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RESEARCH PRODUCTION OR PRODUCTIVE RESEARCH? – STRATEGIC MANAGEMENT AND PERFORMANCE MEASUREMENT IN UNIVERSITY OF OULU

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ABSTRACT OF THE MASTER'S THESIS

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Abstract

This thesis explores the strategy and its management at the University of Oulu in relation to the political and legal guidance. Conflicting interests inside the organization are also examined. In order to combine both internal and external pressure mechanisms on strategic management and performance measurement, the institutional perspective is needed. Neoinstitutional theory with mechanisms of institutional isomorphism provide framework for understanding what pressure mechanisms affect the most on universities as an organization. In strategic management, attention is also paid to how the strategy is implemented and how the strategic performance is monitored in case university.

Thesis is executed as qualitative case study which aims to describe how the external pressure mechanisms for institutional isomorphism a) materialize in the strategic management and b) reflect on the performance measurement criteria of University of Oulu. The analysis was primarily based on three managerial documents. Complementing information was acquired through interviewing the person responsible for these managerial documents, university intranet and official publications. The analysis was carried out as theory-grounded content analysis.

The data was coded in theory-based: coercive / regulative, mimetic / cultural-cognitive and normative. As a result of analysis it can be stated that institutional isomorphism is materialized in the case of University of Oulu through all three aforementioned mechanisms. The coercive features are based on University law, MCE funding criteria, MCE performance agreement and other laws or regulations. The mimetic features are related to organization structure, management frameworks, monitoring systems and other things, for example profiling. The normative features are rooted in academic profession, social obligations, recruiting and accreditation. The most visible finding regarding the performance measurement were a) strong influence of coercive mechanism through MCE funding criteria, which shows as almost complete copying of funding criteria to be used as performance measurement indicators in strategic management b) the need to further develop the PM system.

The findings of this study are from many parts in accordance with previous studies utilizing the same framework in university context and are considered reliable. However further conclusions about how the institutional isomorphism influences other universities' strategic management and performance measurement cannot be drawn based on this case study. Thus more research is needed on how the universities form, implement and monitor their strategies under the effect of different external and internal pressures.

Keywords
strategic management, performance measurement, institutional isomorphism, university management
Additional information

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1   INTRODUCTION

1.1. Introduction to research theme

The educational field has faced monumental changes globally and in Finland. Since the 1990's there has been a structural transformation in Finnish Academia. Launched by recession and the new university law, it has progressed until today with growing demand for productivity and profitability. The latest renewed university law that came into effect in 2009 continued having a strong influence on academic research, teaching, students and staff. The new law has been criticized by many academics since its preparation began (e.g. Hakala, Kaukonen, Nieminen & Ylijoki, 2003). Discussions of academic freedom, autonomy of the universities and the status of both students and staff, are still going on today.

Throughout history, the general atmosphere in society has impacted university policies (e.g.ibid; Rinne, Jauhiainen& Plamper, 2015). In turn, universities have also had an impact on society. The important societal role of universities is one important reason for studying universities, because major changes in the higher education system will likely have large effect on many other fields.

Transformation is a term used for changes in academia. Recently, universities have shifted from being governmental institutions into autonomous organizations. For decades universities have functioned on the tight leash of government. Universities were practically not able to direct resources allocation themselves. Strict financial guidance starting in the 1980's, marked the beginning of increased performance management in universities. With the new law, universities were given autonomy over internal affair governance, including allocation of resources.

The changes in organizational structure are also an interesting research topic. The new organizational autonomy requires a different type of managerialism. The old collegial system was replaced with more professionalized and individual management. This entails decreasing the power of different science communities in the internal decision-

making process. How universities have been able to re-organize their structures and management is critical research area that needs to be further explored.

The long institutional traditions and special features of academia present their own challenges. In many studies universities are characterized as expert organizations, where *loose coupling* (Weick, 1976) is typical. Loose coupling means that organization's actions are divided simultaneously to different departments and subcultures, and the employees are part of different types of stakeholder groups. (Malkki,1999, 16). Other typical traits for an expert organization are creative nature of work, complex problem solving, highly educated staff and high dependency on individuals (Sveiby 1990, 36-43). Different discipline related subcultures often have non-shared interests, which can create disagreements on organizational direction and means to reach targets (Malkki, 1999, 16).

Another focal issue in the university organization change is resource allocation. Previously used management of inputs and process has been replaced by performance guidance; universities now have more control over how they use their resources. (e.g. Hakala et al., 2003, 39-41.) They are, however guided by expectations and agreements on effective performance (e.g. Kallio, 2014). The question has merit; how can we successfully match the interest of economic profitability and productivity with the traditional functions of university, i.e. scientific research and high-level teaching? And how should the academic performance be measured?

Managing higher education institutions (HEIs) is a very current topic that has been studied increasingly. In Finland this theme have not yet been studied extensively. There are for example studies describing the massive changes of last decades (e.g. Rinne et al. 2015; Hakala et al. 2003), how research and education staff experience performance management (Kallio, 2014), changes in strategic management (Ranki, 2016; Tirronen 2014), how academic capitalism affects the research work (Tuunainen 2013; Kauppinen & Kaidesoja, 2014) etc. Recognizing at the same time the power of external pressures transforming the university and the strong influence of long academic tradition is a perspective that requires more research with a suitable framework which combines multiple impact sources.

The principles of neoinstitutional theory, namely the mechanisms of institutional isomorphism and institutional pillars, allow us to understand the logic of actions beyond the economic perspective. The hypothesis relies on theory that organizations shape their actions not only in search of economic efficiency but also of legitimacy. By doing this, the organizations on the same field become more alike, despite their attempts to differentiate from one another (DiMaggio & Powell, 1983). The framework will be explained and further developed in later chapters. Before that, the research theme will be further explained with a literature review of previous studies. In section 1.3. the research gap and research questions will be specified.

1.2. Previous studies on managing the new university

Managing the new university has become a target of increasing research interest over the past years. The issue can be approached from a number of different angles and theoretical frameworks. One topic that has become a focal point in university management is strategy. Therefore in this thesis the main focus will be on strategic management. The question of how the University of Oulu manages its strategy is examined from the point of view of external and internal factors affecting management. The literature review assesses previous studies on university management. The focus is arrowed in studies of strategic management, management of Finnish universities, institutional theory applications in university management context and performance management in new public sector.

How to create a functioning strategy and implement it successfully throughout the organization are key questions. Lot of research on strategic management has resulted in theoretical frameworks aimed at business organizations. Now these same frameworks are increasingly being adapted and modified for use in universities as well. For example Tavernier (2005) presents a few strategy models that have been proven successful in European universities. He argues that universities should use more benchmarking and analyze the fit of the model to their environment, rather than choosing one that might be conceived for totally different circumstances. The existing models can of course be useful when forming the strategy process, but for Higher Education Institutions (HEIs) the more successful way seems to be forming the model

from practical observations, instead of generalizing formalization. (Tavernier, 2005.) This is a valid point, as surrounding political, economic, social and technical (e.g. PESTE-analysis) factors are commonly used in strategy formation.

Growing number of studies take into view the societal and institutional aspects of the transformation in universities by utilizing the (neo)institutional theory as framework. Krücken & Meier (2005) analyzed the transformation of universities into organizational actors through institutional isomorphic mechanisms, bringing forth the four main elements of new (global) university: *organizational accountability, the tendency to define organizational goals through mission statements, the development of methods and structures to achieve goals,* and *the transformation in university management from collegial system into profession*. These elements can be seen as factors lessening the strength of traditional models of functioning in universities. The scope of this study was global, but it still shows the same trends of differences and sameness happening on two levels; national and international. Assumingly this is because of universities being embedded in nested organizational fields instead of just one strictly located one (see chapter 3.2. Hüther &Krücken, 2016).

Forming the mission and vision can be seen as the initial steps of building the competitive strategy. Based on findings, it can be assumed the strategies of different universities comprise of both differentiating and uniting elements (cf. Kosmützky and Krücken, 2015). The comparative study (Han&Zhong, 2015) of 15 top universities' strategy maps [1] analyzes the content, expression and form of universities' strategy. The commonly shared elements in the content of 15 top universities' strategy maps were vision statement, mission statement, goal, theme, stakeholders, and learning and

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[1] The strategy map presentations are based on the balanced scorecard method by Kaplan and Norton (2004). The strategy map is a visual presentation of strategy, the cause-and-effect relationship between strategic elements, converting the intangible assets into tangible outcomes by establishing objects and measures (Kaplan & Norton, 2004, 9). The universities seem to use two kinds of ways to design their strategy map; one strictly following the BSC model and second more flexible presentations that mixes the special characteristic of university and features of BSC. The strategy map approach also sheds light on how universities see and communicate the inner relationships of strategy among different stakeholders.

growth. In terms of vision and mission statements, the findings are in line with those of Kosmützky and Krücken (2015), revealing both attempts to differentiate while frequently expressing the same things. The similarities relate to institutional tasks of universities; teaching, research and societal engagement (in the text *social service*). More precisely, the most frequent elements of vision and mission statements were: *education (teaching and learning), knowledge (scholarship), research, service* and *internationalization.* (Han & Zhong, 2015.)

The increased tendency to create networks and relationships with the business sector, aiming to commercialize the research results better than before, can be seen as a consequence for changes in funding structure. In research literature this is called academic capitalism (Slaughter & Leslie, 1997). Similarly, Lawrence and Sharma (2002) pointed out that the transformation towards market-oriented university has not happened only in the managerial culture of universities, but also in the students' perspective. Students invest their money in education and thus can be viewed as customers. The customer approach also leads universities to compete transnationally (e.g. Juusola, 2016). For these reasons, the academic capitalism can be understood as all the universities' activities in the commercialized markets.

The shift towards the new market-, result- and performance oriented academia slowly started in the 1980's (e.g. Hakala et al. 2003). Tirronen (2014) has evaluated the changes in the strategic management of Finnish universities after the new law came in effect in 2009. He evaluates the strategic management from the perspectives of multidisciplinary university, financial autonomy and managing expert organization. The old management system of university can be seen as very stiff and bureaucratic. The collegial decision making process was not always fruitful, and prevented the renewal of organizations.

The use of multidimensional performance management (PM) tools in public management is common. This is likely because multidimensional tools rely on the principal that all the relevant factors for organization's functionality are not revealed with financial meters. Some of the frequently adapted PM frameworks are the *Balanced Scorecard* (Kaplan &Norton, 1996), the *Performance Pyramid* (Lynch

&Cross, 1991) and the *Results and Determinants Framework* (Fitzgerald, 1991). Brignall and Modell (2000) argue however, that in order to know how to use such methods in the public sector management, attention must be paid to how the social processes, i.e. the power and pressure used by stakeholders influence the performance measurement within an organization. One way to do this is by incorporating institutional theory in the analysis.

Previous research indicate that there are many internal and external, national and international, legislative and cultural factors affecting the management of universities. Therefore one suitable framework for studying the strategic management and academic performance is neoinstitutional theory. In this thesis the neoinstitutional theory is applied in narrow context, namely in how the institutional isomorphism and institutional pillars affect the policy, strategy and strategic management of a higher education institution. The theoretical framework will be explained and further developed in chapters 2 and 3.

1.3. The purpose of the research

The phenomenon in hand has now been outlined, as well as the focus and perspective of the study. The phenomenon in question is the transformation of universities, which incudes three main developmental lines:

1) Transformation from governmental institution into autonomous organization. This creates a need for management.
2) The management structure has changed influentially. The previous collegial management system has been replaced by individual leadership.
3) The governmental guidance has shifted from managing inputs and process to performance management.

In addition, the role of university to educate elite for government official posts has changed into mass educating. The shift is caused by changes in society and it also effects what happens in society. When the juridical status of Finnish universities changed with the new law in 2009, the development of new kind of strategic management became inevitable. The management of universities is not a new topic of research, but the framework of strategic management combined with the perspective

of institutional pressure mechanisms has not been widely researched. Especially in Finland the management of universities after the new law has not been researched adequately. In order to understand how the new management works, and how universities should build, implement and measure their strategy, more research is needed.

The strategic management of a multidisciplinary university as whole is not simple. The measurement of the strategic outcomes is not easy either; in fact it can even turn out to be impossible to measure the research and teaching objectively. Creating, implementing and managing a shared-view-strategy in an organization with contradictory interests, long tradition of "academic anarchy" and staff consisting mainly of specialists are the challenges of higher education management. It is a current issue, and more research is needed to answer these challenges.

There are several studies explaining the change that academia has faced over past decades, as well as some critical insights on how the academic capitalism has affected research practices. In foreign research literature the effect of institutional isomorphism mechanisms on how the universities have shaped their management and organization, facing the changing external and internal pressures has been studied. It has also been noted that public organizations, such as universities, are more likely to be affected by the pressure mechanisms for institutional isomorphism than organizations in private sector (Frumkin & Galaskiewic, 2004). In Finland however, this perspective on how the universities as institutions have changed and how they are managed currently, is lacking research. The institutional isomorphism offers the framework to critically examine the different mechanisms, taking also into consideration the contradicting interest inside universities, which drive the organizational development. Institutional theory was also chosen as framework, because it creates understanding on why universities have and are becoming more alike with other organizations.

This thesis focuses on how the strategy is currently managed in the University of Oulu. As previous studies indicate, the challenges and changes in universities' management, performance management etc. have been studied increasingly all over the world from different theoretical point of views. In Finland, the change is recent, which might be

the reason for paucity of studies on managing the universities under changed political and legal requirements. The major change in management and organizational structures can be seen as externally forced. There is, however a strong influence of other factors inside academic community. In this thesis, neoinstitutional theory is a suitable framework for analysis, because it takes into consideration pressure mechanisms rooting from different sources.

With the changes in autonomy and financial criteria, universities face increased competition of resources, responsibility and accountability; need to meet the various expectations of different stakeholders etc. Even though the universities are still funded by government for a large part in Finland, the requirements are getting heavier. On the other hand, the universities are doing more fund raising operations than ever, and the importance of external funding has great significance in their actions. This does not decrease the importance of so called stakeholder perspective, but on the contrary, emphasizes it. The performance measurement is crucial part of strategic management, and in this case study it will be examined through the same institutional framework, also paying attention to multidimensional stakeholder view.

The purpose of the thesis is to explore the strategy and its management in University of Oulu in relation with the political and legal guidance. Conflicting interests inside organization are also considered. In strategic management attention should also be paid in how the strategy is implemented and how the strategic performance is monitored. Based on these outlining, the main research questions in this thesis are:

1) How do the external pressures for institutional isomorphism materialize in the strategic management of the University of Oulu?

2) How does the internal performance measurement system of University of Oulu reflect the external pressures for institutional isomorphism?

By answering these questions a further understanding on how University of Oulu has answered the challenges brought by transformation is achieved, as well as suggestions about what are the sources for strategic planning and management in case university.

The thesis consists of two parts; theoretical and empirical. In the theoretical part the key concepts; academic capitalism, institutional isomorphism, strategic and performance management as well as the special features of the public sector and university, are explained. In the empirical part the execution of the research is described; the methods used in research project are presented and justified, as well as the collection, handling and analysis of the data step by step. The strategy of the case university and how it reflects the mechanisms of institutional isomorphism is examined in analysis. Second, the main criteria, i.e. indicators, used in measuring the strategic performance are analyzed. Lastly, the results of the analysis are concluded, the validity and reliability of the research are estimated and ideas for further research topics are given.

2   CAPITALIZING KNOWLEDGE – THE NEW AGE OF ACADEMIA

This chapter has two parts; in the first one the monumental transformation process the universities have undergone, starting from 1960's until today, is explained. The second part starts by discussing the special features of university as a public sector organization. Closer look at the strategic - and performance management in public sector, including universities, is also taken.

2.1. Transformation of universities

This part describes the transformation process first through four periods of academic doctrines, continuing on defining what academic capitalism and the new age of universities mean.

2.1.1. From academic tradition into neoliberal market logic

The transformation universities have experienced beginning in 1990's has been so monumental the subject merits further explanation. The transformation has occurred on a global scale, but for the purposes of this study I look specifically at the changes in Finnish academia. The changes in university can be seen as a reflection of the changes in society as a whole. On the other hand universities can also have significant impact on society. The university is an active agent and policymaker within the boundaries set by governmental guidance. The developmental process of Finnish university can be divided in 3-4 perioids depending on the source (cf. Kallio, 2014; Rinne, Jauhiainen & Plamper, 2015). The missions, challenges and position of university are regarded in relation with the changes in society, culture and university policy in four historical doctrines by Rinne et al., (2015); *Academic tradition, Government managed development, Profit responsible guidance and competition,* and *neoliberal New Public Management*. The following table condenses the doctrines.

Doctrine / Policy	"Academic tradition" → 1960's	"Government managed development" Late 1960's → late 1980's	"Profit responsible guidance and competition" End of 1980's, onwards from 1990's	"Neoliberal New Public Management" From 2000 (new law 2010)
University type	ELITE	STATE	GOVERNMENT MANAGED, HYBRID, UNIVERSAL	OSTENSIBLY MARKET-DRIVEN, ENTREPRENEURIAL UNIVERISTY
Relation to government	Autonomous universities	Government led education subordinate to social, regional and employment policies	Flexible and innovative serving of societal needs. Evaluating government. Result oriented management.	Secession from government ownership. Structural change of university field. Third mission. New Public Management.
Education and research	Education for elite. Freedom in education and research. Profession oriented	Producing sufficient academic labor force. Science as part of production industry.	Answering multifaceted pressure. Emphasis on productivity and efficiency. EU politics.	Europeanization of Finnish higher education. Full grade quality evaluation.

