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The Chain of Control in Results-Based Management in Finnish Universities

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Synopsis

This chapter addresses the results-based management (RBM) policies implemented in Finnish universities as a part of the reform-embracing, neo-liberal managerial idea of a ‘corporate university’. Analysing the whole chain of control, from the government level (intentions of control, planning) to the university level (execution of performance management) before finally addressing the personnel level (perceptions of control), the chapter acknowledges the conflicting views and logics of different stakeholders and the potential for confrontation among those stakeholders concerning the different goals and ideologies reflected by performance measurement systems. Building on an extensive review of the literature, the key findings of the chapter indicate that the chain of control does not function as planned, and that the perceptions and intentions of control differ dramatically.

Background

Higher education has been subject to substantial national reforms as new forms of performance measurement (PM), such as university and journal rankings and other tools of results-based management, are implemented in universities around the world. Contemporary research, however, suggests that in many cases, instead of great success, such performance management systems have mainly disrupted academic life (see Chandler, Barry, and Clark 2002; Czarniawska and Genell 2002; Engwall 2007; Kallio, Kallio, Tienari, and Hyvönen 2016; Knights and Clarke 2014; Krejsler 2006; Parker and Jary 1995; Raffnsøe-Møller 2011;

Sousa, De Nijs, and Hendriks 2010; ter Bogt and Scapens 2012; Willmott 1995; Ylijoki 2005, Cadez et al. 2017). While control and performance measurements are already generally difficult to apply in knowledge-oriented work (e.g. Kärreman, Sveningsson, and Alvesson 2003), universities are a special case even among knowledge-intensive organizations. Education, and particularly the quality of scientific research, is extremely difficult to control, measure, and evaluate (Kallio, Kallio, and Grossi 2017). As suggested by Black et al. (2017), journal rankings, for example, should not be used to assess individuals or small groups, nor to assess quality across disciplines.

It has been suggested that academia has become market oriented and marketized (Czarniawska and Genell 2002; see also Suomi et al. 2014) in the spirit of neo-liberalism and, just like other organisations, universities can be seen as service providers subject to competition (Engwall 2007). This is connected tightly to the specific needs of business and industry (Henkel 2005). Further, academia is increasingly steered by strategic goals (Sousa et al. 2010) and monitored using a variety of sophisticated metrics (Marginson 2008), leading to a quantification game (Kallio et al. 2017). This development has been labelled managerialism, due to its tendency to emphasise the role of management, output, control, and measurement in efficiently allocating resources and ensuring, through measurement and control systems, that the goals of the organisation are being pursued effectively (Chandler et al. 2002; Pollitt 1993). Marketisation and managerialism lead to what can be called a corporate university, including corporate management techniques, branding, and the promotion of research revenue by administrators often operating like corporate managers (Tuchman 2009). Marketisation and managerialism are also promoted at the national level in the spirit of ‘strategic’ state control by claiming that universities are actually gaining more autonomy from the state while

defining their own strategies and enlarging their funding sources (Aarrevaara, Dobson, and Elander 2009; Kallio, Kallio, and Blomberg 2020). However, it has also been suggested that state-level administrative steering is strong with the RBM model and, despite the official discussion embracing universities' independence and autonomy, what has happened in practice differs from what was expected (Kallio and Kallio 2014; Kallio et al. 2017).

Tessier and Otley (2012) identified the managerial and employee levels of analysis by separating the managerial intentions from employees' perceptions of these controls and suggested the need to study the latter in addition to the former. Management intentions relate to what managers and other upper echelons are trying to achieve via management control systems, whereas employee perceptions emphasise how the controlled units perceive the exercised control. However, in the higher education context, there are several levels that create the formal chain of control: parliament, the Ministry of Education, university boards, rectors and deans, heads of units, and lower-level employees' immediate superiors. Moreover, external stakeholders, such as funds and foundations, business partners, accreditation bodies, and ranking agencies, create informal controls. The actors and stakeholders together create multiple pressures and various information and control asymmetries, which are open to conflicts and problems.

In this chapter, we analyse the whole chain of control operating in Finnish universities, from the government level (intentions of control, planning) to the university level (execution), before addressing the personnel level (perceptions of control) and acknowledging the conflicting views and logics of different stakeholders. Moreover, we illuminate the potential

for confrontation among the different goals and ideologies embedded in the RBM model, as reflected and materialised by the designed performance measurement systems. This chapter describes the control chain by pointing out its achievements, challenges, and pitfalls and concludes by making some proposals for future research.

