

**STRATEGIC PLANNING AND PERFORMANCE
MEASUREMENT FOR PUBLIC UNIVERSITIES IN
SULAWESI, INDONESIA**

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DECLARATION

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Elni Jeini Ush

September 9, 2014

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STRATEGIC PLANNING AND PERFORMANCE MEASUREMENT FOR PUBLIC UNIVERSITIES IN SULAWESI, INDONESIA

ABSTRACT

This study investigated the strategic planning and performance measurement within public higher education institutions in Sulawesi Island, Indonesia. More specifically, the objectives of this study were to: examine the process of strategic planning; examine whether the objectives and goals of public universities are congruent with the Higher Education Long Term Strategy (HELTS) of Indonesia; evaluate the relationship between strategic planning, implementation and organisational performance; examine the relationships between strategic planning and performance measurement; determine the performance measurement indicators employed by public higher education in Sulawesi; and propose a more appropriate performance measurement model for use in the Indonesian Higher Education context.

This study consists of empirical surveys based on comprehensive questionnaires, followed by individual and focus group semi-structured interviews, as well as the analyses of relevant documents. The data were collected from administrative and academic staff located at five selected public universities on Sulawesi Island, one from each province. The interview participants were selected from the academic staff and educational leaders who are actively engaged in strategic planning and performance measurement

activities. Triangulation was pursued through the multiple sources of evidence. To answer the research questions, data was gathered from questionnaires, interviews and document analysis.

The study concluded that the process of strategic planning in public universities was considered to be effective and consistent with the HELTS guidelines from the Directorate General of Higher Education. However, it was found that public universities in Sulawesi faced challenges to their achievement of all the targets. The relationships between strategic planning and performance measurement were positively related, however the opinion of the respondents was that organisational performance could be improved if programs in strategic planning could be more fully implemented. This study also highlighted that performance measurement indicators in public universities can be categorised into four perspectives (financial, customer/stakeholder, internal process, learning and growth) by using the balanced scorecard approach originally developed by Kaplan and Norton (1992). This directly influenced the refinement of the balanced scorecard approach into a performance measurement model for Sulawesi.

The findings of the study are beneficial in terms of the lessons learned for managerial practices. They provide useful knowledge and understanding of the strategic planning process and performance measurement in public higher education, particularly in Sulawesi, Indonesia. The study culminated in the

development of a performance measurement model. The modified performance measurement model is intended to make it easier for universities to engage in the performance measurement process, particularly in measuring performance indicators by using the balanced scorecard. The proposed performance measurement model may assist public universities to carry out their performance measurement reporting and eventually could provide a positive impact on their accreditation status. This study also presents a knowledge base for further research in similar studies, and expands the findings in the context of Indonesian Higher Education.

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CHAPTER 1

INTRODUCTION

1.1 Chapter Overview

This chapter provides an introduction to the research project. The first section begins by discussing strategic planning and measuring performance in higher education, and then explains the critical views on why strategic planning and performance measurement are important in higher education. The next section describes the trends in strategic planning within higher education in Australia, the United States and Europe, followed by a discussion of the higher education system in Indonesia. This is followed by the identification of the key research problems and the main purpose and specific objectives of the study. The key research questions are outlined, along with the research methodology, research design and sample. The next section considers the theoretical framework which guides the research and the approach of the balanced scorecard method developed by Kaplan and Norton (Kaplan & Norton, 1996), which is employed in this study. This is followed by an explanation of the significance of the study, the definition of key terms, and an outline of the succeeding chapters.

1.2 Strategic Planning and Measuring Performance in Higher Education

In the last three decades, higher educational institutions around the world have struggled to manage different types of challenges. Primarily, there are two kinds of administrative pressure: the first is financial pressure resulting from a decrease in the provision of public funding; and the second is the increasing political, economic and social demands on higher education (Zechlin, 2010). In

this context, the issue of 'strategic planning' has become highly important for higher educational institutions (Zechlin, 2010). The fundamental purpose of strategic planning in higher education is to provide an ongoing process of examination and evaluation of an institution's strengths, weaknesses, goals, resource requirements and future prospects. It sets out a coherent plan to respond to the findings in order to build a stronger and more effective institution. Strategic planning is designed to strengthen and enhance the performance and quality of an institution (Hayward, Ncayiyana & Johnson, 2003). The most important issue to address, from a research standpoint, is the relationship between strategic planning and organisational performance. According to Schraeder (2002), research focusing on strategic planning has shown that there is a positive relationship between planned change and organisational outcomes.