Table 1. Doctrines of Finnish university. (Revised from Rinne et al., 2015).

The first doctrine, *Academic tradition* or *Academic traditionalism* (Kallio, 2014) was the describing model until the 1960's. For many this was the "golden era" of universities, where the power was in academics' hands and the academic traditions were held in high regard. At that time universities were loosely controlled by state, and its main purpose from the governmental point of view was educating the elite especially as leading public officers. Financially there was no expectations for immediate economic benefits, yet there was awareness of long-term benefits. Universities had the freedom of academic education and research, and those two were the main missions of university. (Rinne et al., 2015,) This period of time still has a strong influence on people's thinking, when referring to academic freedom. The growing influence of international actors, such as OECD, was reflected also in Finnish academia from 1960's onwards (Hakala et al., 2003, 31).

The late 1960's marked the beginning of second period, *Development of governmental* guidance or *Development doctrine* (Kallio, 2014). Albeit being officially enacted later, the "third mission" of universities' started to build up from 1960's. There were pressures to reform the university system for example due to increasing internationalization and national economy (ibid.). The first time universities were

attached to national economic development was in 1960. Following statements by President Kekkonen, a new law for developing higher education was set in 1965, leading to more organized and government managed reforms. Systematic development of research activities started in 1960's, including for instance redirecting the research funding with lead of renewed Finish Academia (Hakala et al. 2003, 32). Within universities the reforms were thought as an insult towards their autonomy and a threat to professors' power. Little by little, the importance of societal and economic benefits of research became the new discourse in academia. The insight of mutual benefit started to form; society was supposed to insure the financing of academically free research and in exchange the researchers were responsible to produce societally beneficial results. (Rinne et al., 2015.)

The development of government guidance continued and the requirement of efficient and productive activity was increased from the 1980's (Kuopppala, 2005). The third period is known as the doctrine of *"Profit responsible guidance and competition"* (Rinne et al, 2015). The recession of 1990's can be seen as one of the major reasons for many big changes in Finnish society. The funding of universities decreased substantially and they were forced to reorganize functions, and become more effective in order to save costs. Financial effectiveness was seen as unsuitable for universities and was widely opposed. The fear of universities transforming into production plants was expressed (e.g. Raatikainen & Tunkkari, 1991; Helenius, Hämäläinen & Tuunainen, 1996). Internationalization was embraced and seen as positive development bringing many new opportunities. (Rinne et al. 2015; Hakala et al., 2003, 33.)

By the beginning of the new millennium, the discourse had many new themes, including entrepreneurial university (Etzkowitz, 2003; Clark, 1983), external funding with its risks, lost and regain of academic freedom, critics of science, internationalization, Bologna process, management of universities, ranking lists etc. (Kallio, 2014). From the list we can see the change has been historical and monumental. From the external factors especially the influence of OECD has been notable when developing universities into more entrepreneurial direction (ibid.). Nationally, the most influential of all recent changes has been the new university law

passed in 2009. The new law formalized the third mission of universities, which is called *societal engagement, societal service* or *societal influence* depending on the context. Vivid discussions about combining effectiveness and competitiveness with sophistication took place in various universities. Some were more critical, some more open to the idea. (Rinne et al., 2015.)

The last and current period in universities historical development is called *"Neoliberal New Public Management"* (ibid.). The new era where universities are expected to contribute more to national economy and bring competitive advantage through scientific discoveries is also been called *academic capitalism* (Slaughter & Leslie, 1997) and *entrepreneurial university* (Etzkowitz, 2003; Clark, 1983). This period also marks the beginning of "second mode", where the "first mode" of classic understanding of science university has been replaced by e.g. multidisciplinary and increased externally guided research (Gibbons et al., 1994).

The fear of losing academic freedom is understandable. The new law was said to return autonomy to universities. In the context of allocating the given resources, it did do that. On the other hand the very detailed and strict governmental performance guidance cannot be seen as improving academic freedom. If money is tied to specific criteria, aren't universities likely to shape their actions and organization to meet those outlined criteria? A quick glance at the strategies of Finnish universities testifies the shift to competitive, ranking-list oriented top university mindset. Also the new managerial frameworks, like quality and performance management, are increasingly adapted from the business world.

The transformation of academia from cradle of sophistication into neoliberal market-driven, business-like organization has been explained e.g. through concepts of *academic capitalism* and *capitalizing knowledge*. The main ideas behind the aforementioned concepts are explained next.

2.1.2. Academic capitalism

Universities and researchers globally have to adjust to new situation where government support is decreased and they increasingly have to compete for external funding. This development of *academic capitalism* also includes Finnish academia especially since the 1990's. When discussing academic capitalism, the concept can be understood in different ways. In this thesis, academic capitalism is defined as the aspects of academic education, e.g. recruitment of new students, teaching, research, commercializing innovations and research results that are linked to the market and state through political economy. Slaughter and Leslie (1997) first used the concept to refer to commercialization of research knowledge and competing for external research funding. The term is thus used broader in this thesis, similar to Kauppinen (2014), who describes academic capitalism as a system supported by the state, where:

a) University education and research knowledge is produced in order to create products for the markets, and

b) Universities compete for external financing.

Academic capitalism has been studied more in Finland over the past several years and there seems to be a clear increase in the phenomenon from 1990's to 2000's (e.g. Kauppinen & Kaidesoja, 2014). The reasons for the change can be found in the recession of the 1990's, Finland's EU membership, higher student numbers in universities and the rightist political environment. Following these, education was introduced to ideologies like entrepreneurship, competition, performance-related pay and constant evaluation. Major cuts in university funding forced them to look for external financial resources. As a result, the faculties are put in very unequal positions; not everyone's "products" are best-sellers and therefore the possibilities to find external financing between the research groups are very different. (Kauppinen & Kaidesoja, 2014.)

When it comes to the basic functions of universities in Finland, it is justified to ask if the traditional mission of the university should be re-evaluated and re-defined? Is it possible to conduct independent and high quality research, world class higher

education and be financially profitable at the same time? Academic capitalism is one way to examine how universities have answered the challenge.

The institutional shift from academic tradition into market-driven system is in different stages depending on the country. There are some countries, for example Dubai, where the market logic is taken to the extreme, and is fully accepted. The same direction of development can be seen in all over the world, including Europe and Finland, were universities are facing gradual privatizing, reformulation of activities and organizational structures because of changes in their funding channels. (Juusola, 2015.) Lawrence and Sharma (2002) refer to Habermas's[2] critical theory and argue that introducing the methods from business world to academia is part of larger societal development, where education is becoming more and more commoditized good like any other, and from which the benefit is more private than societal. This can endanger the nature and purpose of whole educational system.

Another consequence of shifting to neoliberal market-logic is being described through concept of *entrepreneurial university* (Clark, 1998). This means that universities are expected to be more like business organizations, which are driven by market forces and innovation activity is elementary for their success (e.g. Kristensen, 2011, 12;35). There are differences of opinion on whether universities have recently become more entrepreneurial or if they have always produced innovations through which our world has been shaped also on the commercial level. Some argue that capitalization of knowledge is not a new concept. However, some researchers strongly claim that the productivity and profitability now experienced is beyond anything that has been experienced in universities before (see e.g. Tuunainen, 2013). This transformation has also been explained through the concept of triple helix, which means the collaboration of the state, industry and university. *Second mode* (Gibbons et al, 1994) or second

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[2] The authors refer to Habermas' idea of penetration of instrumental reasoning associated with capitalism into everyday experience. In critical theory the society develops in a way that power and money become the steering media, which are defined and represented in societal institutions, in this case universities. Habermas's theory is one in so called Frankfurt school, including many critical theories on the development of society. The common feature for critical theories is that capitalistic society causes individuals to alienate and the individuality loses its meaning. Following this, the relations between individuals become utilitarian trade relationships.

academic revolution is also used to describe the commercializing of research and its results. (Etzkowitz, Webster & Healey, 1998.)

Even though the vocabulary and methods used in the business world may be required in modern university, the effect of academic capitalism can result in negative outcomes. For instance, getting good feedback is important, and pursuing good feedback may lead to modification of challenging and sometimes uncomfortable learning experience to entertaining teaching and good grades. It is also worth mentioning the difference between private goods and social good (e.g. education). Whereas private goods are produced to satisfy customer's wants and needs, social good, such as education, is a life-long utilitarian good that enhances learning and constructs society. (Lawrence & Sharma, 2002.) The negative effects also appear as "degree factories", educational centers offering degrees for proper amount of money (cf. Juusola, 2015). On the other hand, there will always be high prestige universities that set the bar for international rankings and competition.

2.1.3. The new age of university

Like stated earlier, one of the elementary missions of Finnish Universities is societal engagement. The development of new performance measuring started in 1980's in the evaluation counsel of higher education (korkeakoulujen arviointineuvosto), which operated under ministry of education. The development can be seen as cause of the New Public Management (NPM) came part of Finnish public administration. New criteria and indicators to measure the performance in higher education have been developed ever since. (Hosia, 2009.) This has resulted in several actions on the administrative level and universities having to re-define their strategy and practices. External financing and its importance has increased in recent years. It will determine the future of many research areas, and the effect can already be seen for instance as increased bureaucracy, modification of research topics, inequality between faculties etc.

The NPM refers to adaption of methods used in private sector management in public administration (e.g. Pollit & Bouckaert, 2011). The NPM is not one framework, but

more of combination of different thoughts and methods, which have also taken varied forms in different countries. It can however been seen as a management doctrine, and it has been recognized as one of the developmental doctrines of universities in Finland (Lähdesmäki, 2003, 9; Rinne et al. 2015). The six main features of NPM can also be noted in the management of universities: *efficiency, role of citizen, leadership, entrepreneurship* and *accountability* (Lähdesmäki, 2003; Kallio, 2014).

Since 2007, one criteria for Finnish universities' funding has been the number of published research articles following the Performance-Based Research Funding System by OECD. This has led to discussions about the quality of publications – the fear is, that when the quantity goes up, the quality goes down. Performance-based funding has also been seen as unsuitable for the academic world, because measuring research articles is not very straightforward. In addition, within certain disciplines people see that a published article based funding endangers the existence of publications written in Finnish. (Pölönen & Auranen, 2017.) It is clear that some disciplines benefit more from rewarding English publications, but for example linguistics researchers are likely to oppose this direction of development

From the beginning of 2017, the Finnish Ministry of Culture and Education decided to revise the funding criteria for universities. Changes were made in the strategic funding (whilst also checking the basis for it), increasing emphasis on the graduates employment ratio, adding specification trainings and co-operative studies in the model. Computation of several criteria was develop, e.g.:

- Number of students completing 55 credits per year; in the future takes into account better the students starting in spring and students graduating during study year
- Shift from counting number of exchange students to counting credits performed during the exchange period
- Putting more emphasis on the quality of publications, not only their amount (Kosunen, 2016.) Following figure presents the criteria for universities' funding from the beginning of 2017.
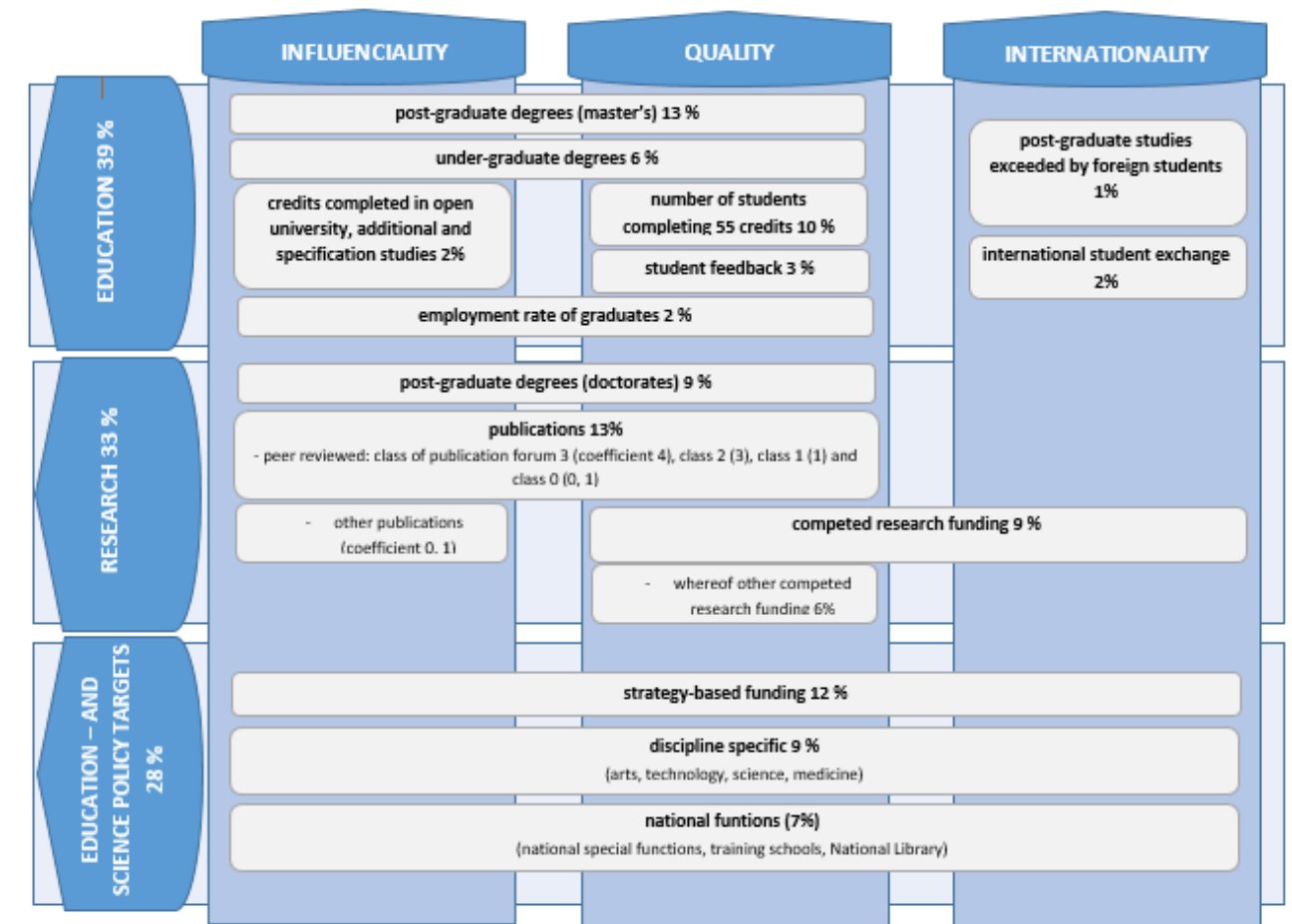
Figure 1. The funding criteria for Finnish universities. (Revised from Kosunen, 2016.)

In the past, universities were considered state controlled and managed. The NPM can be understood as way to explain how universities are nowadays guided externally through board of directors or different accreditation agencies, replacing the previous strong government guidance (e.g. Kallio, 2014). NPM also refers to the growing power of university top management, such as rectors and faculty heads, replacing the old collegial decision making model (Hüther & Krücken, 2016).

The change and effect of the performance management has also been detected by staff in Finnish academia. Kallio (2014) described and studied the change in the strategic management of universities and the effect of performance management on research and teaching personnel. More specifically, she wanted to find out how the performance management and measuring is in Finnish universities, what kind of effect it has on above-mentioned group of personnel and what are the main deficiencies from the staff point of view. (Kallio, 2014, 27-28.)

Summarized below are a few important features in the experiences of staff towards performance measurement:

- The performance management and - measuring are not easily adapted in university context
- The expectations of the ministry of education are experienced contradictory
- The guidance and measuring of performance are difficult to execute objectively
- In practice the financing model of the government is the main factor when forming the strategy and everyday guidelines for staff, resulting in decreasing autonomy of universities
- The current performance measuring systems do not encourage staff nor do they lead into better results
- Staff reported the need for more extensive and balanced performance measuring systems. (ibid.)

Measuring education and research is undoubtedly a complicated issue. Measuring the third mission, societal engagement is even more challenging. Beside this, one thing that should be re-evaluated and analyzed is the autonomy of universities. Since the resources depend very strictly on the Ministry of Culture and Education (MCE) guidelines and performance agreement, the question merits: "Who really manages the universities and how?" The question is valid also on a global scale. The New Public Management, academic capitalism etc. are affecting universities all over the world. In Finland the development has been later than on many other countries, but has on the hand happened in a relatively short period of time.

2.2. Challenges in university management

In this part the special characteristics of university as an organization are explained. The concepts of strategic and performance management in this context are also expanded.

2.2.1. Characteristics of university organization

Organizations in general have many things in common, such as pursuing set goals, limited resources etc. The main distinction between public and private sector is the meaning of financial result. In private sector the main purpose is to have financially profitable action which is measured by gained capital and earned profits. In public sector the purpose is in providing all the members of the society the basic services which everyone can use equally. A private own business has to operate in a profitable way and is dependent on its financial results. In public sector the organizations have set purposes and their functions are financed from taxes. They rarely make profit and their existence is not dependent on that either. (Määttä, 2000, 186-187; Määttä&Ojala, 1999, 27-29.)