Methodologically, the chapter builds on a critical and reflective review of the literature (Smith 2015) by analysing documentary materials, archival data, and studies focused on the varying aspects of outcome-based management in Finnish higher education, aiming to build a holistic picture of this chain based on the results of the research in the field.

The Finnish Higher Education System

The Finnish education system is characterised by free education available at various levels. As a Nordic country, the nation underlines the availability of high levels of education available to all citizens free of charge. Finnish higher education typically includes two types of organisations: universities and universities of applied science. The universities conduct scientific research and provide graduate and postgraduate education. Most of the universities of applied sciences were founded in the 1990s as a political response to an agenda to educate professionals in direct response to labour market needs. They typically conduct research and development activities that support education and promote regional development in particular. In this chapter, we focus on universities, since they have been significantly influenced by the RBM doctrine in most of the government changes.

Historically, from its beginning in 1640 until the World Wars, higher education in Finland was regarded as an elite system with a low number of students. After the Second World War, the system was slowly transformed into a mass higher education system with a strong political welfare state agenda, promoting equal opportunities and regional development plans (Välilmaa 2012). However, in the case of universities, the agenda shifted in 2010 back to a sense of ‘new elitism’, when the new University Act (558/2009) took effect. Several university mergers occurred, with the aim of making some of the Finnish universities ‘world class’ and following influences from the Organisation for Economic Co-operation and Development (OECD). This means that Finnish universities’ funding schemes have been heavily influenced by OECD recommendations in promoting ideas of what good government is and what constitutes good university management (Aarrevaara et al. 2009). As a consequence, the role of universities has become increasingly instrumental as the driver of ‘national innovation policies’ (Kristensen, Nørreklit, and Raffinsøe-Møller 2011). This also entailed the increasing marketisation of the Finnish higher education field and meant intensifying competition not only to attract the ‘best’ students and scholars, but also funding from the market to deliver high-quality services (Engwall 2007).

Apart from the National Defence University, which is part of the Finnish Defence Forces, Finland exemplifies a centralised model where all universities operate under the auspices of the Finnish Ministry of Education and Culture (MEC). The MEC coordinates the activities of higher education institutions, science agencies, and research institutes, and acts as the main financing source for all 13 universities in the country. Two of these universities are organised as foundations, while the rest are corporations operating under public law. The total number of university students in 2019 in Finland was about 154,000, and the universities award

approximately 31,000 degrees annually. All Finnish universities are publicly owned, and students are selected based on graduate certificates or an exam. Tuition is free of charge for citizens of European Union member states and those belonging to the European Economic Area.

In Finland, according to the University Act (558/2009, para. 2), universities ‘promote independent academic research as well as academic and artistic education, to provide research-based higher education and to educate students to serve their country and humanity at large’. Further, universities ‘have autonomy, through which they safeguard scientific, artistic and higher education freedom. The autonomy entails the right of universities to make their own decisions in matters related to their internal administration’ (University Act 558/2009, para. 3).

In 1995, the Ministry of Education (now known as the Ministry of Education and Culture, or MEC) adopted a new approach to managing universities. This approach is known as ‘results-based management’ (RBM), echoing Drucker’s (1954) idea of ‘management by objectives’. The Ministry of Finance introduced this model to the Finnish public sector in the late 1980s. It became institutionalised and gained the status of an essential managerial doctrine during the economic recession of the early 1990s. Since 1997, the RBM model has been used in annual budgetary negotiations between the MEC and higher education institutions (Kallio et al. 2016; Kuoppala 2005; Salminen 2003).

Since the 1990s, the Finnish higher education sector has been subject to several significant reforms regarding its structure, funding, and operations. The country's first independent University Act came into force in 1997 and was revised considerably in 2010. The funding scheme has been renewed several times, leading to changes in the applied performance indicators. Detailed objectives were set for universities, and funding was allocated against measurable output data (see Kallio et al. 2017). In addition, the university employees' pay scheme was renewed so that, instead of the previous system of fixed salaries based on an employee's position level and years of service, the new system contains a performance element. To sum up, since 1995, the RBM ideology has had wide implications for the Finnish university system. Since the implementation of the RBM model, in the spirit of managerialism, Finnish universities have gone through consecutive and rapid changes, both in their governance and in funding schemes. Figure 1 illustrates these changes.

