the relationship between KM and a separate part of performance. For example, the positive relationship between KM and outputs of the organization is regarded to be positive by Chen and Huang (2009). This case study thus showed that each aspect of performance is affected by KM.

However, this main finding is based on the perception of those involved in the development of KM. Those involved didn't see the need to measure, nor possibilities to measure this performance. This is in line with a study performed by De Lancer Julnes & Holzer (2001), who state that the implementation of performance measurement depends on cultural forces in the organization. The organizational culture isn't focused on measuring performance as members of the organization perceived it impossible measure performance before

implementing KM. To be able to say more about the effect of not measuring KM performance, another study should be done when KM has been implemented longer.

5.1.2 Practical implications

NPOs have received significant attention in recent years by academics and politicians, as NPOs are perceived to be a solution to alleviate current social and environmental problems. However, there is a lack of empirical evidence of how these organizations operate and perform. The importance of increasing knowledge about NPOs is by far theoretical. In recent years, NPOs are being viewed as one of the solutions to social and environmental problems. Gaining insight in the way an NPO is organized and how it operates is valuable to politicians to help these organizations with improving performance. However, the findings of this thesis go further than helping politicians. It helps raising awareness of management of NPOs of the way it functions. The main practical implication of this study is that it raises awareness of the absence of evaluation of knowledge management of an NPO. This awareness might lead to an increased effort of organizations to measure the impact of certain systems on performance.

5.2 Conclusion

The subject of this thesis is the affect KM has on performance evaluation in a NPO. As there is little research done in this domain, this thesis combined insights of performance measurement in NPOs with insights on KM in NPOs. This led to a case study in which the influence of KM on the organization, its performance and its evaluation mechanisms was studied. The organization selected for this study is a medium-sized housing corporation in the Netherlands. The case study showed that the organization perceived a positive influence of KM on each aspect of performance as identified by Lee & Nowell (2015). These aspects are: inputs, organizational capacity, outputs, outcomes, public value accomplishments and network/institutional legitimacy. However, the organization didn't see the need of measuring this performance. So, this is contrary to what would be expected from performance measurement of NPOs because, as literature suggests, NPOs are aware of the need of disclosing information on performance, and will thus involve in measuring performance. This doesn't mean the performance of KM isn't evaluated, the organization just didn't see the need of measuring performance. At the time of the study, KM was only just implemented. Therefore it is unclear whether this absence of measuring is a problem for the organization.

5.2.1 Limitations

At the start of the interviews, there was an expectation of increased measures of performance due to the implementation of KM. However, after the first interview it became clear there was an absence of this expected increase. It appeared that the organization had a strong belief in the possibilities of the new system and in its well-functioning.

The case study has several limitations. The first limitation has to do with the type and design of the study. As this thesis is designed as an explorative study and it only investigated the influence of KM on performance measurement in a single organization, it is only to a limited extend possible to generalize the findings. Furthermore, the housing corporation was in an extraordinary situation, as demand for houses was higher than supply. This reduces the need of the organization to invest in resource acquisition, as it can only increase resources by building or buying new houses. As housing corporations are highly regulated, it is difficult for a housing corporation to increase supply. This renders the study unable to say anything about the resource acquisition part of input as part of performance.

Another limitation to this study is the limited number of interviewees of six. This limited number is due to the size of the organization and the limited number of people involved in the design of the system. Despite the limited number of interviewees, the interviews held were rich in information, as all relevant people were interviewed, and their inputs were valuable, as the system was recently introduced. The final limitation of this thesis is that the organization has just implemented KM. The organization hasn't implemented KM on all domains of operations, and thus might decide to start measuring performance in a different manner when other elements are also implemented.

5.2.2 Opportunities for further research

Further research could expand the literature on performance measurement of KM in NPOs by looking at different types of NPO. As discussed at the previous paragraph, this study only investigated the case of a housing corporation, while there are different types of NPOs. These differences might influence the way performance measurement is carried out and may thus influence the outcome of the study. Further research could also look at NPOs that are different in size, as size might influence performance measurement as well.