Universities can be seen as non-profit, service-oriented and intelligence-intensive organizations. In Finland the universities are still mostly financed from public funds, even though the competition for research resources has been increasing continuously. Universities' functions are based on the tradition as well as the university law. The law appoints the basic mission of university as practicing scientific research and teaching based on it. Third mission of universities is to interact with the society and enhancing the societal engagement of the research results. (University law, chapter 1 §2.)

The administrative and academic power don't go hand in hand, and universities tend to have more anarchic structure (Han & Zhong, 2015). The top down and bottom up hierarchies both exist in university. An individual researcher may relate the most to community which is not found in their own university as organization. The bottom up decision-making, which exists parallel to official, administrative hierarchy, can cause problems for university management. Especially in multidisciplinary universities the work community of the entire organization is *loosely coupled* (Weick, 1976), meaning that within a university the different faculties and departments are from most parts not dependent on the work of each other's (Kivistö, 2009, 55). This is understandable, as the targets, knowledge and concrete work are strongly discipline specific. Following the loose coupling, the communication and co-working between disciplines is often found difficult even within one university organization. This causes different

departments and research groups to network and relate with their own scientific community instead of the physical work community at university. (Malkki, 2002, 97.)

The new University Law (2009/558) is substantially transforming the hierarchy and power structures in Finnish universities. The highest level decision-making was sifted to the board of directors, which increasingly consists of people outside academia. The abandonment of old collegial decision-making model and imposing the new hierarchy of power is undoubtedly not straightforward. As an example, Hüther & Krücken (2013) discovered through interviewing university leaders and deans, that their main obstacle to govern universities is lack of power over the academics.

The bottom up decision-making hierarchy can complicate management and implementation of strategy (see e.g. Krücken & Hüther, 2014), there is a strong link to one's own university through the institutional perspective. Each discipline, nationally and internationally, sets the basic values guiding the work in the departments, whereas the university as organization manages and controls the physical work environment and resource allocation. (Malkki, 2002, 98.) Today, when the universities funding is dependent on the organizational performance, it is important that universities solve this problem by finding right tools to implement strategy and make the whole organization work for common goals.

Defining university organization is a complex issue. Based on organization theories, the success of universities is based on the know-how and the workmanship of the staff, and they can therefore be defined as *expert* and/or *knowledge organizations* (see e.g. Lukka & Reponen, 2000). The majority of the university personnel are highly educated professionals, who take part in the formation of actions practiced in the organization. There is also smaller number of people working in administration and assisting tasks, which are meant to create and maintain both the organizational and financial premises for research and teaching staff. (Malkki, 1999, 76-77.) The expertise is another source of managerial challenges in university, because bureaucratic structures, hackwork and limiting the individual freedom are experienced uncomfortable by experts. (Sveiby, 1990, 61-63; Sipilä, 1996, 27-28.)

In regards with two dimensions by which the academic functions are divided, the universities can be seen as matrix organizations. This means that the faculties and departments are responsible for research and teaching functions, whereas administration manages the support functions enabling the research and teaching functions. The governmental guidance works through the administrative dimension and functions. (Clark 1983, 28–62; Kuoppala 2005b.) Figure 2 presents the example structure of university of Oulu applying the theories of matrix organization structure. In the vertical dimension there are central administration and administration units, the disciplines (i.e. faculties) in the horizontal dimension. This way of seeing organization differs from traditional organization structure, where different parties are presented according administrative power position.
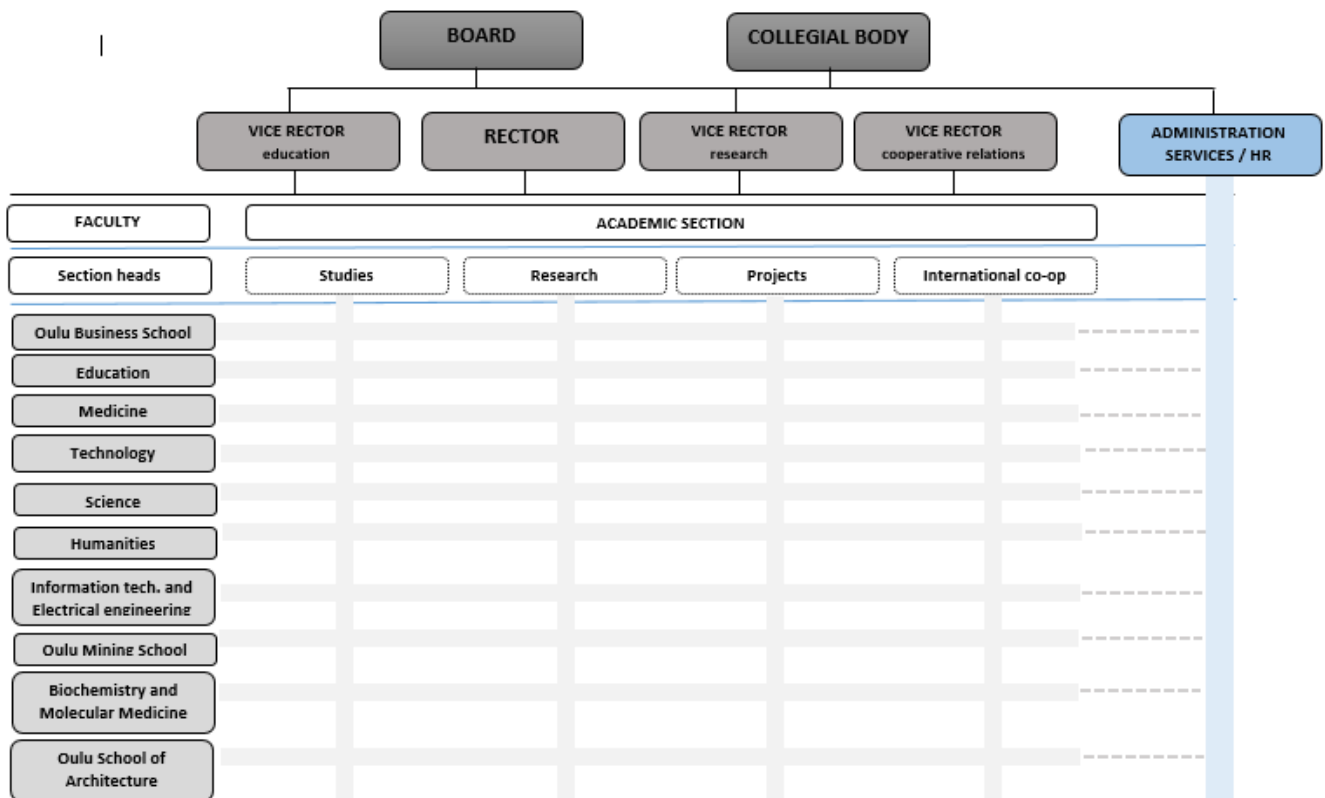
Figure 2. Example presentation of University of Oulu as matrix organization. (Own elaboration)

Another ways to define the university organization are two types by Mintzberg. First, according to Mintzberg (1990) an organization with group of semi-independent functional and financial entities, unified from above by central administration, can be called as divisionalized organization form. The central administration controls the activities, simultaneously giving each division enough autonomy to take care of their

functions (Mintzberg, 1990, 211). Second, the university can also be seen as professional bureaucracy. The key characteristics in professional bureaucracy are the complexity and solidity of operational work. Often the work is so specified that it is not possible to direct or design standardized working processes. In difference between the traditional bureaucracy and the professional bureaucracy, the main coordinating mechanism in professional bureaucracy is the coordination of skills instead of coordination of work. (ibid, 185).

The professional bureaucracy challenges the management. This is for instance because of the bottom up hierarchy of power, meaning that the power of each individual is based on their knowledge and skills, not title or position (ibid, 193). When the power stays in the level of working professionals, it often conflicts with the management's and ministry's attempt to direct the actions by setting performance targets. Following this, the professionals can experience that the set goals don't apply to them, which makes the strategic management harder. (Krücken & Hüther, 2014; Kallio, 2005, 85-86.) The conflict rises from an individual's different positions depending on the hierarchical system in question. The individual's professional position is defined by the prestige gained within own autonomous discipline, whereas the formal, administrative position is based on the administration hierarchy within the organization. (Lampinen, 2003, 11.) It can be stated that in professional bureaucracies the whole concept of strategy is secondary, due to difficulties in measuring the performance and setting targets to actions beforehand (Mintzberg, 1990, 196).

The universities could also be seen as *project organizations*. The problem solving, innovation and the flexible control system needed to enable the creative work are key elements in project organization. From strategic point of view it is useless to manage the organization from specific part, because of the unpredictable nature of innovation and its results. (Malkki, 1999, 75-76.) Additionally, in project organizations the members of organization can change frequently and the organization itself changes constantly along with different projects. (Malkki, 2002, 98.) Clearly this definition also challenges the management. However, the project organization definition is supported by above mentioned reasons, and also because of increased short-termism in funding and future planning.

It is clearly hard to put one label on university organization. They have traits of different types of organizations, but don't fall strictly into any category. The definition depends also on which part we are looking at; the way to organize, stability of environment, management and evaluation systems, nature and structure of work etc. (Malkki, 1999, 76.) Considering the complexity of university and the conflicting interest between disciplines and faculties, it is well-grounded to ask how it is possible to create a unified strategy for a university, to which everyone can commit to? What is the common goal towards which people work every day, and moreover who has the legitimate authority to set these goals?

2.2.2 Why is it challengin to manage strategy in university?

It is justified to ask how the strategic management and guidance has changed in the university along with transformation. In the past universities' funding was much more secured in beforehand, usually the resources were linked e.g. to the number of students, and the activities could be planned better than nowadays. The change in the resource structure has made the environment more insecure and turbulent to universities. Some faculties already struggle offering the mandatory courses for degrees, and many have had to reorganize and cut down the offering. For staff, what used to be so called guaranteed job for life, has become a career consisting of snippets and having to earn their position again, year after year.

Whilst the universities have to find new ways to secure their existence and sufficient funding, they have also been given more autonomy in allocating and guiding the resources. The role of government is to supervise the use of resources and processes through measuring quantitative and qualitative results. Still, notably large part of the criteria and meters focus on quantitative results (see e.g. Salmi, 2005, 46). The new situation calls for new strategy management and performance guidance methods suitable for academic environment. (Hölttä, 1995, 15.)

The initial problem with university strategy process is whether it should be built from up to down or vice versa. I already brought up the special hierarchy systems in

university earlier. The people working on a low level according to official hierarchy can actually have more power in their work community. For instance the teachers and researcher have a lot of influence on what they study or teach. Their view on what is important can differ greatly from that of university management, which creates conflicts rather than helps form commonly shared goals. On the other hand, a strategy formed from top to down can be hard to sell to everyone and to make experts commit to it. Therefore the challenge in the strategic management of universities is how to get the single strategies built from bottom up to meet with both university management intent and governmental guidance. In another words the universities need to solve how to get individuals and teams to work for the targets set by the top management. (Horngren, Bhimani, Datar & Foster, 2002, 612; Malkki, 2002, 100-101.)

The challenge that many researchers have recognized is namely how to manage expert organizations, like a university, or is it even possible to manage? Ranki (2016) studied the current strategic management and how it should be in the future for Finnish HEIs to drive their success. The relationship between autonomous HEI and strategic guidance of Ministry of Culture and Education (MCE) was one central theme, which features corporation strategy. The interviews also clearly revealed the contradiction of expectations experienced with the government guidance and autonomous university. The study shows there is a need for the MCE to advance the discussion and methods, and to develop a national program for strategic management of HEIs benefiting the existing research findings. (Ranki, 2016.)

2.2.3. Measuring academic performance

With the New Public Management, universities have been forced to enter the era of performance management and "profit responsible entrepreneurial university" (Rinne et al, 2015). According to this doctrine, the universities should be reviewed as societal service institutions, which have to meet certain expectations, needs and requirements. Along the new era starting already from the 1980's, the Finnish university system has adapted more standardized management, evaluation, teaching method and other structures. The role of universities as an instrument of economic development and social change has increased as the linear development has been replaced by growing

uncertainty. The new doctrine requires universities to enhance their international competitive abilities, diversify their production structure and overall become more market-oriented than before. (Kivinen, Rinne & Ketonen, 1993; Malkki & Kinnunen, 1996, 20.)

Although the financial result is not the guiding frame with public organizations, universities are nowadays submitted under performance management and result oriented management. The given functions must be carried out effectively and with high-quality. They are responsible for both societal decision-makers and tax-payers for succeeding in creating optimal value for the inputs. Their actions are evaluated more or less based on the same criteria than private own companies', namely through *effectiveness, economy* and *productivity*. (Määttä&Ojala, 1999, 28-30.)

Despite the critics presented by the academics, the universities have very few options but to adapt to the new requirements. The critic can be seen as result from necessary and noticeable change in the organizational culture. Meeting the new challenging expectations can only happen if the personnel share the same values, accept common goals and commits to these. In consideration of the organizational complexity and nature of university as home of professionals, this can only be achieved through inclusive methods, and by successful combining of academic freedom and fellowship. In addition the universities are required to succeed in supporting the creativity while guiding the activities towards common goals. (Lukka & Reponen, 2000.)

In the recent past, the customer orientation, time, quality, learning, know-how and innovations and their unique combinations have become increasingly valued as critical success factors for universities. The performance management basis in Finnish public sector is defined as "*weighing and evaluating the results of public sector activities based on both created societal benefits and the efficient use of resources*" (Salminen, 2005). It is not enough to produce services; it has to be done without useless spending of resources. At the same time the quality and the ability to produce services must kept on high level. From this we can draw the conclusion, that measuring only financial results is not enough, and the meters or indicators monitoring the performance should be more comprehensive and versatile.

As the conception of measuring performance in public sector has changed, the criteria for productivity and performance have been renewed. The graph below presents the four new criteria (**managing and developing the intellectual resources; operational efficiency; production and quality management; influence**) for performance, in relation to performance management and accountability.
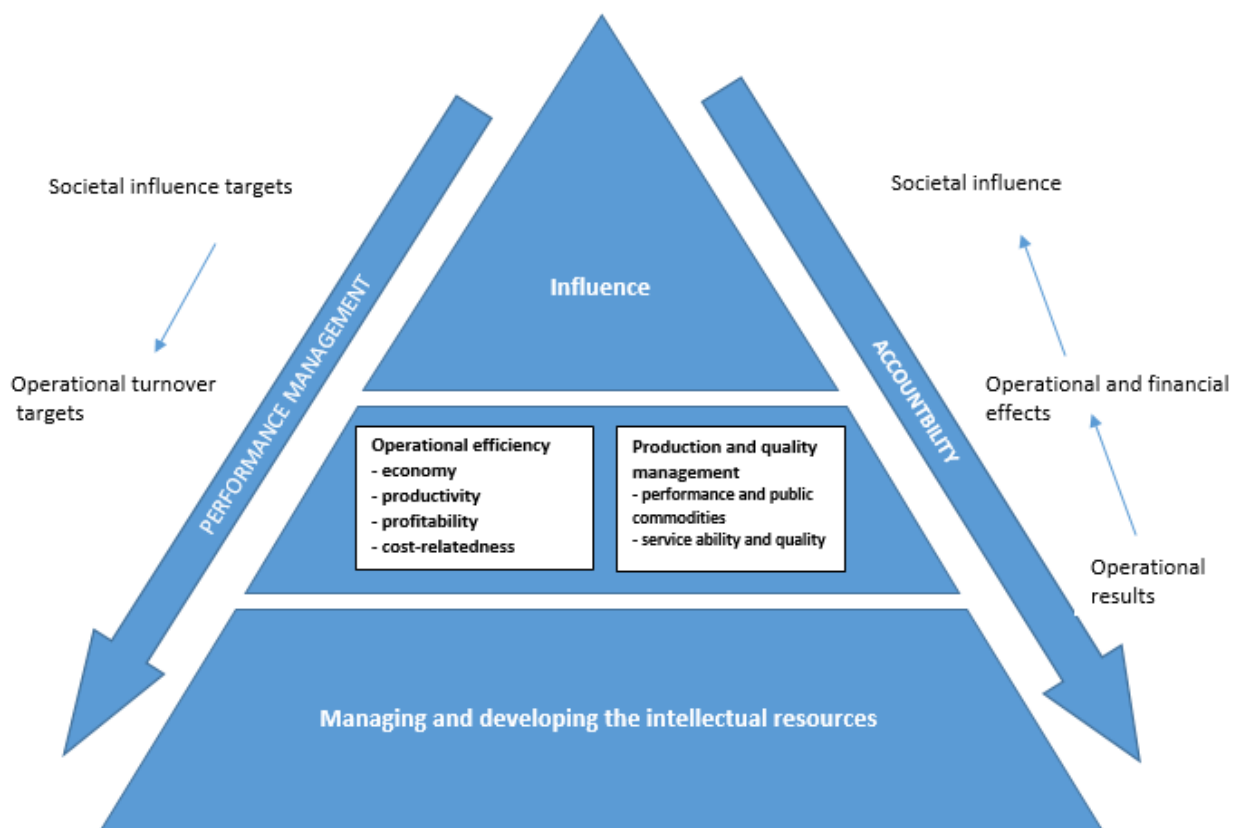
Figure 3. Performance criteria in public sector. (Revised from Salminen, 2005, 26.)

