

**A STUDY  
ON SERVICE PERFORMANCE REPORTING  
OF NEW ZEALAND UNIVERSITIES**

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## **ABSTRACT**

Since the late 1980s, New Public Management (NPM) has been welcomed globally by governments which introduced private sector accounting techniques into the public sector, with the purpose of improving the effectiveness, efficiency and accountability of non-profit organisations. Consequently, statement of service performance reports (SSP) has become part of annual reporting of public organisations. New Zealand universities have embraced NPM since 1989 and submitting SSPs has been legally stipulated since 2002 by the Local Government Act 2002. Since then, there have been numerous pieces of research that have been performed to investigate performance measurement for Universities; however, very little research has been carried out to investigate how service performance reporting (SPR) of Universities has been influenced by external factors. So this research is motivated to investigate how the SPR has changed and identify the factors that influence the SPR. Content analysis method has been employed to address the research questions. The SSPs of all eight public universities in New Zealand over the last two decades will be selected for this study.

There are three main findings of this research. First, there is an arrhythmic change in respect of the size and the number of key performance indicators (KPIs) of SPR, as there are no standards for universities' SPR in NZ. Second, the selection of KPIs has experienced dramatic change since the year 2003, which is the result of the combination of the changes of government policies and non-standardisation of SPR. Third, excluding the impact of non-standardisation of SPR, the items listed in the SSP have changed slightly, as they are determined by government strategies. This research has identified the issues currently existing for university SPR, such as the inconsistency and non-standardisation of SPR, and the lack of KPIs for assessing efficiency and effectiveness of universities. This research is underpinned by New Institutional Sociology theory (NIS), from NIS perspectives; these changes have been caused by coercive factors and normative factors, which also reflects that the universities have changed their strategies to conform to the requirements of government and professional bodies, with the purpose of getting funding for their survival.

Finally, this research has several contributions for SPR literature and practice. This research has identified how the internal strategies of universities have been influenced and shaped by government policies through investigating the changes of SPR of universities; this addresses an essential gap in SPR literature. In practice, the

examination of the external factors for SPR and the identification of current issues of SPR can actually cast some light for tertiary education organisations (TEOs) in preparing SSP. Indeed, the study provides insights on how the government policies influence the internal practice of NZ universities. However, this study also indicates that the SSP of NZ universities have only tried to meet the legislative requirements and get funding for their survival, instead of providing the information required by all kinds of stakeholders and incentivising the efficiency and effectiveness of the organisation.

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## **ATTESTATION OF AUTHORSHIP**

I hereby declare that this dissertation entitled “A study on service performance reporting of New Zealand Universities” submitted by me to Auckland University of Technology for the degree of Master of Business in Accounting is my own work. And I further declare that, to the best of my knowledge and belief, this work contains no information that has been published or submitted by any other person (except explicitly cited and referenced ), nor has this work been submitted or will it be submitted for applying for the award of any other degree or diploma of a university or other institution of higher education.

Mingxing Zheng

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## LIST OF ABBREVIATIONS

AU	The University of Auckland
AUT	Auckland University of Technology
CA ANZ	Chartered Accountants of Australia and New Zealand
EFTS	Equivalent Full-time Student
EPIs	Educational Performance Indicators
GAAP	Generally Accepted Accounting Principles
GRI	Global Reporting initiative
KPIs	Key Performance Indicators
LU	Lincoln University
MU	Massey University
NIS	New Institutional Sociology
NPM	New Public Management
NZICA	New Zealand Institute of Chartered Accountants
NZQA	New Zealand Qualification Authority
PBRF	Performance-based Research Funding
SPR	Service Performance Reporting
SSP	Statement of Service Performance Report
TEC	Tertiary Education Commission
TEO	Tertiary Education Organisation
The MOE	Ministry of Education
The OAG	The Office of the Auditor General
UC	The University of Canterbury
UO	The University of Otago
VU	Victoria University of Wellington
WU	Waikato University

## **CHAPTER ONE – INTRODUCTION**

### **1.1 New Public Management Reforms and New Institutional Sociology**

New Public Management (NPM), which refers to reforms undertaken by the public sector by employing the performance assessment methods of the private sector with the purpose of increasing efficiency and effectiveness in the public sector, has been globally adopted since the early 1980s (ter Bogt and Scapens, 2009; Keerasuntonpong et al. 2014; Narayan, 2012). The performance measurement of the public sector has consequently been altered from solely inputs to outputs and outcomes (Kouzman, & Korac-Kakabadse, 1998). Additionally, the Statement of Service Performance Report (SSP) has accordingly become an indispensable part of annual reports to indicate the performance measurement of outcomes and outputs of non-profit organisations to their stakeholders (Thompson, 1999). Copious research has been carried out to examine how to measure and report the outcomes for non-profit organisations (Alach, 2016; Christensen and Yoshimi, 2003; Thompson, 1999; Rowe and Lievesley, 2002; Coste and Tudor, 2015; Pidd, 2005; Kapetanidou and Lee 2017; Abdullah, 2005; Fryer et al., 2009). However, there is very little research about how the service performance reporting (SPR) has been influenced by external factors, particularly for Universities.

The axioms of NPM indicate that the public sectors have adopted private sectors' techniques to incentivise efficiency, effectiveness and accountability (ter Bogt and Scapens, 2009). SSP is designed to indicate the outcomes of NPM of public sectors; however, the methods of how to select the key performance measurement indicators in the SSP and the external factors that influence the selection are still under-discussed (Rowe and Lievesley, 2002). New Institutional Sociology (NIS) provides theoretical insights about the factors that influence the SPR, particularly for the practice change of an organisation over time (Kasumba, 2013). Narayan and Stittle (2018) state that New Institutional theory provides prolific theoretical framework for exploring how and why accounting practice has been influenced by contextual factors. As discussed by Moll et al. (2006), NIS suggests that the internal structure, accounting practice and procedures of an organisation are greatly shaped by external factors, including coercive isomorphism, mimetic isomorphism and normative isomorphism (DiMaggio and Powell, 1983). This research, then, will focus on analysing the factors supported by NIS that could influence SPR in NZ.

## 1.2 Overview of the service performance reporting in NZ Universities

The New Zealand public sector has embraced the NPM reforms since the late 1980s (Narayan, 2012, Thompson, 1999). Generally, non-profit organisations in New Zealand are required to prepare SSP as part of their annual reports, and it became a statutory requirement from 2002 regulated by the Local Government Act 2002. The Office of the Auditor General (the OAG) (2002) published the second edition of the report on public sector performance, which provides comprehensive understanding of how to report the service performance of the public sector, along with accounting guidance provided by the New Zealand Institute of Chartered Accountants (NZICA), which has amalgamated with the Institute of Chartered Accountants of Australia and is now called Chartered Accountants Australia and New Zealand (CA ANZ), guiding the public sector to prepare SSP. The SSP contains achievement of objectives in terms of outputs and outcomes (Scott and Pinny, 2016). The results of the 2009/10 audits (2010, p49) by central government states, “All local authorities must have robust performance management frameworks and meaningful levels of service, measures, and targets.” This clearly indicates that there are three key pieces of information that should be included in the SSP: the service provided by the organisation, the performance measurement of the service, and the comparison between the accomplishment and target. In addition, similarly to financial statements, the SSP is also subject to being audited.

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According to Narayan and Stittle (2018), the NPM reforms in NZ Universities had experienced the following stages: The first stage is the pre-NPM phase, which sets the reform agenda period as prior to the late 1980s and is characterised as the cash-based accounting and central control of the government. The second phase is when the government introduced the neo-liberal political and economic reforms and is epitomised by the adoption of accrual-based financial statements and the public accountability period from the late 1980s to 1999. The third phase is the period from 2000 to 2009 when the market and business logics were embraced by the NZ government. The latest phase of the NZ NPM transformation is the period since the year 2000; it is categorised as a stage of emphasis on strategic re-positioning and performance accountability. So, it was obvious that the eight public Universities would welcome the NPM reforms as soon as they were requested by the government, which also means the request for SSP of Universities in NZ from the late 1980s. The original mechanics of SPR in New Zealand were developed by

Chartered Accountants Australia and New Zealand (CA ANZ), and the elements of SPR involved inputs, outputs and outcomes. However, as discussed by Abdullah (2005), the quality of SPR of New Zealand Universities is in desperate need of improvement. Scott and Pinny (2016) pointed out that, although there had been extensive guidance for SPR since 2002, there are still no relevant standards for preparing SSP in New Zealand.

### **1.3 Research motivations, objectives and contribution**

As discussed above, there is considerable literature relating to SPR; however, the majority of this literature is related to identifying the existing problems in a particular public sector organisation or performance measurement (Narayan, 2016; Abdulah, 2005; Azma, 2010). There is very little literature to investigate the factors that have influenced SPR over time, particular for NZ Universities. Tertiary education institutions: Results of the 2017 audits (2018, P12) states clearly that it is not legally compulsory for tertiary education institutions (TEIs) to comply with GAAP; however, the auditors suggest TEIs are supposed to provide, more clearly, evidence of progress against their strategies and their achievements on their investment plan. In the meantime, this report points out SSP of TEIs will have to comply with GAAP for their SSP from 2019 given the recent changes to the Education Act 1989. So it is time to look back and summarise how the SPR of NZ Universities has been changed since the year 2003 with the impact of external factors. The purpose of this research is to highlight how the SPR of NZ Universities has been influenced by external factors and shed light on the construction of standardised SSP for NZ Universities.

In order to fulfil the task of this research, all eight of the NZ public universities were selected. The content analysis method was employed to compare and analyse four years' SSP from the years: 2003, 2008, 2012, 2017, noting that the NZ government published Tertiary Education Strategies every five years.

This research finds that the SPR for all these eight public universities has experienced noticeable changes in regard to the size and the selection of KPIs since 2003 and the items listed in SSP reflect the statutory requirements of governments. There are three factors that caused the changes, which are government policies, normative factors and the internal management requirements of the universities. In particular, government policies serve as the dominant factor for the changes, as the government policies mainly guide the objectives of the universities, and then the objectives determine the targets of the Universities and the selection of key

performance indicators for the performance measurement. This reflects that the internal practice of the Universities is shaped by the external factors to a certain extent. This is also underpinned by the NIS theory, which posits the idea that organisations can be influenced by external factors. At the same time, this research finds that the Universities employ their objectives, which are included in their investment plans, as their KPIs for SPR, resulting in the diversity of the performance indicators, and there are no indicators to show the efficiency and effectiveness of the services of the Universities. This agrees with Narayan (2006) that the Universities' SSP only reflects the requirements of the government, instead of indicating the efficiency and effectiveness of the management. The identified issues of inconsistency and non-standard nature of performance indicators of SSP for all the eight public Universities makes the task of establishing the indicator pool very urgent.

Although there is a time limitation not permitting more thorough and comprehensive research at this stage, this research has several contributions for SPR in literature and practice. Firstly, it addresses the gap in the literature regarding how the SPR has been impacted by external factors, and enriches relevant literature. Secondly, it responds to the call for the development of more standardised KPIs for universities in the following three aspects; firstly, by identifying the impact of government policies on the selection of KPIs, then providing the insight that the standardised KPIs should be in line with the requirements of government requirements and the needs of individual missions of different universities; secondly, by investigating the issues of current service performance measurements to inform the development of future KPIs; and thirdly, this research finds that there are no indicators to show the efficiency and effectiveness of the management of the universities; this will give impetus for the universities to develop a better presentation of their SSP, instead of merely meeting the requirements of governments.

#### **1.4 Research questions**

This research will investigate how the SPR of NZ universities has been changed over the last two decades; the following two research questions have been developed:

- I. What are the changes in SPR of the eight public universities in NZ since year 2003 in the perspective of KPIs selection?
- II. What factors have caused the changes in SPR of NZ public universities?

### **1.5 Structure of the study**

The structure of the remainder of this study is as follows: Chapter two outlines the literature review of NPM and SPR, providing the definition of service performance, statement of service performance reports, and service performance reporting, reviewing the history of the NZ public sector's NPM reforms and the situation of service performance reporting in NZ's eight public universities. Chapter three provides an understanding of neo-liberalism and NIS theory, and the link between this theory with the present research. Chapter four discusses the methodology employed by this research. Chapter five will fully discuss and analyse the changes of SPR for the eight public universities separately, and summarise the findings of this study. Chapter six will outline the conclusion and analyse the limitations, implications and future possibilities of this study.



## **CHAPTER TWO - LITERATURE REVIEW**

### **2.1 Introduction**

This chapter examines the existing literature and provides an overview of the relevant definitions and the context of this research. Section 2.2 outlines the concept of NPM and the transformations in the university sector. Section 2.3 introduces the transformations in the educational sector. Section 2.4 provides a comprehensive understanding of SSP and SPR. Section 2.5 overviews the SPR in NZ universities. Section 2.6 outlines the chapter summary.

### **2.2 New Public Management and the transformations in the University sector**

#### **2.2.1 New Public Management in the public sector**

Since the 1980s, many countries have been experiencing significant reforms in public sectors (ter Bogt and Scapens, 2009). These reforms are generally defined as New Public Management by academics, which was first introduced in the UK and Australia (Keerasuntonpong, Dunstan, and Khanna, 2014; Hood, 1991). The governments of many countries have made considerable efforts to introduce NPM into their public sectors (Narayan & Stittle, 2018). As discussed by ter Bogt and Scapens (2009), the factors that have been triggering the worldwide spread of NPM include the following aspects. First, the financial pressure after World War II prompted the government organisations to seek measures to tackle the increasing budget deficits by improving efficiency and effectiveness in public sectors. Second, the requirements of accountability and transparency regarding expenditure in the public sectors have paved the way for the rise of NPM. Finally, the demand for the increase of the global economy plays an indispensable role in the proliferation of NPM. Overall, the global proliferation of NPM is an inevitable trend.

As introduced by Hood (1995), NPM refers to a group of doctrines that transform private management styles and instruments in the public sector, that generally emphasise the improvement of performance. However, the characteristics of NPM of different countries may differ. Hood (1991) outlines the general doctrines of NPM, which consists of eight elements, including hands-on professional management, explicit standards, measures of performance, greater emphasis on output controls, shift to disaggregation of units, shift to greater competition, stress on private sector styles of management practice, and greater discipline and

efficiency in resource utilisation. Recently, the list of doctrines of NPM has acquired new elements, such as quality management in the public sector, transparency and “citizen-orientation” (ter Bogt and Scapens, 2009). Hood (1991) posits that the doctrines covered by NPM indicate the four megatrends of NPM, which are:

- Whittling down the size of government organisations regarding expenditure and staffing.
- Shifting away from centralised government institutions and developing towards privatisation and quasi-privatisation.
- Improving effectiveness and efficiency by authorising the automation in the public sector, mainly referring to IT techniques employed for the production and allocation of public service.
- The other trends are the globalisation of management, policy design, decision-making styles, and intergovernmental cooperation and collaboration.

These four listed trends show clearly the developing base for the components of NPM, which are effectiveness of expenditure, efficiency, decentralisation, and internationalisation and collaboration. It is also obvious that NPM has been dominating the transformation of the public sector towards more autonomy and decentralised direction.

### **2.2.2 Transformations in the University sector**

Universities are a specific component of the public sector; they have been defined by Gary and Halsm (1990) as “independent self-governing bodies with a large degree of constitutional autonomy”. However, Sanchez-Barrioluengo (2014) points out that universities are “the centres of excellence in education, research and third mission”, and the third mission in this article refers to the interaction between universities and the socioeconomic environment. In contrast, Narayan (2006) details the third mission as equal opportunity, staff recruitment and development, internationalisation and others. The three missions of universities indicate that universities play an indispensable role for the development of the economy and our society. As noted above, the public sector has implemented reforms since the 1980s. Inextricably, as part of the public sector, universities have been swept along in the torrent of reform. Thus, submitting the audited service performance reports has been a mandatory requirement from authorities for universities since late 1980s.

Universities are also considered as one type of organisation in the public sector (Balaboniene and Becerskiene, 2014). Inevitably, the introduction of NPM into the public sector has had a considerable impact on the recent development in universities. For example, Narayan and Stittle (2018) points out that substantial efforts have been made by the governments in many countries to renovate the tertiary education system within the NPM framework during the last three decades. Ter Bogt and Scapens (2009) discuss that new accounting systems and performance measurement systems have been introduced into universities in response to NPM. These indicate that NPM has been influencing the transformations of universities.

Before the transformations, the tertiary education system was considered stringent and centralised. To be more precise, for the funding system, the universities received bulk funding based on the equivalent of full-time students (EFTS); thus, there is no competition between different universities, as the number of students would decide how much funds the universities can get. As regards governance structure, in the past, the size of universities was relatively small, and the government organisations were responsible for the decision-making of capital investment, and there was very little accountability for each university to outside bodies.

Since the 1970s, the Universities have been experiencing the significant innovation. In contrast to the past, the funding systems were changed from input-based to performance-based, which made the universities more competitive, and drove the Universities to improve effectiveness, efficiency, and accountability. At the same time, Universities became increasingly autonomous, and the government only played a supervisory role. Moreover, universities depended less on the government and they began to set their own goals and strategies, which were previously set by the government. In the meantime, Universities were stimulated to develop the third mission, which is called academic research commercialisation by academics; consequently, the share of non-government funding has been increasing since the start of reforms.

## **2.3 History of tertiary education reforms in New Zealand**

### **2.3.1 The characteristics of New Zealand Universities**

Narayan (2012) details the characteristics of New Zealand universities as follows. First of all, the government plays a significant role in the national education reforms. And innovation is considered as central for the development of economy, so the third mission of universities, which is knowledge transfer, is of increasing importance. Secondly, notably, almost half of the country's research is funded by government, and government only plays a supervisory role and provides strategic direction and guidances for the Universities. Thus, service performance reporting is of very high significance as the basis for the allocation of government funding. Thirdly, Narayan (2012) thinks New Zealand has been lagging behind in terms of gross domestic product per capita, in spite of the efforts given to researchers in the universities, which indicates more effort should be made for knowledge commercialisation to inspire the economic growth. These characteristics of New Zealand universities indicate the government is the center of tertiary education reforms and the service performance reporting is of increasing significance for representing the requirements of government.

### **2.3.2 The history of tertiary education reforms in New Zealand**

Narayan and Stittle (2018) point out that New Zealand is one of the first countries that have advocated NPM-inspired tertiary education reforms. Meanwhile, Narayan and Stittle (2018) posit that there are three phases of tertiary education reforms in New Zealand. The first phase is the pre-NPM period - to be more accurate, it is the phase before the year 1989 when the broad directions of reform were announced by the Minister of Education. This period is characterised by the fact that the universities were controlled by the Department of Education, which was responsible for the resource allocation. The funding was input-based according to the Equivalent of Full-time Students (EFTS).

The first stage of reforms is named the "Financial autonomy and public accountability focus" period from 1989 to 1999 (Narayan and Stittle, 2018). During this period, relevant laws and regulations were established by the government in New Zealand, NPM was introduced to the tertiary education system by the implementation of several laws. The prominent feature of this period is that the

universities were given autonomy and responsibility for their activities. For instance, the universities could make decisions regarding capital investment. In addition, the universities were required to submit their service performance annually to report their results, and the performance indicators could be replicated.

The second phase is characterised by introducing the market and business logics period from 1999 to 2008 (Narayan and Stittle, 2018). Moreover, this period is when the performance-based research funding (PBRF) policy started to be utilised. The Tertiary Education Commission (TEC) was created during this period to supervise the universities. The purpose of this new policy was to inspire the universities to align their work more closely with the government's goals. During this period, the requirement of SSP became mandatory under the Local Government Act 2002.

The last phase of reforms has shifted to strategic re-positioning and performance accountability (Narayan and Stittle 2018). During this period, the further policy of the government of 2008 was enacted. The universities were encouraged to develop their third mission, which is knowledge transfer, and the universities were able to set the students fees themselves. All in all, since 2008, the universities have become more autonomous, and encouraged to commercialise research results in order to obtain a higher share of non-governmental funding. Accordingly, the new performance indicators were demanded by government to represent the changes of policies.

Finally, it is obvious that the process of New Zealand universities' reforms is the procedure where the government changed its role from central control to supervision, and the universities become increasingly accountable. However, different performance indicators were required to reflect the requirements of government.

## **2.4 Service performance reports and Service performance reporting**

The focus on introducing NPM into the public sector made it a mandatory requirement for organisations in the public sector to include their service performance reports in their annual reports from the late 1980s. The Office of the Auditor-General (the OAG) (2002, P5) provides a comprehensive concept of performance in the public sector, which suggests performance comprises the public entity results, the interaction with the public, and the inputs. The OAG (2002, P36)

expresses performance as economy, efficiency and effectiveness, and it also defines ‘economy’ as the inputs, which is the resources, ‘efficiency’ as obtaining the most output from limited resources, and ‘effectiveness’ as achieving desired results. Academically, service performance has been defined by Thompson (1999) as “the accomplishment or carrying out by civil servants of their duties, but the term is commonly used in the context of evaluation or measurement of those accomplishments.” Accordingly, service performance reporting is the principles which regulate how to prepare the service performance reports and the base upon which activities of the public sector are planned and performance is evaluated and measured (Thompson, 1999). The OAG (2002, P6) suggests that service performance reports should include a forecast, which is the start of a period, and an actual performance, which include entity capability and actual outcomes. Service performance reports have been attracting the growing attention together since the late 1980s (Christensen & Yoshimi, 2003). Hood (1995) suggests that the evaluation of effectiveness and efficiency for the service performance emphasised by NPM should be disclosed by employing explicit internal and external performance indicators. Obviously, a service performance report consists of a group key performance indicator for measuring the actual performance with comparison to the forecast, and the service performance reporting will decide which performance indicators should be chosen to evaluate the performance results.