It is clear that strategic planning defines the performance to be measured, while the performance measurement provides the feedback that enables the strategic plan to be formulated (Dusenbury, 2000). The performance measurement cannot stand solely on its own, as it has to have a close relationship with the strategies and plans of the organisation, which draws from the general vision and direction that has been formulated (Wisniewski & Dickson, 2001).

Although strategic planning has become a key concept in management research, the conceptualisation of performance measurement still lacks

consistency. Moreover, research in strategic planning has less emphasis on an appropriate operational scheme for measuring the planning system (Boyd & Elliot, 1998; Venkatraman & Ramanujam, 1987). It has been agreed that there has been very limited research concerning the influence of performance measurement on strategic planning design, development and its implementation (Tapinos, Dyson & Meadows, 2005; Kennerly & Neely, 2003). Furthermore, there has been very limited research to measure the relationships between strategic planning and organisational performance for universities in Indonesia.

The above reasons represent the driving forces for conducting this research. It is intended to investigate the strategic planning process and its implementation, to examine organisational performance measurement within public universities in Sulawesi, and to provide a basis for the development of similar future research in Indonesia as a whole.

1.3 Overview of the Indonesian Context

Indonesia is a diverse country in South-East Asia with a population estimated in 2015 to be more than 255 million people (The United Nations, 2014). The country consists of 17,508 islands, of these approximately 6,000 are inhabited. Indonesia is the 16th largest country in the world, in terms of land area, at 1,904,569 square kilometers (Central Intelligence Agency, 2013). Administratively, it consists of 34 provinces and Jakarta is the capital city (see Figure 1.1). Indonesia is a republic with a presidential system of governance.

The government officially acknowledges six religions: Islam, Protestantism, Roman Catholicism, Hinduism, Buddhism and Confucianism.

Figure 1.1 Map of Indonesia



Source: www.travel.nationalgeographic.com

In 2006, there were 81 public and 2,514 private higher education institutions scattered through the Indonesian islands (Puruhito, 2006). Recently, higher education in Indonesia has grown much larger, with 140 public institutions and more than 3400 private institutions, which vary in size, structure and quality (Royono & Rahwidiati, 2013). The provision of higher education is governed by the Ministry of National Education (MONE) through the Indonesian Directorate General of Higher Education (DGHE) and other ministries, such as the Ministry of Religious Affairs and the Ministry of Finance. Since October 2011, the Indonesian Ministry of National Education has changed into The Ministry of Education and Culture. However, the term Ministry of National Education (MONE) will be used throughout the documents as the rules and

regulations discussed in this study were under the MONE. The MONE is an Indonesian government department which assists the president in educational affairs. This department has the responsibility to improve educational service, equity in education access, quality in education and sustain Indonesian language and culture (Kemendikbud, 2014). The DGHE is a government department under the Ministry of Education, which directs the higher education system in Indonesia.

The Indonesian Directorate General of Higher Education (DGHE) has rolled out a Higher Education Long Term Strategy (HELTS) for the period 2003 – 2010 as a guideline for universities to generate their strategic plans. Following the HELTS 2003-2010, DGHE outlined HELTS for the period of 2011-2020, which focuses on integrating internal and external quality assurance and developing a higher education institutions data base (Iskandar, 2009). Under HELTS 2003-2010, each university was able to determine the planning process to achieve the objectives outlined in the strategy. Generally, it was a four-year strategic plan which was suitable to its context, ability and situation. In 2003, the Government launched the 2010 vision for Indonesia's higher education system. By 2010, higher education in Indonesia was expected to have improved significantly in order to contribute to, and improve, the nation's competitiveness at the international level. This vision was then shared with all Indonesian universities, as the main guide to assist them in the formulation of their own

strategies to meet their particular contexts in relation to the Government's plan (Direktorat Jenderal Pendidikan Tinggi, 2004).