Productivity measurement is most of the times very difficult, but for example in universities this is a very critical part of performance evaluation. So far the universities have been evaluated e.g. based on the amount of degrees, published articles, the credits completed in the open university etc. (ibid, 46.) The newest funding criteria presented in chapter 2 aims i.a. to speed up the studying process by rewarding universities from students completing more than 55 credits per study year. It is worth noticing that the effect of performance management and NPM on universities has not yet been studied widely, and mostly the studies have, both internationally and in Finland, been focusing

either on macro level or with case studies on one chosen university. Thus the effect of performance measurement on staff, students, quality etc. still requires further research.

3 EXTERNAL PRESSURES FOR INSTITUTIONAL ISOMORPHISM IN STARTEGIC MANAGEMENT OF UNIVERISTY

In this chapter the theoretical framework used in the analysis is presented. First the background for institutional isomorphism is described. Second the pressure mechanisms for institutional isomorphism are explained in detail. Third, the institutional isomorphism is further developed with institutional pillars. Lastly the key concepts from chapters 2 and 3 are summarized.

3.1. Organizational similarities and differences

The idea of institutionalism is to explain why and how organizations in certain domain become similar with each other. In their attempts to become more efficient and differentiate themselves for competitive advantage, organizations actually become more alike. Over time organization unintentionally create operating models, which set boundaries to their development. In (neo)institutional theory this phenomenon is studied and described as institutional isomorphism. (DiMaggio & Powell, 1983.)

In the early age of institutional research and theories, from 1880's until 1920's, the focus in larger institutional structures, e.g. political systems, constitutions, juridical systems, language, or normative frameworks of social interactions, rather than organizations. Only few researchers looked at the impact of wider institutions as constructors of organizations. The interest on organizations as separate actors of institutions started to grow in 1940's. The first institutional organization theories can be divided in three different orientations. The first one is based on Weber's works on bureaucracy translated in English. Second was born when Weber's translator Parsons added his own cultural institutional theory into bureaucracy thinking. The third orientation combines Simon's work of organizational decision-making, widening it to an organization's rationality. (Scott, 2008, 16-17, 20.)

Beginning with the first studies, organization researchers have concluded there is a tendency for organizations operating in similar environment to become more and more alike with time. One reason for this phenomenon is the common search for the optimal

efficiency. (Boxenbaum & Jonsson, 2009, 78.) It is interesting, that while the universities try to differentiate themselves from others in order to be more competitive, they end up adapting the same structural and managerial models that in the end make them alike with other universities as well as business organizations. Why and through which mechanisms this happens, are the questions the neoinstitutional theory tries to answer. The aim of this thesis is to explain the management system in university through neoinstitutional theory, with mechanisms of institutional isomorphism and institutional pillars. The main focus point is in strategic management and performance measurement.

3.1.1. The external pressure mechanisms for institutional isomorphism

Neoinstitutional theory explains how the structure of an organization reflects external pressures. For example organizations, such as universities, whose performance is difficult to measure, can feel the pressure to follow normative regulations in order to achieve legitimacy. The goal is not so much in achieving the best production efficiency (compare to industrial organizations) but moreover in adapting the widespread and generally approved standards, so called appropriate structures. (Hannan & Freeman 1989, 34.) Why organizations often are so similar can be explained by institutional isomorphism, and it happens through three different mechanism; *coercive, mimetic* and *normative* isomorphism (DiMaggio&Powell, 1983). The mechanism as well as their carriers and social basis are described in the following figure.
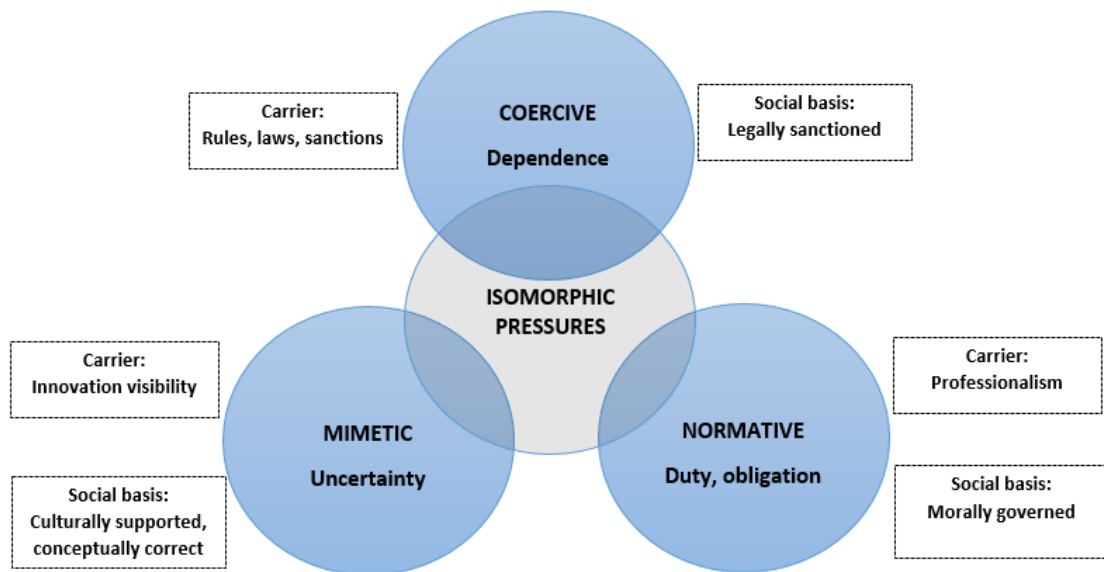
Figure 4. Isomorphic mechanisms. (Revised from DiMaggio & Powell, 1983.)

The first mechanism, *coercive isomorphism* is rooted to the impact of dominant policy and problematic of legitimacy. The official and un-official external pressures from society and other organizations force, entice and invite the organizations to transform. For example government can directly force organizations to change with legislation. This can show e.g. in recruiting policies or implementing new systems to better fulfill legal requirements. Sometimes coercive isomorphism is visible, and happens through unofficial associations and hierarchy systems. (ibid., 150-151.)

Mimetic isomorphism can be seen as panic solution, consequence of uncertainty. The organization recognizes the needs for change, but is unable to decide or come up with appropriate models. They turn to seek solution by imitating what other organizations around them or at the same field do. Even though mimicking others is not very creative, it can prove to be an easy and economical solution for complex issues. The mimetic isomorphism can happen consciously through active seeking of proven work systems, or unconsciously for example when personnel move from one unit or organization to another. In addition, the mechanism can be deliberate through consulting or trade associations. (ibid., 151.) At the time when universities are searching for proper management methods, benchmarking and research are encouraged actions (e.g. Tavernier, 2005).

Many current managerial frameworks can be seen as mimetic isomorphism. One good example is the popular and widely used LEAN management system and its derivates. Nowadays, LEAN is the quality management system basis for many organizations that try to transfer the efficient functionality of Japanese car factories even into service production. Although, when organizations adapt certain framework but shape and adjust it to fit their own needs, can we still talk about mimetic isomorphism or is it something else? DiMaggio and Powell see that one reason for eager adaption of innovative and effective methods is the search for legitimacy and wanting to show outside observers the improvement attempt. Also the skilled staff or clientele can encourage organization to offer the same benefits or services that their competitors do, enforcing mimetic isomorphism. Overall the fact that certain organizational structures and systems appear so widely can more likely be seen as the process of mimetic isomorphism than basing on proven results for increased efficiency. (DiMaggio & Powell, 1983; 151-152.)

The last mechanism, normative isomorphism is particularly interesting considering the special characteristics of universities. It is explained as the collective fight by certain profession to define the conditions of their work and methods, and to create basis and legitimacy for their professional autonomy (ibid., 152). Looking at the long tradition of academic freedom, the past collegial (professional) organization, and the strong influence of so-called bottom-up power structure inside universities, could normative isomorphism be used to explain the informal structures of universities in the past? Another question is how coercive and normative mechanisms are different from each other?

According to DiMaggio and Powell there are two main aspects, related to coercive and mimetic pressures faced by professionalism, which result in normative isomorphism. First, professionalism strongly relies on formal education and legitimacy created by university specialist. Second, the growing and developing professional networks spin around organizations, enchasing the spread of new models of action. It is easy to see why the professional network's impact is so strong in universities; as providers of formal education they also employ many professional specialists. Besides unofficial

professional networks, unions and trade organizations also define regulations and set rules for organizational and professional norms. (ibid, 152.)

The differences between isomorphic mechanisms are sometimes very subtle, and it is hard to separate for instance if we are dealing with coercive or normative pressure mechanisms.

3.1.2. The resiliency for changes – Institutional Pillars

Institutional isomorphism and its mechanisms was further developed by Scott (2008). He claims institutions comprise of three institutional pillars, which are named as **regulative, normative** and **cultural-cognitive.** The three pillars provide stability and meaning to social life with associated activities and resources (ibid., 48). The pillars resemble the idea of isomorphic mechanisms, but Scotts' emphasis is more on explaining why institutions are resilient. According to Scott, institutions are fairly resilient to changes, because processes have been put in place by regulative, normative and cultural-cognitive pillars. In addition to rules, norms, cultural-cognitive beliefs, symbolic systems etc. an institution also encases concrete elements, such as action models and tangible resources. The three institutional pillars with their preconditions are illustrated in the figure 5.

THREE PILLARS OF INSTITUTIONS

	REGULATIVE PILLAR	NORMATIVE PILLAR	CULTURAL-COGNITIVE PILLAR
BASIS OF COMPLIANCE (Why do we comply?)	Expedience	Social obligations	Taken-for-granted Shared understanding
BASIS OF ORDER (What are the rules based on?)	Regulative rules	Binding expectations	Constitutive schemes
MECHANISMS How does it work?)	Coercive (we must comply)	Normative (we should comply)	Mimetic (we copy others)
LOGIC (How we reason it?)	Instrumentality	Appropriateness	Orthodoxy
INDICATORS (Where we see it?)	Rules Laws Sanctions	Certification Accreditation	Common beliefs Shared logics of action
INFLUENCE (How it affects us?)	Innocence (if we comply) Guilt (if we don't)	Honor (if we comply) Shame (if we don't)	Certainty (if we comply) Confusion (if we don't)
BASIS OF LEGITIMACY (Why is it approved?)	Legally sanctioned	Morally governed	Comprehensible Recognizable Culturally supported

Figure 5. The institutional pillars. (Revised from Scott, 2008)

The different aspects of these pillars are explained in the figure. For example the *basis of compliance* explains why we comply to certain regulative, normative or cultural-cognitive behavior norms. For instance in the regulative case, it is simply because we are forced to do it by law (*mechanism*), or otherwise we are found guilty (*influence*) and face sanctions (*basis of legitimacy*). Another example is *basis of order*, i.e. what are the rules based on? They can be based on **regulative** rules, binding expectations (**normative**) or taken for-granted and share understanding (**cultural-cognitive**). (ibid.)

Although the initial motive for change might be driven by the search for effectiveness, it looks like in practice there is no research to show whether the structural changes driven by institutional isomorphism actually increases the organizational efficiency. The efficiency might even decrease, but still the organizations continue on that path because institutional pillars make them resilient to changes and they get rewarded in some way by following the models set by coercive or normative pressure, or "top-performer's" example. Becoming more like others can aid communication, recruiting and gaining legitimacy. However proof has yet to be found to support organizations

becoming homogenous instead of being different. (DiMaggio & Powell, 1983, 153-154; Scott, 2008.)

3.2. The effect of external pressures on strategic management of university

Universities are complex organizations and have much of historical and environmental factors (political, economic etc.) affecting them. This makes it hard to see universities becoming too similar, but it also makes it hard to find a managerial method that would suit universities in general. However, like stated before, universities need to make more efforts in strategic planning and differentiating themselves from competitors, i.e. other universities.

Strategic management often includes sharpening the vision and mission statements in order to build brand and position oneself better in the competed field. Most frequently we see organizations trying to state how they do things better or differently compared to competitors. Kosmützky and Krücken (2015) analyzed how German universities express their organizational specificities in their mission statements. The authors declare universities' mission statements not only allow them to differentiate and position themselves, but also to highlight the similarities compared to other universities. This is due to the historical position and characteristics the universities have as institutions, in distinction with private sector enterprises.

Hüther and Krücker (2016) suggest universities should be looked at as nested organizational fields, which would help explain the simultaneous homogenization and differentiation of universities on a national level, as well as similar development of academic subgroups internationally. Institutional isomorphism and its mechanisms can help solve the puzzle. Given the existence of these two opposite developmental directions, and since governmental (coercive) pressure is only one of the three mechanisms, the influence of both mimetic and normative isomorphism is very likely.

As consequence of previous note the effect of institutional isomorphism on universities should be looked at from these two scopes, national and international. The influence of global trends and national traditions on the development of new age university is

also discussed in the article by Krücken and Torka (2007). They note an increasing phenomenon of diverse universities, or *multiversities* as they call them, being shaped by the global trends of higher education. This is leading national systems and organizations to become more similar. Authors conclude their findings by stating that despite the isomorphic effect of global trends, universities in different nations are not likely to become all the same, as the national history and traditions also have a very strong effect on them. More likely, there will be increasing number of variations and adaptions of popular organization models. (ibid.)

It can be argued that institutional isomorphism is not able to fully explain why the same trend is detected among different subgroups cross-nationally. The suggested concept of nested organizational fields explains how universities are integrated to different, and to some extent overlapping organizational areas. This approach abandons the view of organizations being nested only to one area. For example, organizations can be embedded in global, national and local fields at the same time. It is also worth noting, that isomorphism also shapes universities indirectly on an international level, as happens e.g. with EU directives considering higher education. (ibid.) The idea of nested organizational fields however does support the different environments of Finnish universities and the faculties within them.

Institutional isomorphism is useful in examining the development, the realization and the consequences of the universities' third mission. The idea of commercializing research through innovative activities was discussed more in the chapter 2.1. The diffusion of the university's third mission through integrating technology transfer programs can benefit from institutional perspective. It helps in understanding how the norms of academic profession can create institutional barriers for attempts to capitalize economically valuable discoveries and knowledge. (Colyvas, 2007; Krücken, 2003.)

In regards to the second research question, the applicability of institutional isomorphism for analyzing performance measurement system in university is explained next. The specific characteristics of universities as an organization have already been discussed earlier in this thesis. In the search of applicable frameworks, both the special nature of universities and the external pressures must be taken into

consideration. Besides the complexity of organizational structure and definition, another important point of view is the stakeholders. With complex organizations such as universities, the need to meet the interests of different stakeholder groups is a valid justification for development of multidimensional methods in strategic management.

As public organizations, universities have many stakeholders with competing interests. Consequently, linear performance management has been noted to fit poorly in universities (Lampinen, 2003, 11). Supporting findings were presented in Kallio's study of academic research and educational staff's experiences on performance measurement (Kallio, 2014, 3-4). The question is, what should be considered as good performance in university?

The state as funder and different professions have long been regarded as the main institutional actors (e.g. DiMaggio & Powell, 1983), but recently a new group of stakeholders affecting the public management has been suggested to be the customers. In this context, the customer means the buyer and consumer of public services. (Brignall & Modell, 2000.) In universities this would be the students. As customers it is important for them to find the best value for their money. This shift to customer oriented thinking can be seen e.g. in collecting student feedback. Customer insight into services and products offered have been used in private sector for long time and now it is standard in the public sector as well.

In order to measure performance, management needs to obtain all the information about performance through different sets of meters and indicators. Brignall and Modell (2000) analyzed the performance information utilized by management in arbitration and influence of the three main stakeholder groups, namely the *funders, professional groups of organization* and *purchasers/customers of services.* Despite many attempts to apply different multidimensional performance measurement (PM) methods in the public sector, it has proven to be difficult, not least because of conflicting interests of various stakeholders. The ironic dilemma is, that on one hand and on the other hand is trying to emphasize the financial performance at the same time, all while needing to balance the interests of different stakeholders. (ibid.) As for universities, the financial aspect is undoubtedly important. They need money to operate, but concentrating on

money does not address all the aims they have. Therefore it seems obvious that universities need multidimensional views on performance measurement.

The direct application of performance measurement frameworks in public sector can raise problems, especially because of the role of the financial perspective. This is one question where institutional perspective can be useful by taking into consideration the different interest groups through their pressure mechanisms and evaluating their effect on the performance. Kaplan and Norton suggest that in public sector the most important perspective in performance measuring should be the objectives and purpose of actions (Kaplan&Norton, 2001, 133-137). This kind of perspective in public organizations is told to measure the impact either from society's or user's point of view (e.g. Määttä, 2000, 70), but it does not mean the financial aspect would not be emphasized. It is not hard to imagine how financial motives can guide objectives pursued in strategy, therefore attention should be paid to what kind of objectives and action targets are measured. In addition performance guidance from the government can be contradictory to the logic and perceptions of academics. For instance, it assumes the work community is coherent enough that organizational goals can be formed and people commit to them (Summa & Virtanen, 1998).

At the same time as placing clear targets that universities need to pursue for funding reasons, they leave the methods of management undefined. Each university can decide how they attempt to reach the targets, how they guide the resources to meet the goals. (Salmi, 2005, 38-39.) In order to manage their strategy more efficiently and to reach their goals, universities would benefit from a systematic framework for management (e.g. Ranki, 2016). Besides the stakeholder perspective, quality is suggested to be included in performance management of HEIs. Currently it appears that universities have adopted the quality concept from private sector for instance through different quality management frameworks. (Pounder, 1999.)