Thompson (1999) states that the statement of service performance report is an indispensable part for annual reports of universities. Combined with the definition of service performance reports and the three missions of universities, which indicate the main activities of universities, the definition of the service performance reports of universities can be defined as “statements which measure and present the achievements of education, research, equal opportunities, staff recruitment and development, internationalisation and other university activities.” (Thompson, 1999). Accordingly, the preparation of service performance reports for universities should inevitably apply the rules and frameworks issued by relevant authorities, which we classify as service performance reporting. For example, XRB (2017) states “An entity shall present service performance information that is useful for accountability and decision-making purposes in the same general purpose financial report as its financial statements. Presentation of service performance information together with financial statements enables users to make assessments of the entity’s

performance.” There is still no consensus about the concept of service performance reporting of universities, as the activities and missions of different countries may be diverse. However, as argued by Thompson (1999), the service performance reporting should be able to accommodate and adapt to technological and ideological changes which are imperative to accurately assess the organisation’s performance and allocate the resources. Accordingly, for universities, the changes of the service performance reporting are reflected by the choices of Key Performance Indicators (KPIs). Azma (2010) points out that KPIs represent the most comprehensive objectives that organisations tend to achieve and guide managers to attain their goals and make an improvement. Similarly, XRB (2017) states that the purpose of service performance reporting is to better meet the needs of users of general purpose financial reports of public organisations, who have aims and objectives and seek to achieve these aims. Thus, we can conclude that the changes in service performance reporting of universities can be reflected by the choice of KPIs.

As stated by XRB (2017, p9), “In reporting on what an entity has done during the reporting period an entity shall provide users with an appropriate and meaningful mix of performance measures and/or descriptions for the reporting period”. And performance measurement is defined as the process of evaluating the efficiency and effectiveness of universities’ activities, by setting up a wide range of indicators (Wang, 2002; Tapinos, Dyson, and Meadows, 2005). Undoubtedly, performance measurement plays a pivotal role for the efficiency and effectiveness of universities, as it provides information about how well the organisation is performing and whether the organisation has achieved its targets (Phusavat et al., 2009). This evaluation information could not only decide how much funding universities will get, but also have an impact on the effectiveness of universities’ management by permeating through the budgeting cycle. Higgins (1989) defines efficiency as “concerned how to do the right thing” and effectiveness as “do the right thing”. Wang (2002) posits that performance measurement influences the efficiency and effectiveness of Universities by providing goals or targets for the allocation of resources and the control of cost behaviours and serves as the linkage between cost and outcome.

One of the biggest challenges faced by the performance measurement in universities is how to choose the appropriate key performance indicators to evaluate and demonstrate the university’s achievements. As Higgins (1989) discusses, it is very

difficult to evaluate the output of universities such as the evaluation of their teaching quality. Balaboniene and Becerskiene (2014) point out that there is no generalised framework of indicators for universities' performance measurement, as a considerable number of indicators should be included for the successful performance according to the particular environment that encompasses universities. However, there are numerous researchers who have focused on how to develop successful performance indicators and the issues pertinent to the selection of performance indicators. (Langford et al., 2006; Balaboniene and Becerskiene, 2014; Chan, 2015, Azma, 2010).

As discussed above, performance measurement has been playing an important role in the universities' efficiency and effectiveness, and the successful performance depends on the appropriateness of performance indicators, which is the reflection of service performance reporting. Guthrie and Neumann (2007) summarise that the research that is pertinent to performance information in the annual reports of universities mainly focuses on internal and external performance reporting and its indicators. However, there is very little literature to discuss how the selection of performance indicators has been changed with the impact of external factors, and what the influence of this change is to the universities' efficiency and effectiveness, Keerasuntonpong, et al. (2015) summarise that the external factors that have been largely influencing performance reporting of universities are authoritative requirements, peer and mimetic pressure, and normative pressure. Authoritative requirements refer to the coercive policies and principles that universities must comply with. Peer and mimetic pressure are the pressure from other universities who employ performance reporting models that others do not have. Normative pressure generally refers to the reporting guidelines, such as the Global Reporting Initiative (GRI). This paper mainly investigates how the service performance reporting of universities in NZ has been shaped by the authoritative requirements and sheds some light on the decision-making of High Education Policy.

## **2.5 Service Performance Reporting in NZ Universities**

New Zealand is one of the first countries that embraced the NPM in their Public Sector from the late 1980s. (Narayan, 2006). During the reforms, organisations in the NZ Public Sector have been required to report their service performance in annual reports with the aim of increasing their accountability, efficiency and



effectiveness. Serving as the basis of funding allocation and the linkage between public sector agencies and external users such as government and tax-payer, the statement of service performance is of significant importance in NZ. Consequently, the mechanics of service performance reporting have been become increasingly significant for the economy of the nation.

### **2.5.1 New Zealand education agencies and requirements of SPR**

There are three central government education agencies that have a vital impact on the operation of universities, as they prepare the relevant policies that will influence the universities' external reporting.

#### **2.5.1.1 Ministry of Education**

The Ministry of Education (MOE) is the education agency that works out strategic policy for the Tertiary Education Sector and performs research and analysis that is relevant to education system. Meanwhile, MOE is also responsible for monitoring the performance and capacity of the Tertiary Education Commission (TEC) and the qualification approving organisation. However, universities will not report directly to MOE.

#### **2.5.1.2 Tertiary Education Commission**

The Tertiary Education Commission is the education agency which directly interacts with universities. So TEC is the organisation that leads and guides the tertiary education sector, and implements government policies released by MOE. The main responsibilities include (Controller and Auditor General, 2008):

- Monitoring the finances, governance, and management of Tertiary Education Institutions (TEIs).
- Submitting advice to MOE on appointments of TEIs' councils.
- Supporting the development of capacity of the governance, management and development of TEIs.
- Implementing policies made by MOE and giving statutory advice to MOE which helps MOE make decisions.

The Universities report regularly to TEC and discuss their strategies, financial management issues and changes.

### **2.5.1.3 The requirement of service performance reports**

In New Zealand, the requirements of SPR are generally issued by government departments and CA ANZ.

The second edition of “Reporting Public Sector Performance” by the Controller and Auditor-General specifies that the service performance reports should provide external stakeholders with the public organisations’ achievements with public resources, and help external stakeholders make relevant decisions, while, at the same time, reflecting that compliance with government policies and strategies is also very essential for SPR.

Provision 25 of Part 3 in Schedule 10 of the Local Government Act 2002 stipulates that an audited SSP must be included in the annual reports of the organisations and the following three elements must be contained in the SSP: firstly, the comparison between the actual achievements of organisations’ activities and their targets; secondly, identifying and denoting the anticipated changes to the level of service achievements; thirdly, the reasons for any significant discrepancy between the achievements and the targets.

The CA ANZ proposed the service performance reporting model which consisted of three components: inputs, outputs and outcomes (Thompson, 1995). Inputs are defined as the resources that have been utilised for providing goods and services. Outputs refers to the goods or services provided by the public organisations, while the outcomes are described as the influences or impacts on the community stemming from the operations of the organisations. Pallot (1991) points out there are differences between the outputs and outcomes, as outcomes focus on the impact of activities on the communities, while outputs are exactly the products or services produced by the activities

### **2.5.2 The development of SPR in New Zealand**

Responding to the NPM in NZ, The Public Sector Study Group was established by the NZICA ( previously NZ Society of Accountants, and now CA ANZ ) to launch the accounting standards for the public sector in 1982 (Neale & Pallot, 2001). In 1987, the first standard, “Determination and Disclosure of Accounting Policies for

Public Sector Service Oriented Activities”, was published by the Group. In 1993, the NZICA (now CA ANZ) published “Statement of Concepts for General Purpose Financial Reporting”, in line with the new output-based performance measurement regime, providing both service performance and financial performance concepts. In 1994, Financial Reporting Standard No.2 (FRS 2) issued the presentation of non-financial information. (Neale & Pallot, 2001)

As discussed by Neale and Pallot (2001), since the first year of auditing, the OAG, who is responsible for the auditing of SSP, has been complaining about the quality of SSPs, for instance, the reliability and accountability issues existing in the preparation of SSP. As a result, in 2002, the Technical Practice Aid No. 9: Service Performance Reporting (TPA-9) was released by NZICA (now CA ANZ). In the report “The Auditor General’s observations on the quality of performance reporting”, published by the OAG, the Auditor-General speaks highly of the TPA-9. The report details that the TPA-9 contains very rich discussions which are of high relevance and should be of greater authority instead of Technical Aid. (The OAG, 2008).

In 2004, the international accounting standard was introduced to New Zealand, and the New Zealand Equivalent to International Accounting Standard 1 (NZ IAS 1) was developed to replace the FRS-2.

Recently, the mechanics of service performance reporting in NZ have been developed by the External Reporting Board (XRB), which is an independent Crown Entity and responsible for accounting, and auditing and assurance standards in NZ. Scott and Pinny (2016) state that the guidance for service performance reporting has been available since 2002 in NZ; however, there is still no solitary standard that solely focuses on service performance reporting. Therefore, the New Zealand Accounting Standards Board proposed the Exposure Draft of service performance reporting, which indicates the requirements of service performance reporting including three aspects: what did the entity do? Why the entity do it? What impact did the entity have?

As one type of public sector organisation, the universities of NZ play a significant role for the development of the national economy. The Productivity Commission (2017) states that, as universities take the responsibility of improving the lives of

students and society, it is of vital importance for universities to be equipped with an advanced tertiary education system, so a new education model has been introduced, which has emphasised the outcome trend and the government's pervasive control role for the education system. Accordingly, the service performance reporting of universities has become increasingly important, as it represents the results of education system innovation.

## **2.6 The use of KPIs in Universities**

As discussed above, NPM reform has brought private sector techniques into the public sector with the aim of improving the effectiveness and efficiency of the organisations. Accordingly, KPIs, as the measurement to gauge if the organisations have achieved their targets, have been introduced into the public sectors. Kairuz et al. (2016) point out that KPIs are the quantifiable measures which can be used to reflect the organisational performance and the critical success factors to the organisations' strategies. They also claim that KPIs have been playing an integral role in universities after the introduction of the performance-based funding system..

Higgins (1989) summarises the performance indicator as a statement which is employed to quantify resources and achievements relevant to an organisation's objectives. It has five characteristics and must:

- Reflect objectives
- Be specific, quantifiable and standardised
- Be as simple as possible
- Be acceptable and credible
- Be capable of acting as a signpost to areas needing attention.

Kairuz et al. (2016) propose that the universities should develop KPIs reflecting their performance management, teaching and researching, and the NZ Education Act 1989 section 159 states that the SSP of TEIs should keep consistency with their strategies. However, the KPIs for NZ universities are still under development as, except for the educational performance indicators developed by TEC, there are no standard KPIs for management of NZ universities.

XRB (2017, P9), which was issued by the NZ Accounting Standards Board based on the Financial Reporting Act 2013, states clearly, "In reporting on what an entity has

done during the reporting period an entity shall provide users with an appropriate and meaningful mix of performance measures for the reporting period.” XRB (2017) also suggests that the performance measures adopted by an entity to communicate its service performance may contain quantitative measures, qualitative measures and qualitative descriptions. However, as discussed by Guthrie and Neumann (2007), there are some issues with current Higher Education system performance indicators, such as: Who is responsible for developing indicators? How have these indicators been reported? Who is responsible for assessing the information and the purpose for which the information is used? In New Zealand, as discussed by Narayan (2006), the activities of NZ universities include student participation and achievement, teaching and learning, research, equal opportunity, staff recruitment and development, internationalisation, and Maori participation and Treaty obligations. Regarding the services provided by universities, the Tertiary Education Commission issued educational performance indicators (EPIs) (TEC, 2017). This statement details the following EPIs definitions and methodology:

- Successful course completion
- Progression
- Cohort-based qualification completion rate
- Supplemental information for cohort-based qualification rates
- Cohort-based first year retention rates
- Participation.

It is obvious that these EPIs do not include the indicators that could reflect the universities’ activities except as to teaching and learning. Higgins (1989) suggested the KPIs for universities should include three major categories which are internal, external and operating. To be more precise, the KPIs of universities are supposed to reflect the following elements:

- Teaching quality
- Research and scholarship
- The social rate of return of a university
- Acceptability of graduate in employment
- Support services
- Measurement of individual staff performance and workload.

## **2.7 Summary**

This chapter has extensively discussed the concepts of NPM, and the development of NPM in NZ. This section has also explored the concepts of performance, service performance and service performance reporting, as well as the development of SRP in NZ. In line with the “New Public Management” introduced in New Zealand’s public sector in 1989, the New Zealand Higher Education System began to adopt more competitive, market-based policies (McLaughlin, 2003). As discussed above, NPM has introduced private accounting techniques into public sectors with the intention of improving the effectiveness and efficiency in public sectors. However, Narayan (2006) argues that the annual reports of universities in NZ seem to meet the government policies and funding requirements, instead of meeting the wider stakeholders' needs. Kairuz et al. (2016) discuss that the current performance measurement system adds complexities to academic work instead of improving efficiency. However, prior literature mainly focuses on how to choose appropriate indicators for universities’ performance measurement, and very few articles have investigated how the selection of key performance indicators has been influenced by the change of government policies, and further their impact on the internal management of the universities. Thus, this paper aims to investigate the change of service performance reporting over the last three decades.

## **CHAPTER THREE - THEORETICAL FRAMEWORKS: NEW INSTITUTIONAL SOCIOLOGY (NIS)**

### **3.1 Introduction**

This chapter will give an overview of the Neo-liberal context for New Zealand universities, and provide a comprehensive understanding of perspectives drawn from NIS to develop an explanation of the factors that influence SPR in NZ universities. This chapter including the following sections: 3.2 Neo-Liberalism and NPM in NZ Universities; 3.3 New Institutional Sociology and transformation in NZ universities; 3.4 Chapter summary.

### **3.2 Neo-liberalism and New Public Management (NPM) in NZ Universities**

Neo-Liberalism is the concept encompassing the ideas of free market, deregulation, privatisation and maximised competition, which have been proliferating rapidly since the 1980s. The logic of Neo-liberalism is to repudiate the Keynesian welfare state economics from which governments take the central role to control and provide funding for the state functions, with the purpose of cutting down expenditure and relieving governmental financial pressure after the war (Brown, 2003). Harvey (2006) defines Neo-liberalism as a theory of political economic practices which buoy up the maximisation of entrepreneurial freedoms within an institutional framework to enhance human well-being. Harvey (2006) also pointed out Neo-liberalism has swept across every corner of the world, not only “institutional frameworks and powers”, but also “division of labor, social relations, welfare provisions, technological mixes, ways of life, attachments to the land, habits of heart, ways of thought, and the like”. Narayan and Stittle (2018) (citing Torres. 2002, p.368) highlight the neo-liberal governments’ philosophies which “promote notions of open market, free trade”, “the reduction of public sector”, “the decrease of state intervention in economy”, and “the deregulation of markets”.

Wool (2007, p462) defines NPM, which is based on Neo-liberalism, as “a particular Neo-liberal technique which incorporates private, capitalist management methods into areas of public and civil service”. This definition indicates apparently that the exploration of Neo-liberal political and economic dogma in the public sector gives rise to the transformation of NPM. However, Wool (2007) discussed that there are two problems with the application of Neo-liberalism in public sector. Firstly, the

emphasis on the efficiency and effectiveness of achievements may give rise to the neglect of political and ethical concerns. The second concern is “the form of subjectivity upon which it is predicated”.

Narayan and Stittle (2018) (citing Gordon and Whitty, 1997, p.453) pointed out that neo-liberal policies have been embraced by many governments to restructure and deregulate the education sector. Olssen and Peters (2005) stated that the education sectors have been dramatically influenced by the predomination of neo-liberalism and the associated discourses of “New Public Management”. Roper (2018) identified that New Zealand tertiary education organisations have shifted to neo-liberalism from social democratic Keynesianism since 1984. Roper (2018) characterised the implementation of neo-liberalism in the New Zealand tertiary education sector as the process of changing the funding model and promoting the autonomy of universities. In essence, firstly, the tuition fees and neo-liberal public sector management were introduced by the fourth Labour government in the late 1980s. Secondly, the fourth National government implemented the tightly-targeted student allowances, student loans and declining government funding per student policies in the 1990s. Thirdly, the fifth Labour government introduced the PBRF research funding model and established the Tertiary Education Commission to guide and monitor the tertiary education sector directly in 2002. Fourthly, the efforts of cutting the government funding of tertiary education have continuously been made by governments, until the current government which has made some positive changes which apparently would not overturn the neo-liberal policy framework. However, the struggle of students and university staff in resisting the neo-liberalisation has been pervading the whole transformation.

SSP is one of the products of the prevalence of neo-liberalism and NPM in the public sector. It is supposed to reflect the outcomes of transformations within the neo-liberal institutional context. The impact on this changing context of the SPR can be thoroughly analysed by NIS.

### **3.3 New Institutional Sociology (NIS)**

There has been considerable research that has employed New Institutional Sociology theory to investigate how organisations respond to environmental pressure. (Scott, 2001; ter Bogt and Scapens, 2009 ). Narayan et al. (2017) suggest



that NIS provides an understanding of how and why organisations conform to institutional environmental pressure by implementing relevant strategies, structures and processes to secure the resources they require. Ribeiro and Scapens (2006) pointed out that organisations are encompassed by highly institutionalised environments, and this “environment” contains not only a relational network or a series of task constraints, but also the cultural rules and social norms which can be reflected as specific procedures and structures of the organisation. In this sense, the institutionalised organisations tend to accept and implement the structures and procedures that are advocated in their environment with the intention of meeting the legitimacy requirements and obtain the resources or grants that are significant for their survival.

Narayan et al. (2017) point out that NIS is a group of powerful actors which can shape the interests of organisation. According to Moll et al. (2006), NIS is one of the components of institutional theory. However, Scott (2001) points out that NIS is generally accepted as the dominant rational actor in sociology area. Moll et al. (2006) discuss that NIS provides an assumption that the internal structures, accounting practice and procedures of an organisation are largely shaped by external factors. DiMaggio and Powell (1983) provide a concept of isomorphism. This concept describes that isomorphism refers to a compelling process that forces institutions to resemble other organisations in the same environmental situation, and the nature of isomorphism leads to the decision-makers of institutions selecting the appropriate responses and adjusting their behaviours to improve their compatibility to their environment. There are competitive isomorphism and institutional isomorphism. DiMaggio and Powell (1983) detail institutional isomorphism into three components:

- Coercive isomorphism: mainly refers to organisations being forced to conform to external factors, which include government policy, regulation, and supplier relationships, by adopting a series of internal structures and procedures.
- Mimetic isomorphism: mimetic isomorphism generally is defined as organisations imitating the internal management and practice procedures from other homogeneous organisations.
- Normative isomorphism: normative isomorphism advocates that organisations may adopt procedures or accounting practice provided by dominant or authorised professions or professional bodies.

The three types of isomorphism provide a very clear perspective of external factors that have an impact on institutions' internal management and accounting practice, which are coercive factor, mimetic factor and normative factor.

The above discussion mainly indicates that external factors, especially coercive power, can exert considerable influence on institutional practice; however, there are some criticisms with NIS. Collier (2001) points out that NIS has been placing emphasis on isomorphism and disregarding the differences between organisations by ignoring resistance from organisations. Burns and Scapens (2000) also argue that, when new rules and routines could not satisfy the management requirement of organisations, the aim of new policies would not be achieved. These arguments highlight the conflicts between the internal managements needs and the external requirements. However, NIS still illuminates this study with the dimension of external factors and this study will testify how the external factors influence the internal management in universities. As there are very few studies in NZ to actually investigate how the service performance reporting has been changed by the influence of government policies, this is where this research is motivated.

New Zealand is considered to be one of the first countries to advocate NPM in universities (Narayan, 2006). In the context of NZ Service Performance reporting, the policies enacted by MOE and the OAG are considered to be coercive factors. Narayan (2012) discusses that the annual reporting in NZ is more likely to "meet the statutory obligations and respond to the government policy and funding requirements", instead of aiming to satisfy the needs of a wide range of stakeholders. This research will analyse how SPR in NZ universities has been changed by external factors; regarding NIS, there will be three factors, which are coercive, mimetic and normative factors, that will shape the internal practice of the universities. SSP is the presentation of the performance the organisation has achieved. From an NIS perspective. SSP is the showcase of how well the organisation has met the requirements of policies, procedure and society to secure its fundings and grants, which are essential for its survival. Thus, the NIS provides a comprehensive theoretical foundation for the analysis of the changes to SPR.

### **3.5 Summary**

This chapter has provided a comprehensive understanding of new-liberalism which provides the institutional context of NPM. This chapter has also covered the definition of NIS, analysing the theoretical lens of the changes to SPR. From a theory perspective, the understanding of NIS helps to underpin the research by the foundation of how the practice of the organisation has been influenced by external factors, and the overview of NIS helps this study work out the external factors of SPR and determine the direction of this research.

## **CHAPTER FOUR- RESEARCH METHODOLOGY AND METHODS**

### **4.1 Introduction**

This chapter introduces the methodology and research methods employed by this study to investigate the changes in universities' service performance reporting in NZ over the last two decades, which has been triggered by the educational reforms. Section 4.1 outlines the research methods—content analysis; Section 4.2 describes the data collected for this study; Section 4.3 outlines the details how this study will be performed; Section 4.4 outlines the chapter summary.