Another opportunity for further research might be investigating what the impact of other systems is on performance measurement in NPOs. As described in the previous paragraph, the organization hasn't implemented all aspects of KM. Studying the organization when all

aspects of KM have been implemented could lead to new findings on performance measurement in NPOs.

6 Literature

- Ahmed, P.K., Lim, K.K. & Zairi, M. (1999), Measurement practice for knowledge management. *Journal of Workplace Learning*, 11(8), p. 304-311.
- Ahn, J.H. & Chang, S.G. (2004). Assessing the contribution of knowledge to business performance: the KP3 methodology. *Decision Support Systems*, 36, p. 403-416.
- Alavi, M. & Leidner, D.E. (2001) Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25, p. 107-136.
- Andone, I.I. (2009). Measuring the performance of corporate knowledge management system. *Informatica Economica*, 13(4), p. 24-31.
- Arena, M., Azzone, G. & Bengo, I. (2015), Performance Measurement for Social Enterprises. *Voluntas*, 26, p. 649-672.
- Arshad, R., Omar, N., Bakar, N.A. & Nasir, N.M. (2015). Exploring performance measurement form the perspective of social impact. *Malaysian Accounting Review*, 14(2), p. 137-154.
- Babcock, P. (2004). Shedding light on knowledge management. *HR Magazine*, 49(5), p. 46-50.
- Bagnoli, L. & Megali, C. (2011). Measuring performance in social enterprises. *Nonprofit and Voluntary Sector Quarterly*, 40, p. 149-165.
- Becker, B. & Gerhart, B. (1996). The impact of human resource management on organizational performance, progress and prospects. *Academy of Management Journal*, 39(4), p. 779-801.
- Bititci, U.S., Mendibil, K., Nudurupati, S., Garengo, P. & Turner, T. (2006). Dynamics of performance measurement and organisational culture. *International Journal of Operations & Production Management*, Vol. 26(12), p. 1325-1350.
- Boland, T. & Fowler, A. (2000) A systems perspective of performance management in public sector organizations. *International Journal of Public Sector Management*, 13(5), p. 417-446.
- Borzaga, C., & Tortia, E. (2006). Worker motivations, job satisfaction and loyalty in public and non-profit social services. *Nonprofit and Voluntary Sector Quarterly*, 35(2), p. 225-248.
- Brynjolfsson, E., Renshaw, A.A. & Alstyne, M.V. (1997). The matrix of change. *Sloan Management Review*, 38(2), p. 37-54.
- Carneiro, A. (2000). How does knowledge management influence innovation and competitiveness? *Journal of Knowledge Management*, 4(2), p. 87-98.

- Chen, C-J. & Huang, J.-W. (2009). Strategic human resource practices and innovation performance — The mediating role of knowledge management capacity. *Journal of Business Research*, 62, p. 104-114.
- Chen, M. & Chen, A. (2006). Knowledge management performance evaluation: a decade review from 1995 to 2004. *Journal of Information Science*, 32(1), p. 17-38.
- Chin, K.S., Pun, K.F. & Lau, H.C.W. (2003). Development of a knowledge-based self-assessment system for organisational performance. *Expert Systems with Applications*, 24(4), p. 443-455.
- Cordery, C. & Sinclair, R. (2013) Measuring performance in the third sector. *Qualitative Research in Accounting and Management*, 10(3/4), p. 196-212.
- De Lancer Julnes, P., & Holzer, M. (2001). Promoting the utilization of performance measures in public organizations: An empirical study of factors affecting adoption and implementation. *Public Administration Review*, 61, p. 639-708.
- Defourny, J. & Nyssens, M. (2008) Social Enterprise in Europe: Recent trends and developments. *Social Enterprise Journal*, 4(3), p. 202-228.
- Dowling, J. & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior. *Pacific Sociological Review*, 18(1), p. 122-136.
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *The Academy of Management Review*, 14(1), p. 57-74.
- Feltham, G. A., & Xie, J. (1994). Performance measure congruity and diversity in multi-task principal/agent relations. *The Accounting Review*, 69(3), p. 429-453.
- Frohman, M. A. (1997). Igniting organizational change from below: The power of personal initiative. *Organizational Dynamics*, Winter, p. 39-52.
- Gebert, H., Geib, M., Klobe, L. & Brenner, W. (2003). Knowledge-enabled customer relationship management: integrating customer relationship management and knowledge management concepts. *Journal of Knowledge Management*, 7(5), p. 107-123.
- Gloet, M. & Terziovski, M. (2004). Exploring the relationship between knowledge management practices and innovation performance. *Journal of Manufacturing Technology Management*, 15(5), p. 402-409.
- Gold, A.H., Malhotra A. & Segars, A.H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information Systems*, 18(1), p. 185-214.
- Gooijer, J.D. (2000). Designing a knowledge management performance framework. *Journal of Knowledge Management*, 4(4), p. 303–310.