Combining institutional perspective to strategic management and performance measurement is considered important for public sector organizations (e.g. Brignall & Modell, 2002) as well as in analyzing the case university's strategic management in this thesis. This is mainly because of the need to recognize different pressures sources

for successful activities. Universities have several stakeholders, whereof funders (government), producers of service (academic staff) and customers (students) are the most important. In reality staff and students also have an interest as funders through the role of tax-payers, but in this context their role is simplified. The balancing of the conflicting interest of different stakeholders has been observed in the performance management research, which has increased the interest towards neoinstitutional perspective in creating multidimensional performance measurement tools (Modell, 2001).

3.5. Summary of key concepts

Theories of background phenomenon and theoretical framework for analysis are now presented in chapters 2 and 3. In the following figure the theoretical framework of this thesis is summarized. It describes how different **actors** affect the **objectives** and **institutional environment** of universities through three **pressure** mechanisms. The actors are the different stakeholders named earlier: funder (i.e. government), producers of service (i.e. professional community) and customers (i.e. public opinion or students). The latter needs further explaining. Students are regarded as the public opinion because of their customer relationship to the university. How they view university through the lens of public opinion affects for example how attractive a certain university is regarded as. If universities want to recruit the most talented and motivated students, this is a very important point of view to be noted.
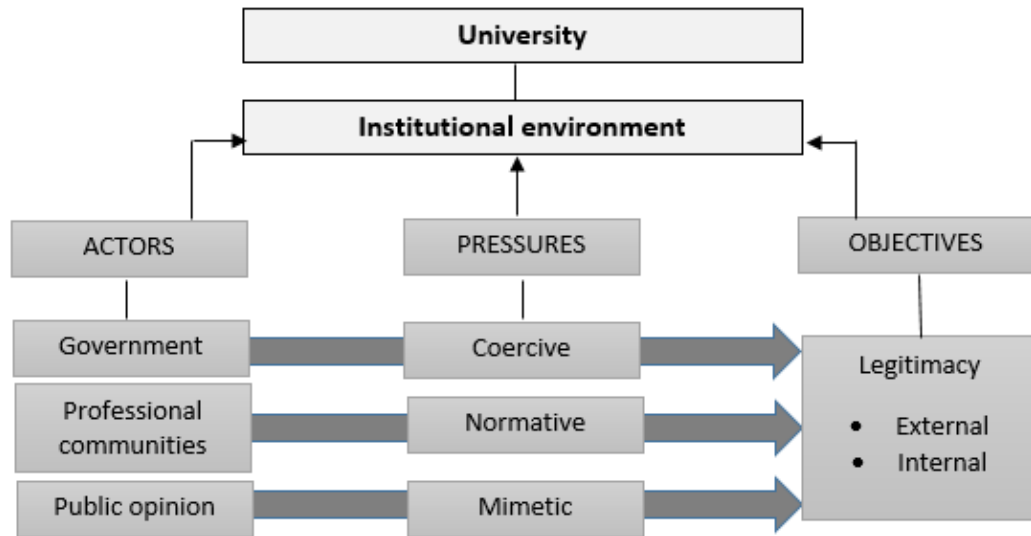
Figure 6. Theoretical framework of thesis. The effect of institutional isomorphism on university's institutional environment. (Revised from Esteban-Lloret, Aragón-Sánchez & Carrasco-Hernández, 2014.)

Before moving onto the empirical part of this thesis, there are some key concepts and perspectives to keep in mind.

First, there is the historical and monumental change of universities from government institutions to autonomous organizations. This change has created the need for universities to plan and manage their actions more systematically than before. The development highlights the need for strategic management, whereof the performance measurement is an important part. Having a long tradition of academic collegial hierarchy of power, which individual leadership and administrative hierarchy is replacing, creates tensions and problems for management. Also, the nature of expert organization and existence of strong professionalism complicates the implementation of strategy on every organizational level. It is not easy to find fitting method for management due to difficulty in labeling university as organization.

Second, measuring academic performance is not straightforward. Even though universities are not traditionally accustomed to being evaluated through *efficiency, economy and effectiveness,* they cannot "escape" the reality. However, examining management and performance measurement economically only reveals one aspect. For a deeper understanding, one must incorporate contextual and social factors to complete the analysis of management and performance measurement. This allows us to study if

universities take into consideration different social and contextual factors when forming and managing strategy.

With decreasing public funding, universities have become more accountable to society (tax payers) for their use of financing (cf. Gibbons et al., 1994, 1-16). On the other hand, they are also accountable to external funders (Brignall & Modell, 2002), who want to see their money well spent. As the universities compete for qualified and motivated students, they need to deliver high quality teaching. Otherwise students go to another service provider (cf. Lawrence & Sharma, 2002). For these reasons, strategic goals have to incorporate the view and interests of key stakeholders. It is next to impossible to reach these goals without proper management tools. Succeeding in communicating what is important, how to do things better and most of all where everyone should aim is crucial. Additional challenges arise from governmental guidance with ministry's funding criteria, which can lead to emphasizing quantitative and financial aspects. A usable strategic management methods and criteria for performance measurement should pay respect to these preconditions. (Salmi, 2005; Brignall & Modell, 2000.)

Thirdly, universities have a certain institutional position in society. There is a two-way interaction between university and society. In addition, universities have very specific internal and traditional features that affect their activities. As institutional factors govern what the interests pursued by each stakeholder group are, strategy and performance in an organization can be viewed as institutionally defined (ibid.). In order to combine both internal and external pressure mechanisms on strategic management and performance measurement, the institutional perspective is needed. Institutional isomorphism and institutional pillars provide help in understanding what pressure mechanisms affect the most on universities as organization.

4   DATA AND METHODS

In this chapter the data and execution of study are explained. First, the choice of qualitative case study as method is justified. Second, the case university as subject of research is presented through background information and description of strategy. Third, the data is presented in detail. Lastly the analysis method and process is described.

4.1. Why qualitative case study?

Qualitative and quantitative research are often presented as opposites to each other. More useful insight is to underline the purpose of creating deeper understanding with qualitative research. The understanding nature of qualitative study includes alternative ideas of the social information, meaning and reality. This also means the research object is not regarded only as source of quantitative data, but the object is thought to include meaningful relationships that can be interpreted. (Kvale, 1996, 10-11.)

Understanding a phenomenon is characteristic to a case study and therefore collecting data with various methods is recommended (Metsämuuronen, 2006, 210-211). The data for this study was collected in a way that its content was not attempted to be limited. The research design case study is flexible and it can be modified during the process if needed. Typically the different stages of the study mix together and interpretation is not easy to distinguish as its own separate phase – in qualitative research the interpretation happens beginning of data collection to final conclusions. The phenomenon in hand is kept as natural as possible. The researcher's role can vary from active part-taker to silent observer. The most important criteria for data is quality; it should be well collected and carefully analyzed. The researcher is responsible for deciding which part of the data is included in the sample. (Eskola & Suoranta, 1996.)

The case study is justified choice for this thesis, as it concentrates on one organization. A case study research examines a current issue or phenomenon within the context it actually happens. Case study usually includes an in-depth analysis of either an individual, group of individuals, an organization or specific sector (Wilson, 2010, p.

107-108.) In a case study the purpose is on one hand to find features from the case that can be found through a comparison for example from other similar organizations, and on the other hand to find out what are the special features of this particular case. In case study the purpose is not to make generalizations, although there might be findings that with time and more research lead to generalization. However, the most important thing in case study is to understand a single case as profoundly as possible. (Metsämuuronen, 2008.) In this thesis the strategic management of case university is analyzed through the framework of institutional isomorphism.

4.2. Science with arctic attitude - The University of Oulu as object of research

The University of Oulu was chosen as object for this case study for couple of reasons. First, combined with the larger scale transformation in the academic world, the University of Oulu got a new rector in 2015 and the organizational structure was also renewed. Second, the new strategy is at implementation phase. The University of Oulu has campaigned the new strategy in a very noticeable way. The slogan "Science with arctic attitude" has been communicated efficiently, promoting the brand of university. Third reason is the researcher's familiarity with the organization and the access to information. Most importantly, there is a research gap as the new management of University of Oulu has not yet been studied extensively.

The multidisciplinary University of Oulu offers degrees in bachelor, master's and doctor's levels in ten faculties. Some structural changes are ongoing, mostly because of the new strategic focus points. For example, the bachelor's degrees have been made more extensive, in order to cut down the total number of them offered. The key figures from year 2016 are presented in the table below.

University of Oulu, key figures year 2016	
Higher university degrees	1445
Lower university degrees	1273
Credits performed by organization	434 266
Higher university degrees by foreign students	138
Number of students performing more than 55 credits per year	3797
Income, total	223,2 millions
Result for the financial year	5,7 millions
Equity ratio	88,3%
Personnel expenses (ratio from total costs)	147, 2 million (66, 5%)
Personnel, average	2906
Personnel, full-time equivalent	2640 fte
- teaching & research	1637 fte
- other staff	898 fte
- training schools	105 fte

Table 2. University of Oulu key figures from year 2016. (Revised from University's annual report 2016)

As mentioned previously, the University of Oulu got a new rector in 2015. Soon after this all the faculties and administrative functions were re-organized into a new structure and new strategy process was started. The university has different university-level decision-making bodies, such as the board of directors, the university collegium, together with each faculty's research units. The rector directs the operations of the university. In addition there are three vice-rectors, who each have their own responsibility areas, which are: education, research and cooperation affairs. In the new model, previous faculty substructures were replaced by research units that are responsible for profit and productivity, and are essential to the implementation of the strategy. The following figure presents the management structure from highest organizational level down to highest faculty level.
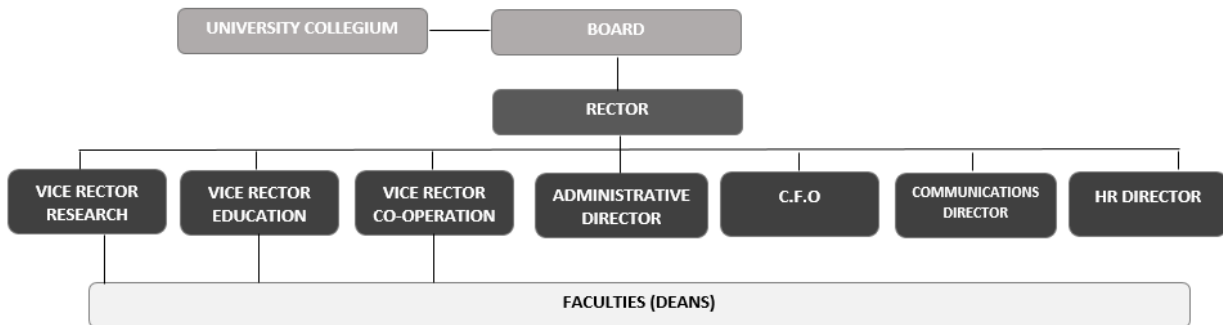
Figure 7. The structure of management in University of Oulu. (Revised from QM Manual.)

The new strategy for 2016-2020 was published in the beginning of 2016. The process of implementing the strategy is still ongoing in the end of 2017. The new strategy defines five main focus areas for research in Oulu. Each focus area takes part in solving major global challenges. Multidisciplinary approaches, high quality research and fruitful co-operation are combined in each focus area. The five focus areas are:

- Creating sustainability through materials and systems
- Molecular and environmental basis for lifelong health
- Digital solutions in sensing and interactions
- Earth and near-space system and environmental change
- Understanding humans in change

University of Oulu also has other strategic aims. Firslyt, supporting and enhancing sustainable growth in the North. This can be seen as a national and global societal goal. With co-operation of other universities and research institutes, research at the University of Oulu supports the Arctic agenda with expertise in many fields, including: sustainable mining and production technologies; aeronomy and atmospheric chemistry; technologies suitable for extreme conditions, Arctic logistics and distance spanning; health in Northern environments; and Saami Linguistics and Saami Cultural Studies.

Second, the University of Oulu wants to enable breakthroughs by committed top talent, supported by high-quality infrastructure. In order to achieve notable research results and to have competitive research groups in multiple areas, attention is paid for example in high standards of recruiting. Cooperation with partners also plays big role and helps

creating better research infrastructures. Ethical principles are emphasized in all research activities.

The third goal is to create a unique environment for students from different disciplines to enjoy learning. More specifically, the University of Oulu aims to improve the education with all three meters; *quality, quantity* and *effectiveness*. The strategic targets for education are:

- High-quality degree programs attract engaged students
- Smooth studying processes
- Modern, digitalized learning environments and pedagogic development
- International studying experience
- Structures supporting cooperation with working life
- Systematic doctoral education

Other mentioned, complementary and supporting points for the strategy are *strategic partnerships; strengthening entrepreneurial mindset and supporting research based innovations; offering facilities for multidisciplinary research and education on two campuses;* and *being influential, attractive and dynamic university community.*

The University of Oulu has started to implement the five steps of HR Strategy for Researchers. HRS4R (Human Resource Strategy for Researchers) is based on European Charter for Researchers and Code of Conduct for the Recruitment of Researchers, as part of EU policy to support and encourage scientific career. The HRS4R includes five steps, of which Oulu has proceeded with the first three. The steps are:

1) Internal Analysis
2) HR Strategy for Researcher's is created and published
3) The European Commission reviews and acknowledges that the institution has adopted a HR Strategy for Researchers
4) Implementation and self-assessment
5) External evaluation

The strategy includes an action plan with seven specified objectives and timeframe for actions to be continued and taken.

Making the strategy concrete to whole organization is crucial for success. The basic function of strategic management is to give information to the top management on how the organization and different units of it succeed in executing the strategy. Therefore the staff needs to understand the strategy and what is considered good result regarding the strategy. (Määttä, 2000, 136-137.) In order to specify the strategy as well as to follow up the implementation, right framework and tools are needed for strategic management.

4.3. Research data of University of Oulu

The purpose of this study is primarily to understand how the pressure mechanisms for institutional isomorphism affect the strategy and performance management of the University of Oulu. The university organization is very complex and could be studied from various point of views. Due to the limited extent of a master's thesis study, choice was made to focus to the top level point of view. This meant studying the managerial documents and discussing with one of the top managers. For the purpose of getting a grasp of how the strategy is communicated, implemented and monitored throughout the organization, the deans were also approached. Deans work in a position, where they have to execute the directions coming from top management, and on the other hand they reflect what their subordinates consider important and what they aim to do in their daily work.

In order to understand the phenomenon and to answer the research questions as in-depth as possible, the data was collected from various sources with different methods. The data consists of managerial documents, such as Strategy, Management System, Quality Management Manual,[3] annual reports and other such documentation from university, discussion with top management and questionnaire for deans. The management in University of Oulu relies strongly on three documented systems; Strategy, Quality Management Manual and Management System. These three

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[3] When referring to these specific managerial documents (i.e. Strategy, Management System and Quality Management Manual), they are spelled with capital letters as a distinction to nouns.

documents form the main data source for this thesis. Many times these documents referred to internal databases or IMS (Integrated Management System) systems, which were explored also. All along the analysis process the University Law and Ministry of Culture and Education funding criteria were kept in hand, in order to reflect the findings to them. As theory-grounded content analysis, the previous studies also had an important role. Studies focused on managing universities, methods used in strategic management and performance evaluation etc. This was thought to be helpful for example in better understanding the challenges in university management context.

Reflecting the data to theoretical framework, there were certain points that needed clarification. There was one face-to-face interview with person working in top management, who explained further how the targets are set, what is measured and how, what is the yearly process of management etc. During the meeting a few prepared questions were posed, and some questions that rose during the conversation. This information was found very important for the continuation of the research process. Two new documents from this meeting, namely the Quality Management Manual and Management System, which were two of the main data sources in the analysis. The person interviewed was responsible for producing this data, therefore being able to speak in person with her was also valuable for the reliability of the study.

Following the previously mentioned data collecting, a decision was made to send a questionnaire to the deans of all the faculties. The deans were chosen for couple of main reasons. First, they form a homogeny group working on the same hierarchical level of the university. Second, the position of deans in the management is very demanding as they have to follow and execute the orders coming from top, whilst listening and respecting the goals of the individual researchers, research groups and departments of the faculty. How the deans manage to put together these contradicting goals would cast light on how the strategy is communicated and implemented on different organizational levels. Six questions considering strategy, strategic management and performance management were formulated. The questions were sent to deans via email. The deans were told the answers will be presented anonymously. Unfortunately it turned out all the deans where not too eager to respond to questions considering management. Five deans responded, three refusing to answer and two

answering the questions properly. Because the answering rate was low, this data was ruled insufficient for analysis. However it is used to reflect on and discuss the management system and implementation of strategy.

The Strategy sets the base for the management in University of Oulu. The Strategy describes the goals and actions, the direction, the strategic premises for education and research etc. Every faculty, department, research unit and individual is expected to know and plan their actions in line with the overall university strategy. The strategic premises and preconditions lined in strategy consider especially the development of research environment quality, infrastructures, strategic alliances, co-operation networks, fluent study process, modern learning environment, pedagogy and internationalization. Strategy content was described in the previous chapter, next the documents that formed the main data for analysis are described more detailed.