### **4.2 Content analysis**

This study uses content analysis research methodology to analyse how and why the SPR has been changed over the last two decades in NZ Universities. As summarised by Spens and Kovács (2006), content analysis is a research method which can be employed to carry out systematic, objective, quantitative, and reliable analysis of published information. At the same time, content analysis can not only be used for detecting the key ideas and themes in the publications, but also for measuring, comparison, position, and trends in reporting. According to Weber (1985), content analysis is a process to code the text into categories depending on the criteria selected. Früh (2004) thinks content analytical measurement is to qualify the useful information and capture relevant text information from mass text.

As this study will investigate the changes in service performance reports of the eight public universities in NZ that are selected, the data is drawn from the published SSP, as discussed above. Content analysis is a more appropriate research method for this study than other methods to examine the changes in service performance reports over the last three decades, as content analysis is considered to be the most widely-used methodology for analysing the reports or disclosures of organisations. There are different methods that can be used for content analysis, such as: word counting, grouping, categorising, and classification of indicators (Yildiz, Ayaz, and Baran, 2018).

### **4.3 Data Collection**

For generalisation purpose, all the eight public universities of NZ have been selected for this research. The statement of service performance reports have been legally

required by NZ government to be included in annual reports since 1989 according to the requirements of Education Act 1989; however, it has become compulsory since 2002 pursuant to the Local Government Act 2002. The SSPs of the years 2003, 2007, 2012 and 2017 have been selected for this research, catering to the Tertiary Education Strategies published by Ministry of Education every five years. All the selected SSPs are downloaded from the official websites of the universities.

#### **4.4 Data analysis**

As we discussed above, the SSPs of universities is the measurement and presentation of the achievements of education, research, equal opportunities, staff recruitment and development, internationalisation and other university activities. And Service Performance Reporting of universities is how to choose appropriate performance indicators to reflect service performance. Consequently, the changes of Service Performance Reporting will be reflected by the changes of the selection of performance indicators.

##### **4.4.1 What should be reported in SSP**

The OAG (2002, p6) states that SSP should contain the information of the forecast and actual achievement; the content of the forecast and actual achievement can be described as economy, which refers to the resources (it is also known as input), efficiency and effectiveness. Having regard to this, it is obvious that SSP will compare the forecast and actual achievement information to check whether or not the organisation achieves the objectives. However, different universities have different plans, and the performance measurement of the forecast will have different key performance indicators. So, the analysis of the changes of SPR will be conducted for all these eight public universities separately.

##### **4.4.2 The quality indicators framework**

After confirming with TEC and MOE, the researchers found there are no standard requirements of SSP from government; TEC only requests TEOs to submit EPI information. In this sense, the eight public universities all have their different KPIs to reflect their service performance. Therefore, the word counting method is used to perform the key change analysis, mainly checking the pages of SSP and the numbers of KPIs. Classification of indicator method is employed to perform the content

analysis. Campbell et al. (2002) define the quality indicators as measurable items and a group of words built for assessment, which are also a statement about structure and process and can be counted for frequency. Regarding the diversity of KPIs in SSP of all eight public universities, quality indicators were employed to investigate the changes of SPR of NZ universities. The quality indicators were structured as follows from SPP of NZ eight public universities:

- Community: this index includes all community-related indicators, such as “communities’ contribution of advice to government”, “demonstrate leadership in critical thinking and community service through maintaining membership”, “number of Community Education courses”, and so on;
- Educational: this index contains all the EPIs and other relevant indicators; for instance, “diplomas and certificates offered”, “number of students enrolled in conjoint degrees”, and “students in STAR programme”;
- Equal Opportunity: this index covers the indicators related to disability services;
- Financial: this index generally shows the financial information, such as operating surplus to income;
- Internationalisation: internationalisation includes the indicators of international students and also the indicators which show the universities’ efforts for internationalisation;
- Pacific: this index consists of all the Pacific information-related indicators;
- PBRF: simply, this index comprises the indicators in relation to PBRF;
- Research: this index takes account of all the research-related indicators, such as “Research outputs - Number of research degree completions” and to “increase external research revenue”;
- Resources: this index involves all the indicators related to the universities’ facilities, management activities;
- Staff: the staff-related indicators;
- Sustainability: the environmental protection and energy-saving indicators;
- Treaty of Waitangi: the indicators involving the “Maori” information;
- Innovation: the indicators represent the commitments to the development of economy.

The above 13 quality indicators will be employed to summarise and analyse the changes of SPR for the eight public universities in Chapter 5.

#### **4.5 Chapter summary**

This chapter has presented the methodology adopted by this study. In particular, it introduces the definition of content analysis, the scope of the data collected and the design of the research. In addition, the concepts and requirements of KPIs for SSP of universities have been introduced, which are of significance for the data collection and analysis.

## **CHAPTER FIVE – RESULTS AND DISCUSSION**

### **5.1 Introduction**

This chapter will discuss the changes of service performance reporting for each of the eight public universities and analyses the relevant factors that led to the changes. So, the sections from 5.2 to 5.9 will discuss the findings of the service performance reporting for the eight public universities in New Zealand. Section 5.10 will outline the general characteristics of these changes that have happened for service performance reporting of the eight public universities. Section 5.11 will cover the conclusion of this chapter.

### **5.2 The University of Auckland (AU)**

The University of Auckland (AU) is one of the eight public universities in New Zealand. In 2003, in fulfilment of its objectives, the AU worked out its mission as “To enhance the position of the University of Auckland as a university of high international standing, recognised for excellence in teaching, research and administration. Innovative contribution to the advancement of knowledge and service to its local national and international communities.” (The AU, 2003, P34). This mission indicates that the AU has advocated neo-liberalism and adopted NPM for its innovation and transformations.

#### **5.2.1 The analysis of the key changes of AU SPR**

The four selected years’ SSPs have been downloaded from AU’s official website for analysis. The word counting and grouping methods were adopted for the key changes’ analysis. The following table 1 indicates the results of key change analysis.



Table 1. The key changes analysis table of AU SSPs

Items		Y2017	Y2012	Y2008	Y2003
Pages of SSP		12	16	12	15
Number of Indicators	Teaching and Learning	9	12	10	17
	Research	6	17	16	10
	Other	26	30	31	31
	Total	41	59	57	59
% of indiscrimination	Y2003/2008				17.24%
	Y2003/2012				15.52%
	Y2003/2017				6.90%
	Y2008/2012			96.49%	
	Y2008/2017			26.32%	
	Y2012/2017		27.12%		

(Note: The definition of “% of indiscrimination” of year 2008 is the number of same KPIs for these two years divided by the total numbers of KPIs of year 2003. % of indiscrimination is developed in this paper to describe the consistency of KPIs for different years’ SSP. The high % of indiscrimination indicates the less changes of KPIs selection, the low % of indiscrimination represents there are more changes of KPIs selection. )

From table 1, it is obvious that there were no distinct differences among the four selected years regarding the size of the statements of service performance report. To be more precise: the pages of SSP for years 2017, 2012, 2008 and 2003 are 12, 16, 12, and 15 respectively. Similarly, there are also no obvious changes to the number of performance indicators, such as for years 2012, 2008 and 2003, the number of performance indicator are 60, 56, and 59 respectively, which are very close. However, for the year 2017, there are 41 performance indicators. This make us assume that the SSP has the inclination of becoming simpler. In conclusion, there is no distinctive adjustment of SPR for AU in regard to the size of SSP.

However, we can see that only 17.24% service performance indicators of the year 2003 have been kept to the year 2008, 15.25% left for 2012 and 6.9% left for 2017. This means the service performance reporting has been greatly changed since the year 2003. Only from the year 2008 to the year 2012, the indiscrimination

percentage is 96.43%. Then, we can conclude that from the year 2003 to the year 2008, and the year 2012 to the year 2017 are the two periods where the changes have happened.

In addition, there are two types of data collected for SSP which are expressed as percentage and numbers: the proportion of service performance indicator expressed as percentages for 2003, 2008, 2012 and 2017 are 22%, 58%, 61% and 46%. This indicates that the performance indicators are mainly presented as percentage since year 2008.

From the foregoing, we can see that the selection of indicators of SPR for AU has been changing dramatically since year 2003, even though there is no distinct change in regard to the size of SSPs.

From an NIS perspective, the enormous change of the selection of KPI of SPR is caused by the following factors. Firstly, are the coercive factors which mainly refers to government policies; for example, the indicators relating to PBRF appeared when the government implemented PBRF policies. In addition, the New Zealand government releases its educational strategies every five years. TEO will work out its strategies against the government strategies, and submit its investment forecast annually. When the forecasts are approved, then the university would carry out its activities according to its forecast, and the objectives in the forecasts are the content for assessment. Every five years the government has different priorities, and the universities will also have different objectives to be assessed by choosing different KPIs.

Secondly, are normative factors, which includes the guidance or standards established by professional bodies, such as CZ ANZ. This factor is one of the main reasons for the change, for instance, as there are no standards for the indicators. The SSP of the year 2003 used “Degree offered, Diploma and certificate offered” as part of the educational indicators, while for the year 2008’s SSP, the indicators were shifted to “Degree accredited by professional associations and Qualification completions (Domestic, Undergraduate)”. Similarly, as the indicator of “number of Maori EFTS” in the year 2003’s SSP has exactly the same errand with indicator “% of Maori EFTS” in year 2008 indicator, we can conclude that the non-standardised situation of SPR has led to the dramatic changes of the selection of KPIs.

Thirdly, is the impact of mimetic factors. There is no evidence to show the changes of the selection of KPIs are caused by mimetic factors, as all the eight public universities have different SPR for the presentation of SSP, although they are in the same neo-liberal context. All in all, the selection of KPIs for SPR are mainly dominated by the coercive and normative factors.

### 5.2.2 Further analysis of SPR for AU

As we discussed above, different performance indicators may represent the same errand. For example, the indicator “number of Maori EFTS” of the year 2003 exactly represents the same output with the year 2008 indicator “% Maori students (EFTS)”, which can be contained by the quality indicator “Treaty of Waitangi “. With the purpose of investigating the accurate results, classification of indicators was conducted to analyse the change of the content of SPR. For instance, all the Maori-related indicators will be classified to “Treaty of Waitangi”, and then we can establish the content changes of the SPR to testify why the relevant KPIs are selected or not. The following table 2 indicates the results of further items analysis

Table 2. The further analysis table of AU SSPs

Classification	Number of KPIs			
	2017	2012	2008	2003
Community		1	1	3
Educational	7	11	8	11
Equal Opportunity				2
Financial	5	9	9	8
Internationalisation	3	5	5	5
Pacific	4	5	5	4
PBRF	1	7	7	
Research	6	9	9	10
Resource	1	4	5	8
Staff	3	3	3	3
Sustainability	7			
Treaty of Waitangi	4	5	5	4
<b>Sub-total</b>	<b>41</b>	<b>59</b>	<b>57</b>	<b>58</b>

Obviously, table 2 shows us a totally different result of the changes for the SPR of AU. From the year 2003 to the year 2008, two indicators of Equal Opportunity had

been cancelled and indicators of PBRF have been supplemented. The two indicators of Equal Opportunity are “Number of Students with a Disability” and “Number of Students Using Disability Services”. In comparison to the strategy of the Tertiary Education Commission for 2007 to 2012, I found that it emphasises the following priorities (TEC) (MOE, 2008, P3-4):

- All New Zealanders can enjoy successful life-long learning
- Knowledge-driven innovation
- Strengthen the connection between TEOs and the communities
- Increased educational success for young New Zealanders
- Increase knowledge level for workforce
- Providing professional technology to meet industry needs
- Improving the linkage between research and economy.

In particular, the strategy for TEOs of the year 2008 contains providing successful education for all New Zealanders instead of only mentioning the students with a disability separately. Moreover, for more than 60 indicators suggested by this strategy, I cannot find the one that is relevant to student with a disability.

Meanwhile, the Tertiary Education Strategy 2007-2012 (MOE, 2008, P17) posits using “Research performance using PBRF and bibliometric measures”. Finally, it is obvious that the abrogation of “Equal Opportunity” and the advent of “PBRF” are the results of government policies.

From table 2, we can see clearly that there is almost no change from year 2008 to 2012, but the indicators related to “Community” were cancelled and the sustainability indicators are promoted during the period from 2012 to 2017. The indicators of “Community” include the following four indicators: number of community education courses, total community education EFTS funded by Ministry of Education, total enrolments in courses of community education, and alumni with whom the University is actively engaged. However, the Tertiary Education Strategy from 2017 to 2019 (MOE, 2014, P6) states the next a couple of years’ main tasks including building international relationships, supporting business and innovation, improving outcomes for all and continuing to improve the quality of education and research. From the stated tasks, the indicators of “Community” relate to courses which should be included in the education, so it was cut down as a separately listed indicator. This period’s strategy (MOE, 2014, P7) also indicates that the outcomes

of this period should focus on three aspects, which are economic outcomes, environmental outcomes, and social outcomes. Specifically, the environmental outcomes were described as maintaining the integrity of ecosystems and of efficiently utilising natural resources for current and future generations, which are clearly sustainability.

Furthermore, table 3 shows the comparison between the items of SSP of the year 2003 and MOE tertiary education strategy priorities. From table 3 we can see clearly that the items listed in SSP are dominated by government policies, which also means the change of the items of SSP are caused by government policies.

Table 3, Comparison between AU SSP and policies

<b>Y2003 SSP items</b>	<b>Tertiary Education Strategy 2002-2007 Priorities</b>
-People  -Teaching and Learning	- Raise Foundation Skills so that all People can Participate in our Knowledge Society.
-Relationships with Communities of Interest	- Develop the Skills New Zealanders need for our Knowledge Society
-Research and Creative work	-Strengthen Research, Knowledge Creation and Uptake for our Knowledge
-Equal opportunities	-Educate for Pacific Peoples' Development and Success
-Treaty of Waitangi	-Te Rautaki Ma <sup>h</sup> tauranga Ma <sup>h</sup> ori — Contribute to the Achievement of Ma <sup>h</sup> ori
-Organisation and management -Internationalisation  -Resources and Infrastructure	-Strengthen System Capability and Quality

### 5.2.3 Summary of the findings of AU SPR

From the above key change analysis, we can see clearly that the service performance reporting for AU has largely been changed over the last two decades by the selecting of KPIs and the shrinking of the number of KPIs. There are two main reasons for this change, which are the implementation of new government policies and non-standardisation of SPR (Scott and Pinny, 2016). The content analysis of AU's SPR

shows us that there is only slight change to the content of SPR over the last two decades, as the content of SPR is dominated by the government policies.

From an NIS perspective, the factors that caused the change of SPR over the last two decades are coercive factors and normative factors. The normative factors led to the diversity of KPIs and inevitably gave rise to the dramatic change of SPR, while government policies, which are referred to as coercive factors by NIS, determine the content of SPR, and there is a slightly change with the procedure that New Zealand government embraces the neo-liberalism and NPM.

### 5.3 Auckland University of Technology (AUT)

AUT is the youngest among the eight public universities, and it was focusing on development for its first several years. (AUT, 2008, P40). The SSP of the year 2003 for Auckland University of Technology is not available, so the data for the years 2008, 2012 and 2017 are selected for the analysis.

#### 5.3.1 The key change analysis and discussion of AUT SPR

First of all, the word counting method was conducted to establish the change of the size of SPR and the number of indicators. Table 4 indicates clearly the results of key change analysis.

Table 4, The Key changes analysis table of AUT SSPs

Items		Y2017	Y2012	Y2008
Pages of SSP		25	26	14
Number of Indicators	Teaching and learning	4	9	22
	Research	7	8	9
	Other	18	40	29
	Total	29	57	60
% of indiscrimination	Y2008/2012			1.67%
	Y2008/2017			3.33%
	Y2012/2017		17.54%	

Table 4 shows us very clearly that the numbers of pages of SSP for 2017 and 2012 have almost doubled that of the year 2008; however, the number of indicators shows an inverse trend, so that there are only 29 performance indicators in the SSP of 2017 with 25 pages, which means there are more words narration instead of indicator

measurement in the SSP. Moreover, the antilogous trend of pages and number of indicators also reflects the significance of the standardisation of SPR.

The percentages of indiscrimination of table 4 indicates the selection of performance indicators has been changed dramatically; for example, there are only 1.67% of indicators of year 2008 that are kept for 2012, and 3.33% for the year 2017, while the percentage of indiscrimination for year 2012 to year 2017 is only 17.54%.

As suggested by NIS, the factors that cause the dramatic change of the selection of SPR of AUT are coercive factors, normative factors and mimetic factors. First of all, it is the normative factors caused this change. For example, there are nine indicators for the year 2008 resources KPIs and eight indicators for the year 2012 resources KPIs; however, there is one indicator that stays the same for these two years. In fact, 80% of these indicators represent the same implication. For example, in the year 2008, the indicator of “To develop and implement a ten year capital development plan” was expressed as “Ensure progress is made against the Capital Asset Management”; however, the only new indicators related to resources added to year 2012 are the indicators “Continue to build the University's reputation” and “Enhance support services and resources for students”, and obviously these two new indicators are strategies responding to the MOE’s strategy priority of the years 2010-2015((The MOE, 2010,P0) which is “improving the educational and financial performance of providers“. In this sense, we can conclude that the tremendous change of the selection is caused by the non-standardisation of SPR for NZ Universities and the government policies. Similarly with AU’s SPR, there is no evidence indicating the selection of KPIs for AUT’s SPR is influenced by any other university through this key change analysis.

### **5.3.2 Further analysis of items in SPR of AUT**

With the purpose of analysing the factors that impact the content of the SPR of AUT, the classification of indicator method was employed to conduct content analysis. The following table 5 indicates the results of content analysis of the SPR of AUT.

Table 5, The further analysis table of AUT SSPs

Classification	Number of KPIs		
	2017	2012	2008
Community		1	
Educational	6	8	23
Financial	1	8	2
Internationalisation	3	4	4
Pacific	4	8	4
Research	6	8	7
Resources	1	8	9
Staff	5	5	6
Treaty of Waitangi	3	7	5
<b>Sub-total</b>	<b>29</b>	<b>57</b>	<b>60</b>

From table 5, we can see that from the year 2008 to 2012, the contents of SSP stay almost the same; however, as a result of the dramatic decline of the number of indicators for the year 2017, financial and resources information have almost been cut off. The SSP of AUT for 2008 (P29) expresses that the SSP was prepared under the Auckland University of Technology investment plan of the year 2008 to 2012. Similarly, the year 2012 SSP (P19) and the year 2017 SSP (P32) indicate the SSPs outline the strategies of AUT and these strategies integrate with the government's long term objectives. The indicators of "Resources" are mainly the assets developing plan, such as: develop and implement a ten-year capital development plan of building (\$000s). This indicator indicates the development of AUT, according to Tertiary Education Strategy of the years 2014-2019 (The MOE, 2014, P1 ); the priorities of these five years' strategy did not include the focus on assets development, so we can conclude that the indicator of Resources was reflecting the development of AUT, which is definitely a periodic indicator, so some of the indicators relating to asset development were cancelled in the year 2017 reports when its task has been approved.



Furthermore, there is one community indicator: “Extend and benchmark involvement with business, professions and communities” appears in the SSP for the year 2012 and was then cancelled in the year 2017’s SSP. It is clear that this indicator is the implementation of the MOE priorities of “strengthening research outcomes” for the years 2010-15, while for the year 2017, a research indicator of “New intellectual property licensed to industry” may represent the same implication as the indicator of “Extend and benchmark involvement with business, professions and communities” to a certain extent, and this indicator, obviously, is the implementation of the MOE priorities of “Strengthening research-based institutions” for the years 2014-2019.

From the above analysis, it is obvious that the content of SPR is determined by government policies, which characterised by NIS as a coercive factor.

### **5.3.3 Summary of analysis and discussion of AUT SPR**

The key change analysis indicates that there is a dramatic change in regard to the size and the selection of KPIs for SPP from the year 2008, and there are three reasons for this change from an NIS perspective. Firstly, the normative factor, which mainly refers to the non-standardisation of NZ university SPRs, is the significant reason for the diversity of KPIs, as there is no standard model for universities’ SPRs, although New Zealand has embraced NPM since 1989, and SSP became legally compulsory from 2002. The selection of KPIs will change according to the change of the understanding of standards and guidance published by the NZICA and the government. Secondly, as the youngest university in New Zealand, AUT had focused on its development as it stated in its SSP of the year 2008 (P40), and the procedure for its development is also where the changes have happened. Thirdly, the coercive factors, which mainly include government policies, are also one of the main reasons for the change of the selection of KPIs, as the implementation of new policies will obviously cause the creation of new KPIs.

The content analysis shows us that the content of the SPR is dominated by government policies, and also influenced by internal management requirements, such as the development of AUT; however, we still conclude that the internal management requirement is spurred by government policies so as to meet the goals guided by government. In this sense, we conclude that the content of the SPR of AUT is determined by government policies.

In conclusion, the SPR of AUT has formally encountered an intensive change since 2008 as there is no standard KIPs pool and reporting model; however, for its SSP contents, which are shaped by the government policies, there is only a slight change, as only the input-related indicators have been cut off from SPR, when the government strategies pay more attention to outcomes and outputs. In summary, the SPR of AUT is shaped by two factors, which are coercive factors and normative factors.