However, the vision seems a far cry from reality, as Altbach (2010) argues that higher education in Asian countries, particularly Indonesia, India and Vietnam still have a very long way to go, and face many obstacles to achieving world class status. Therefore, more experts and improved research are greatly needed to improve the future standing of Asia's higher education institutions. A recent study in 2013 also showed that the majority of universities in Indonesia are still not able to perform in a high-quality research and teaching environment. Indonesian universities need to improve their quality, and conduct substantial reforms in funding, regulatory arrangements, academic and institutional quality and access in order to have a better position in the regional and global arenas (Hill & Wie, 2013).

Strategic planning and performance measurement have become important issues in Indonesian higher education. The process of strategic planning and its linkage to performance measurement needs to be examined, as well as the performance indicators, so that an enhanced model of performance measurement for higher education, particularly for public universities, can be designed.

1.4 Global Trends in Strategic Planning and Performance Measurement

Strategic planning is one of the most pervasive and, arguably crucial management activities in higher education in the twenty-first century. Higher education institutions understand the need to identify clearly their missions, objectives, priorities and targets for improvement, as well as the actions to achieve them (Al-Omari & Salameh, 2009). Strategic planning can be defined as “a disciplined effort to produce fundamental decisions and actions that shape and guide what an organisation is, what it does, and why it does it” (Olsen & Eadie, 1982, p.4).

At the same time the issue of performance measurement has become the fundamental indicator of the quality and status of a university. Performance measurement can be defined as “the process of quantifying the efficiency and effectiveness of past actions” (Neely, Adams & Kennerley, 2002, p. 13). The importance of the performance of higher education institutions has increased rapidly with the publication of the first global rankings in the Academic Ranking of World Universities (ARWU), produced by the Institute of Higher Education of the Shanghai Jiao Tong University (SJT) in 2003. The rankings of the universities are measured using the indicators of academic research, staff, alumni who have won high level awards such as Nobel Prizes, frequently cited researchers and articles published in scientific journals (Hazelkorn, 2009). There are also many types of university ranking measurements which have

different formats, content and methodology, such as those produced by the United States News and Reports (USNWR), The Times (UK), The Australian Good Universities Guide (GUG), Mclean's (Canada) and The Guardian (UK). The Guardian emphasises ranks in academic programs, which are determined by the quality of their incoming students. The quality is assessed by the secondary school grades and university entrance test results. The UNSWR and Mclean's rank universities according to their research/teaching profiles, and the Times (UK) and the GUG emphasise both. This common approach in measuring quality in higher education is emerging globally, and is creating market competition in higher education as it provides essential information for consumers and assists the universities and policy makers to improve their performance (Dill & Soo, 2005).

Hence, governments encourage the institutions to be more accountable, efficient and productive. Furthermore, higher education institutions should be more reactive to national economic needs and governmental demands by increasing their performance (Alexander, 2000). On the other hand, institutions also need to be proactive in researching and developing guidelines for national development and meeting societal demands.

As a former Dutch colony, the higher education system in Indonesia has evolved in many ways, and has been influenced by several other countries. As Altbach and Selvaratnam (1989) affirm, there is no truly Asian university as

almost all universities are based on European academic models and traditions. Most of the universities were established by colonial rulers and others adopted Western models voluntarily. Moreover, in recent years the universities have begun to follow the pattern of the 'Main English-Speaking Destination Countries' (MESDCs) of Australia, Canada, New Zealand, the United Kingdom and the United States (Healey, 2008). This confirms that universities in Asia were, and continue to be, influenced by universities in English speaking countries.

It is evident that countries such as Australia, the United States and some European countries, predominantly the Netherlands, have influenced the Indonesian higher education system, particularly in regard to its strategic planning processes and performance measurement.

To summarise, demands for higher education accountability have increased considerably. This situation has further urged higher education institutions to reform their strategies and performance. The issues and trends of strategic planning and performance measurement have been acknowledged and employed more systematically in developed countries. These trends have been followed by developing countries, including Indonesia. The next section provides evidence of the global trends in strategic planning and performance measurement that have occurred in Australia, the United States of America, Europe and Indonesia.