The Management System consists of descriptions of **management** (legal order, goals, responsibilities, organization structure, decision-making process etc.), **resource management** (HR, premises and equipment, IT and information security etc.), **process management** (core and supporting processes, risk management and change management), and **measuring** (measuring, auditing, constant improvement). Compared to Strategy, the Management System is a more accurate and concrete description of the action plan. It also includes an appendix with explanation of each university level actor as well as decision-making and responsibilities in education and research.

The Management System in University of Oulu is based on the Quality Management System (QMS), which is explained in Quality Management (QM) manual. A large variety of different QMSs are used in different contexts. The University of Oulu uses QMS designed and built for their own use, meaning it can't be labeled as some particular system, such as TQM (total quality management) or ISO. It is however systematic in a way that it is approved and audited by FINEEC (Finnish Education Evaluation Centre), which is an independent government agency responsible for the national evaluation of education. The audit assesses the comprehensiveness, functionality and effectiveness of those systems, based on the principle of

enhancement-led evaluation that has formed into a strong tradition in Finnish evaluation practice. The goal is to help higher education institutions to recognize the strengths, good practices and areas that need further development in their operations. The purpose of FINEEC evaluation is to guide and support the university in their strategic management, i.e. in reaching the strategic objectives and in creating a framework for continuous development.

As it happened, the latest audit of the quality system is being conducted between January 2017 and the spring of 2018. The university chooses the audit target. This time university chose the management of personnel well-being in a change, including aspects of strategic management. The audit is carried out by a five head international audit team. The role of FINEEC is to support universities in creating a quality system corresponding to the European principles of quality assurance and to demonstrate that functional and consistent quality assurance procedures are in place in Finland both in institutions and on the national level. FINEEC is a member of the European Quality Assurance Register for Higher Education (EQAR) and is a full member of the European Association for Quality Assurance in Higher Education (ENQA).

The quality evaluation of education and research in University of Oulu are done on three levels: 1) evaluation and development in faculties and departments/units, 2) evaluation and development in university and 3) regularly (and when needed) carried external auditing. The level of research has been evaluated and ranked according to RAE[4] (Research Assessment Exercise), last evaluation was performed in 2012 and 2013. The projects of university's research units (such as Biocenter, Thule institute and others) are chosen every fourth year based on international scientific evaluation.

As stated before, the management in university of Oulu is strongly based on their QMS, which in turn is based on the strategy. In the QM manual the descriptions of quality management, evaluation and measurement of management, education, research, societal engagement, support services and resource management can be

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[4] The RAE was replaced by new evaluation system, REF (Research Excellence Framework) in 2014.

found. All three documents, namely Strategy, Management System and QM Manual have similar, mutually supporting content.

Different parts of data are named and described in the following table. It also explains for what each data sources were used.

DATA SOURCE / TITLE	USE	DESCRIPTION / NOTES
Strategy	Primary data for analysis	Person responsible for these documents was same as the person interviewed from top management
Management System (MS)	Primary data for analysis	
Quality Management Manual (QM Manual)	Primary data for analysis	
Interview, top management	Additional information for analysis	
Questionnaire, deans	Additional information for analysis	Answering rate 2/9
Annual report	Background information	
University intranet	Additional information for analysis	Exploring data in internal systems SISU, TATU, IMS, for instance individual evaluation forms/questions
University presentation, director of communication	Additional information for analysis	Key strategic elements
Official website	Background information & additional information for analysis	For example HR strategy for researchers

Table 3. Summary of research data.

4.4. The content analysis based on existing theoretical framework

The interpretation was ongoing through the research and even though, being forced to modify the original research, there was a principal structure that guided the process. When the data sources were clear and the data was collected, the right analysis methods for handling it were chosen. First choice to be made was between inductive and theory-grounded analysis. For instance Maycut and Morehouse (1994, 135) say the inductive analysis means that the theoretical framework and preset hypothesis don't define what things become essential in the data. It was clear the purpose of the study was to explore and understand the case university management in the light of existing theories, rather than creating new theoretical framework. There were no pre-assumptions on what strategic school or managerial framework was in use in the case university. However the influence of the chosen theoretical background was strong and guided the study to the extent that the study can only be described as theory-grounded.

The analysis was carried out with theory-grounded content analysis. Content analysis is a method used to draw conclusions from documents through systematic and objective analysis. Documents can be all the data that has been brought into literal from, e.g. books, articles, diaries, interviews, reports, manuals etc. The purpose of content analysis is to describe the content of data verbally, as precisely as possible in order to transfer the meaningful content and understanding of studied phenomenon. The analysis is based on logical inference and interpretation. The categories for theory-grounded analysis are taken from existing theoretical framework, in this thesis from the neo-institutional theory and previous studies. (Tuomi & Sarajärvi, 2004.)

The analysis process of data followed the basic structure of qualitative research, including five common stages of data handling in qualitative research.
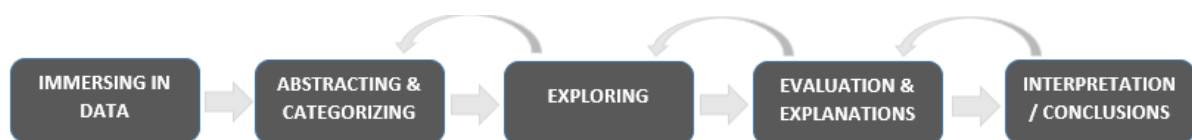

Figure 8. Five stages of data handling. (Revised from McLeod, 2003, 84-85).

The research and analysis are strongly based on chosen theoretical framework and previous studies. In the first phase the data was gone through carefully and making notes. In the next phase the focus was in picking up the things that were important in answering the research questions. After categorizing the data, it was explored based on the theoretical framework. Reflecting on the strategic management practices through institutional theory gave the analysis more interactive nature – nothing happens in a vacuum, therefore some sort of cause-and-effect framework is needed to understand substantial changes, such as the management of new age university. The evaluation and explanations were made based on the theoretical framework, going back to modifying categories, exploring the data again and re-evaluating the finding. Finally, the findings were concluded and reflected against the theoretical framework as well as previous studies considering the subject.

The effect of different pressure mechanisms on the way University of Oulu forms its new strategy, executes strategic management, manages and measures performance was looked through the lens of institutional theory. Three isomorphic mechanisms and

three institutional pillars were combined in the analysis, resulting in three main categories. The categories were labeled, described and further developed with subcategories based on theory. Sometimes the themes or contents of subcategories were contradictory in theory, or some units of data were very difficult to place in just one category. After going through each category several times, reflecting it to original data and theory base, some items were placed again or were placed in more than one subcategory.

Because it was already stated in other documents that Strategy was the guiding element of management overall in the university, the analysis was started by going through the Strategy. First an initial table with main categories and some subcategories was created. After that the document was coded through word by word, adding a few subcategories as more and more similar themes appeared. In the first phase longer sequences of text were placed in categories, in order to be as descriptive and as careful as possible. After going through the Strategy first time, the expressions were condensed. This comparison and re-evaluation was repeated as many times as it took to no longer feel need to change anything. While placing expressions to categories, the nature of statements in regards with the three missions by University Law was also observed. These were collected in separate table.

The main categories combining the mechanisms of institutional isomorphism and institutional pillars were: **coercive / regulative, mimetic / cultural-cognitive** and **normative.** The coercive or regulative category ended up with expressions dealing with laws and rules, and for example agreements based on law or where breaching them is sanctioned. In the mimetic or cultural-cognitive category ended up with expressions referring to common beliefs, shared logics of action, such as management systems or frameworks. The normative category encloses expressions referring to social obligations or other binding expectations, for example things related to academic profession.

Consequently, the subcategories that specified the main categories were: **University Law, Funding criteria, MCE Performance agreement, Organization structure, Management systems/frameworks, Monitoring systems, Academic profession,**

Social obligations, Recruiting, Accreditation /Certification and **Other** (in two main categories).

For the two other documents, similar coding and placing into categories was done. Lastly the other, additional data, was gone through and coded in the same table with the label "Other evidence".

As a significant part of strategic management, the second research question was about performance management and more precisely how it is guided and measured. This question was best answered by QM Manual and complemented with top management interview. The general goals and responsibilities on each level are described in the Management System, and the precise indicators for measuring performance are named in the QM Manual. The interview and the answers from deans clarified the process and every day methods used in strategy and performance management. It has been suggested (Brignall & Modell, 2000) that financial elements are the most effective when creating the meters for performance evaluations in organizations depending on public funding. Therefore the data was analyzed against the MCE funding criteria in order to see e.g. which stakeholder view is the most regarded.

5   RESEARCH FINDINGS

The results of analysis are presented in this chapter. There were two research questions defined in the beginning of thesis. The findings for each question are presented separately. The first research question was:

How do the external pressures for institutional isomorphism materialize in the strategic management of the University of Oulu?

5.1. External pressures of strategic management – institutional isomorphism forming and managing strategy

The first aim of the analysis was to find indicators of institutional isomorphism in the new strategy and the way of managing strategy in case university. The focus in the analysis was in the expressions used in three managerial documents; Strategy, Management System and Quality Management Manual. Three main categories and their subcategories were used in analysis, and the findings are sorted by main categories.
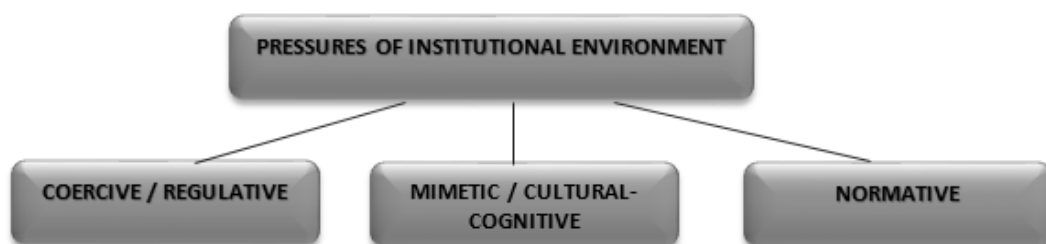
Figure 9. The pressures coming from institutional environment, three main dimensions.

When exploring the data, there was an assumption based on international studies that features of institutional isomorphism can be found in the management of universities in Finland as well. After going through the data for the first time the impression was formed that these mechanisms actually have visible impact on the management. Both primary and secondary data contained plenty of expressions of similar themes which matched with the theoretical framework.

5.1.1. Coercive / regulative

The first category, **coercive / regulative**, has four subcategories; University Law, Funding Criteria, MCE performance agreement and Other. Each subcategory will be further explained in next.

The influence of legislative, coercive pressure was found to be significant throughout the data. Even though the universities' autonomy is said to be increased with the new law, the law and funding criteria seem to significantly guide the strategy and actions taking place in the case university.

The university law was mentioned as basis for managerial structure, the three basic missions of university, the core processes of quality management system and responsibilities of management. It seems that the law regulates the actions in university for most parts. The structure and responsibilities of management are partly based on university law: *"The university level actors are defined in University Law and by university's own regulations."* and *"The management structure is based on law"* are examples of expressions used in this context. As an example of legislative missions, the QM Manual states: *"The mission of University of Oulu is enhancing internationally high level free research, education and culture, enforce knowledge increasing well-being and to secure highly educated work force and researcher availability in its sphere of influence".* Also in the QM Manual the core processes of university are named as **research, education** and **societal engagement**, which come from the University Law. The responsibilities are presented by each mission separately in tables, same as more specified actions. Especially for the higher level university actors (rector, board, and collegium) the responsibilities are mostly set by law.

Besides the University Law, funding criteria was most influential in directing the management and actions of university. In Strategy, the were several expressions related to internationality, quantity and quality of education and publications, the fluency of studying (55 credits per study year), how quality is improved, and how influence and productivity are measured. The yearly plans are made based on the funding i.e. the criteria guide the planning. The faculties not only get their basic

funding according to funding criteria but also additional funding comes partly from the same criteria. Most visible evidence for the effect of funding criteria are the indicators and meters for measuring the performance. These indicators will be presented more detailed later in regards with performance management.

Other coercive pressure mechanisms were the performance agreement with Ministry of Culture and Education and other laws or regulations. The MCE performance agreement first of all defines the level of productivity and effectiveness, setting the organizational level goals. The pursued level of performance is then written in university Enterprise Resource Planning (ERP), which is the basis for internal negotiations for yearly planning with different faculties. This procedure is described for example in the Management System: *"The ERP of university is based on MCE guidance and university strategy. The MCE guides the actions of university with agreements and feedback. The planning and guiding of financial and operational actions in university are realized in strategy, yearly operational and financial planning, the following year budgeting and systems monitoring these operations."*

Other laws and regulations are also mentioned as coercive mechanisms. For example the Publicity Law (621/1999) is being applied in communication. This means the decisions made in university have to be public and available. The Management System states: *"University has the principle of transparent and active reporting."* and *"University's societal mission requires active external communication."* Even though the communication is based on the publicity law, the QM Manual also states: *"The purpose of communication is to support reaching the goals in research, education and societal engagement.."* and *"Functioning communication is the basic requirement for effective organizational operations and community."*

In addition to this, the university service regulations guide the structure of management and organization that are not set by University (or other) Law.
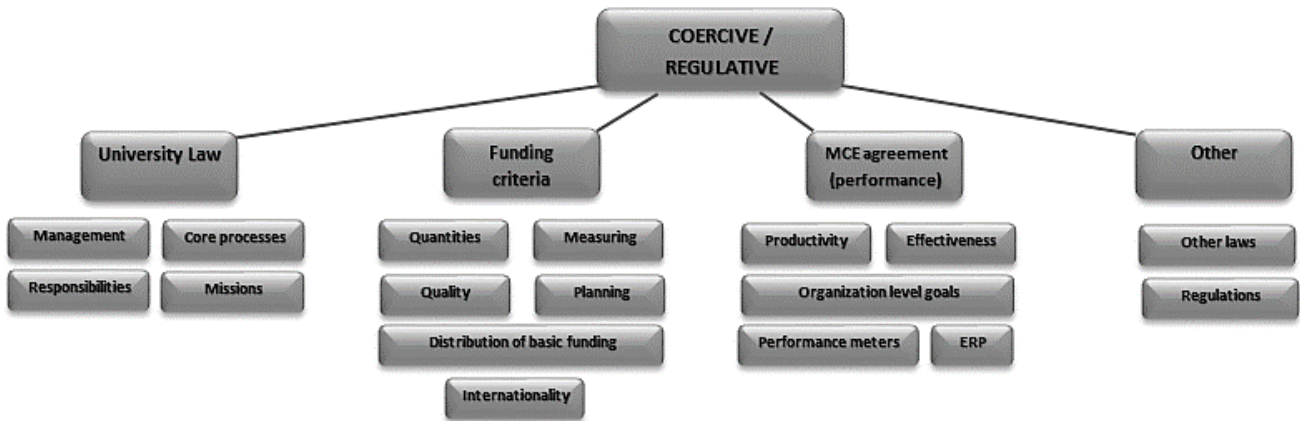
Figure 10. The themes of expressions related to coercive / regulative influence.

5.1.2. Mimetic / Cultural-cognitive

The second category was named as **mimetic / cultural-cognitive** pressure mechanisms. This category had also four subcategories: *Organization structures, Management frameworks, Monitoring systems* and *Other*. Each subcategory with examples will be presented in this subchapter.

Despite the strong influence of legal obligations on universities' activities, within their increased autonomy they have to come up with the appropriate tools to manage the organization. The law stipulates universities have to have a board of directors, rector and university collegium. Otherwise the organizational structure, responsibilities, the management system etc. are left to be decided independently by the university.

The new situation where organization level goals are coming from the top, and have to be shared and implemented throughout the organization that has various and contradicting interests, is challenging universities to develop their strategic planning and management. Naturally, managerial frameworks and methods were searched from surrounding organizations. Entering the era of New Public Management, universities as public organizations have increasingly started mimicking managerial frameworks from business world. Internationally there already exists a fair amount of research on different method applied in university management, and in Finland the interest toward them is increasing.