## 5.4 Lincoln University (LU)

The LU, one of the eight public universities in NZ, which specialises in the agricultural area, states its vision as “Leading New Zealand and the world to a sustainable environmental, social and economic future through excellence in research and teaching” (Lincoln, 2003, P34). With the purpose of fulfilling this vision, it has three missions, which are providing a learning environment, contributing to society by education, research and delivering knowledge, and providing efforts to the communities. Its vision and missions indicate that LU has fully embraced NPM and neo-liberal concepts.

### 5.4.1 The key analysis and discuss of LU SPR

For the key analysis of LU’s SPR, the word counting and grouping methods were employed to identify the SPR changes over the four selected years, which are the years 2003, 2008, 2012 and 2017. The following table 6 indicates the results of key change analysis.

Table 6 the key changes analysis table of LU SSPs

Items		Y2017	Y2012	Y2008	Y2003
Pages of SSP		15	21	16	16
Number of Indicators	Teaching	26	52	23	14
	Research	4	11	6	27
	Other	8	41	29	38
	Total	38	104	58	79
% of indiscrimination	Y2003/2008				11.39%
	Y2003/2012				10.13%
	Y2003/2017				0.00%
	Y2008/2012			91.38%	
	Y2008/2017			1.72%	

	Y2012/2017		13.46%		
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Table 6 outlines the key changes of service performance reporting of LU. First of all, the pages of SSP for the years 2017, 2012, 2008 and 2003 number 15, 21, 16, 16 respectively. However, the number of indicators for SSP has experienced a distinct change, from year 2008 to 2012: the number of indicators had doubled and then dramatically reduced to 38 from year 2012 to 2017. Meanwhile,, there are only 11.39% of the 79 indicators of the year 2003 that have been kept for 2008, and 10.13% for the year 2012, and zero for year 2017. However, we can see that 91.38 % of the indicators of the year 2008 had been continuing to work for 2012; however, there are almost 44 new indicators that were added into the year 2012. But from the year 2012 to 2017, there are only 13.46% indicators have been kept. It is very clear that the KPIs for SSP of LU have been changed dramatically from 2003 to 2014.

From key change analysis, the selection of KPIs for SPR has been experiencing dramatic change since the year 2003. First of all, the changes are caused by coercive factors, which mainly refers to government policies. To be more precise, from the year 2003 to the year 2017, all the indicators have been replaced. One of the main reasons is the release of new EPIs by TEC in 2016, and LU has employed all the new EPIs as its 2017 SPR. Moreover, the new indicators are created as new policies are published; for instance, when the PBRF policy was released, the PBRF-related indicators have subsequently emerged. Secondly, normative factors are another reason for the change of the selection of KPIs. For example, the indicator of “Scholarship funds distributed by Lincoln University (\$000s)” for the year 2008’s SSP is the subtotal of the year 2003’s SSP indicators, “Scholarship Total Value(\$000s)”, “The number of awards at Graduate diploma”, “The number of awards at Postgraduate” and “The number of awards at Bachelor’s degrees”, all of these indicators represent the different aspects of “Scholarship”. However, as there are no standardised requirements of SPR for universities, the creation of KPIs has been created arbitrarily, sometime directly produced based on the objectives in their annual forecast, then normative factors are another factor for the change of SPR. However, there is no evidence to show that SPR has been influenced by mimetic factors, which is also suggested by NIS.

### 5.4.2 Further analysis and discussion of items in LU SPR

From the above key change analysis, it is clear that the selection of KPIs for SPR over the four selected years has experienced tremendous change. With the purpose of identifying the factor that determines the content of SPR, the classification of indicator and grouping method were used to perform deep content analysis. Table 7 indicates the result of the content analysis.

Table 7 the further analysis table of LU SSPs

Classification	Number of KPIs			
	2017	2012	2008	2003
Community	1	2	1	
Educational	26	53	24	30
Financial	1	5	4	1
Innovation		2		
Internationalisation		13	14	4
Investment		1		12
Pacific	4	10	5	
PBRF	1	1	1	
Research	3	8	4	17
Resources		1		11
Staff				4
Treaty of Waitangi	2	8	5	
<b>Subtotal</b>	<b>29</b>	<b>104</b>	<b>58</b>	<b>79</b>

It is obvious that the indicators relating to “Community” have been listed since 2008. Obviously, this is exactly the requirements from government. To be more accurate, the indicators of Community were the implementation of “Strong connections between tertiary education organisations and the communities they serve” (The MOE, 2008,P16).

The Innovation indicators of “Revenue from commercialisation” and “Improved national capability in land-based industries” have only been listed once in the year 2012, which obviously responded to the call of “strengthening research outcomes” of tertiary education, the strategy of the years 2010-2015 (The MOE, 2010, p10); for the year 2017, in the SSP of LU the relevant indicator was changed to “ Revenue from consultancy activities” ,which was classified as financial indicators. From this

we can see that the content of SPR was dominated by government policies; however, it was influenced by normative factors about how to present the content as suggested by NIS.

As LU has adopted EPIs as its KPIs to assess its teaching and learning service performance of the year 2017 ( Table 8 indicates the comparison between EPIs published by TEC in 2017 and KPIs of the 2017 SSP), and employed words method to describe its other activities, this results in the sharp decline of the number of indicators for 2017, and that is also the reason for the lack of indicators of “ internationalisation” and “resources”. Furthermore, the comparison between the EPIs published by TEC in August 2017 and the KPIs of 2017 indicates that there are only slight differences between the two, as the 2017 KPIs contain the research-related indicators and have no progression-related indicators. From this, we can conclude that the huge difference of KPIs between 2012 and 2017 is triggered by the new EPIs guidance implemented by TEC.

Table 8, Comparison between KPIs of year 2017 and EPIs

<b>EPIs of TEC</b>	<b>KPIs of Year 2017 SSP</b>
Successful course completion	The successful course completion
Progression	
Cohort-based qualification completion rate	Qualification completion
Supplemental information for cohort-based	
Cohort-based first year retention rates	Student Retention
Participation	Participation
	Research

For 2008, almost 49 KPIs have been newly developed compared to the year 2003. The new indicators had been developed in response to relevant government policies’ requirements, and the following table 9 shows us clearly that the changes were made by relevant policies. Moreover, the SSP of 2008 states that all the KPIs included in its SSP are from its investment plan, which has been assessed and approved by TEC, and are in line with government strategies. (Lincoln, 2008, P16)

Table 9, The comparison between new indicators and policies.

<b>Items changed for year 2008</b>	<b>Relevant Policies</b>
Internationalisation	Tertiary education connections with international stakeholders - Year 2007 to 2012 government strategies
Maori and Pasifika aspirations	Focus on Maori and Pasifika - Year 2007-2012 government strategies
Research Excellence	PBRF policies by TEC published in Y2002
Qualification completion	Year 2014 the first vision of EPIs published by TEC in year 2004
Student Retention	Year 2014 the first vision of EPIs published by TEC in year 2004
Management and Stewardship	Detailed enrolment information - Year 2007 -12 tertiary education guidance demonstrates very detailed measurement.

From above analysis, we can summarise that the content of SPR of LU has experienced some changes which are mainly caused by the government policies. From an NIS perspective, the Universities have to conform to the government policies with the purpose to gain funds for its survival.

#### **5.4.3 Summary of analysis and discussion of LU SPR**

The key analysis of LU's SPR indicates that the size of SSP has been shrinking over the four years and the selection of KPIs for the SPR has experienced a dramatic change. From an NIS perspective, the changes are caused by coercive factors, which mainly refers to the government policies. The normative factors are another factor for the change of SPR. However, there is no evidence to show that the SPR has been influenced by mimetic factors.

The result of further analysis indicates that the content of LU's SPR has witnessed a slight change, which is caused by the change of government policies, as the government policies determined the content of SPR.

From an NIS perspective, the organisations conform to environmental pressure for the purpose of gaining funds or support for survival. LU's SPR has conformed to

environmental pressure which mainly refers to government policies and non-standardisation of KPIs, to gain government funds for its continued development.

## 5.5 Massey University (MU)

In its year 2012 annual reports (Massey University, 2013, p54-55), MU outlines its strategic framework, which is working out its strategic plan that is underpinned by key activities of the University. The strategic goals included in the plan will be measured by a series of performance measures, and the outputs will contribute to the goals of the tertiary system. These mean the objectives of MU are connected to the goals of the tertiary system, which also indicates the procedure of the New Zealand government welcoming neo-liberalism and carrying out NPM. The following will testify how the objectives of MU are influenced by educational policies by analysing the changes of its SPR.

### 5.5.1 The key changes analysis of the changes of SPR for MU

In order to conduct key changes analysis, the word counting and grouping methods were conducted over the selected four years' SSPs, which were downloaded from MU official website. As there is no year 2003 SSP on its official website, the year 2004 SSP was selected to replace it.

Table 10, The key changes analysis table of MU SSPs

Items		Y2017	Y2012	Y2008	Y2004
Pages of SSP		8	25	16	86
Number of Indicators	Teaching and	23	58	30	81
	Research	14	14	10	17
	Other	17	5	45	67
	Total	54	77	85	165
% of indiscrimination	Y2004/2008				1.80%
	Y2004/2012				4.85%
	Y2004/2017				5.45%
	Y2008/2012			7.10%	
	Y2008/2017			8%	
	Y2012/2017		35%		

From table 10, the most impressive change is that the number of pages has been dramatically reduced from 86 to 8 from the year 2004 to 2017: more than 90% of the pages have been cut down. Accordingly, the number of key performance

indicators has fallen to 54 in the year 2017 from the 165 of 2004. As for the indiscrimination percentage, there is only 5.45% of the indicators of year 2004 remaining for the year 2017, 8% of 2008 remained for the year 2017, and 35% of 2012 remained for 2017.

The above numbers and figures demonstrate that the service performance reporting of MU has been changed dramatically since the year 2004 in regard to the selection of KPIs and the size of SPR, and the trend tells us the style of SPR becomes increasingly simple and standardised.

From an NIS perspective, this result is drawn from the impact of coercive factors and normative factors. To be more detailed, the OAG (2002) published the report “Reporting Public Sector Performance 2nd edition” which give clear guidance about what should be included in the SPR. And the MOE (2007) released the “Tertiary Education Strategy 2007-2017” which proposed a framework for monitoring of SPR of TEOs. Although these government policies give guidance about the preparation of SSP, there are still no relevant professional standards to indicate the exact framework for SPR, especially the standardised KPI pool; the non-standardised situation of SPR leads to the diversity of KPIs, in particular, lots of KPIs are directly drawn from the university objectives.

#### **5.5.2 The further analysis and discussion of SPR for MU**

With the purpose of investigating what has influenced the content that is included in the SPR which can shed light for the future research of SPR, classification of indicator method was employed to conduct content analysis of the four selected years of MU’s SPR.



Table 11 The further analysis table for MU SSPs

Classification	Number of KPIs			
	2017	2012	2008	2004
Community				4
Educational	18	49	22	75
Financial	1	5	2	14
Innovation			6	1
Internationalisation	4	6	11	6
Pacific	1		8	
PBRF	1	1	2	
Research	9	8	15	21
Resources			17	15
Staff				14
Treaty of Waitangi	20	8	2	15
<b>Sub-total</b>	<b>54</b>	<b>77</b>	<b>85</b>	<b>165</b>

Table 11 indicates the result of content analysis of the SPR for MU. It is obvious that the indicators relating to “Community”, “Resources”, “Staff”, and “Innovation” were withdrawn. The indicators relating to “PBRF” and “Pacific” were created. In this sense, we can conclude that there are slight changes of the SPR of MU over the last two decades.

Table 12 Comparisons between policies, AU SSP and MU SSP

<b>AU Y2003 SSP items</b>	<b>Tertiary Education Strategy 2002-2007 Priorities</b>	<b>MU 2004 SSP items</b>	<b>MU2008 SSP Items</b>
-People  -Teaching and Learning  -Relationships with Communities of Interest	- Raise Foundation Skills so that all People can Participate in our Knowledge Society.  - Develop the Skills New Zealanders need for our Knowledge Society	Teaching and learning  Students  Staff	Improved educational success for life-long learners  Improved educational outcomes for learners from strengthening of Massey University's learning capacity  Strategic collaboration with industry, communities and other providers
-Research and Creative work	-Strengthen Research, Knowledge Creation and Uptake for our Knowledge Society	Research and Creative work	Advancement of Massey University's research capability, performance and reputation  Advancement of Massey University's research capability, performance and reputation
-Equal opportunities	-Educate for Pacific Peoples' Development and Success	The indicators of Equal Opportunities are all related to Pacific	Enhanced academic outcomes for Maori and Pasifika
-Treaty of Waitangi	-Te Rautaki Ma <sup>h</sup> auranga Ma <sup>h</sup> ori — Contribute to the Achievement of Ma <sup>h</sup> ori Development Aspirations	Treaty of Waitangi	
-Organisation and management  - Internationalisation  -Resources and Infrastructure	-Strengthen System Capability and Quality	The University and the Wider Community  Internationalisation  Organisation and Management	focusing and differentiating academic portfolio  Optimisation of commercial activities for enhancing economic growth  Enhancing international reputation and competitiveness  Implementation internationalisation strategies

Table 12 has compared the items listed in AU 2003 SSP, MU 2004 SSP, MU 2008 SSP. The results indicate that the content of SSP is determined by tertiary education strategies; from an NIS perspective, the content of SPR is dominated by coercive factors. However, we can see that the items listed in MU's SSP are very similar to those of AU. In that case, we cannot ignore the impact of mimetic factors for MU's SPR. Thus, we can conclude that the government policies are the main reason for the change of content of SPR of MU.

### **5.5.3 Summary of analysis and discussion of MU SPR**

The key changes analysis of MU's SPR indicates there are two changes for the SPR of MU over last two decades. Firstly, the size of MU's SSP has greatly declined, such that the number of KPIs has decreased from 165 to 54, and the pages of SSP have shrunk from 86 pages to 8 pages. Secondly, the selection of KPIs has experienced dramatic change. For instance, only 5.45% of KPIs of 2004 were carried down to the year 2017. As suggested by NIS, the changes of MU's SPR indicate the process of how MU has conformed to coercive isomorphism and normative isomorphism. To be more detailed, the welcoming of new government policies is the reason for the creation of new indicators, such as the creation of indicators of "PBRF" and "Pacific". For the normative, as pointed out by Scott and Pinney (2016), there have been SPR guidances since year 2002; however, there are still no standards that solely focus on SPR. This non-standardised situation of SPR leads to the diversity of KPIs, particularly lots of KPIs directly derived from the MU objectives. In conclusion, the reasons for the size change and the change in selection of KPIs are caused by the change of government policies and the standards of SPR.

The content analysis shows us that there is only a slight change of the content of SPR over the last two decades excluding the influence of normative factors, as the content of SPR is dominated by government policies. The content will change according to the change of government policies.

In summary, the SPR of MU has experienced enormous change regarding the size and the selection of KPIs, while there is only a slight change with regard to the content of SPR. The factors that caused this are the government policies and professional normative factors. As for the impact of mimetic factors, this needs further investigation.

## 5.6 University of Canterbury (UC)

The summary of SSP of Y2017 (The UC, 2017, P20) indicates the vision of UC is “people prepared to make a difference”. The mission of UC is “to contribute to society through knowledge in chosen areas of endeavour by promoting a world-class learning environment known for attracting people with the greatest potential to make a difference”. These vision and mission of UC indicate that UC has become more autonomic and made commitments to embrace ideas of neo-liberalism and carried out NPM. And, to fulfil its mission and meet the requirements of governments, UC has internalised its priorities during different financial years, which include the items comprised by the Challenges, the Concentrates and the Connects. Different performance indicators are employed to show the measurement of the outcomes.

### 5.6.1 The key change analysis of the change of UC’s SPR

For the key change analysis of UC’s SPR, wording counting and grouping methods were applied to identify the change of UC’s SPR with regard to the size and selection of KPIs, and the following table 13 represents the results.

Table 13, the key changes analysis table of UC SSPs

Items		Y2017	Y2012	Y2008	Y2003
Pages of SSP		16	12	44	20
Number of Indicators	Teaching and	24	31	66	7
	Research	7	10	12	8
	Other	5	9	77	19
	Total	36	50	155	34
% of indiscrimination	Y2003/2008				5.88%
	Y2003/2012				11.76%
	Y2003/2017				17.65%
	Y2008/2012			18.06%	
	Y2008/2017			13%	
	Y2012/2017		58%		

Similarly to MU, the startling change happened in the year 2008, which has 44 pages for SSP, double the number of the other years’ SSP pages, and in the

meantime, the number of indicators of Y2008 is three times of Y2012 and 5 times of Y2017 and Y2003.

Except as mentioned above, the proportion of Y2003 indicators remaining for Y2008, Y2012 and Y2017 are 5.88%, 11.76%, and 17.65% respectively, while 18.06% and 13% of Y2008 indicators have been left for 2012 and, and 58% of year 2012 indicators have been kept for 2017.

The above figures and numbers reveal that the SPR of UC has experienced huge change from Y2003 to Y2017 in respect of the size and selection KPIs.

Government policies and professional normative factors are considered to have caused the changes. In particular, the size and number of indicators of Y2008's SSP have suddenly increased. Accordingly, the government published the strategies of government for 2007 to 2012 in 2007, which suggested around 130 indicators for assessing the service performance of TEOs, and eight items are included which include almost all of the items of year 2008 UC SSP. Then we can recognise that the enormous increase of year 2008 has been triggered by government policies. In addition, the financial, staff, and resources indicators have been cut off since year 2012, which normally refers to the input of the SPR, while the emphasis of NPM in Universities is output and outcome. In this sense, this change of the decline of the indicators is caused by both normative factors, which emphasise the outputs, and government policies, which shift funding policies from inputs to outputs. Another reason for the change of selection of KPIs is the non-standardisation of SPR. For example, the indicator of "New UC centrally funded scholarships-Undergraduate" in the 2008 SSP, compared with the indicator of "Scholarship support - Undergraduate scholarships for fresher students (\$)" of 2012's SSP, may represent the same implication but they were expressed in different ways.

In summary, the key change analysis of the SPR for UC indicates the size and the selection of KPIs of UC have witnessed dramatic change, which is caused by the government policies and the professional normative factor.

### **5.6.2 The further analysis and discussion of UC SPR**

With the purpose of excluding the wording inference of the change of UC SPR and investigating the content change of UC SPR over the last two decades, the

classification of indicator method was employed to conduct the further analysis to examine how the content of SPR has been changing and what are the reasons for the change. The following table 14 indicates the content analysis results of UC SPR.

Table 14, the further analysis table of UC SSPs

Classification	Number of KPIs			
	2017	2012	2008	2003
Community	2	3	6	
Educational	12	22	47	11
Financial			16	4
Innovation	1		1	
Internationalisation	4	4	6	2
Pacific	7	7	12	2
Research	2	4	11	4
Resources			24	6
Staff		2	9	2
Sustainability			2	
PBRF	1	1	1	1
Treaty of Waitangi	7	7	20	2
<b>Sub-Total</b>	<b>36</b>	<b>50</b>	<b>155</b>	<b>34</b>

The further analysis of table 14 indicates that the items of “community”, “financial”, “staff” and “sustainability” in SSP from 2003 to 2017 have been cut off; it is clear that “sustainability” has been emphasised by government policies, and therefore, we conclude that the change of sustainability has been an internal management requirement. As for “community”, “financial” and “staff” items, they are resources of UC, while the SPR focuses on the outcomes and outputs, and the SPR has a trend to be simpler, so in this case the other indicators have been cancelled.

In conclusion, there are moderate changes of the content of SPR for UC. Specifically, the indicators of “Financial”, “Resources”, “Staff” and “Sustainability” have been cancelled and the indicators of “Community”, “Innovation” have been created. The reasons for the changes are the government policies and the internal management requirements.

### 5.6.3. Summary of analysis and discussion of UC SPR

From the above key change analysis of UC SPR, we can see that the size and number of UC SPR have experienced a dramatic increase from 2003 to 2008, and then suffered a sharp decline from 2008 to 2017. The reasons for these changes are government policies and professional normative factors, as suggested by NIS: the UC has to meet the requirements of government policies to obtain funding, thus the selection of SPR would change in line with the government policies.

The further analysis of UC's SPR reveals that the content listed in the SSP of UC has witnessed a moderate change as about 40% items have been cancelled and 20% new items listed, and the reasons for these change are government policies and internal management, as the content of SPR is dominated by government policies, while it is also influenced by requirements of internal management, which are normally spurred by government policies.

## 5.7 University of Otago (UO)

There are only two years' SSP available for UO from its official website, which are year 2017 and 2012, so there are only two years' data for the analysis of UO's SPR. It has its vision as "A research-led University with an international reputation for excellence" (Otago, 2012, P3). This vision indicates the requirements of neo-liberalism and NPM which are to be accountable, efficient and effective for public organisations.

### 5.7.1 The key change analysis and discussion of UO SPR

Wording counting and group method were used to perform the key change analysis for investigating the changes of UO's SPR. Table 15 demonstrates the results of this key change analysis.

Table 15 the key changes analysis table of UO SSPs

Items		Y2017	Y2012
Pages of SSP		9	6
Number of Indicators	Teaching and	9	10
	Research	7	8
	Other	36	29
	Total	52	47
% of	Y2012/2017		87%

From table 15, we can see clearly that 87% of performance indicators of Y2012 were carried down to Y2017, so I conclude that there is a slight change between 2012 and 2017.