<INSERT FIGURE 1 HERE>

The universities' funding scheme, and hence the PM output targets, have been reformed many times since RBM was introduced. The aim was to bring about better performance management and accountability, which would be achieved via government reforms of the annual account reporting system and the development of the government's accounting functions and management practices. With these in mind, the state budget law was reformed in 2004, with a new emphasis on accountability and ex-post control (see Figure 1).

In 2005, a clear distinction was introduced between strategic outcomes and operational performance targets for universities. These included both social impacts and outcome targets (policy effectiveness). According to the policy documents, the targets, when set in an ideal way, are concrete and operational so that they cover as large a part of the operations as possible, and so they can be set primarily to serve as indicators (i.e. numerically), and only secondarily as verbal targets (Finnish Ministry of Finance 2005).

Results-based Management and the Funding Scheme Applied for Steering Universities

The RBM approach adopted by the Finnish government in the 1990s relies on two basic ideas. The first idea was to implement organisational goals by motivating employees, providing them with financial incentives, and by measuring individual-level performance. The point was not only to encourage employees to work effectively and in accordance with the organisation's strategy, but also to increase their work motivation, since an individual's performance would also affect his or her pay (Kallio and Kallio 2014).

The second basic idea was to perceive the organisation via its production process in terms of measurable outcomes and outputs. Identifying each 'product' and 'production process' made it possible to choose adequate performance indicators.

Since the MEC has the authority to regulate the number of universities, as well as their structure and the names of degrees, funding for Finnish universities is dependent on the state. The funding scheme governed by the MEC is designed to incentivize universities to operate in such a way that the number of degrees issued is maximized and that students are pushed to

graduate faster (comprising the number of students who have gained at least 55 credits per academic year). In fact, the allocation of basic funding in Finland can be considered the most performance-driven among EU countries (Kallunki et al. 2019).

<INSERT FIGURE 2 HERE>

Finnish universities' basic funding is tied to objectives divided into three categories: i) objectives of education and science policy; ii) the quality, effectiveness, and internationalisation of education; and iii) the quality, effectiveness, and internationalisation of research. Under these categories, funding associated with different indicators is further divided according to the number of degrees granted, the number of students completing 55 study credits per year, student feedback, the percentage of graduates employed, the number of publicationsⁱ, the amount of external funding available, and the number of degrees earned by foreigners and foreign research and teaching staff (see Figure 2 for more details, and Appendix 1).

The Chain of Control in Finnish Higher Education

Results-based Management as a Process

The control chain in the Finnish universities' RBM system begins at the government level and extends to the individual level, university employees. The MEC sets out all research and education policy outlines. In addition to government-level policy outlines and legislation,

universities are guided by regular budgetary negotiations that take place between each university and the MEC. These negotiations form an integral part of the RBM system. During the negotiations, each university works to find a point of agreement with the MEC's individual university-level goals and the needed resources to reach these goals. From there, universities direct the goals and the resources further to their individual departments or schools. In the spirit of RBM, the execution of the steering reaches all the way to the individual university employee level, as the actions and performance of each employee are monitored and reported rigorously via a performance measurement and incentives system, the pay scheme, and quality assurance policies (Kallio and Kallio 2014). Each individual's performance, in turn, affects his or her department's performance targets and so on and so forth up the chain, thus forming a reporting and feedback loop (see Figure 3).

<INSERT FIGURE 3 HERE>

Next, we illustrate in greater detail how the chain of control, from the government level (intentions of control) to the university level (execution of performance management) and on to the personnel level (perceptions of control) currently functions in Finnish universities. We acknowledge the conflicting views and logics of different stakeholders and the potential for conflict among those stakeholders concerning the different goals and ideologies reflected by the PM system.