Besides the changes in managerial structure enforced by law, there has been some significant changes in organization structures in University of Oulu during this decade. Partly forced by law, but also likely influenced by change of rector. For example the structure for supporting services has been renewed in order to find more usable and cost-effective model. The organization structures however follow for the most parts the "shared logic of actions" from earlier times. The Management System of university is based on law, university's own regulations and autonomy to organize to the actions to reach the goals. The purpose of MS is to *"ensure reaching the strategic, financial and quality goals, as well as ensuring the constant improving principle working in practice."* In the MS as well as in QM Manual, the responsibilities for everyone in the organization are described. The Strategy guides the actions, as *"The goals presented in strategy are goals for entire organization. Every unit evaluates the goals from their perspective and takes them into consideration in their own goal setting."*

The most visible evidence of mimetic/cultural-cognitive mechanisms are the adaption and development of Quality Management System as managerial framework in university. With the QMS, also proper performance management and performance measurement (i.e. monitoring systems) have been developed. The QMS relies on process thinking and constant improvement: "*The QMS of University of Oulu consists of procedures with which university maintains and develops the quality of its actions.. The QMS comprise the principles and procedures to realize, monitor and develop the planned actions on every organizational level., In addition to university level procedures, the QMS also contains unit and discipline precise procedures."*

The process thinking is related to QMS. The processes are divided in core processes and processes of services supporting them. Following is the process map of University of Oulu.
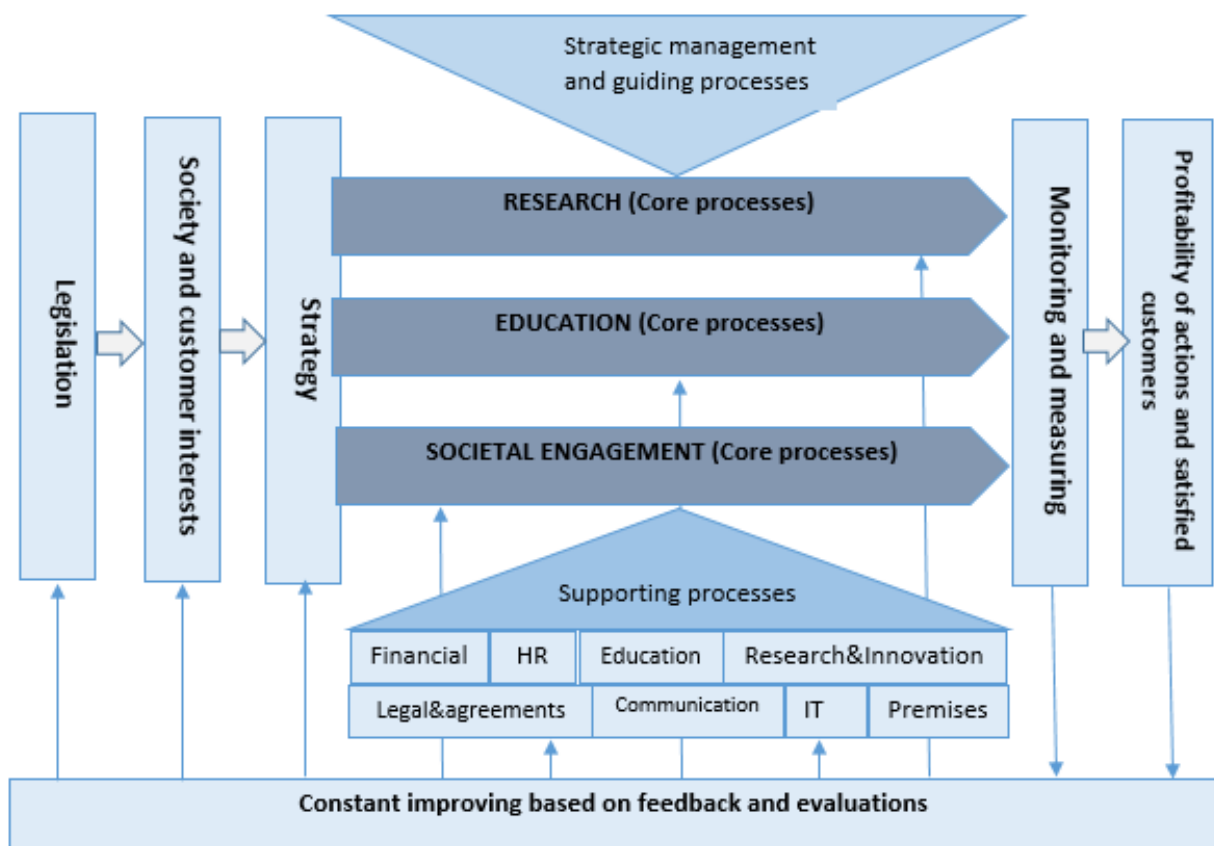
Figure 11. The process map of University of Oulu QMS. (Revised from QM Manual of University of Oulu)

The process maps describes well the different sources of strategic management; "the flow" from legislation to stakeholder interest, strategy and measurement through the organization, ending at pursued goals. Measuring the outcomes of actions is important for reaching the set goals. There is no legislation about what kind of measurement should be used, but the guidance of MCE including performance measuring is based on University Law. The QMS implies strongly to measuring actions as part of quality control. Also in the Management System the goals for personnel are defined as *"congruent with university strategy, measurable, trackable, reviewable, and clearly defined and to be specified if needed."*

The university has different internal monitoring systems currently in use. They are called SISU, TATU[5] and IMS (Internal Management System). In addition as part of

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[5] The Finnish names of internal systems are best taken as they are, not translated in English

implementing the new strategy, a new BI (Business Intelligence) tool has already been piloted. The purpose of the BI-system is to improve data collecting and usage inside the organization. From the existing systems TATU is used in strategic operational and financial planning. Every unit has to present their plan of activities and resources needed. The deans collect these plans and bring them forward to university management. SISU is used as internal and external reporting database. The process maps related to QMS are found in IMS. Currently there are process maps or descriptions for education, research, HR and communication activities.

The last part of the mimetic mechanisms was labeled as "Other", including expressions of profiling university and coming value discussion. Profiling is one result of the recent development in the university sector in Finland, each university has to "earn" their existence with their unique profile. Based on the data, University of Oulu wants to profile as both local and international actor. The locality shows in development and inputs on supporting innovation and entrepreneurial actions in the area. The knowledge of arctic surrounding profiles Oulu in the local or regional level as one of the most arctic situated universities, as well as on international level considering the co-operation with other universities and research centers within and throughout the vast arctic area.

Related to innovation and networking activity, developing the degree of commercialization was also mentioned in data: *"The goal is to exploit commercially such research results that produce financial benefit for both researcher, university and society."* The innovation and entrepreneurship promotion comes from the legislative third mission, but is regarded as normatively pressured action (goals for third mission), as it is university's response to political discussion and social obligations ("what we should do"). The concrete way of realizing the goals on the other hand are more of results from mimetic pressures, which show for instance as different kind of innovation platforms etc. that are used widely by other Higher Education Institutes as well.

In Oulu this action is partly coordinated by Oulu Innovation Alliance (OIA), which is a strategic agreement originally by University of Oulu, City of Oulu, Oulu University of Applied Sciences, VTT Technical Research Center of Finland and Technopolis Plc.

The OIA aims to focus the activities to agreed areas of innovation in order to better utilize the information and special skills in creating and enforcing entrepreneurship in the area. Other projects promoting societal engagement through innovation and entrepreneurship are Business Kitchen and TellUs innovation Arena, both currently operating in university premises.

Lastly, as part of developing the strategic management system, the University of Oulu is starting the value discussion and setting in 2018. Expressing values, vision and mission are all part of currently used strategic management practices both in private and public sector. Defining and especially expressing the values is therefore seen as mimetic pressure mechanism.
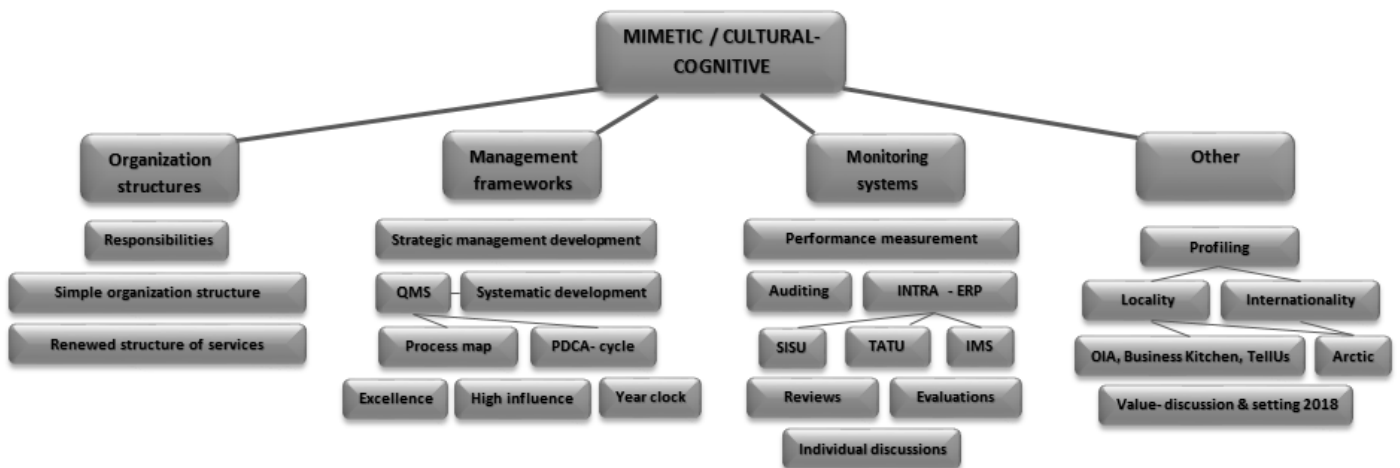
Figure 12. The themes of expressions related to mimetic/cultural-cognitive influence.

5.1.3. Normative

The last main category is **normative** pressure mechanisms. I found four types of expressions that are related to normative pressure influence and these formed the subcategories as follows; *academic profession, social obligations, recruiting* and *accreditation/certification*. Descriptive criteria in these subcategories was "binding expectations, "what we should do"" in difference with coercive "what we have to do". The normative pressure is strongly present in universities' organization culture, and it is somewhat difficult to make the separation with normative and regulative pressures.

Implications of academic profession guiding the university's strategic management was concluded from expressions like *"academic performance", "diverse expertise", "high expectations"* etc. in the Strategy. *Increasing the number and quality of peer reviewed and evaluated publications* is important for funding, but also for legitimacy of a university belonging to the network of appreciated Higher Education Institutions.

The universities are expected to contribute to the society by law, but the ways through which they do it is not accurately expressed in legislation. For example political discourse of what is expected from science can create normative pressures. In University of Oulu's strategy it is stated that *"We contribute in resolving global challenges on five focus research area"*. Another similar example is the promoting and development of innovations and entrepreneurship. These examples clearly arise from the third legislative mission of universities, but they are shaped by the local and national political discussion and can be seen as answers to "What universities should do".

Education and research are the two traditional missions of university by law. Similarly with the expressions related to third mission, education and research also face political and public expectations that are not directly set by law. For example *"securing the availability of formally qualified workforce and researchers"* and *"improving the professional skills through higher education"* are examples of not only legal missions but also social obligations faced by academia.

The *goals for societal engagement* was separated in the analysis as the law does not specify how universities are supposed to serve the society and how the societal engagement in their activities is carried out. However in the data there were several implications to this third mission, regarding especially *innovation, entrepreneurship* and *co-operation*. Co-operation was interpreted as networks in the analysis, as it consists of creating various types multi-level co-operational relationships, including for example relationships with work life representatives or other science communities.

Third subcategory of normative pressure mechanisms is **recruiting**. This is expressed through the HR-plan of university, aiming to guide the recruiting proactively. Based

on the Strategy, recruiting and retaining talented personnel is seen, like in many other organizations, essential for reaching the strategic goals and future success; *"Exigent recruiting criteria enforce the academic performance in our organization, which in turn promotes the retention of talented researchers to our university."* The recruiting processes are transparent and open, aiming to hire the best of candidates. In addition when recruiting academic personnel such as professors, international peer evaluation is used. The normative pressure from international science community of each discipline is hereby affecting to recruitment through the statements given by professionals.

The last normative subcategory is **accreditation/certification**. The University of Oulu has their own QMS, which is not officially certified like ISO or other QM-systems. It is however audited by FINECC, which implies a normative pressure mechanism to link the strategy in management through the QMS. In addition to QMS auditing, the education field and themes of University are regularly evaluated on national level. Also, *"The university encourages the units to acquire some external evaluation system, for example accreditation, if it is considered beneficial."* The Oulu Business School and the Faculty of Technology have followed the instructions and acquired accreditations.

Figure 13. The themes of expressions related to normative influence.

In general, the strategic management is still under development. The absence of mission and vision statements was curious, especially considering University has

adapted quality management as one framework. The question was raised during the interview with the top management person, and the answer was:

"That is a very good question. Now, it has been a conscious choice to not express them clearly, but should they be.. Personally I think they should."

In addition, the implementation process of the new strategy is still ongoing. One of the deans commented the strategy execution as follows:

"We aim to provide the facilities for high quality doctoral studies and to measure it so that the research is in line with university's strategy."

He also added that proper methods do not currently exist, but he thinks they are being developed all the time.

The final conclusion for strategic management in University of Oulu is found in the expression of the top manager interviewed:

"What we still need to develop is having common direction for activities, linking of strategic targets to everyday actions and measuring them properly. "

5.2. Performance measurement in University of Oulu

Important thing related to strategic management is performance measurement. In order to answer the second research question I looked at what methods and meters University of Oulu uses in performance measurement. My second research question was:

How does the internal performance measurement system of University of Oulu reflect the external pressures for institutional isomorphism?

The university has been given the autonomy to organize their management, but in practice the Ministry of Culture and Education sets targets for each university, and these targets guide the performance management on faculty, unit and even individual level. The performance management occurs as profit and performance targets, performance measurement and evaluations. In addition the salary system in university is tied to performance level. The autonomy is arguable, since the hold of MCE on universities' "production" is getting tighter. As consequence, the requirements for

cost-effectiveness, external auditing and rankings have become the new normal for universities. The simple way to guide universities actions is through legislation and especially funding criteria (cf. Kallio, 2014).

Based on the interview with member of top management, the performance is measured on different organizational levels, but there is not yet a unified or systematic measuring tool to measure performance in relation with strategy. Currently different supporting services, such as HR and financing have their own unit specific quality meters. On individual level the performance is managed through development discussions. *"We currently have strategic performance measurement for certain field-specific things, for instance HR and financial services. In addition there are unit specific quality measurement indicators in use. The individual level performance is measured through development discussions. In another words we have both different organization level and person specific measurement in use."*

The University agrees to MCE performance requirements, which are the basis to internal negotiations. These performance negotiations with faculties are done every year. The deans collect the performance goals, activity and resource planning form each unit director and presents them to management. The plans are made and stored in the internal system called TATU. The performance measurement and evaluations are done on many platforms. The measurement happens through internal and external auditing, management reviews, feedback systems and reporting. In addition to existing systems, university is about to launch a new Business Intelligence system. *"We have defined more things that can be measured. The information will be more specific, easily available and comparable between units and faculties. You can select the data sets in dashboard and for example compare how the number of students has developed between two, three or all the faculties."*

Gathering the data of performance measurement and indicators was not a straightforward task. It appears that there are a) organization level indicators b) unit level meters and indicators c) internal and external evaluations that are not specified. Finding a congruent, comprehensive list of all indicators in use was impossible under current system. On that account the analysis of indicators was limited in three main

documents and organizational level. Most indicators were found in the QM Manual, which currently provides the most extensive list of indicators in use.

The indicators were divided in two main categories; **1) target dimensions 2) prerequisite factors**. In the target dimensions are the indicators related to university's three basic missions, namely *research, education and societal engagement*. The basic missions are set by law, and therefore target dimensions are effected by coercive / regulative mechanisms. In the prerequisite factors are the indicators enabling the efficient and effective performance of staff and networks, infrastructure and economy. The prerequisite factors are not all set by law, but they are equally impacted by the mechanisms of isomorphism. Based on literature the financially government dependent organizations tend to emphasize the funder perspective in performance measurement (see Brignall & Modell), and therefore the indicators were compared to MCE funding criteria.

In the target dimension the quality and effectiveness of *education*, is been measured through following things:

- Degrees (amount)
- Fluency of studies
- Credits
- Student feedback
- Internationality (international students)

The quality and effectiveness of *research*, is being measured through following themes:

- Publications
- Competed research funding
- External evaluations
- Number of highly ranked research units

The quality and effectiveness of *societal impact*, is linked to performance level of first two mission. Therefore it is measured for the most part with the same things. The measurement is done through:

- Additional funding
- Graduates' employment
- Number of other than degree students

- Involvement (business projects etc.)
- Internationality

The prerequisite factors enable the quality and effectiveness of activities in the three main area. Such factors are found and measured in staff and networks:

- Quality of teaching and research personnel
- Success in rankings
- Internationality of staff

From economic point of view, the measured prerequisite factors relate to different forms of funding. The following table comprises the key performance measurement indicators used in University of Oulu and their equivalence with MCE funding criteria.

Indicator	Target dimension	Prerequisite factor	Funding criteria
EDUCATION			
Number of completed degrees (lower and higher in total)	x		x
Number of completed doctoral degrees	x		x
International student exchange (credits completed during exchange)	x		X
Bachelor feedback (answering rate, results and trends)	x		x
Percentage of students completed 55 credits	x		X
Individual study plans (percentage, lower and higher together)	x		
The grain size of study unit (minimum 5 credits, percentage of all credits)	x		
Other study feedback systems (continuous evaluation)	x		X
RESEARCH			
Finnish Academia funding	X		X
Tekes funding	X		X
Other competed funding	X		X
Portion of competed funding in total funding	X		X
Scientific publications in total	X		X
International referee publications	X		X
Number of Finnish Academia professors	X	X	(x)
Number of Finnish Academia researchers	X	X	(x)
Number of Finnish Academia research doctors	X	X	(x)
Number of highly ranked research units	X	X	(x)
External evaluations (e.g. RAE/REF)	X		
SOCIETAL IMPACT			
Number of business projects (M€)	x		
International competed research funding (1000€)			X
Credits completed in open university or separate studies	x		X
Resources of recruiting high-level international researchers		x	
Graduate's employment rate (if unit specific information is available)	x		X
Internationality (number of completed degrees by foreigners (all levels), number of foreign students(all levels))	x		X
Foreign teaching and research staff, fte		X	
Portion of additional funding in total funding	x		x

Table 4. The key performance measuring indicators used in University of Oulu and their equivalence with MCE funding criteria

On the individual level, the goals and measuring is done through development discussions every two years. Before the discussion, the individual fills out an online form, including following topics: "tasks and goals", "skills and development", "work environment and leadership" and "overview". The form is used as base for the discussion with supervisor. It is also possible that the discussion includes going over the yearly plan for worker's tasks. The evaluation of performance is also done in this discussion, and the level of performance can be suggested to be changed based on the discussion. The level of performance defines part of the salary, therefore the changes are significant, and the level must follow the salary instructions. The direction of change can be made to both ways, up or down.