Table 16 comparisons between government policies and UO 2017 SSP

<b>Items in 2017 SSP</b>	<b>Items of Tertiary Education Strategy 2014-2019</b>
Excellence in Research	Getting at-risk young people into a career
Excellence in Teaching	Boosting achievement of Maori and Pasifika
Outstanding Student Experiences	Strengthening research-based institutions improving adult literacy and numeracy
Commitment as a local, national and global citizen	Growing international linkages
Strong external engagement	Delivering Skills for industry
Sustaining capability	
Outstanding Campus Environments	

Table 16 indicates that the Items of SSP reflect the requirements of government, which also means the objectives which have been fulfilled by the University have been in line with government policies. Furthermore, the new indicators of Y2017 such as “Maintaining the University status as a Fair-trade University” is also in line with government policies. So, we can conclude that the slight change of SPR of UO is caused by government policies.

### **5.7.2 The further analysis and discussion of SPR for UO**

With the purpose of investigating the change of the content of UO’s SPR, a classification method was employed to examine SPR of UO over 2012 and 2017. The table 17 indicates the results of content analysis.



Table 17, The further analysis table of UO SSPs

Classification	Number of KPIs	
	2017	2012
Educational	9	8
Financial	2	2
Internationalisation	3	2
Pacific	3	3
Research	7	9
Resources	15	12
Staff	4	4
Sustainability	2	
Treaty of Waitangi	7	7
<b>Sub-total</b>	<b>52</b>	<b>47</b>

From table 17 we can see very clearly that the items for SPR for these two years are almost the same: only two sustainability indicators have been developed, which is one of the focuses of government policies.

The content analysis of UO SPR demonstrates that the content of SPR is decided by the government policies and the change is caused by the new focuses of government strategies.

### 5.7.3 Summary of analysis and discussion of UO SPR

The key change analysis of UO's SPR indicates that there is only a slight change of UO's SPR from years 2012 to 2017, and the government policies have caused the changes, which represents coercive factors from an NIS perspective. However, there is no evidence to test for the impact of normative and mimetic factors, as there are only two years data for analysis.

The further analysis results of UO's SPR shows us a slight change has happened between the two selected years' SSP. The investigation indicates the government policies have dominated the content of SPR and caused the change.

## 5.8 University of Waikato (UW)

In its 2012 annual report (University of Waikato, 2012,p41), the UW states that its key performance indicators and targets were in line with TEC requirements of its

investment plan of years 2011 to 2013 and the criteria of Auditor General. The following will discuss and analyse the change of SPR of UW.

### 5.8.1 The key change analysis of the changes of UW's SPR

First of all, the key change analysis was conducted through the word counting and grouping methods. The key change analysis demonstrates the style of SSPs for UW for year 2003 to year 2012 has changed dramatically. For the years 2003 and 2008, the information shown in the SSPs only contains the current year targets and achievements; however, for the years 2012 and 2017, like all the other seven universities, the SSPs contains three years' actual and the current year's budget. As all the other seven universities have at least three years' actual information and current year's forecast, we can conclude that the change of the style of UW's SPR is caused by mimetic factors and normative factors. Below, the table 18 will indicate the change of the SPR for UW.

Table 18 the key change analysis table of UW SSPs

Items		Y2017	Y2012	Y2008	Y2003
Pages of SSP		11	10	4	7
Number of Indicators	Teaching and Learning	18	18	14	9
	Research	3	3	4	10
	Other	12	11	9	49
	Total	33	32	27	68
% of indiscrimination	Y2003/2008				1.47%
	Y2003/2012				0.01%
	Y2003/2017				0.01%
	Y2008/2012			22.22%	
	Y2008/2017			11.11%	
	Y2012/2017		50.00%		

Table 18 indicates that only 1.47% KPIs of the year 2003 have remained for 2008, and 22.22% KPIs of Year 2008 were kept for 2012, while 50% that of year 2012 were carried forward to year 2017. This identifies that UW's SPR has experienced a dramatic change over last two decades.

The 2003 UW SSP includes seven items and 23 objectives, and there are 68 indicators to assess the achievement of 23 objectives. These seven items are "Excellence in teaching and other", "relevance", "access", "enhance the Universities

reputation”, “Treaty of Waitangi”, “research capability”, “capability”; these items indicate the requirements of Tertiary Educations Strategies.

In the 2008 SSP, there are no identified items; however, we still can divide it into research, teaching and learning, and other activities of UW. Comparing the research items for 2003 and 2008, we can find that, although there are four indicators for 2008 and ten indicators for the year 2003, they describe the same thing; for example, 2008 has the indicator “Increase proportion of research postgraduate EFTS provision”, year 2003 has indicator “Research postgraduate EFTS as a percentage of total EFTS” and “number of postgraduate students enrolled at the University of Waikato -Non graduate”. After filtering the same items by expressing them in different wording or focusing on different aspects, the percentage has been changed as 28%. The reasons for change are mainly because for 2003 the government strategies focused on all people’s education while for year 2008 the government strategies focused on the success of education for young people under 25.

From the above key change analysis, it is clear that the selection of KPIs have changed dramatically: the number of KPIs has declined sharply from year 2003 to year 2008 and then kept steady since year 2008. And it is government policies that caused the changes as government policies dominate the items in SSP.

Another change of UW’s SPR is the style of SPR. For example, for the years 2003 and 2008 SSPs, they only contain current year targets and achievement, while all the other universities have three years actual data and one objective. Then since 2012, UW has changes its SPR with three years’ actual data and one year forecast. We can conclude that the change of the style of UW has been caused by mimetic factors as suggested by NIS.

### **5.8.2 The further analysis of changes of UW SPR**

With the purpose of excluding the wording inference of the analysis of UW’s SPR, the classification of indicator method was carried out to conduct the further analysis. As discussed above, the SPR of UW has been witnessing an outstanding change regarding the selection of KPIs and the style; the government policies have caused the changes, while the mimetic and normative factors somehow can change the style of the SSP.

Table 19, the further analysis table of UW SSPs

Classification	Number of KPIs			
	2017	2012	2008	2003
Community				3
Educational	13	12	11	10
Equal Opportunity			1	4
Financial	1	1	1	7
Innovation			1	1
Internationalisation	6	2	1	1
Pacific	4	5	3	
PBRF		1		
Research	3	3	3	11
Resources		1	3	23
Staff	2	3		2
Treaty of Waitangi	4	5	3	6
<b>Sub-total</b>	<b>33</b>	<b>33</b>	<b>27</b>	<b>68</b>

Table 19 indicates the content analysis results. Regarding content change, indicators of “Community”, “Equal Opportunity”, “Innovation” and “Resources” have been cut out, while the indicators of “PBRF” and “Pacific” have been developed. As discussed above, this change of the content reflects the changes of the focuses of government policies.

The content analysis shows us that the content of UW SPR reflects the focuses of government policies, and the content of UW’s SPR has experienced a slight change over the last two decades, and a coercive factor is the main reason for the change.

### 5.8.3 Summary of the analysis and discussions of UW SPR

The key changes analysis of UW SPR indicates that the style of UW’s SPR and the selection of UW KPIs have all experienced a dramatic change. In detail, the style of UW’s SSP for the years 2003 and 2008 only contain the current year forecast and achievements, while for UW’s SSP of the years 2012 and 2017, they contain the previous two years’ actual achievements, and current year forecast and actual achievements; this change is caused by mimetic factors and normative factors.

In addition, there is a dramatic change over the selection of KPIs as only 0.01% of the KPIs of 2003 have been kept for 2017; after comparison with government policies, these changes are caused by the change of the government policies and the non-standardised SPR situation, which we refer to as normative factors.

The content analysis demonstrates that the focuses of government policies determined the content of SPR, so the change of content of UW's SPR is caused by government policies.

## 5.9 Victoria University of Wellington (VU)

In its 2008 annual report (Victoria University, 2008, p83) and (Victoria University, 2012, p19) the VU states that the development of its key performance indicators is based on its investment plans, which were approved by TEC, and in line with the requirements of government's policies. There are three years' data available for VU which are the years 2008, 2012 and 2017.

### 5.9.1 The key change analysis of changes of VU SPR

In order to investigate the changes of the size and the selection of KPIs of VU's SPR, word counting and grouping methods were adopted to perform the analysis. The table 20 reveals the results of analysis.

Table 20, the key changes analysis of VU SSPs

Items		Y2017	Y2012	Y2008
Pages of SSP		6	14	14
Number of Indicators	Teaching and	16	12	21
	Research	6	5	5
	Other	28	18	25
	Total	50	35	51
% of indiscrimination	Y2008/2012			14%
	Y2008/2017			14%
	Y2012/2017		23%	

First of all, table 20 indicates the pages of SSP for the years 2008 and 2012 are the same, while, for the year 2017 SSP of VU, there are only six pages, which is only half of the other two years. However, the numbers of indicators of the years 2008 and 2017 are almost the same, and that of the year 2012 is slightly lower which is 35. In this sense, it is hard to conclude the reasons for the change of the size of VU's

SPR; however, this conflicted situation indicates the non-standardisation of VU's SPR: the arrhythmic change of the size of VU SPR is caused by normative factors.

For the year 2017, there are 50 indicators to indicate the achievement of that year. However, 77% of these indicators are newly employed; this means the 50 indicators comprise eight old indicators from the year 2012 and 42 newly developed indicators. All this shows the SPR of VU has been experiencing dramatic changes.

As shown in the year 2008 the SSP (Victoria University, 2008, p83) states that the SSP of VU focuses on successfully linking the VU outputs that contribute to the success of the medium-term strategy of the University with the desired outcomes of government education strategy. Then we can conclude that the VU makes its medium-term plan against tertiary education strategies, and the different periods of SSP indicates different requirements of Tertiary Education Strategies. Further, the selected KPIs are employed to assess the realisation of strategies. Thus, the change of the selection of KPIs is caused by government strategies.

### 5.9.2 The further analysis of changes of VU SPR

The classification of indicator method was employed to investigate the further content change of VU's SPR. The following table 21 indicates the results of content analysis.

Table 21, the further analysis table of VU SSPs

Classification	Number of KPIs		
	2017	2012	2008
Community		3	2
Educational	14	13	9
Equal Opportunity			1
Financial	3	1	
Innovation			2
Internationalisation	4	1	6
Pacific	6	3	6
PBRF		1	1
Research	5	4	5
Resources	10	5	9
Staff	3	1	2
Treaty of Waitangi	5	3	8
<b>Sub-Total</b>	<b>50</b>	<b>35</b>	<b>51</b>

Obviously, the indicators of “community”, Equal Opportunity, “Innovation” have been cut off in 2017, which is similar to AU and reflects the change of tertiary education priorities.

In conclusion, there is slight change for the content of VU’s SPR, and it was caused by the government policies.

### **5.9.3 Summary of analysis and discussion of VU SPR**

The key changes analysis of VU’s SPR indicates a conflicted change of VU’s SPR size, which is expressed as the descending trend of SSP pages and the ascending trend of the number of KPIs. This arrhythmic change of VU’s SPR is caused by the non-standardised situation of NZ university SPRs. From an NIS perspective, it is the normative factors that lead to the arrhythmic change of VU’s SPR.

The content analysis of VU’s SPR shows us there is a slight change over the three period of SSP, and the change of content of VU’s SPR is caused by the alteration of government tertiary education strategies.

In conclusion, the SPR for VU has changed dramatically as there is no standard pool for KPIs and SPR reporting models; however, substantially, there is only a slight change as the government policies always have the similar priorities for each of these periods.

## **5.10 Summary of eight public Universities SPR analysis**

Key change analysis and further analysis have been performed for all of the eight public universities. Key change analysis employed wording counting and grouping methods to identify how the size and the selection of KPIs of SPR have been changed. The content analysis of SPR mainly focuses on what has been reflected by SPR and what the changes of the content of SPR are; the classification of indicator method was adopted for the content analysis.

### **5.10.1 The changes of SPR in NZ universities**

This study has chosen four years’ SSP to investigate the changes that have been made over the SPR of NZ universities, which are 2003, 2008, 2012 and 2017 (except Massey University, for which the 2004 SSP has been selected instead of 2003, and some other universities have only two or three years’ data selected, given

the limitation of data sources). The following will discuss the changes of SPR over different periods.

#### 5.10.1.1 The changes of SPR period from year 2003 to year 2008

Roper (2018) has marked the period from late 1980 to 2008 as the “Formulation and Implementation” period of New Zealand neo-liberal model for funding tertiary education. In detail, a series of policies which represent the NPM transformation were introduced during these years, such as the tuition fee policies, PBRF policies, student loan scheme and bulk funding policy. During this period, the Tertiary Education Advisory Commission (TEAC) was established, which helped to produce Tertiary Education Strategy that could provide an “overview of the tertiary education framework and set the strategic direction, establish priorities and articulate key goals for the tertiary education system” (Roper, 2018,p16-p23). Narayan and Stittle (2018) highlighted this period as a “strategic re-positioning and performance accountability” stage. Under this neo-liberal context, the SPR of universities is supposed to actually reflect the results of transformations.

- The size of SPR: five universities’ data have been analysed for these periods, and the size of SPR has experienced an arrhythmic change over this period with regard to the number of KPIs.

Table 22, the key change analysis of eight public universities for 2008

Universities	Number of KPIs		
	2008	2003	% of indiscrimination
AU	57	59	17.24%
LU	58	79	11.39%
MU	85	165	1.80%
UC	155	34	5.88%
UW	27	68	1.47%

Firstly, except UC, the number of KPIs of the other universities has experienced a decline over these two years. More specifically for MU, the number has declined from 165 to 85, and the number of UW has declined from 68 to 27. However, the number of KPIs for UC has increased dramatically from 34 to 155. On the other hand, the number of KPIs of different universities is different. From an NIS perspective, this arrhythmic change is mainly caused by



professional normative factors. As there are no standards working for the preparation of SSP, the perception of the guidance of the universities are all different among the eight public universities. This non-standardised context is the root for the arrhythmic change.

- The selection of SSP: the percentage of indiscrimination of table 22 indicates clearly that the selection of SSP has gone through a dramatic change between these two years. As discussed above individually, this dramatic change of the selection of SSP is mainly caused by government policies. As discussed above, government policies determined the content of SPR, then the implementation of the new policies and the updated policies will accordingly change the selection of KPIs
- The content of SPR: from the above individual analysis, we can see that there is an outstanding change of the content over these two years. As explained by NIS, this change is caused by coercive factors, mainly referring to the government policies. The above comparison between the items of SSP and the priorities of Tertiary Education Strategy indicates clearly the content of SPR is shaped by government policies.

#### 5.10.1.2 The Changes from the year 2008 to the year 2012

Roper (2018) pointed out that this is a period of economic crisis, the neo-liberal policies for this period being to continue cutting down government funding and promote the autonomy and accountability of TEOs.

- The size of SPR

Table 23, the key change analysis of eight public universities for 2012

Universities	Number of KPIs		
	Y2012	Y2008	% of indiscrimination
AU	59	57	96.49%
AUT	57	60	1.67%
LU	104	58	91.38%
MU	77	85	7.18%
UC	50	155	18.06%
UW	32	27	22.22%
VU	35	51	23.00%

Interestingly, from this key change analysis table, the size of SPR has experienced an arrhythmic change. In particular, the number of KPIs for LU during this period has an enormous change, ascending from 58 to 104, while that of UC has declined from 155 to 50. Still, the arrhythmic change of the size of SPR indicates the lack of standard SPR for preparation of SSP. From an NIS perspective, the normative factor has led to the arrhythmic change. However, the numbers of KPIs of other universities have shown a relative steady situation which means the size of SPR for these universities have been keeping stable; this means there is internal requirement for the standards of SPR.

- The selection of KPI and the content of SPR

Table 23 shows us very clearly that except AU and LU, all the other universities have experienced very low indiscrimination of SPR. In detail, the percentage of indiscrimination of AUT is only 1.67% — this means the selection of KPIs has experienced significant change. However, the result of content change of SPR has a slight change regarding the results of individual analysis. As explained by NIS, there are coercive, normative and mimetic factors that provoke the change of KPIs selection. The result of individual discussion shows that the content of SPR was dominated by government policies and sometime also influenced by internal management requirements, which were normally spurred by the government policies requirements.

### 5.10.1.3 The Changes from year 2012 to year 2017

- The size of SPR

Table 24, the key changes analysis of eight public universities for 2017

Universities	Number of KPIs		
	2017	2012	% of indiscrimination
AU	41	59	27.12%
AUT	29	57	17.54%
LU	38	104	13.46%
MU	54	77	35.00%
UC	36	50	58.00%
UO	52	47	87.50%
UW	33	32	23.00%
VU	50	35	50.00%

Similarly to last two periods, table 24 proposed that there is an arrhythmic change for the size of SPR, which is caused by professional normative factors as there is no standard solely worked for SPR. However, the discrepancy between these two years became smaller as compared with the last two periods. This indicates the desired anxiety for establishing the standard for universities' SPR.

- The selection of KPIs and the content change.

Except UO (which only has two years' data), all the other universities have experienced great changes in the selection of KPIs. In contrast, the content of SPR has encountered slight changes, which normally were dominated and influenced by government policies.

#### **5.10.1.4 Summary of changes of SPR of Universities**

In summary, initially, all these eight public universities have experienced the outstanding changes of their SPR by the size and the selection of KPIs. All those eight public universities have different SPR, and the diversities of SPR are caused by normative factors, as there are no standards that work solely for SPR. Further, there is also no KPI pool for SPR; the non-standardised character makes the SPR show diversities, which make it difficult to compare with peers and history. As suggested by NIS, there are three reasons for the changes, which are coercive factors, normative factors and mimetic factors (DiMaggio & Powell, 1983). In this research, the key changes of SPR are mainly caused by normative factors.

Moreover, there is a slightly difference that happened in regard to the content of SPR, which are shaped and guided by government policies. For instance, the publication of educational indicators by TEC has encouraged almost all of the eight public universities to adopt the educational indicators for assessing teaching and learning tasks. The PBRF policies and other policies have also influenced the universities on their objectives and then to make changes with their SPR and management.

#### **5.10.2 The issues of eight public universities service performance reporting**

As there are no standard for the universities' SPR, the universities could easily change their key performance indicators, which brings the following issues for SPR in NZ universities.

- 1) Inconsistency: this inconsistency mainly includes two aspects. First, the same indicators of same year in different year's reports can show us different numbers. For example, the number of total EFTS for 2003 in the the year 2003's SSP of AU, is 27,475, while in the year 2004's SSP, the number has become 27,205. Secondly, the universities will change their objectives according to the guidance published by the government, and then it is very common for the universities to employ this KPI for one period's reports but then give it up for the next year's reports. This will lead to the lack of longitudinal comparison between different periods. At the same time, the newly-developed indicators will take time to work out the previous two periods' data, so the preparation of SSP would be extremely time-consuming. Thirdly, the same KPI will be assessed in different items during different periods. For example, for the year 2003's SSP of AU, indicator "% of Pacific academic staff (FTE)" is used to assess equal opportunity; however, for the year 2008's SSP this indicator was used to assess excellent people.
- 2) The non-standardisation for both KPI and SPR. From the above analysis, we can see very clearly that the universities work out their plan and objectives according to the Tertiary Education Strategies, and it is very common for all the eight public universities to directly employ the objectives as KPIs. The KPIs become very long and change very frequently. Similarly to the development of SPR, the Universities change the style of SPR frequently.
- 3) The lack of indicators in relation to effectiveness and efficiency. Almost all the eight universities use their objectives in their investment plan as their indicator directly; however, there are no indicators to show how well the tasks have been performed and the efficiency they have achieved compared to last a couple of years and their competitors. For example, the purpose of NPM transformations in universities is to improve their accountability, effectiveness and efficiency. However, there are no indicators that show the percentage of government funding to total income of TEOs, from which we can see to what extent the university is self-accountable.

## **5.11 Conclusion**

This chapter comprehensively analyses the changes of SPR in all eight public universities, and finds that the SPR in NZ universities has experienced great changes since the year 2003, and the government policies and non-standardisation of SPR

are the main reasons for the changes, as the Universities make their objectives according to Tertiary Education Strategies. Then assessing the achievement on the objectives, it is clear that the change of policies will lead to the change of objective and then consequently change the SPR. However, the frequent changes of SPR have triggered some issues, such as inconsistency and non-standardisation.

## **CHAPTER SIX – SUMMARY AND CONCLUSION**

### **6.1 Introduction**

This chapter outlines the conclusion of this research. 6.2 reviews the objectives of this research. 6.3 summarises the findings of this study. 6.4 outlines the implications of this research. 6.5 discusses the limitations of this study. Finally, 6.6 will provide suggestions for future research in this area.

### **6.2 Objectives of this research**

With the purpose of relieving the government financial pressure, neo-liberalism has been globally advocated since the late 1980s, as it promotes the ideas of “freedom”, “market and consumer orientated” and “competitive environment”. (Narayan and Stittle, 2018). The implementation of these ideas in the public sector has provoked NPM. In particular, the welcome of neo-liberalism into the education sector has shifted the “Keynesian model” of funding to the “Neo-liberal model”, which forces the TEOs to be efficient, effective and accountable (Roper, 2018). As suggested by Narayan and Stittle (2018), New Zealand started to embrace neo-liberalism and NPM from the late 1980s. Roper (2018) has divided the transformations of New Zealand tertiary education into the prior NPM period, formulation and implementation period, and implications for higher education after the 2008 economic crisis. He pointed out that the procedure for neo-liberal transformation of NZ tertiary education is the process of relieving the government’s financial crisis and promoting the TEOs autonomy and accountability. SSP, as the presentation of the service performance achievement, is one of the products of welcoming neo-liberalism. TEOs have been required to include SSP in their annual reports by government since the late 1980s in New Zealand. This has become compulsory since year 2002 pursuant to the Local Government Act 2002. The Education Act 1989 also states clearly that the TEIs should align their service with their strategies. Furthermore, the broad principle section of the Public Finance Act 1989 (amended 2015) has emphasised that public organisation should have clear objective, responsibilities, and greater accountability to improve effectiveness and efficiency with flexibilities. SPR is the method of how to prepare the SSP, which has been of significant importance for indicating the performance of TEOs.