- Hartley, J. (2012). Public value through innovation and improvement. In: Benington, J. & Moore, M.H. (eds.). *Public value: Theory and practice*. Basingstoke: Palgrave Macmillan, p. 171–184.
- Helmig, B., Jegers, M. & Lapsley, I. (2004). Challenges in Managing Nonprofit Organizations: A Research Overview. *Voluntas*, 15(2), p. 101-116.
- Henderson, D.A., Chase, B.W. & Woodson, B.M. (2002). Performance Measures for NPOs. *Journal of Accountancy*, 193(1), p. 63-68.
- Herman, R. D., & Renz, D. O. (1997). Multiple constituencies and the social construction of nonprofit. *Nonprofit and Voluntary Sector Quarterly*, 26, p. 185-206.
- Hills, D., & Sullivan, F. (2006). *Measuring public value 2: Practical approach*. London, England: The Work Foundation.
- Hislop, D. (2013). *Knowledge management in organizations: A critical introduction*. Oxford: Oxford University Press.
- Hume, C., Clarke, P. & Hume, M. (2012), The role of knowledge management in the large non-profit firm: building a framework for KM success. *International Journal of Organisational Behavior*, 17(3), p. 82-104.
- Jick, T. (1995). Accelerating change for competitive advantage. *Organizational Dynamics*, 14(1), p. 77-82.
- Kaestle, P. (1990). A new rationale for organizational structure. *Planning Review*, July/August, p. 20-27.
- Kaplan, R.S. (1983). Measuring manufacturing performance: A new challenge for managerial accounting research. *The Accounting Review* 58(4), p. 686-705.
- Kaplan, R.S. & Norton, D.P. (1996) Linking the balanced scorecard to strategy. *Californian Management Review*, 39, p. 53-79.
- Keegan, D.P., Eiler, R.G. & Jones, C.R. (1989), Are your performance measures obsolete. *Management Accounting*, June, pp. 45-50.
- King, W. (2009). *Knowledge management and organizational learning*. New York: Springer.
- Kluge, J., Stein, W. & Licht, T. (2012) *Knowledge Unplugged: The McKinsey and Company Global Survey on Knowledge Management*. Houndmills: Palgrave.
- Von Krogh, G. (1998). Care in knowledge creation. *California Management Review*, 40(3), p. 133-153.