5.3. Summary of findings

The first part of the results was based on the first research question: **How do the external pressures for institutional isomorphism materialize in the strategic management of the University of Oulu?**

Coercive	Mimetic / Cultural-cognitive	Normative
Managerial structure	Renewed organization structure	Academic performance
Basic missions	Developing strategic management	Peer reviews and evaluations
Core processes	Quality management system	Diverse expertise
Managerial responsibilities	Process map	Resolving global challenges
Measuring (quantities & quality)	Constant improving (PDCA-cycle)	Educating professionals
Planning (strategy and resources)	Excellence	Qualified researchers
Distribution of basic funding	Year clock	Workforce
Internationality	High influence	Professional skills
Effectiveness	Performance measurement systems	Goals for societal engagement
Productivity	Auditing	Innovation
Performance meters	INTRA	Entrepreneurship
Organization level goals	Reviews	HR-plan
Other laws	Evaluations	Talent retention
Regulations	Individual discussions	Recruiting process
	Profiling	Exigence
	Locality	Transparency
	Internationality	Auditing system
	OIA, Business Kitchen etc.	Accreditation / Certification
	Arctic agenda	QMS linked to strategy
	Value- discussion & setting	

Table 5. Features of pressure mechanisms for institutional isomorphism in strategic management of University of Oulu.

To answer this question, the most important findings are summarized in table 5. The institutional isomorphism is materialized in the case of University of Oulu through all three mechanisms; **coercive/regulative, mimetic / cultural-cognitive** and **normative**. The following table summarizes the features in strategic management by each mechanism.

The coercive features are based on University law, MCE funding criteria, MCE performance agreement and other laws or regulations. The mimetic features are related to organization structure, management frameworks, monitoring systems and other things, for example profiling. The normative features are rooted in academic profession, social obligations, recruiting and accreditation. It is worth noticing that the table does not present the exact quantities of features. The coercive mechanism appears to be the most effective, but the influence of two other mechanisms was also easily detected in the data.

The second part of the results dealt with performance measurement, pursuing to answer the second research question:

How does the internal performance measurement system of University of Oulu reflect the external pressures for institutional isomorphism?

The most important findings regarding the second question were:

1) Strong influence of coercive mechanism was found through relation with funding criteria. In the results this shows as almost complete copying of funding criteria to be used as performance measurement indicators in strategic management.

2) The performance measurement is strongly present in University of Oulu. The performance management occurs as profit and performance targets, performance measurement and evaluations. In addition the salary system in university is tied on performance level.

3) The performance measurement system needs further development. Currently there are a) organization level indicators b) unit level meters and indicators c) internal and external evaluations that are not specified.

4) Although the performance is measured from organizational to individual levels, there is not yet a unified or systematic measuring tool to measure performance in relation with strategy.

6   DISCUSSION AND SUGGESTIONS FOR FURTHER RESEARCH TOPICS

In this chapter I will draw together the two parts of this thesis, theoretical and empirical. First the research findings are discussed, the execution of thesis evaluated, and the reliability and validity of the study are presented. Finally further research possibilities are suggested.

6.1. Conclusion and discussion on research findings

The previous studies suggest that universities cross-nationally face the same challenges in managing and re-organizing their institutions, and that following their attempts to differentiate and positions themselves, they are becoming seemingly similar (e.g. Krücken & Torka 2007; Kosmützky & Krücken 2015). Institutional isomorphism is one way to explain how and which mechanisms cause this phenomenon to happen. The focus of the thesis was aimed at the strategy and strategic management of University of Oulu. As part of the strategic management, the performance measurement system was also studied.

The research questions guiding the thesis were:

1) How do the external pressures for institutional isomorphism materialize in the strategic management of the University of Oulu?

2) How does the internal performance measurement system of University of Oulu reflect the external pressures for institutional isomorphism?

Regarding the first question, the empirical findings of thesis indicate that different isomorphic pressure mechanisms, i.e. **coercive, mimetic** and **normative**, can be identified in the strategy and strategic management of University of Oulu. More accurately, the external pressures for institutional isomorphism are realized in different parts of strategic management so that evidence of all three mechanisms can be detected.

Based on the data, it seems like the most significant pressure mechanism at the moment is the coercive or regulative mechanism, which stipulates what the university has to do. This is an interpretation based on both the importance of features affected by coercive mechanism and the roots of coercive pressure mechanisms in this category. The coercive mechanism was seen to affect the very basic structures and actions of university management. In a way they are the foundation on which everything else is built on and reflected to. Primarily the coercive mechanism is rooted in University Law and MCE funding criteria. This of course should not be a surprising finding, as majority of people expect universities to obey the law. However, the two other pressure mechanisms were also easily detected in the data, therefore choosing coercive mechanism as the most important one should be done carefully and more research on subject should be made.

Continuing with the first research question, it appears the University of Oulu is following the national tradition, legislation and cultural way of organizing its actions. However, there are elements that can be seen as transnational for university development. For instance applying managerial frameworks from private sector to university context can be seen as global phenomenon (e.g. Krücken & Meier, 2005, Krücken & Torka, 2007). One reason for this could be the increasing emphasis on universities' strategies to raise their international competitiveness (e.g. Lindberg, 2012). The international competition between universities is, according to institutional isomorphism, likely to make universities rationalize their actions in the similar way despite their attempts to differentiate from each other for competitive advantage (DiMaggio & Powell, 1983).

The effect of institutional pressures on university organization and management has not been studied extensively in Finland. The data in this thesis revealed similar elements that have been found in German universities mission statements, which according to Krücken and Meier (2005) are typical for new age global universities. These elements were namely *organizational accountability, tendency to define organizational goals through mission statements, development of structure and methods to achieve goals* and *transformation in management system* (Krücken and Meier, 2005). The mission statement is not clearly formulated in University of Oulu,

but the above-mentioned elements can be found in the strategic statements of case university.

As it was already stated, the effect of coercive mechanism was found significant in the data. Similarities to important themes in other international findings were present in University of Oulu Strategy, which revolves around three main missions appointed to university as institution; education, research and social service. These elements have also been found in the strategies of top universities around the world, and for example Han&Zhung (2015) pointed out that *education, knowledge, research, service* and *internationalization* were the most frequent elements in mission statements of international top universities. Although in this thesis these were clearly identified as source of coercive mechanisms (University Law and MCE funding criteria), it can be asked if there is a normative or mimetic historical pressure mechanism behind the way universities are formed cross-nationally? It certainly does look like university as academic institution cannot be simplified as result of legislation.

The differentiating feature in case university compared to many others is the absence of clear mission, vision and value statements. It was confirmed by the top management of University of Oulu that the mission statement does not purely exist. It is embedded in the strategy, as is vision. The value defining process will start in 2018. Considering the current frameworks used in case university's management, including different quality management systems, the absence of clearly expressed mission and vision is curious. This is also a differentiating factor for University of Oulu, as the global trend seems to be that universities express their i.a. their organizational goals (Krücken & Meier, 2005), specificities (Kosmützky & Krücken, 2015) and their basic missions (Han&Zhung, 2015) through their mission statements.

The absence of mission, vision and values is also interesting from perspective of possible applicable strategic management frameworks. For instance increasingly applied strategy map and balanced scorecard type of methods highlight the importance of vision and mission as starting points for strategic management and expression of competitive advantage (ibid.) in public sector organizations (e.g. Kaplan & Norton, 2003). Even though at the moment the choice has been made to not form clear mission

and vision statements, based on the interview for this thesis, the top management is considering formulating them. It makes you think that, the fact that when someone is asking for the mission statement and the persons responsible for not expressing the mission clearly starts to ponder if they should after all express it, can be interpreted as institutional isomorphism in action.

What comes to the challenges of strategic management, they are very current topic in University of Oulu. The new strategy was launched in 2016, and the implementation process is still ongoing. A lot has been done, but the system is still discursive. The interviewed management person recognizes the problems in implementation of strategy to all organizational levels. Is it lack of efficient practices for linking all the pieces together or resiliency caused by institutional isomorphism (Scott, 2008)? The resiliency in this case would be caused by normative pressure mechanism which arise for example from academic professionalism. This type of behavior behind the challenges in managing university has been found in studies (e.g. Hüther & Krücken, 2014). Most likely it can be sum of at least these two things.

Concluding the discussion on first research question, the institutional isomorphic pressure mechanisms are present in the strategic management of University of Oulu on various levels and ways. The effect of coercive pressure on the most important strategic decisions and functions would indicate it is the most significant of the mechanisms, but further studies are needed to confirm that conclusion. Also, the effect of other mechanisms, mimetic and normative, is not as subtle and easily detected. It could be hidden in structures or occur in more rapid changes in the management systems. In general, the findings regarding the first research question are well in line with findings from previous studies on strategic management and the effect of institutional isomorphism in universities.

Regarding the second research question, the findings revealed strong effect of institutional isomorphism notably through the coercive mechanism. More specifically this effect was based on the MCE funding criteria, which is almost directly used as basis for performance measurement indicators. On the other hand, there exist many unspecified performance measurement meters and sub-systems on different

organizational levels. Therefore the conclusion is that measuring of strategic performance is at the moment relying on disjointed and scattered data collecting systems. In current state the Strategy is available for everyone, and everyone is expected to commit to strategic goals. Deans and head of units are responsible for communicating the strategy so that their subordinates can plan their work in line with strategy. Unfortunately the answering rate in questionnaire aimed at deans was too low to draw conclusions on how the deans communicate strategic goals or how they follow if the performance in their faculty is in line with strategic goals. After all deans' and unit heads' attitudes towards strategic goals is in key position – if they do not buy the goals, it is hard to imagine the rest of the staff would either. From this a conclusion can also be drawn, that the implementation of strategic goals happens mainly through normative and mimetic mechanisms. The coercive mechanism does exist, but it is not likely to bring pursued results in an organization like university is (cf. Brignall & Modell, 2000).

Based on findings concerning performance management and second research question, it can be stated that the dependency from government financing is affecting the performance management system strongly through coercive isomorphic mechanism. Given the state of current performance measurement system, a proper tool that would link the strategy to actions through clear cause-effect relationship is needed in order to enhance both the implementation of strategy and the performance measurement system. A multidimensional performance measurement method integrating the interest of key stakeholders, the strategic goals and monitoring the performance in relation with strategy could also assist in communicating of strategy in the organization (cf. Kaplan & Norton, 1996). For instance the Balanced Scorecard (BSC) has been applied in university context successfully (cf. e.g. Laitinen 2001; Määttä&Ojala 1999; Chen, Yang & Shiau 2006; Lindeqvist 2004). Also derivates from BSC have been used in university context, such as strategy maps (cf. Han & Zhung, 2015). In a wider context of public sector, different forms of BSC have been used, for example Balanced Success (cf. Toivanen 2001).

Despite the problematic of strategic performance management and measuring in universities, the new measuring culture has also had a positive effect on reactivity of

universities. With performance management the universities have abandoned their passive role and started to develop their (strategic) management more proactively. This can be seen as a proof that performance management contributes to taking the strategy from theory to practice. (Kallio, 2014.)

As already stated earlier, the findings in this thesis are in accordance with those of previous studies. There are not any remarkable contradictions with theoretical framework. There are nonetheless some limitations that need to be noticed, and those are presented in the following chapter along with evaluation of reliability and validity of study.

6.2. Limitations, reliability and validity of study

There are a few main limitations regarding the execution of this study. First, in order to draw conclusions on how the strategy is understood and how it is implemented in faculty, unit and individual levels, a cross-organizational study is needed. This thesis focused on top management level, but the answers from two of the deans revealed the strategic management on lower levels is not necessarily experienced the same way in every faculty. Further study on different and whole organization level is needed. Similarly, because the analysis was limited mostly on three managerial documents the analysis only reveals how the strategy is supposed to be or planned to be executed. In another words this the "official version" of strategic management, but how is it actually practiced and realized is another question.

Second, being a case study the results are not generalizable to other university organizations or situations. Even a comparison on national level requires more research. In this context, the empirical data could be regarded more as factor materializing the theory (cf. Suorsa 2011, 218) and the analysis results can be seen as s starting point for further research.

What comes to reliability and validity of study, I believe that by using multiple sources for data, a more reliable execution of the research is achieved. This also increases the validity and reliability of the research. In qualitative research the reliability and

validity can be evaluated through certain criteria. Guba & Lincoln (1985) name these as credibility, transferability, dependability, confirmability and authenticity. They also mention triangulation as an improver of reliability. (Guba & Lincoln, 1985, p. 301-320.) I will evaluate the reliability according to each of these criteria.

The credibility in qualitative research should be built using different strategies (e.g. Mertens, 2005, 254). Creditability means how plausible and reliable the description of research results is. Criteria for credible description are the temporal commitment of researcher, the presuppositions a researcher has towards research subject and maintaining objectivity during research. The creditability is important in causality studies, but in descriptive and explanatory case studies the question of creditability is more irrelevant. (ibid., 256; Lincoln & Guba, 1985, 301-304.) In this thesis the timeframe used in collecting and analyzing data could have been longer to obtain more in-depth information. On the other hand concentrating mostly on three documents in analysis helped marking out the data. Also the study was kept within reasonable scope for master's thesis. Combining analysis methods was done in order to not delimit the findings beforehand.

Transferability means same as generalizability in quantitative research. In qualitative research this can be done for instance by describing the data and finding as precisely as possible. (Guba & Lincoln, 1985.) Generalizability in qualitative research is not however pursued, and therefore in this study I simply state from which part the results can or cannot be transferred to other assumptions of other universities' strategic management practices. Even though there are signs of wider institutional mechanisms affecting the strategy and management in University of Oulu, the possibility of other influential factors cannot be excluded based on this study.

Relating to other factors, the dependability in research finding can be evaluated. For instance in strategy it is possible that individual experiences, preferences and interests have affected in the expression of strategically important issues. The management can simply rely on information gained long time ago in formal training, or professional experience gained in previous job position. Separating personal experiences from for

example normative or mimetic/cultural/cognitive pressures is challenging and requires more in-depth personal interviews.

The most important evaluative point for this thesis proved to be the confirmability. This means how the findings can be regarded in light of earlier research results. Even though the earlier studies did effect on the theoretical framework and choice of analysis methods, the research objectivity was maintained and any possible findings were not excluded beforehand. The findings were in line with those of previous studies, thereby confirming and supporting the theoretical framework of institutional isomorphism. However, in-depth interviews on different level of organization would have increased the reliability of interpretation of results. On the other hand it also would have easily expanded and complicated the study pass master's thesis level.

Triangulation (Denzin, 1998, 512; Lincoln & Guba 1985, 307), which means combining different material sources, methods and theories, was used in order to gain more reliable and valid research results. In this thesis, I strived to choose and explain different theories that are relevant for the subject in sufficient extent. The data was collected through different sources and methods. Even though the main data was limited to three managerial documents, they were completed with and reflected to additional data, which helped to create more in-depth understanding. Especially the face-to face interview with the person responsible for the documents that were used as main source of data in the analysis can be considered increasing so-called face-validity (Tuomi & Sarajärvi, 2002, 139).

6.3. Contribution to management studies and suggestions on further research

This study contributes to management studies by affirming the findings of several previous studies. In Finland the management of universities have been studied very little since the massive changes have occurred. In addition, even less research has been done about what are the external pressures affecting the management of university. For example studies using academic capitalism as explaining framework are not able to describe the different sources for change and organizational structures as extensively as institutional theory does. This thesis suggests that organizations like

universities, which have a certain institutional and traditional background could be better analyzed through the framework of institutional isomorphism.

In regards with important part of strategic management, performance measurement, this thesis shows there is a need to develop the performance management system in the case university. It also suggests that organization like university can tend to put a lot of emphasis on financial criteria in performance management, when it should be considering other important stakeholders as well (cf. Kaplan & Norton, 1996; Brignall & Modell, 2000). Especially when the problem of linking the strategy to every day actions on every organizational level is recognized in the case university, this study can assess finding the critical points and suggest applicable frameworks for further developing the strategic and performance management.

What comes to further studying the research theme of this thesis, a few suggestions can be made. First, the change in academia has been global phenomenon, and universities clearly have been affected by institutional pressures. It would thus be interesting to study for instance the changes in University Law within certain period of time through institutional isomorphism. This would be interesting and possibly revealing also the possible effect of other isomorphic mechanism on coercive pressures. This would suggest that the institutional isomorphism could accumulate and lead to some type of stratification over time.

Second, the effect on universities on different levels could be studied. A cross-organizational study that includes all the levels would probably give better idea of how the strategy is implemented in practice throughout the organization.

Third, it would be interesting to do a comparative study through the same framework on Finnish universities strategies, mission or other elements like that.

Fourth, regarding performance management, it would be beneficial to study how those universities who have adapted multidimensional performance measurement tools have experienced them.

Fifth, as Ranki (2016) recently suggested, more research results should be used in finding the proper strategic management methods for Finnish universities. For this reason both micro and macro levels research on the topic (strategic and performance management in universities) is still needed.

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