However, numerous pieces of research have been conducted to investigate the performance measurement of TEOs, while there is little research to examine how the performance of TEOs has been represented. The purpose of this research is to investigate the changes of SPR for NZ universities and identify the factors that caused the changes. NIS suggests the internal practice of organisations can be influenced by the external factors which are coercive isomorphism, mimetic isomorphism and normative isomorphism (Guthrie & Neumann, 2007). This research has identified the impact of government policies and normative factor on the internal practice of NZ universities.

### **6.3 Summary of findings**

The methodology employed by this study is content analysis. Content analysis is the methodology for analysing the published reports or disclosure. This study has adopted wording counting and grouping methods to perform key changes analysis of the university SPR to investigate the changes of KPIs number and the selection of KPIs. Furthermore, the further content analysis was conducted by classification of indicator method, which investigates the change of SPR content by the classification of KPIs to testify and exam the factors that shaped the SPR content. This study analyses the changes of SPR in NZ universities and finds that there are the following changes of SPR in NZ universities over the last two decades. Firstly, there is an arrhythmic change in respect of the size of SPR, noted by checking the number of KPIs employed by SSPs, as there are no relevant standards for TEOs to prepare their SSP - from an NIS perspective, this change is caused by normative factors. Secondly, the selection of KPIs has experienced a significant change over the last two decades. After comparing with tertiary education strategy and relevant policies, this research finds that the diversity of KPIs of SPR is the result of the non-standardisation of KPIs and the change of government policies. For instance, the implementation of PBRF leads to the development of the KPIs for the assessment of PBRF. While the non-standardisation also leads to the diversity of KPIs, such as the indicator of “% of Maori student EFTS” and the indicator of “the number of Maori student EFTS”; these two indicators represent the same implications while listed as different indicators. From an NIS perspective, the combination of coercive factors and normative factors has led to the diversity of KPIs. Thirdly, comparing the outstanding changes for the selection of KPIs, there is a slight change in respect of the content of SPR, and the change of content has been caused by government

policies, which are defined as a coercive factor as suggested by NIS. Normative factors can impact the format and model of SPR. After comparing the changes with government policies, it is obvious that the change of government policies can accordingly cause the change of SPR. This study is underpinned by NIS which provides insights on how external factors influence internal management. In addition, this research has identified the current issues with SPR for NZ universities. These include the lack of KPIs for assessing the efficiency and effectiveness of universities; the purpose of the NPM is to enhance the accountability, efficiency and effectiveness of public sectors, and SSP is supposed to demonstrate the results of the implementation of NPM, while the lack of relevant KPIs make SSP fail to embody its contributions. Also, the issues of the non-standardisation of SPR and inconsistency have limited the significance of SSP. For example, the diversity of KPIs makes it very difficult to make a comparison between different TEOs, and the competition advocated by neo-liberalism will be limited.

#### **6.4 Implications of this research**

This study provides a number of valuable contributions to the literature and practice in respect to SPR in the education area. First of all, the identification of how the SPR of universities has been influenced by government policies addresses an essential gap in the SPR literature. In practice, the examination of the external factors for SPR and the identification of current issues of SPR can actually shed some lights for TEOs in preparing SSP. Indeed, the study provides insights on how the government policies influence the internal practice of NZ universities. However, this study also indicates that the SSP of NZ universities have only tried to meet the legislative requirements and get funding for their survival, instead of providing the information required by all kinds of stakeholders and incentivising the efficiency and effectiveness of the organisation. The identification of the impact of government policies on the universities' performance reporting has significant influence on the government policies in turn, as it has clearly provided for the government what efforts should be made to improve the SPR for the Universities.

#### **6.5 Limitations of this research**

This study provides an insight about how the SPR of NZ universities have been changed over last two decades with the influence of external factors, which indicates



how the internal strategies of universities have been shaped by external factors. However, there are two limitations relating to this research. Firstly, NIS suggests three external factors that could influence the SPR of universities; however, the difficulty of identifying any mimetic factors makes this study mainly focus on coercive factors and normative factors. Secondly, there is a generalisation limitation for this research. For instance, with the time limitation, there are only four years' SSPs that have been selected for this study. Further, this study only investigates the SPR of NZ universities, and thus the findings of this research are restricted to NZ universities.

## **6.6 Future research**

This study examines how government policies have triggered the changes of SPR in NZ universities; this also indicates that SSP is the showcase of how well the universities have done and what the universities have achieved, so the SPR is significant for assessing the effectiveness of the adoption of neo-liberalism in universities. This study identified that the procedure for NZ universities embracing neo-liberalism is the process of how coercive factors and normative factors have shaped and influenced the universities' internal practice, so the very urgent call for SPR-related research of NZ universities is to how to establish a standardised KPI pool which should make the comparison between different universities easier, and then actually increase the competition between universities. As a result, the standardised SPR will also contribute to saving time for preparing the SSP of universities.

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# APPENDICES

## Appendix 1 Analysis data of The University of Auckland

KPIs	Y2017	Y2012	Y2008	Y2003
Number of Community Education **				263
Total community education EFTS **				160
Total enrolments in courses**				6,884
Alumni with whom the University is**		24962	103070	
Degrees offered				80
Diplomas and certificates offered				63
Private and Other funding Per EFTS**				4,184
Non-degree programmes**				411
Undergraduates**				22,322
Postgraduate				4,742
Taught Masters completions**	960			
% Qualification completions**		58	63	
Student/ academic staff ratio	18.2	18.2	17.5	15
% Taught postgraduate EFTS		14	13	
% of Postgraduate of Total EFTS**				18
Degree accredited by professional **	53	45	33	
% undergraduate students **		94	82	
% Postgraduate students expressing**		95		
% of students expressing **	95			
% Students under 25(domestic)**		74		
% Total EFTS (Domestic residency) **	82.8			
% qualification completions for **		63	68	
%successful course completions **		88		
% Successful course completions **	89			
Number of students enrolled in **				3,059
Ministry of Education Subsidy**				23,021
% new undergraduate retention**	87	87	87	
% Annual EFTS growth		1.4	0.2	
Taught postgraduate (EFTS)				2,904
Number of students with a disability**				636
Number of students using disability**				392
Operating costs per EFTS				11,663
Fixed Assets per EFTS		49413	46935	29,466
Revenue(\$M)	1147	931	789	506
Operating surplus				15
Net cash flows from operation**				81
Net equity				745
Operating surplus as % of revenue	3.3	3.1	3.10%	
Operating cash receipts as % of **	121.6	115	120	
Revenue achieved as % of budget		100	102	

<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2003</b>
Total Revenue per EFTS	34366			
Total revenue per FTE	513617	431266	384901	
People costs as % of total expenditure**		62	60	
Cash inflow as a percent of cash **				119
Debt:equity (% of total liabilities**				21
Donations; bequests and fundraising**		7500	8422	
Teaching and learning income **		12226	11914	
Full fee paying- international student**				4,126
Study Abroad (incoming)				340
Subsidised Exchange students **				108
Total international EFTS				4,084
Exchange agreements with other **				61
International ranking -Times High**	192	83	65	
International ranking Shanghai**		151-200	201-302	
International ranking-QS World **	82			
% International (EFTS) of Total **	17.2	13	11	
% of International postgraduate **		19	15	
Students studying off-shore**		1530	935	
% Pacific successful course**		77	68	
% Pacific qualification completion**		39	44	
% Pacific professional staff	6.1	5		
% Pacific Island academic staff **	2.6	2	2	2
% Pacific Island general staff **			6	5
Number of Pacific EFTS				1,688
% of Pacific EFTS		8.5	8.4	6
% Undergraduate Students**	12.2			
% Postgraduate students (Domestic)**	5.6			
% PBRF eligible staff ranked A**		14	14	
% PBRF eligible staff ranked B**		36	36	
% PBRF eligible staff ranked C**		34	34	
% PBRF eligible staff ranked R**		16	16	
Citations per FTE (PBRF Eligible) **	171	19	16.1	
PBRF eligible external research**		141	139	
External Research Income (PBRF)**		82734	93428	
Academic general staff ratio	1.5	1.5	1.7	
Total printed volumes				1,898
Serial titles and e books				132,911
% Research postgraduate EFTS		8	7	
Research Masters completions	762			
Doctorate completions	435			
Peer reviewed publications**	4.3			
Number of Peer-Reviewed **	7348			
Research-based postgraduate (EFTS)**				1,568



<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2003</b>
Research grants-University only**				48
Research grants-UniServices**				63
Books and Referred chapters **				506
Refereed papers, other works **				4,775
Creative works				158
Reviews and comments				377
Doctoral theses completions		32.5	245	
Masters theses completions (PBRF)**		862	608	
% Doctoral completion**		57	49	
New doctoral candidates enrolled**		509	349	
Total external research income **		229	191	
External research income earned **		20.1	15.4	
Large-Scale Research institutes **		2	2	
Subsidised -Research postgraduates**				186
Proportion of courses **	58			
% of postgraduate to total postgraduate**				35
Domestic students (headcount)**				28,466
International students (headcount)**				4,760
Equivalent full time students (headcount)**			30172	27,205
Students academic standard -A **				50
Students academic standard-B**				34
EFTS per FTE academic staff**				15
% School Leavers with a GPE>4.4**	57.7	45	38	
Departmental and School reviews**				2
%Library collections expenditure**		1.7	2	
EFTS per open access computer**		6.1	5.6	
Space per student		8.9	9.1	
General staff				1,960
% Senior academic positions filled**		26	23	
Number of prestigious international**	319	194	161	
Professional development expenditure**		1257	1480	
% Proportion of staff positive **	62			
% of staff positive about staff **	80			
% Female academic staff (FTE)				38
Academic Staff				1,826
Energy consumption	153			
Wastewater	0.7			
Paper per EFTS	2.7			
Solid waste to landfills per EFTS**	0.5			
CO2 emissions per EFTS	1			
Numbers of injuries	554			
Rating in self-assurance review**	Tertiary			
% Maori academic staff (FTE)**	6	6	6	4
% Maori general staff (FTE)**		6	7	5
Number of Maori EFTS				1,366

<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2003</b>
% Maori students (EFTS)		8	7	5
% Undergraduate Students (Domestic)**	8.8			
% Postgraduate students (Domestic)**	6.7			
% Maori Successful course completion**		85	81	
% Maori qualification completion **		48	51	
% of Maori staff in proffessional **	6.8			

## Appendix 2 Analysis data of Auckland University of Technology

Classification	KPIs	Y2017	Y2012	Y2008
Community	Extend and benchmark **		achieved	
Educational	Number of new students **	1152		
Educational	Percentage of available graduate**	85%		
Educational	percentage of student **	89%		
Educational	Percentage of students report**		79%	
Educational	successful completion rates **			79%
Educational	To achieve a rate of 90% **			Not
Educational	To ensure processes in new **			achieved
Educational	To ensure that each major **			achieved
Educational	To ensure the University's **			27%
Educational	To ensure the University's **			14%
Educational	To ensure the University's **			43%
Educational	To ensure the University's **			63%
Educational	To ensure the University's **			10%
Educational	To ensure the University's **			12%
Educational	To increase course completion**			71%
Educational	To increase equity per EFTS			19548
Educational	To increase the percentage **			42%
Educational	To review the University's **			achieved
Educational	Successful course completion **		83%	
Educational	successful completion rates **			75%
Financial	Continue to diversify the Uni**		achieved	
Financial	Debt cover ratio(maximum)		1.8	
Financial	Debt to debt plus equity**		20%	
Financial	Interest cover ratio(minimum)		5.5	
Financial	Maximum aggregate financing **		99,565	
Financial	Maximum commercial debt**		61,250	
Financial	Minimum cash ratio		121%	
Financial	Net surplus to external revenue**		4.50%	
Financial	To meet appropriate financial**			2.1%
Internationalisation	International postgraduate **	1280	674	
Internationalisation	Proportion of international **	16%	14%	21%
Internationalisation	Strengthen and benchmark AUT**	achieved	achieved	
Internationalisation	To expand international **			achieved
Internationalisation	International research EFTS		162	
Internationalisation	successful completion rates **			85%
Internationalisation	The percentage of students **			78%
Pacific	Improve the EPI results for **		53.70%	
Pacific	Improve the EPI results for **		86.30%	
Pacific	Improve the EPI results for **		75.10%	
Pacific	Improve the EPI results for **		70.30%	
Pacific	Increase senior academic and **		achieved	
Pacific	Increase the proportion of po**		6%	
Pacific	Increase the proportion of un**		12%	
Pacific	Number of Pacific graduates f**	369		
Pacific	Number of postgraduate students**	394		
Pacific	Senior Maori and Pacific staff**	21		
Pacific	Strengthen the contribution **	achieved	achieved	

<b>Classification</b>	<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>
Pacific	successful completion rates **			66%
Pacific	To ensure the University's **			10%
Pacific	To ensure the University's **			5%
Pacific	To increase the percentage **			58%
Research	Increase the number**		1607	
Research	New intellectual property **	6		
Research	Raise the University's profile**		achieved	
Research	To ensure each research**			achieved
Research	To increase external research**			15.3M
Financial	To increase revenue per**			238504
Research	An increased number of doctors**	959	546	
Research	An increased number **		593	
Research	Annual external research revenue**			7%
Research	External research revenue **	6M	3.3M	
Research	Number of quality-assured res**	2103		
Resources	To increase links to provide **			achieved
Research	To increase the number of **			167
Research	To increase the number of**			18%
Research	To increase the number of rests**	2021		2237
Research	To increase the number **			98
Research	Total external research revenue**	13.1M	10.3	
Educational	course completion for student**			85%
Educational	Domestic under 25 students to**			70%
Educational	Manukau campus EFTS		696	
Educational	More than 15% of EFTS in post**	18%	13%	
Educational	More than 90% of EFTS in**		88%	
Research	Increase the allocation of in**		achieved	
Research	Ensure that each academic uni**		achieved	
Resources	Percentage of bachelors**	93%		
Educational	Percentage of EFTS in postgra**	17%		
Educational	Proportion of students from a**	28%		
Educational	Qualification completion rate		74%	
Educational	Student progression rate **		85%	
Educational	Student retention rate		81.2%	
Educational	successful completion rates **			89%
Educational	successful completion rates **			85%
Educational	successful completion rates **			82%
Financial	Increase third stream revenue**	\$36.8M		
Educational	The percentage of students **			73%
Educational	The percentage of students **			71%
Resources	Ensure progress is made again**		740	
Resources	Ensure progress is made again**		45,826	
Resources	Ensure progress is made again**		4,599	
Resources	Ensure progress is made again**		4,432	
Resources	Ensure progress is made again**		4,473	
Resources	Ensure progress is made again**		4,108	
Resources	To develop and implement **			4263
Resources	To develop and implement **			373
Resources	To develop and implement **			63

<b>Classification</b>	<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>
Resources	To develop and implement **			668
Resources	To develop and implement **			3628
Resources	To develop and implement **			42517
Resources	To develop and implement **			55
Resources	To develop and implement **			2117
Resources	Continue to build the University**		achieved	
Resources	Enhance support services **		achieved	
Staff	Continue to develop an open**		achieved	
Staff	Encourage and support the **		achieved	
Staff	Enhance leadership and manage**		achieved	
Staff	Overall employee engagement **	72%		
Staff	Senior female staff	121%		
Staff	Staff consultancy revenue	1.3M		
Staff	To ensure the average **			10.3%
Staff	To ensure the average **			5.4%
Staff	To maintain a staff development**			1.5%
Staff	academic staff contributing **	64%	56%	
Staff	Proportion of academic staff **			
Staff	Proportion of academic staff **	59%	38.00%	
Staff	Ratio of academic to allied **			1:0.9
Staff	To increase the proportion of**			achieved
Staff	Ratio of Students to academic**			16.9:1
Educational	To meet the needs of **			achieved
Treaty of Waitangi	Improve the EPI results for **		65.0%	
Treaty of Waitangi	Improve the EPI results for **		75.7%	
Treaty of Waitangi	Improve the EPI results for **		74.0%	
Treaty of Waitangi	Improve the EPI results for **		80.3%	
Treaty of Waitangi	Increase the proportion of **		8.3%	
Treaty of Waitangi	Increase the proportion of **		10.2%	
Treaty of Waitangi	Number of Maori graduates **	326		
Treaty of Waitangi	Number of postgraduate students**	317		
Treaty of Waitangi	Strengthen the contribution **	achieved		
Treaty of Waitangi	Strengthen the contribution **		achieved	
Treaty of Waitangi	successful completion rates **			76%
Treaty of Waitangi	To ensure the University's **			10%
Treaty of Waitangi	To ensure the University's **			6%
Treaty of Waitangi	To increase course completion**			81%
Treaty of Waitangi	To increase the percentage **			72%

### Appendix 3 Analysis data of Massey University

KPIs	Y2017	Y2012	Y2008	Y2004
Community communications on **				2,117
Community communications on **				1,275
Community communications on **				488
Community communications on **				354
Postgraduate successful course**	88	88		
Postgraduate satisfaction with**	76			
Proportion of qualification **			100	
Courses Offered in Summer **				249
Postgraduate EFTS - Taught **				1,372
Total University EFTS	18,653	19,704		
Total University Student Achieve**	15,051	16,852		
Student commencements-All student**		9,134		
Student commencements-Domestic**		7,559		
Student commencements-Domestic**		4,161		
Student commencements-Domestic**		3,398		
Student commencements-Pasifik**		376		
Student commencements-Distance**		3,706		
Student commencements-International**		5,428		
Student Participation by (EFTS)**		15,663		
Student Participation by (EFTS)**		478		
Student Participation by (EFTS)**		15,185		
Student Participation by (EFTS)**		2,513		
Student Participation by (EFTS)**		1,529		
Student Participation by (EFTS)**		13,256		
Student Participation by (EFTS)**		6,449		
Student Participation by (EFTS)**		625		
Student Participation by (EFTS)**		9,158		
Student Participation by (EFTS)**		7,693		
Student Participation by Number**		33,491		
Student Participation by Number**		15,627		
Student Participation by Number**		1,102		
Student Participation by Number**		12,141		
Student Participation by Number**		18,134		
Postgraduate taught participate**	16			
Pasifika student Participation**	5.1	3		
Domestic student under 25 **		54		
Student retention-All student**	75.5	68		65
Student retention-Domestic **		67		
Student retention-Domestic **		76		
Student retention-Domestic **		62		
Student retention-Paskfika **	64.9	55		56%

KPIs	Y2017	Y2012	Y2008	Y2004
Student progression-All student**	74.1	26		
Successful Course completion**	81.3	81		
Successful course completion**				89.10%
Successful course completion**				90.10%
Successful Course completion**		80		
Successful Course completion**		82		
Successful Course completion**		79		
Successful Course completion**	73.5	73		
Successful Course completion**	60.7	56		
Successful Course completion**		85		
Student Profile by Level of S**				2,053
Student Profile by Level of S**				16,260
Student Profile by Level of S**				4,158
Student Profile by Level of S**				855
Student Profile by Level of S**				23,326
Postgraduate EFTS as % of Total**				21.49%
Qualification completion-All **	52.1	47		
Qualification completion-Domestic**		49		
Qualification completion-Domestic**		45		
Qualification completion-Domestic**		55		
Qualification completion-Pasifik**	29.9	23		
Qualification level completion**			17%	
Qualification level completion**			32%	
Extramural qualification **			15%	
Extramural qualification **			11%	
Extramural qualification**			33%	
Extramural retention rate year**			55%	
Extramural student satisfaction**			78%	
Number of qualifications **			1	
Undergraduate qualifications **				126
Undergraduate Qualification **				85
Undergraduate Qualification **				48
Undergraduate Qualification **				56
Undergraduate Qualification **				66
Postgraduate qualifications **				113
Postgraduate qualifications**				78
Postgraduate qualifications**				59
Postgraduate qualifications **				39
Postgraduate qualifications**				62
Academic Evaluation and Assess**				3.93
Academic Evaluation and Assess**				3.85
Academic Evaluation and Assess**				4.15

<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2004</b>
Academic Evaluation and Assess**				3.98
Academic Evaluation and Assess**				3.92
Academic Evaluation and Assess**				3.94
Academic Evaluation and Assess**				4.12
Academic Evaluation and Assess**				3.99
Academic Evaluation and Assess**				4.36
Academic Evaluation and Assess**				4.36
Academic Evaluation and Assess**				4.11
Academic Evaluation and Assess**				4.21
Academic Evaluation and Assess**				4.54
Academic Evaluation and Assess**				4.45
Academic Evaluation and Assess**				4.59
Academic Evaluation and Assess**				4.61
Academic Evaluation and Assess**				4.58
Academic Evaluation and Assess**				4.73
Eligible papers for which **				31
Eligible papers for which **				100
Qualifications available on **				5
Student satisfaction-with education**	80.5			
Student satisfaction-with **	78.9	86		
Overall Student Service**				62
Overall Student Service Satisfaction**				67
Overall student satisfaction**		88		
Overall student satisfaction**		88		
Graduate destination survey**	89.0			
Engaged in further study (%)	29.0			
Academic Staff with a Doctor**		66.6		
Proportion of papers **			40	
Student satisfaction**			67	
Proportion of qualifications **			15.5	
Student progression into degree**			-	
Student progression into degree**			-	
Student progression into degree**			-	
EFTS by qualification level **			4	
EFTS by qualification level **			72	
EFTS by qualification level **			18	
EFTS by qualification level **			5	
EFTS-Taught by Region-Total				23,326
EFTS-Taught by Region- Palmer**				14,083
EFTS-Taught by Region-Auckland**				4,582
EFTS-Taught by Region- Wellington**				4,661
EFTS-Taught by Mode-Internal				16,159
EFTS -Taught by Mode - Extram**				7,167