1.4.1 Strategic Planning and Performance Measurement in Australia

In Australia, strategic planning came to prominence in the mid-1980s. The strategic plans of Australian universities set out the missions, visions, core values, broad objectives and goals, together with their associated strategies. The time frames varied from five to ten years, and the plans were reviewed periodically after shorter term objectives were attained. Amendments to objectives and strategies were made as circumstances and opportunities dictated (Anderson, Johnson & Milligan, 1999).

Generally, there are three categories of strategic plans in Australian universities. The first is a public plan, which states the missions, visions, values, objectives and goals. Some plans present quantitative targets, implementation strategies, responsibilities and timelines, while other plans provide separate operational plans for sub-ordinate units. The second is a confidential plan, which includes financial and operational information, partnerships and/or strategic alliances with research institutions in Australia and abroad. To fulfil the Department of Education, Training and Youth Affairs' (DETYA) requirements, a university offers a summary or a public version which excludes the confidential contents. The third is a plan or plans which are designed by the Vice-Chancellor and other senior managers of the institution. These plans emphasise the positive aspects of the university's future, critical decisions, structural changes

and also the worst scenario assumptions, risk assessments and implications (Anderson et al, 1996).

In terms of performance measurement, the report of the Higher Education Management Review states that to ensure that the strategic plans have an appropriate basis against which to measure and account for performance, they should integrate the following:

- Medium to long term horizons (including three year financial projections);
- Analysis of the operating environment;
- Clearly defined objectives and strategies to achieve these objectives, including the availability of resources;
- Quantitative and qualitative performance indicators and targets;
- Review against past plans and targets; and
- An outline of accountability and reporting processes. (Hoare, 1996 p. 68)

Interestingly, the committee of higher education management points out that:

Reliable performance indicators are difficult to develop within the [higher education] sector, but are crucial in accounting for outcomes, the Review Committee believes that indicators should be developed to measure performance of a university over time rather than to measure the performance of one university against another (Hoare, 1996 p. 67).

According to Bradmore and Smyrnios (2009), research findings on the 34 public universities in Australia which had published details of their strategic planning on internet websites reveals that the universities' strategic planning needs to re-examine their processes with a view to focusing sufficient and appropriate attention to competitors. The results show that six of the nine universities categorised as 'Gumtrees' have ignored the concept of competition (based on the five-tier classification developed by Marginson and Considine (2000), which divides Australian universities into the following five groups: Sandstones, Redbricks, Gumtrees, Unitechs, and New Universities).

The Sandstone universities emphasise leadership in academic discipline, research and professional training. The universities in this classification have strengths in superior resources, political, social status, historical roots and strong academic culture. The Redbrick universities possess characteristics which are less traditionally academic and tend to be more corporate and entrepreneurial, and emphasise applied and pure research strengths. The Gumtree category is for universities which were established before 1987 (founded in the 1960s and 1970s). The universities under this classification possess credible academic achievements, and are prestigious, modern and innovative. The universities emphasise science, arts, social science and humanities. The universities in this classification are different from others because of their informal, democratic and inter-disciplinary nature.

The Unitech (University of Technology) category is for the universities which were established after 1987. Universities in this classification emphasise competition in specific areas such as business and computing, have a strong graduate professional culture and have strong industrial links, expanded student access, and are seen as a superior vocational investment. The New Universities classification is for the universities which were established after 1986. These universities have an emphasis on student access, consumer friendliness, regional factors and teaching quality because they cannot compete with other universities classifications in term of size, employee numbers and research. They focus on marketing to boost their status, and secure and retain student numbers. These universities attract a large amount of mature-age students, school leavers and more first generation higher education families (Raciti, 2010; Marginson & Considine, 2000; Marginson, 1997).

Furthermore, all universities need to consider their responses to the importance of the concept of strategic planning, including whether their own strategies are adequate or not. Certainly, more studies on strategic plans are required in order to understand how Australian universities should respond to the current competitive situation (Bradmore & Smyrniotis, 2009).