- Lecy, J.D., Schmitz, H.P. & Swedlund, H. (2012) Non-Governmental and Not-for-Profit Organizational Effectiveness: A Modern Synthesis. *Voluntas*, 23(2) p. 434-457.
- Lee, C. & Nowell, B. (2015) A Framework for Assessing the Performance of Nonprofit Organizations. *American Journal of Evaluation*, 36(3), p. 299-319.
- Lee, H. & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination. *Journal of Management Information Systems*, 20(1), p. 179-228.
- Lettieri, E., Borga, F. & Savoldelli, A. (2004). Knowledge management in non-profit organizations. *Journal of Knowledge Management*, 8(6), p. 16-30.
- Lewin, K. (1951). *Field theory in social science*. New York: Harper & Row.
- Liao, S. & Wu, C. (2009). The Relationship among Knowledge Management, Organizational Learning, and Organizational Performance. *International Journal of Business and Management*, 4(4), p. 64-76.
- Lyu, H., Zhou, Z. & Zhang, Z. (2016). Measuring Knowledge Management Performance in Organizations: An Integrative Framework of Balanced Scorecard and Fuzzy Evaluation. *Information*, 7(2), p. 29.
- MacIndoe, H. & Barman, E. (2012). How Organizational Stakeholders Shape Performance Measurement in Nonprofits: Exploring a Multidimensional Measure. *Nonprofit and Voluntary Sector Quarterly*, 42(4), p. 716-738.
- MacKenzie, D. (2006). *An Engine, Not a Camera: How Financial Models Shape Markets*. Cambridge, Massachusetts: MIT Press.
- Meynhardt, T., Brieger, S. A., Strathof, P., Anderer, S., Bairo, A., Hermann, C., Kollat, J., Neumann, P., Bartholomes, S. & Gomez, P. (2017). Public value performance: What does it mean to create value in the public sector? In: Andessner, R., Greiling, D. & Vogel, R. (Eds.). *Public sector management in a globalized world*. Wiesbaden: Springer Gabler.
- Micheli, P. & Kennerley, M. (2005). Performance measurement frameworks in public and non-profit sectors. *Production Planning & Control*, 16(2), p. 125-134.
- Moffett, S., McAdam, R. & Parkinson, S. (2003) An empirical analysis of knowledge management applications. *Journal of Knowledge Management*, 7(3), p. 6-26.
- Moore, M.H. (2003) *The Public Value Scorecard: A Rejoinder and an Alternative to "Strategic Performance Measurement and Management in Nonprofit Organizations" by Robert Kaplan,* Working paper 18. Boston: Harvard University.
- Moore, M (2013). *Recognizing Public Value*. Cambridge, Massachusetts: Harvard University Press.

- Morrison, I. J. (1998). The second curve: Managing the velocity of change. *Strategic Leadership*, January/February, p. 7-11.
- Neely, A. (2005). Performance measurement system and relationships with performance results: developments in the last decade and a research agenda for the next. *International Journal of Operations and Production Management*, 25(12), p. 1264-1277.
- Neely, A. Adams, C. & Crowe, P. (2001). The performance prism in practice, *Measuring Business Excellence*, 5(2), p. 6-13.
- Nonaka, I. (1991). The Knowledge-Creating Company. *Harvard Business Review*, November-December, p. 96-104.
- Oliveira, J. (2001) The balanced scorecard: an integrative approach to performance evaluation. *Healthcare Financial Management*, 55(5), p. 42-46.
- Oluwafemi Oyemomi, O., Liu, S., Neaga, I. & Alkhurairi, A. (2016) How knowledge sharing and business process contribute to organizational performance: Using the fsQCA approach. *Journal of Business Research*, 69, p. 5222-5227.
- Pascale, R., Millemann, M., & Gioja, L. (1997). Changing the way, we change. *Harvard Business Review*, November/December. P. 127- 139.
- Pascarella, P. (1997). Harnessing knowledge. *Management Review*, October, p. 37-40.
- Poister, T.H., Aristigueta, M.P. & Hall, J.H. (2015) *Managing and measuring performance in public and nonprofit organizations: an integrated approach*. Jossey-Bass, San Francisco.
- Pun, K.F. & Lau, C.W. (2003). Integration of total quality management and performance measurements in government departments: an empirical study in Hong Kong. *International Journal of Business Performance Management*, 5(4), p. 316-335.
- Rathi, D., Given, L.M. & Forcier, E. (2016). Knowledge needs in the non-profit sector: an evidence-based model of organizational practices. *Journal of Knowledge Management*, 20(1), p. 23-48.
- Revellino, S. & Mouritsen, J. (2015). Accounting as an engine: The performativity of calculative practices and the dynamics of innovation. *Management Accounting Research*, 28, p. 31-49.
- Rojas, P. (2016), Performance Assessment in the Public Sector – The Issue of Interpretation Asymmetries and Some Behavioral Responses, in: Epstein, M.J., Verbeeten, F., Widener, S.K. (eds.), *Performance Measurement and Management Control: Contemporary Issues* (31), p. 353-386.