<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2004</b>
EFTS- Funded by Ministry of Education**				17,840
EFTS- Funded by Ministry of Education**				11,832
EFTS -Taught by Mode - Extram**				7,167
EFTS- Funded by Ministry of Education**				17,840
EFTS- Funded by Ministry of Education**				11,832
EFTS- Funded by Ministry of Education**				2,974
EFTS- Funded by Ministry of Education**				3,035
Equal Educational Opportunities**				1,026
Equal Educational Opportunities**				1,529
Equal Educational Opportunities**				563
Programme Completion by Type **				82
Programme Completion by Type **				687
Programme Completion by Type **				186
Programme Completion by Type **				852
Programme Completion by Type **				44
Programme Completion by Type **				2,484
Programme Completion by Type **				472
Programme Completion by Type **				347
Programme Completion by Type **				0
Programme Completion by Type **				242
Programme Completion by Type **				120
Masters, Honours and Doctoral**				17.3%
All Postgraduate Completion**				33.6%
Graduating students who enrol**				16.7%
Overall Graduate Course **				3.92
Overall Research and Experience**				3.85
Redesign of papers to support**			Achieved & Ongoing	
Relocate the college of Education**			Achieved	
Courses delivered in Te Reo **				58
Grow international teaching **			Achieved & Ongoing	
Licensing revenue (\$000)	300	436	334	
Surplus as a percentage **		2.15		4.2
Working capital ratio (%)		100.95		118.75
Debt to debit plus equity **		1.58		1.37
University Risk Rating		M		
Cash Cover - Liquidity				29.13%
Cash Cover - EBITD/Int Exp				95.56X
Operating Surplus to Total **				2.10%
Total Revenue to Net Assets				59.37%
Revenue per Funded EFTS				\$15,501
Operating Costs per Funded EFTS**				\$15,056
Capital Expenditure **				\$1,605
Fixed Assets per Funded EFTS				\$26,267

KPIs	Y2017	Y2012	Y2008	Y2004
Change in Financial Value				2.61%
Salary Related Expenses **				199,991
Revenue from Domestic Tuition**				64,644
Implement budget strategies **			Achieved & Ongoing	
Further enhance and develop **			Achieved & Ongoing	
Offer specialist services **			Not Achieved.	
Strengthen collaborative new**			Achieved & Ongoing	
Develop appropriate mechanism**			Achieved & Ongoing	
Progress implementation of Maori**			Achieved	
Develop more extensive relation**			Achieved & Ongoing	
Implement the University's **				Partially Achieved
Active international partners**	310	201		
Research Degree completion (%) **		44		
Exchange Students - To (Number)**				26
Exchange Students - From (Number)**				11
Study Abroad Students to Massey**				45
International full-fee EFTS	3,106	2,222		4,809
Student commencements-International**		1,575		
Student Participation by Number**		3,223		
All international student **	20			
Successful Course completion**	86.3	83		
Revenue from International **				61,933
International Tuition Fees**				17.64%
Seek AACSB international**			Achieved & Ongoing	
Further diversification of **			Achieved & Ongoing	
Deliver international distance**			Achieved & Ongoing	
International ranking Asia **			43-64	
International EFTS by qualification**			4%	
International EFTS by qualification**			84%	
International EFTS by qualification**			12%	
International student qualification**			49%	
International student qualification**			52%	
International student qualification**			69%	
Number of formal academic **			94	
Pasifika qualification level **			17	
Pasifika qualification level **			18	
Pasifika qualification level **			15	
Pasifika qualification level **			35	
Pasifika qualification retention**			47	
Pasifika qualification retention**			46	
Pasifika qualification retention**			69	

KPIs	Y2017	Y2012	Y2008	Y2004
Student participation-pasifik**	0.7			
Implementation and extension **			Achieved & Ongoing	
Performance-Based Research **	65	52	45	
Update and implement College **			Achieved	
External research income (\$M)	74	63	63	50.75
External research income (\$M) **		18		
External research income (\$M) **		25		
External research income (\$M) **		20	12	
Postgraduate research **	6.2			
Research Degree completion (%)	385	342	418	
Research Degree completion (%) **		11		
Research output-total	2,743		3612	2003
Research output-journals	2,132			626
Research outputs-Books	423			34
Research outputs-Creative work**	188			
Publications per Academic Staff**				1.93
New disclosures (#)	30	29		
Licences/deals executed (#)	3	7		
Numbers of licences and option**			2	
Continue the Advanced Degree **				Achieved-Ongoing
Postgraduate EFTS -Research				2,908
Phd (Doctoral Students) Headcount**				951
Extension & Technology Transf**				3
Extension & Technology Transfer**				1
Extension & Technology Transfer**				1,766
Extension & Technology Transfer**				231
Extension & Technology Transfer**				171
Extension & Technology Transfer**				113
Extension & Technology Transfer**				576
Extension & Technology Transfer**				23
Research Output Communication**				
Research Output Communication**				
Research Output Communication**				
Research Output Communication**				
Number of research programme**			156	25
Number of academic qualification**			16	
Develop a research programme **			Not Achieved.	
Examine areas of recognised **			Achieved & Ongoing	
Establish, and/or further **			Achieved & Ongoing	
Implement the University's **			Achieved & Ongoing	
Develop an enterprise capability**			partly Achieved	
Further develop intellectual **			Achieved & Ongoing	

KPIs	Y2017	Y2012	Y2008	Y2004
Establish and monitor key **			Achieved & Ongoing	
Invest in library infrastructure**			Achieved & Ongoing	
Continue to encourage **				Achieved & Ongoing
Initiate at least three new **				Achieved & Ongoing
Renew and strengthen research**				Achieved & Ongoing
Establish the University Grade**				Achieved
Formal Academic Arrangements **				69
Leadership and Management **				270
Training and development **				741
Training and development **				7,350
Implementation of Kia Maia **			Achieved & Ongoing	
Implement strategic redevelopment**			Achieved & Ongoing	
Explore the opportunity to **			Not Achieved.	
Invest in infrastructure for **			Achieved	
Invest in infrastructure for **			Achieved	
Strategic positioning and **			Achieved & Ongoing	
Examine the network of provision**			Achieved & Ongoing	
Explore the opportunity to **			Not Achieved.	
Develop mechanisms to better **			Achieved & Ongoing	
Expand programmes to encourage**			Achieved & Ongoing	
Explore the establishment of **			Achieved	
Investigate opportunities for**			Achieved	
Develop and implement a Univercity**			Achieved	
Develop strategic Asset Manage**			Achieved	
Develop information System **			Achieved & Ongoing	
Complete services optimisation**			Achieved & Ongoing	
Develop and implement Strategy**			Achieved & Ongoing	
Establish five Chaires in **				Achieved & Ongoing
Continue to Explore a strategic**				Achieved & Ongoing
Establish a project to update**				Partially Achieved
Space Utilisation Usable **				5.67
Space Utilisation Usable **				9.33
Space Utilisation Usable **				10.9
Space Utilisation Usable **				9.55
Space Utilisation Usable **				53.94
Space Utilisation Usable **				94.14
Space Utilisation Usable **				68.21
Space Utilisation Usable **				69.71
Staff PRP (Performance Review**				80%
Gender balance amongst staff **				37%

KPIs	Y2017	Y2012	Y2008	Y2004
Gender balance amongst staff **				57%
Gender balance amongst staff **				62%
Gender balance amongst staff **				23%
Gender balance amongst staff **				41%
Gender balance amongst staff **				36%
Gender balance amongst staff **				44%
Gender balance amongst staff **				50%
Gender balance amongst staff **				40%
Gender balance amongst staff **				26%
FTE Academic Staff with a PhD**				50%
Training opportunities for student**				43
Staff participating in training**				666
Research Degree completion (%) **		23		
Student Participation by (EFTS)**		1,881		
Student Participation by Number**		3,336		
Maori student participation **	11.7	11		
Student retention-Maori **	67.4	60		53%
Successful Course completion**	72.2	70		
Maori course completion**				67
Maori course completion **				83
Maori course completion **				82
Maori course completion **				65
Maori course completion **				76
Qualification completion-Maor**	40.2	42	20	
Student participation-Maori **	1.7			
Student participation-Maori **	28.0			
Student participation-Maori **	8.0			
Learning and teaching -Maori **	1,755	991		
Maori student participation **	11.7			
Learning and teaching- Maori **	72.0			
Research-Maori postgraduate **	82.9			
Research-Maori research degree**	22.0			
Maori representation amongst **				175.04
Learning and teaching -Student**	67.4			
Learning and teaching -Student**	73.3			
Learning and teaching -Success**	72.2		96%	
Learning and teaching -Qualification**	40.2			
Student satisfaction-with **	83.0			
Student satisfaction-with **	79.0			71
Graduate destination survey**	94.0			
Graduate destination survey**	32.0			
Initiate at least two new Maori**				Partially Achieved
Maori-Centred Course (number) **				164

<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2004</b>
Maori-centred qualifications **				20
Maori Student Enrolments (Number)**				3,942
Maori Student Enrolments (Number)**				1,230
Maori Student Enrolments (Number)**				710
Maori Student Enrolments (Number)**				369

#### Appendix 4 Analysis data of University of Otago

Classification	KPIs	Y2017	Y2012
Research	Increasing the number of quality**	4,825	5,226
Research	Increasing research funding **	\$112.3M	\$90.60
Research	Increasing the proportion of **	8.90%	9%
Research	Increasing the number of research**	550	524
Research	at least 90% of research degree**	92%	87.50%
Research	At least maintaining the number**	143	126
Research	At least maintaining the number**		1,238
Research	Maintaining Otago's position as**	Third in ARWU	both rankings
Educational	Increasing the proportion of **	18%	16.60%
Educational	At least 90% of undergraduate **	95.30%	90.20%
Educational	Increasing the pass rate for **	85.80%	84.50%
Educational	Maintaining an average pass rate**	91.20%	89.90%
Educational	Increasing the number of student**	3,235	3,961
Educational	Increasing the number of student**	2,007	1,501
Educational	at least 90% of respondents to **	84.90%	83.10%
Educational	At least 90% of respondents to **	Achieved	
Educational	At least 90% of respondents to **	94.70%	94.20%
Internationalisation	Enrolling a diversified **		11.40%
Internationalisation	Enrolling a diversified **		19.90%
staff	Maintaining or increasing the **		1780
Resources	At least 90% of residential **	97.70%	90.10%
Resources	At least 90% of respondents **	Achieved	Achieved
Internationalisation	Enrolling a diversified **	12.10%	
Internationalisation	Enrolling a diversified **	21.10%	
Resources	At least 90% of respondents to **	Achieved	Achieved
Resources	Providing learning assistance**	731	508
Resources	Providing annual funding for **	funding depreciation	funding depreciation
Treaty of Waitangi	Increasing the number of Maori **	1,933	1658
Treaty of Waitangi	Increasing the percentage of Mari**		8.80%
Treaty of Waitangi	Increasing the pass rate for **	81.50%	77.80%
Treaty of Waitangi	Increasing the Number of Maori **	256	284
Treaty of Waitangi	Increasing the Number of Maori **	125	98
Treaty of Waitangi	Increasing the number of Pacific**	931	662
Treaty of Waitangi	Increasing the percentage of **	4.90%	3.30%
Pacific	Increasing the pass rate for **	68.50%	59.40%
Pacific	Increasing the Number of pacific**	115	108
Pacific	Increasing the Number of pacific**	67	45
Treaty of Waitangi	Maintaining or increasing the **	658	
Resources	Maintaining or increasing the **	2480	
Resources	Holding at least 500 open lecture**	747	424
Resources	Providing at least 100 **	112	127
Resources	Maintaining the University**	Status maintained	

<b>Classification</b>	<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>
Resources	An increasing proportion of **	50.60%	
Resources	Hosting at least 650 academic **	889	551
staff	At least 25% of academic staff **	19.20%	35.60%
staff	At least 80% of University**	79.50%	87.10%
staff	At least 50% of academic staff **	68.50%	69.30%
staff	At least 50% of academic staff **	72.60%	
Research	Maintaining appropriate formal**		388
Internationalisation	increasing the number of student**	193	
Resources	Achieving or exceeding the **	18,198 & 18,457	18,981
Financial	Achieving an operating surplus **	14% of net assets	2% of net assets
Financial	Maintaining a liquid ratio of **	2.1:1	1.8:1
Resources	Ensuring that net interest paid**	0.60%	1.80%
Resources	Maintaining at least 50% of**	56.90%	54.60%
Resources	Increasing the consulting, **	\$77.9M	\$69.1M
Sustainability	Reducing energy use per m2 of *	3 years rolling a	
Sustainability	Increasing the percentage of **	11.30%	



## Appendix 5 Analysis data of University of Canterbury

KPIs	Y2017	Y2012	Y2008	Y2003
New Zealand -based **			28	
New Zealand -based **			1,327	
Engagement with **			For implementation	
Student Enrolments **	11,671			10,447
Student Enrolments **	13,089			
Student Enrolments **	4,006			
Under -25 enrolment**	76.90%	74.60%	74%	
First - year Attrit**			Not available	
First - year Attrit**			Not available	
First - year Attrit**			Not available	
First - year Attrit**			Not available	
Sub-degree enrolmen**		1.20%		
Successful course **			83%	
Successful course **	87%	86%	83%	
Successful course **			71%	
Successful course **	87%	86%		
Course completions **			79%	
Course completions **			83%	
Qualification Compl**	69%	77%		
Qualification Completion**	76%	85%		
Qualification level**			41%	
Qualification level**			71%	
Qualification level**			60%	
Retention - Under **	88%	89%	NO information	
Retention - All SAC**	87%	87%	NO information	
Retention - Student**			NO information	
Student engagement **		Suspended		
Student engagement **		Suspended		
Student engagement **		Suspended		
Scholarship support**		130	114	
Scholarship support**		\$673,935	\$356,000	
Pathways - Number **		3	implemented	
Pathways - Number **		351	430	
% of TSD student **			55%	
% of TSD students **			15.57%	
Number of students **			82	
Number of students **			126	
Preparatory programe**			537	
Implement a benchmark**			completed	
Scholarship support**		1,380		
Scholarship support**		2,818,814		
Targeted scholarship**		17	24	

KPIs	Y2017	Y2012	Y2008	Y2003
Targeted scholarship**		\$86,956	\$150,000	
Develop and implement**			Benchmarking	
UC Teaching Awards**			7	
NZVCC and Bright **			27	
Erskine Fellowships**			69	
Implementation of **			Development	
Number of new **			10	
Percentage of programe**			refinement	
Percentage of course**			required	
Number of programmes**			34	
Teaching developmen**			13	
Teaching developmen**			\$93,083	
Academic promotion **			7%	
Participation Rates**			89%	
Participation Rates**			3.50%	
Domestic students **			26%	
EFTS Increase/decrease**				83
EFTS Increase/decrease**				786
New UC centrally **				59
New UC centrally **				88
New UC centrally **				21
Postgraduate enrolment**	1,752	8%		912
EFTS Increase/decrease**				112
Postgraduate enrolment**	2,926	16.60%		1,862
EFTS Increase/decrease**				202
Work integrated **		Suspended		
Students in STAR **			195	
EFTS Students enrol**			161	
Successful course **			88%	
Carry out a **			Deferred pending	
Relationship with **				Completed
Operating Surplus **			5.70%	
Surplus plus **			15.10%	
Surplus plus **			83.45	
Increase/decrease **			5.50%	
Total personnel cost**			59.70%	
Total personnel cost**			63.30%	
Net Surplus as a **			5.70%	
Operating Cash Flow**				\$25,286,000
Operating Cash inflow**			117%	
Interest Cover **			60.1X	
Liquid funds ratio**			22%	
Debt as a proportion**			124%	

KPIs	Y2017	Y2012	Y2008	Y2003
Depreciation to **			51.90%	
Current Assets to **			134%	
Total Liabilities **			12.30%	
Cash reserve in month**			2.4months	
Return on Assets**			2%	
Operating Surplus**				\$3,374,065
Cash Balance **				\$8,329,920
Industry engagement**	\$4.3m			
Number of internship**			Data Delayed	
Student Enrolments **	1,418			1,941
Full Fee international**	10.80%	6.40%	11%	
International **		58.50%		
Retention International**			NO information	
Number of students **			145	
Number of programme**			3	
Overseas - based **			19	
Overseas - based **			506	
International engage**	81	69		
International engage**	24	16		
Student fee increase**				0%
Support for Joint **				No funding
Pacific enrolments **	3%	1.90%	2.30%	
First-year Pacific **	3.10%	2.40%	Not availabe	
First-year domestic**	121		Not availabe	
Successful course **	70%	69%	62%	
Qualification **	51%	75%		
Retention - Pacific**	82%	83%	NO information	
Retention - Pacific**	75%	78%	NO information	
Number of students **			60	
Engagement with **		Achieved		
Equity and Diversity**			0.60%	
Equity and Diversity**			1.00%	
Equity and Diversity**			0.90%	
EFTS increase/decrease**				12
EFTS of Pacific **				166
Regular meetings of**			meetings held	
Implementation of **			Regular reporting	
Research outputs **	431	270		
Research outpurts **	\$34.4M	\$27.3M	\$37.6M	\$11,385,192
Postgraduate enrolment**	1,174	8.60%	5.70%	950
EFTS Increase/decrease**				89
Research scholarship**		492	229	
Research scholarship**		\$7.1M	\$4.1M	

KPIs	Y2017	Y2012	Y2008	Y2003
Quality assured **			available next year	
Doctoral thesis **			129	
Master thesis**			187	
Total contract value**			\$2.5M	
Number and value of**			274	
Number and value of**			\$2,389M	
Research - only **				1
Number of media **			187.00%	
Distribution of **			47,500 per issue	
Number of public **			610	
Number of creative **			113	
Number of issues of**			48	
UC Chronicle Number**			20	
Number of **				3
Development of a KP**			84%	
Development of a KP**			9%	
Relationship with A**	\$9.6m	\$4.9m	\$4.0M	
Relationship with A**	65%	47%	37%	
Relationship with A**		118,030	108,087	
Development of a KP**			11	
Development of a KP**			323	
Number of Liaison **			464	
Number of on-campus**			186	
Number of on-campus**			588	
Monthly reporting **			Achieved	
Number of UC attend**			16	
Number of attendees**			11	
Update and report **			Identified	
Develop and implement**			Tested and reviewed	
Develop and implement**			Completed	
Monitor Statutory **			First year completed	
Facilities Capex as**			61.90%	
Library Capex as a **			15.70%	
IT Capex as a % of **			3%	
Develop and implement**			Under development	
Develop and implement**			Project Plan	
Internet announcement**			128	
Government grant in**				6.40%
Government Strategic**				Nil
Organisational **				All performance
Focused spending on**				0
Successful CoRE bid**				1
Reward system**				Completed

KPIs	Y2017	Y2012	Y2008	Y2003
Erskine Grants (UC )**			23	
Number of staff **			13	
proportion of new **			60%	
Proportion of new **			80%	
Proportion of **			80%	
Staff engagement **		Not measured		
staff engagement **		Not measured		
Voluntary staff **			9.10%	
Equity and Diversity**			37%	
Equity and Diversityt**			60%	
Equity and Diversity**			52%	
Increase in Marketing**				3
Increase/ decrease **				5.20%
Develop and implement**			Implementation	
Annual assessment **			Indicators in place	
Maori enrolments as**	7.70%	6.80%	5.50%	
First-year Maori **	7.80%	7.40%	Not available	
First-year Domestic**	313		Not available	
Successful course **	82%	80%	77%	
Qualification **	57%	81%		
Number of students **			62	
Maori and Pacific **	5.90%	4%	3%	
Maori and Pacific **	4.30%	5.50%		
Stocktake of Maori **			Research forum held	
Engagement with Maori**		Achieved	Held	
Equity and Diversity**			4.30%	
Equity and Diversity**			2.80%	
Equity and Diversity**			3.30%	
EFTS Increase/decrease**				-25
EFTS of Maori student**				518
Number of Treaty **			reconsideration	
Attendees at Treaty**			reconsideration	
Stocktake of Maori **			Deferred pending	
Development of Maor**			Deferred	
Leadership position**			6.70%	
Support for Maori **			under discussion	
Establishment of **			Deferred	
Consultation with **			under discussion	
Hits on UC Intranet**			3,290,843	