Government Level – Strategic Goals

Under the RBM doctrine, universities in Finland have replaced their previous ex-ante planning model with a control mechanism based on outcomes and ex-post monitoring (Kallio et al. 2017). Central to the RBM system are the regular budgetary negotiations taking place between each university and the MEC. These negotiations determine the mission, profile, and focus of each university, in addition to the specified science and education policy goals and development actions detailed for them. The objectives set out for individual universities, as well as their monitoring and reporting requirements, enable the MEC to control the amount and quality of the universities' 'products' (teaching, degrees, research, and publications) tightly. At the same time, external evaluations, rankings, and excellence frameworks, coupled with tightened requirements for universities' financial and cost accounting, have made accountability and transparency the central guiding principles in steering universities. (Kallio 2014).

Kallio et al. (2020) studied Finnish universities to understand how the macro-level changes in university legislation and the funding scheme have resulted in changes in the universities' organisations. They found that, in spite of the objective of the University Act 2010 to provide the universities greater autonomy (Antonowicz and Jongbloed 2015; de Boer, Enders, and Leisyte 2007), their internal administrations were explicitly affected by the PM principles set out by the MEC. Consequently, as universities rely on public funding by actively integrating the ministry's PM principles into their internal administration efforts, the universities ended up implementing the MEC's steering tools in practice at the micro level (Kallio et al. 2017; Kallio et al. 2020; Owl Group 2016). Kallio et al. (2020) concluded that the legislative and funding scheme reforms have changed Finnish universities' administrative structures, planning and control systems, coordination mechanisms, and power allocation, even though

the funding scheme and legislative reforms were only supposed to affect the relationship between the Ministry and the universities. Accordingly, the PM system was originally designed as a resource allocation method from the MEC to individual universities, but has become adapted as a core element of individual universities' internal performance management programmes.

University Level – Performance Measurements and Indicators

After conclusion of the budgetary negotiations between each university and the MEC, where the mission, profile, and focus, alongside the specified science and education policy goals and development actions of each university, are set, the universities' outcomes are followed by detailed performance criteria (see Figure 2 and Appendix 1). From there on, universities direct the resources further to the individual departments, expecting them to reach the targets set out for them.

With the introduction of the RBM model, economic efficiency and productivity became universities' guiding principles, and the systematic monitoring of their operations and outputs became central to university management (Kallio et al. 2020; Owl Group 2016). At the same time, each university administration's role was expanded to include defining work standards and targets and monitoring the results of all operations and their departments (Kallio et al. 2020). The role of administration expanded so that the universities could apply detailed PM practices at the micro level (Kallio and Kallio 2014; Kallio et al. 2016; Kallio et al. 2017; ter

Bogt and Scapens 2012), measuring university departments' and employees' yearly output in terms of study credits, degrees, external funding, and the number of publications produced.

The fact that the PM criteria are set out in quantitative terms (Finnish Ministry of Finance 2005) means that the universities in Finland all compete with each other to succeed in each prevailing PM indicator. Unlike Sweden, for instance, where the budget funds for universities have been increasing, recent political decisions in Finland have ensured that universities' funding is not increasing in recent years—quite the opposite. Therefore, the universities are in a zero-sum game to attract the best possible percentage of the declining state budget funds. To succeed in this game, universities must implement the PM criteria set by the MEC as the internal guiding principles of their operations.

Kallio et al. (2017) surveyed the performance measurements for Finnish universities from the perspective of individual scholars. They found that a clear majority (62%) of the respondents pleaded for 'a balanced evaluation'. By this, they meant a balance between qualitative and quantitative aspects (such as considering both the number and the quality of faculty publications, as well as the quality of the teaching, in addition to the number of graduates) and among different tasks (research, teaching, and administrative tasks). As a number of respondents pointed out, the current evaluation system one-sidedly relies on a quantitative measure of journal publications. This means that the amount of research output determines a university's success in its evaluation. While the journal rankings are embedded in the PM system, the scholars nevertheless feel that neither quality of work nor success in other tasks is adequately evaluated. Moreover, the suitability of the current indicators, reflecting the

traditions in natural sciences, has been questioned by many faculty members with backgrounds in varying fields of science.

Not surprisingly, many respondents were concerned about the current state of PM in Finnish universities. Particularly, they were worried about three main points: the quantification of quality; the time scope of PM (focusing on short-term evaluations); and ‘free-riding’—some faculty members taking advantage of the system at the expense of their colleagues. This echoes the fear that the universities’ PM has shifted from an interpretative to a mechanical measuring system where PM indicators override the actual outcomes they were originally designed to portray. This raises the concern that the qualitative strategic targets of the science policy are being replaced by quantitative mechanical ones in universities’ everyday reality (Kallio et al. 2017).