Recently, the Australian government has established the Tertiary Education Quality and Standards Agency (TEQSA). It is an independent agency to regulate, monitor quality and set standards for university and non-university

higher education providers. TEQSA's core task is to ensure that students receive a high quality education at any higher education provider. Since January 2012, TEQSA has registered and evaluated the performance of higher education providers aligned with the new Higher Education Standards Framework, which contains provider standards, qualification standards, teaching and learning standards, information standards and research standards. All providers are required to meet the standards set to enter, and remain within, the Australian higher education system (Department of Education, Australia 2011; TEQSA, 2012).

To summarise, strategic planning and performance measurement in Australian universities has been conducted for more than three decades. It consists of three types of strategic plans: public plans, confidential plans, and internal university plans. In terms of performance measurement, universities provide performance measurement reports through the Higher Education Management Review system. The most recent development is that the Australian government, in January 2012, established an independent agency, the Tertiary Education Quality and Standards Agency (TEQSA), to regulate, monitor quality and set standards for higher education providers.

1.4.2 Strategic Planning and Performance Measurement in the United States of America

The strategic planning in American higher education was also initiated in the mid-1980's, when the publication of George Keller's book *Academic Strategy*

(1983) steered the higher education sector to look more closely at strategic planning. In the 1980s strategic planning was put forward as a rationale for orderly and systematic management. Planning was considered as a strategic function in a competitive environment in order to add to shareholder values, and included SWOT (Strength, Weakness, Opportunity, and Threat) analyses and core competencies assessments (Dooris, 2002). From the mid-1990's to the twenty-first century, strategic planning evolved into new areas, such as reengineering, business transformation and continuous quality improvements (Rowley & Sherman, 2001). Strategic planning in higher education also incorporates performance measurement to assess the goals achieved. For example, in Penn State University the first university-wide strategic plan in 1997 established the definition and implementation of performance measures that assisted in attaining the determined goals (Dooris, 2002).

Strategic planning in the United States of America also emerged because of difficulties in the 1970s and 1980s, as enrolment numbers and student demographics changed and the government reduced university funding (Hinton, 2012; Alexander, 2000). Strategic planning was perceived as the way to address the changing situation and manage more limited resources. Subsequently, strategic planning was employed in higher education, as well as in federal and state governments. The accountability for this planning rested with the accreditation commission. To improve standards, the accreditation

commission requires institutions to have a strategic plan and an assessment plan to meet the accreditation requirement. The accreditation commission also strongly recommends that institutions have to achieve their mission in strategic planning (Hinton, 2012).

To sum up, strategic planning in higher education in the United States of America was largely triggered by the publication of the book *Academic Strategy* by George Keller (1983). Higher education strategic plans are being continuously monitored and updated. Strategic plans always incorporate performance measurement to examine the achievement of goals.

1.4.3 Strategic Planning and Performance Measurement in Europe

In European countries, the current trend in higher education is to converge national higher education systems through the Bologna Process, introduced in 1999 (Taylor, Amaral & Machado, 2007). This declaration proposed the objectives of consolidating and enriching European citizenship, promoting social and human growth, promoting the employability of European citizenship and improving European competitiveness (Bologna Declaration, 1999). The current trends can be exemplified by the introduction of shorter duration undergraduate studies, more flexible labour relations, increasing competitiveness, on the other hand reducing higher education funds. Essentially, the Bologna Process is an array of political actions which can be translated and analysed using the terms

of strategic planning and quality assurance at the European level (Neave, 2002).

Taylor et al. (2007) have produced an overview of strategic planning in the higher education systems of nine selected European countries:

- In Norway, the process is limited to research fields, where a top down process, from the leadership, to a participatory process at lower levels results in institutional plans.
- In the Netherlands, the process accommodates further issues and aspects of planning with openness and consultation, which sometimes involves external participants. It seems to be the best model among the countries sampled because the annual report indicates the achieved objectives and what levels of investment are related to achieving the objectives.
- In Austria, the process is still embryonic due to 2002 legislation.
- In Finland, there is a more mature process which is progressive.
- In France, the planning system is working effectively, but a fully participatory style is still uncertain.
- In Italy, no evidence to support any planning functions. Top-down documents are produced, but nothing appears to qualify as a strategic planning effort.