- Ruef, M. & Scott, W. (1998). A multidimensional model of organizational legitimacy: Hospital survival in changing institutional environments. *Administrative Science Quarterly*, 43, p. 877-904.
- Schultze, U. & Leidner, D.E. (2012). Studying knowledge management in information systems research: discourses and theoretical assumptions. *MIS Quarterly*, 26(3), p.213-242.
- Shin, M., Holden, T. & Schmidt, R.A. (2001). From knowledge theory to management practice: towards an integrated approach. *Information Processing and Management*, 37, p. 335-355.
- Small, C.T. & Sage, A.P. (2005) Knowledge management and knowledge sharing: A review. *Information Knowledge Systems Management*, 5(3), p. 153-169.
- Smith, E.A. (2001). The role of tacit and explicit knowledge in the workplace. *Journal of Knowledge Management*, 5(4), p. 311-321.
- Soderquist, K., Chanaron, J. & Motwani, J. (1997). Managing innovation in French small and medium sized enterprises: an empirical study. *Benchmarking for Quality Management and Technology*, 4(4), p. 259-272.
- Sowa, J.E., Selden, S.C. & Sandfort, J.R. (2004). No longer unmeasurable? A multidimensional integrated model of nonprofit organizational effectiveness. *Nonprofit and Voluntary Sector Quarterly*, 33, p. 711-728.
- Spano, A. (2014), How Do We Measure Public Value? From Theory to Practice. In: Guthrie, J., Marcon, G., Russo, S. & Farneti, F.(eds.). *Public Value Management, Measurement and Reporting*. Bingley: Emerald.
- Stanovcic, T., Pekovic, S. & Bouziri, A. (2015). The effect of knowledge management on environmental innovation: The empirical evidence from France. *Baltic Journal of Management*, 10(4), p. 413-431.
- Swindell, D., & Kelly, J. M. (2000). Linking citizen satisfaction data to performance measures: A preliminary evaluation. *Public Performance & Management Review*, 24(1), p. 30-52.
- Teo, T. S. H. (2005). Meeting the challenges of knowledge management at the Housing and Development Board. *Decision Support Systems*, 41(1), p. 147-159.
- Tichy, N.M. (1983). *Managing strategic change: Technical, political, and cultural dynamics*. New York: John Wiley & Sons.
- Thurbin, P.J. (1994). *Implementing the learning organization: the 17-day programme*. London: Pitman Publishing, UK.
- Van Dooren, W., Bouckaert, G., & Halligan, J. (2010), *Performance Management in the Public Sector*. Taylor & Francis Group, p. 16-36.

Venkatraman, N. & Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *The Academy of Management Review*, 11(4), p. 801-824.

Waggoner, D.B., Neely, A.D. & Kennerly, M.P. (1999). The forces that shape organisational performance measurement systems: An interdisciplinary review. *International Journal of Production Economics* 60-61, p. 53-60.

Wang, J., Ding, D., Liu, O. & Li, M. (2016). A synthetic method for knowledge management performance evaluation based on triangular fuzzy number and group support systems. *Applied Soft Computing*, 39, p. 11-20.

Wang, S. & Noe, R.A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, 20, p. 115-131.

Wang, Z. & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications*, 39, p. 8899-8908.

Weick, K.E. & Quinn, R.E. (1999). Organizational change and development. *Annual Review of Psychology*, 50, p. 361-386.

Wong, K.Y. & Aspinwall, E. (2006). Development of a knowledge management initiative and system: A case study. *Expert Systems with Applications*, 30(4), p. 633-641.

Wong, K.Y., Tan, L.P., Lee, C.S. & Wong, W.P. (2013). Knowledge Management performance measurement: measures, approaches, trends and future directions. *Information Development*, 31(3), p. 239-257.

Yiu, M.Y.R. & Pun, K.F. (2014). Measuring knowledge management in industrial enterprises: An exploratory study based on an integrated model. *The Learning Organization*, 21(5), p.310-332.

Zyngier, S. (2010). Governance of Knowledge Management. In: Schwartz, D.G., Te'eni, D. & Schwartz, D.(eds.), *Encyclopedia of Knowledge Management*. Hershey: IGI Global, p. 354-365.

Zheng, W., Yang, B. & McLean, G.N. (2010). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management. *Journal of Business Research*, 63(7), p. 763-771.