Personnel Level – Individual-level Performance Measurements

In the spirit of RBM, the execution of the steering reaches the individual university employee level, and the actions and performance of each employee are monitored and reported via a performance measurement and incentives system, a pay scheme, and a quality assurance programme (Kallio and Kallio 2014). As the fundamental idea in the RBM model is to motivate employees to work in accordance with the organisational strategy, Kallio and Kallio (2014) studied the effects of RBM from the perspective of the work motivation of university employees in research- and teaching-oriented tasks. The study was based on extensive survey data.

According to Kallio and Kallio's (2014) results, performance measurement system in Finnish universities are based on quantitative, rather than qualitative, measures, and the (then) current RBM system had a negative effect on work motivation among experts. Their survey found that the effects of quantitative and qualitative evaluations differed significantly. However, more than 40% of the respondents indicated that quantitative evaluations affect their work motivation, whereas fewer than 17% reported this effect regarding qualitative evaluations. The motivation to engage in creative, knowledge-intensive work, such as the work conducted in universities, is typically intrinsic. It thus seems clear that RBM is in conflict with these employees' intrinsic motivation and the very essence of the expert work conducted in universities.

A study by Kivistö, Pekkola, and Lyytinen (2017) explored the influence of performance management on perceived teaching and research performance among senior academics at Finnish universities. They found that, although the surveyed academics thought the idea of PM was reasonable, the attitude did not correlate with perceived high performance in either teaching or research. Moreover, they suggest that perceived high performance and motivation among academics still relates primarily to acknowledgement from the academic community and academic achievement, rather than to performance measurements and financial incentives. Consequently, the motivation for high performance among academics remains more closely related to intrinsic motivation than any other system of measurement and financial incentives.

In another study, Kallio et al. (2016) explored how the performance management system is understood by academics across universities and departments in Finland at a time when new management principles and practices were being forcefully introduced. The study highlighted how the proliferation of performance management can be seen as a catalyst for changing the very ethos of being an academic, and that of academic work. Their findings highlighted that the work done in universities had become a site of struggle between scholars and other interest groups ‘for control of matters previously taken for granted as academic prerogative’ (Henkel 2005, 164). PM did not remove subjectivity in these measurements, but instead relocated it to a greater distance (ter Bogt and Scapens 2012). Kallio et al. (2016) also observed the paradoxical increase of ‘bureaucracy’ taking place alongside PM, which led to meaningless extra work and the sub-optimal use of resources.

Discussion and practical implications

We studied results-based management in a Finnish university context. Our key findings indicate that the quantified and managerial ‘corporate university’ of today involves risks related to employees’ motivation and well-being, but is even more related to the mechanical chain of control. The controls at several levels highlight quantitative outputs, thus leaving individuals relatively alone with consideration of quality and research ethics. It also seems that the mechanical chain of control is not functioning as expected, and that there is an imminent danger resulting in the quantification game (Kallio et al. 2017), such as reductions in quality, the manipulation of performance metrics, and highlighting the individual instead of accumulating knowledge (Kallio et al. 2016).

The control mechanisms' attachment to the national objectives for higher education policy seems to be loose, focusing almost exclusively on the number of degrees awarded, competitive funding received, and faculty research outputⁱⁱ 2. However, the incentives are not equal among disciplines, or even among universities and departments, thus allowing room for gaming. The national or managerial level intentions of control (Tessier and Otley 2012) represent functional, rational, and instrumental managerial ideas for universities attempting to make them controllable, efficient, and market-driven. However, the managerial intentions are more nuanced when looking at universities and departments in greater detail (Kallio and Kallio 2014; Kallio et al. 2016). Further, the intentions are affected by several stakeholders, leaving individual managers and employees (i.e. scholars) between a rock and a hard place. Accordingly, they have to make sense of—and cope with—the multiple pressures to produce both quality and quantity, a task sometimes in conflict with research ethics and ethos (see Kallio et al. 2016, 2017).