**Appendix 6 Analysis data of Victoria University of Wellington**

<b>Classification</b>	<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>
Community	Communities contribution **		173	
Community	Communities contribution**		364	
Community	Communities contribution**		733	
Community	Strengthen Processed for**			Achieved
Community	Demonstrate leadership in **			Achieved
Educational	Course completion rate for **	84.3	85.6	78%
Educational	Course completion rate for **	84.8	85.7	79%
Educational	Course completion rate for **	81.9		71%
Educational	Course completion rate for **			71%
Educational	Student retention rate**	86.6	81	
Educational	Proportion of courses **	83		
Educational	Proportion of teacher **	92		
Educational	Proportion of graduates **	95.1		
Educational	Proportion of students **	86		
Educational	Number of students**	105		
Educational	Total EFTS increase by 1.5% **	0.40%		
Educational	Commencing total EFTS	5,406		
Educational	Commencing full fee EFTS	741		
Educational	Proportion of taught**	11.7		
Educational	Number of inaugural**	11		
Educational	Qualification completion**		66.6%	
Educational	Qualification completion **		60.50%	
Educational	Qualification completion**			55%
Educational	Percentage of enrolled **		79	
Educational	The student progression**		77	
Educational	The percentage of student **		87	
Educational	Maintain the current **		118	
Educational	Maintain the current **		46	
Educational	Maintain the current**		595	
Educational	Manage enrolment **		Achieved	
Educational	Offer 80 entry-level**		Achieved	
Educational	First-year qualification**			12%
Educational	First-year qualification**			22%
Educational	First-year qualification**			26%
Educational	Set up and run teaching **			Achieved
Equal Opportunity	Increase the awareness **			Achieved
Financial	Achieve real revenue**	4%		
Financial	Revenue retained**	3%		
Financial	Increase the amount**	5.90%		
Financial	Achieve financial targets		Achieved	
Innovation	Work the interdisciplinary **			Achieved
Innovation	Develop and mature**			Achieved

Classification	KPIs	Y2017	Y2012	Y2008
Internationalisation	Number of students who**	90		
Internationalisation	Number of students on**	259		
Internationalisation	Number of students on **	205		
Internationalisation	Proportion of intenational **	15.9		
Internationalisation	Enrol full-free international**		Achieved	
Internationalisation	Increase proportion of**			12.90%
Internationalisation	Increase proportion of**			19.20%
Internationalisation	Launch the Victoria**			Achieved
Internationalisation	Participate in the **			Achieved
Internationalisation	Revenue from international**			Achieved
Internationalisation	Finalise the Internationalisation			Achieved
Pacific	Course completion rate**	70.4	70.7	56%
Pacific	Course completion rate **			47%
Pacific	Course completion rate**			64%
Pacific	Proportion of Pasifika **	5.9	4.6	5%
Pacific	Pasifika retention rate (%)	79.7		
Pacific	Commencing Pasifika **	226		
Pacific	Proportion of academic **	2.6		
Pacific	A holistic engagement **	In Progress		
Pacific	Qualification completion **			40%
Pacific	The qualification completion**		52.7	
Pacific	First-year qualification**			32%
PBRF	All members of the academic**		610	
Research	External research income (\$M)	57.8	\$39M	
Research	Number of annual Master's**	395		
Research	Number of annual PhD **	132		
Research	Commencing research **	115		
Research	Proportion of research **	6.2		
Research	Research postgraduate en**		7.30%	16%
Research	at Least 90 doctoral degree **		128	
Research	At least 200 Master degree**		352	
Research	Research - develop **			Achieved
Research	Implement 2007 research **			Achieved
Research	Implement University -wide**			Achieved
Research	Invest in research centres **			Achieved
Research	Offer research capability **			Achieved
Resources	Primary strategies-Establish **	Achieved		
Resources	Citation impact Web of **	57.8		
Resources	Citation impact scopust**	1.29		
Resources	Citation impact soop**	1.33		
Resources	Citation of new invention **	44		
Resources	Stakeholder advocacy **	In Progress		
Resources	Philanthropic campaign **	\$65.2m		

Classification	KPIs	Y2017	Y2012	Y2008
Resources	Evaluate the capital city**	In Progress		
Resources	Major capital projects **	In Progress		
Resources	Number of expert **	609		
Resources	Implement a University**		Achieved	
Resources	Establish or maintain **		Achieved	
Resources	Apply an increased **		Achieved	
Resources	Maintain a programme of **		Achieved	
Resources	Achieve 2012 milestones**		Achieved	
Resources	Provide supervised, high**			Achieved
Resources	positive impact of student**			Achieved
Resources	Increase the number of **			Achieved
Resources	Explore possibility of using **			Achieved
Resources	Strengthen links with the **			Achieved
Resources	Strengthen Links Massey**			Achieved
Resources	Victoria is committed to **			Achieved
Resources	Complete infrastructure **			Achieved
Resources	Provide appropriate training**			Achieved
Staff	Proportion of professors **	30.5		
Staff	Proportion of the University**	2.8		
Staff	implement the Your Voice**	Achieved		
Staff	Implement the annual **		Achieved	
Staff	Expand professional **			Achieved
Staff	Align staff development, **			Achieved
Treaty of Waitangi	Course completion rate for **	78.2	79.3	71%
Treaty of Waitangi	Course completion rate for **			62%
Treaty of Waitangi	Course completion rate for **			77%
Treaty of Waitangi	Proportion of Maori ** (%)	11.1	9.9	8%
Treaty of Waitangi	Maori retention rate (%)	79.5		
Treaty of Waitangi	Commercing Maori Student**	542		
Treaty of Waitangi	Proportion of academic staff **	4.8		
Treaty of Waitangi	Qualification completion rate**			44%
Treaty of Waitangi	The qualification completion **		58.2	
Treaty of Waitangi	First-year qualification-level **			32%
Treaty of Waitangi	Develop robust data require **			Achieved
Treaty of Waitangi	Increase the proportion of **			Achieved



## Appendix 7 Analysis data of University of Waikato

KPIs	Y2017	Y2012	Y2008	Y2003
2003 Equal Educational Opportunities**				achieved
2003 Equal Employment Opportunities**				Achieved
Active participation in Agbio **				Achieved
Annual income from research **				\$17.9M
Co-authored contributions to**				1.40%
Code of practice for pastoral care**				Achieved
Code of practice for Support of **				Under development
Comprehensive orientation and **				Achieved
Create new Research Centres involved**			Achieved	
Databases in halls of residence as**				Operational
Debt management				3.10%
Development and adoption of Annual**				Deferred
Enhance stakeholder links through **			751	
Environment-office of Student life**				Established
Establish a robust policy framework**			Achieved	
Establishment of NZ chapter of **				Established
Establishment of Runanga as part **				Established
Establishment of the Learning **				Established
Go-authored refereed and scholarly**				26%
I-Graduate student survey-domestic**	90.20%			
I-Graduate student survey-domestic**	93.10%			
I-Graduate student survey-domestic**	88.50%			
I-Graduate student survey-International**	92.60%			
I-Graduate student survey-International**	89.40%			
I-Graduate student survey-International**	91.30%			
Implementation and review of **				Achieved
Implementation of 2003 programme **				Implemented
implementation of Diversified Mark**				Implemented
implementation of the planning **			Achieved	
Implementation of the recommendation**			Achieved	
Improve participation and service **			Achieved	
improve progression rates from **			89%	
Improve student progression rate **			17%	
Improve Student Progression rate **			483	
Improve the University's overall **		achieved		
Improved access to E-learning for **				Achieved
Improved pass rates of Maori student**				72%
Improved policies and processes **			Achieved	
Improved Processes for Executive **				Achieved
Improved re-enrolment rates of Maori**				58%
Improved staff understanding of **				implemented in 2003
Increase Development office Revenue**			\$2.2M	

KPIs	Y2017	Y2012	Y2008	Y2003
Increase ERI, Commercialisation **			\$47M	
Increase number of qualifications **			Achieved	
Increase number of quality assured**			708	
Increase proportion of EFTS **		16.90%		
Increase proportion of EFTS general**		5.60%		
Increase proportion of EFTS general**		67%		
Increase proportion of Maori EFTS**			21%	
Increase proportion of Maori EFTS **		15.10%		
Increase proportion of Pacific EFTS**			5.40%	
Increase proportion of Pacific EFTS**		13.10%	1%	
Increase proportion of research **			6.30%	
Increase proportion of revenue **		13%		
Increase proportion of taught and **			2.70%	
Increased numbers of Doctoral **				59
Interest expenses as a percentage **				50.00%
Liquid assets as a percentage of **				17.00%
Liquidity				113.00%
Maintain proportion of EFTS**		21.90%		
Manage risks associated with **			Achieved	
Maori education-Number of government**				1,738
Net operation cash flows				110.00%
Number of articulation,credit and **				32
Number of EFTS generated by **				2,919
Number of EFTS generated by student**				807
Number of formal agreements wit **				4
Number of named research staff **				4
Number of papers available fully **				150
Number of papers available fully **				21
number of postgraduate students **				Increased
Number of postgraduate Theses**				Decreased
Number of public lectures, seminar**	221			
Number of qualifications available**				11
Number of referred and scholarly **				Decreased
Number of research contracts with **				117
Number of research contracts with **				67
Number of senior strategic appointment**				8
Number of students entering the **				412
Number of Students proceeding **				239
Number of Students proceeding **				394
Number of industry/work placement**	2,293			
Numbers of degrees, diplomas**				5,252
Objectives listed in the University**				Achieved
On-going participation in innovation**				Achieved

KPIs	Y2017	Y2012	Y2008	Y2003
On-going replacement of Science **				Achieved
On-going up-grade of Science **				Achieved
Operation of SAS-e as the University**				from Feb 2003
Operations of student/staff portal**				Achieved
Paper completion rates (Level 4) **	86%	85.50%	84%	81%
Paper completion rates (Level 4) **	79%	80.80%	75%	
Paper completion rates (Level 4) **	72%	70.10%	67%	
Paper completion rates (Level 4) **	93%	86.50%		
Proportion of Associate Professorial**	39%			
Proportion of MA/SAC-eligible EFTS**	23%			
Proportion of MA/SAC-eligible EFTS**	6.90%			
Proportion of Professor staff who **	28%			
Proportion of SAC funding delivered**	99.20%			
Proportion of Total EFTS generated**	16.20%			
Purchase of appropriate equipment**				purchased
Qualification completion rates-Level**	82%	72.60%		
Qualification completion rates-Level**	59%	76.70%		
Qualification completion rates-Level**	49%	61.40%		
Qualification completion rates-Level**	49%	66.40%		
Qualification completion rates-studnet**		87.60%	97%	
Ranking-Annual World THE University**	351-400			
Ranking-in the annual QS World**	292	374		
Reduce proportion of sub-degree **			2%	
Research and Development (R&D) **	\$61.6M	\$29.7M		
Research postgraduate EFTS as a **				Increased
Residential social and academic me**				Programme provided
Retention rates for students aged **		69.30%		
Return on asset				3.30%
Return on Income				4.50%
Revised handbook for Council member**				Achieved
Risk rating against the TEC's **	Low Risk	4.3		
Scholarship for high-achieving Maori**				Deferred
Staff survey- Job Satisfaction**		83%		
Staff survey-leadership		43%		
Staff survey-response rate		67%		
Stakeholder relationship and engagement**				Achieved
Strengthened relationship with each**				Identified
Student retention rates (level 3) **	92%	87.60%		
Student retention rates (level 3) **	74%	83.20%		
Student retention rates (level 3) **	65%	76.20%		
Student retention rates (level 3) **	68%	79.40%		
Students who are Maori as a percent**				23%
Success rates through Jobs 4 Grade**				50%

<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2003</b>
Successful course completion rates**		85.00%	84%	
Two-yearly AUSSE(Australasian Survy)**		52%		
Two-yearly POSSE (Postgraduate Survy)**		72%		
Undertake a 5-year cycle of external**			Achieved	
Upgraded computer labs in the Library**				Achieved
Value of research projects funded **				\$62.6M
Voice staff survey results-organisation**				
Voice staff survey results-Staff **				
Volume of Full-cost International **	1,599	1,461		
Volume of MF/SAC -eligible EFTS **	8,256			
Volume of total EFTS delivered**	10,200			
Weighted research degree completion**		604		

## Appendix 8 Analysis data of Lincoln University

KPIs	Y2017	Y2012	Y2008	Y2003
Graduate feedback Survey-overall**	*	97.10%	*	*
Pacific Island student enrolment**	*	40.2	*	*
Pacific island EFTS as of Total**	*	1.3%	*	*
Scholarship funds distributed**	*	5506	3,893	*
Scholarship awarded	*	*	*	205
Scholarship Total Value(\$000s)	*	*	*	912
The number of awards at Graduate**	*	*	*	129
The number of awards at **	*	*	*	375
The number of awards at **	*	*	*	508
The number of awards at **	*	*	*	44
The number of awards at **	*	*	*	41
The number of awards at **	*	*	*	593
The number of international **	645.9	680.2	*	*
Revenue from consultancy activity**	*	249	369	*
International EFTS-Postgraduate**	*	203	275	*
International EFTS-Undergraduate**	*	336	437	*
International EFTS-Sub-degree	*	16	24	*
International EFTS-Entry level	*	125	186	572
International EFTS-Informal **	*	0	23	*
International EFTS by Programme**	*	172	177	*
International EFTS by Programme**	*	223	334	*
International EFTS by Programme**	*	158	221	*
International EFTS by Programme**	*	126	186	*
International EFTS by Programme**	*	1	27	*
International EFTS from the **	*	62.80%	82%	*
Number of Countries represent**	*	65	71	*
Academic staff with their high**	*	47%	47%	*
Academic FTE	*	*	*	193
Non-Academic- FTE	*	*	*	342
Percentage of Academic FTE **	*	*	*	0.56
Informal programmes	*	29.5	*	*
Offshore delivery	*	Deferred	*	*
Number of countries represent**	*	65	*	*
Proportion of staff indication**	*	Deferred	*	*
Lecturer evaluations-proportion**	*	87	82	83%
Student Satisfaction survey **	*	Triennial survey	*	*
Student Satisfaction survey **		Triennial survey	Triennial survey	*
Student Satisfaction survey **		biennial survey	biennial survey	*
Graduate feedback survey -Overall**		97.1	94%	83%
CEQ graduate feedback survey**		90.5	89%	*
Postgraduate student satisfacton**		biennial survey	*	*
Revenue from commercialisation**		77k	*	*

KPIs	Y2017	Y2012	Y2008	Y2003
Joint Lincoln University/Massey**		Agri One Ltd	*	*
Conversion of the suspensory **		submitted	*	*
Improved national capability **		Deferred	*	*
Maori student enrolments**		332.5	83.6	*
Maori student enrolments head**		*	110	*
Maori EFTS as proportion**		10.7	5.10%	*
Pacifica student enrolments**		40.2	41	*
Pacifica student enrolments**		*	43	*
Pacifica EFTS as propotion **		1.3	2.60%	*
Suplus (Deficit) as of revenue		-4.20%	-7.40%	*
Return on Total assets		-2.00%	-3.00%	0.40%
Health &Safety reported accident**		0.14	0.14	*
Space Usage (m2)-per Academic**		*	*	384
Space Usage (m2)-per EFTS		*	*	25
Space Usage (m2)-Academic**		*	*	23,181
Space Usage (m2)-Common Space		*	*	23,280
Space Usage (m2)-Common Teach**		*	*	6,277
Space Usage (m2)-Corporate **		*	*	6,595
Space Usage (m2)-Accommodation**		*	*	5,671
Space Usage (m2)-Library		*	*	4,368
Space Usage (m2)-sub leased		*	*	11,051
Space Usage (m2)-Trading Unit**		*	*	285
Space Usage (m2)-Other Space		*	*	3,105
Student satisfaction-Undergraduate**		*	*	77%
student satisfaction - Postgraduate**		*	*	79%
Student Satisfaction - Recommend**		*	*	79%
NZVCC survey-looking **		*	*	11%
NZVCC survey-national looking**		*	*	17%
NZVCC survey-full time study		*	*	13%
NZVCC survey-leaving**		*	*	11%
The number of awards at Doctor**		*	*	38
The number of awards at Master**		*	*	95
The number of awards**		*	*	113
PBRF-Participants only-Revenue**	10143	8642	8,039	*
The number of Research Degree**	84	90	*	*
Quality research publications	417	*	*	*
Lincoln Ventures Ltd-Surplus		*	*	195
Lincoln Ventures Ltd - FRST **		*	*	2,416
Lincoln Ventures Ltd - Other**		*	*	2,113
Lincoln International (1995) **		*	*	66
Lincoln Hospitality ltd **		*	*	673
Publications and Research**		*	*	1
Publications and Research**		*	*	3

KPIs	Y2017	Y2012	Y2008	Y2003
Publications and Research**		*	*	34
Publications and Research**		*	*	3
Publications and Research**		*	*	28
Publications and Research**		*	*	148
Publications and Research**		*	*	38
Publications and Research**		*	*	97
Publications and Research**		*	*	132
Publications and Research**		*	*	17
Publications and Research**		*	*	44
Publications and Research**		*	*	1
Publications and Research**		*	*	90
Publications per FTE		*	*	3.29
Thesis of PHD		*	*	20
Theses Masters		*	*	22
Dissertations		*	*	35
External funding for research**		*	*	3,960
External funding for research**		*	*	1,994
External funding for research**		*	*	2,960
External funding for research**		*	*	8,914
Research earnings/ Academic**		*	*	46,167
Thesis & Dissertation super **		*	*	1.6
Research degree completion		90	54	*
Maintain external research		prepared	*	*
Premium research publications		254	285	*
Participation in extension **		71	*	*
Community engagement **		104	273	*
Joint supervision with crown **		38	*	*
Adjunct Crown research **		21	*	*
Doctoral scholarships funded **		20	21	*
Research contract revenue **		23,817	17,074	*
The proportion of EFTS**	74.2	75.9	*	*
The proportion of EFTS**	4.9	*	*	*
The proportion of EFTS- Maori**	7.4	*	*	*
The proportion of EFTS- Maori**	0.7	*	*	*
The proportion of EFTS- Pasific**	1.1	*	*	*
The proportion of EFTS- Pasific**	0.3	*	*	*
The successful course completion**	87.1	92.1	*	*
The successful course completion**	93.8	*	*	*
The successful course completion**		72.2	*	*
The successful course completion**	87.4	92.3	*	*
The successful course completion**		75.9	*	*
The successful course completion**	96.1	*	*	*
The successful course completion**	82.9	90	*	*

KPIs	Y2017	Y2012	Y2008	Y2003
The successful course completion**		73.8	*	*
The successful course completion**	100	*	*	*
The successful course completion**		75	80%	*
The successful course completion**	67.4	80.6	*	*
The successful course completion**		82.3	*	*
The successful course completion**	100	*	*	*
The successful course completion**		79%	51%	*
Course completion rate		81%	82%	*
Course retention rate		95%	93%	*
Qualification Completion rate**	80.7	75.2	*	*
Qualification Completion rate**		51.5	*	*
Qualification Completion rate**	93.1	*	*	*
Qualification Completion rate**	70.6	66.7	*	*
Qualification completion rate**		56	*	*
Qualification Completion rate**	120.2	*	*	*
Qualification Completion rate**	61.1	*	*	*
Qualification Completion rate**	82.8	*	*	*
Qualification Completion rate**	61.7	62.6	*	*
Qualification Completion rate**		57.1	*	*
Qualification Completion rate**	46.2	*	*	*
Qualification completion rate**		56.30%	*	*
Qualification completion rate**		53.90%	*	*
Qualification completions**		213	216	*
Qualification completions**		416	566	*
Qualification completions**		619	86	*
Qualification completions**		1130	38	*
Student Retention-All students**	57.4	81	*	*
Student Retention-Maori**	38	*	*	*
Student Retention-Maori		96	>89%	*
Student Retention-Paskfika**	41.1	*	*	*
Student Retention-Paskfika		94%	80%	*
Research earnings/Academic **		*	*	\$69,625
Enrolments-EFTS-Domestic		1771.2	1632	1,803
Enrolments-EFTS-Telford		1265.6	*	*
Enrolments-EFTS-International		*	945	1579
Enrolments-Student Achievemen**		342	492	*
Enrolments-Undergraduate EFTs**		*	*	866
Enrolments-Student Achievement**		1360.8	1690	1254
Enrolments-Student Achievement**		1379.4	176	*
Enrolments-Student Achievement**		*	28	*
Enrolments-Student Achievement**		*	191	215
EFTS per Academic FTE		*	*	13.4
Subjects taught per Academic **		*	*	3.9



<b>KPIs</b>	<b>Y2017</b>	<b>Y2012</b>	<b>Y2008</b>	<b>Y2003</b>
Entry-Level-Academic FTE		*	*	25.5
Entry-Level- EFTS per Academic**		*	*	30.9
Postgraduate students enrolment**		418.2	*	334
Postgraduate student satisfaction**		Biennial survey	Biennial survey	*
Proportion of student Achieve**		24.1	*	*
Enrolments-Student Achievement**		746.3	*	*
Enrolments-Student Achievement**		440	*	*
Enrolments-Student Achievement**		1212.9	*	*
Enrolments-Student Achievement**		341.1	*	*
Enrolments-Student Achievement**		342	*	*
Enrolments-Student Achievement**		29.5	*	*
Student progression Student**		31.6	*	*
Postgraduate EFTS-international**		*	*	141
Progression to employment		84.1	92%	87.30%
Proportion of Level 1-3 course**		43	*	*
Proportion of SAC EFTS assess**		75	*	*
Participation in new short**		5	*	*
Enrolments-headcount-Postgraduate**		600	735	*
Enrolments-headcount**		1931	2061	*
Enrolments-headcount-Sub-degree**		283	242	*
Enrolments-headcount-Entry Level**		222	285	*
Enrolments-headcount-Postgraduate**		600	*	*
Enrolments-headcount**		*	*	2278
Enrolments-headcount-International**		*	*	1858