Conclusions

This chapter noted that building the 'corporate university', in which incentives are mostly quantitative, involves risks related to employees' motivation, well-being, and control, in addition to the ability to innovate, which is fundamental to freedom of science. We argue that the mechanical controls highlighting quantitative outputs often leave individuals on their own to consider quality and research ethics, and that the output control does not function as expected (see also Kallio et al. 2017). Instead, at the national level we see opportunities for manipulation of performance metrics, and the highlighting of individual career success at the expense of accumulating knowledge (Kallio et al. 2016). As a result, we conclude that the

perceptions of control open up an almost totally opposing view to the intentions (see Tessier and Otley 2012), where local employees struggle with challenges and pitfalls, such as:

- **Motivation** (related to the reason for being of scholars and universities)
- **Fairness/ethics** (e.g. playing the quantification game: increasing output, and not impact, regardless what is ethical from a personal or wider perspective)
- **Impact** assessments made using poor or myopic measures
- **Incentives** that are often perceived negatively, at least regarding personal level incentives and performance measures
- **Administration**'s increased role and the birth of the administrative scholar (perhaps resembling CEOs, CFOs, managers, controllers, and accountants)
- **Multiple conflicts of interest**, goals, intentions, and perceptions (of the nations' government ministries, universities, departments and individuals)
- **Instrumental view** vs. institutional or ethos views on universities and university work and related discrepancies in the chain of control
- **Coping** with the changing logics and ethos of university work, personal change perceptions, anxiety, and stress.

As managerial and policy implications, we suggest that universities use several performance metrics and that managers communicate targets openly so that at least the 'real' targets of the system and their implications on ideological traditions are known. This is expected to increase understanding of the expected developments and to reduce uncertainty and stress as an investment in long-term, quality education and research.

Finally, we offer avenues for further research: New financial models for universities may involve some aspects of rewarding employees for 'good citizenship', such as quality awards,

employee satisfaction, output in the top journals, and consistent long-term operations, collegiality, support for student learning and engagement, involvement with community, and professional activities. Further longitudinal research is called for because the institutionalisation of these new practices in universities may take time. In addition, an analysis of their longer-term impact is called for.

Appendix 1

National University Funding Scheme

The Finnish Ministry of Education and Culture (MEC) allocates roughly 1.68 billion euros annually to basic budget funding for Finnish universities. With other costs added to this, the divided total amount is 1.87 billion euros (in the 2020 budget proposal). This equates to about 360 euros per capita (i.e. about 1 euro per day, per capita).

Further, there are some additional competitive external funding sources available for universities, such as through the Academy of Finland (about €11 million budgeted in the 2020 proposal) and various foundations.

According to the MEC (based on the 2017 funding scheme), 39% of the funds are distributed based on education goals, 33% are based on research goals, and 28% are distributed based on science and education policy goals. More specifically, the proportions of funding for education goals (39% of the total) are:

- Bachelor's degrees: 6%
- Master's degrees: 13%
- Students completing more than 55 ECTS each year: 10%
- Student feedback: 3%
- Open university ECTS credits: 2%
- Student exchanges: 2%
- Master's degrees earned by foreign students: 1%

The funding for research (33%) is divided as follows:

- Doctoral degrees: 9%
- Peer-reviewed publications: 13%. In the funding scheme, publications are ranked by their publication channels. The Finnish Publication Forum ranking has three categories. In the funding scheme, the Level 3 articles get the weight factor of '4', Level 2 articles factor '3', Level 1 articles factor '1', and non-ranked articles, or the Level 0, get a weight of '0.1'.
- Competitive research funding: 9% (out of which 3% is international funding)
- Foreign teaching and research staff: 2%

The funding for science and education policy (28%) is divided among:

- Strategy-based funding: 12%
- Field-level allocations: 9%
- National tasks: 7% (e.g. the National Library)

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ⁱ In measuring research output, some attempts have been made to grade and compare output quantity and quality (e.g. Sihvonen and Vähämaa 2015), not just as they relate to the number of scientific publications. In Finland, the Finnish Publication Forum is a classification of publication channels created by the Finnish scientific community for the purposes of quality assessment of academic research. The ranking is a national exercise, so it does not directly reflect, for example, the Academic Journal Guide (AJG). The Finnish Publication Forum ranking is also used in allocating university funding (MEC 2017; see Appendix A).

ⁱⁱ After the introduction of the metrics, the research output quantity increased slightly in the Nordic countries, as the number of publications, and consequently citations, has grown (see Rautiainen and Tohmo 2018; Sihvonen and Vähämaa 2015).