- In the United Kingdom, the government is involved in the process. However, the legitimate concern for a planning process appears independent of such mandates. The higher education institutions tend to refuse to be engaged. Overall, the strategic planning is well developed.
- In Belgium, planning can be discovered, however it is less than a universal process due to the excessive governmental controls.
- In Portugal, the process primarily is top down, but participation does exist at the level of the administration and deans. The planning began in 2000, as was required by the Division for Higher Education of the Ministry of Science and Higher Education. (Adapted from Taylor et al., 2007, p. 9)

Overall, Taylor et al. (2007) recommend that there should be two major points of movement for strategic planning in European higher education, if it is to succeed. Firstly, European higher education institutions must strive for autonomy enhancements in order to self-govern and develop institutional specific missions and visions enabling independent determination of the goals to improve the institutions. Secondly, the plans must be adapted to the European context by including clearly defined roles for the higher education institutions. This adjustment would allow the institutions to establish their direction by creating more organisationally structured models.

European countries such as Portugal and Austria began their strategic planning in the early 2000's, while other countries such the United Kingdom,

Finland and the Netherlands already had well developed strategic planning, among the nine selected countries mentioned above. While other countries such as Norway, France, Italy and Belgium revealed that the strategic planning worked in an effective way but was still inadequate due to governmental controls or the participatory factor in the strategic planning process.

The current literature on the subject of strategic planning and benchmarking in other European countries, such as the Western Balkans, reveals that in the majority of countries both private and public universities have implemented strategic planning and benchmarking. SWOT (Strengths, Weaknesses, Opportunities and Threads) analysis is the most common method of strategic planning that has been used for public and private universities. Even though universities in the Western Balkans have been through instability because of civil war and economic pressure, they continue with maintaining the universities' transformation to contribute to regional development (Papadimitriou, 2014). Similar circumstances also occur in Germany. The strategic management in Germany entails the mission statement, SWOT analysis and the implementation of the strategy. The documents of strategic planning are also available for external stakeholders, the formation of the development plan involves a participative process and cooperation between the university management team and staff (Hladchenko, 2013).

1.4.4 Strategic Planning and Performance Measurement in Indonesia

In 2003, the Higher Education Long Term Strategy (HELTS) 2003 - 2010 introduced three central paradigms:

- a. quality as the core to build the Nations' competitiveness,
- b. autonomy of management, and
- c. organisational health as the focus of reform. (Puruhito, 2006)

Therefore, strategic planning in Indonesian higher education has been implemented by combining the top-down and bottom-up approaches. Higher educational institutions are required to adopt the top-down guidelines of the Directorate General of Higher Education (DGHE) and take a bottom-up approach in formulating the individual institution strategic plan (DIKTI, 2004). Each university has the centrally provided monitoring and evaluation manual and procedure to assess the short term strategic planning which is carried out annually.

There are twelve measurement indicators in the manual, which can be grouped into three major divisions: financial, internal process and stakeholder. In the financial part, the indicators are the financial structure and supportive procurement. In internal process the indicators are the development of capacity building, education quality, curriculum development, education management, research development and institutional collaboration. While in the stakeholder division, the indicators are enhancement of educational access, students'

affairs, roles of alumni and community based services. These indicators assist the institutions to prepare for the performance measurement that is conducted by the National Accreditation Agency for Higher Education (NAAHE), as part of the process of accreditation for quality assurance (Laporan Monitoring dan Evaluasi, 2008). Every higher education institution is expected to be reviewed by the NAAHE every 3 - 5 years, depending on their status (Welch, 2006).

In Indonesia, the performance measurement process to achieve university accreditation is also undertaken by the NAAHE. However, the accreditation process merely assesses the portfolio prepared by the institution, while the indicators of measurement focus more on the quantitative measures.

1.5 Identification of the Research Problem

Since strategic planning was implemented in Indonesian higher education it has become compulsory. The time frame of HELTS, which was envisioned by DGHE, expired in 2010. However, no studies or research have been undertaken to examine the effectiveness of the implementation of the strategic planning guidelines or the organisational performance measurements.

In this context, this study investigates the strategic planning process and its congruence with HELTS's guidelines. This research project also explores the relationship between strategic planning and organisational performance. Moreover, it aims to determine the indicators for checking performance against strategic planning, and to design a model of performance measurement for

consideration, and possible implementation, by public universities in Sulawesi in particular, and Indonesia in general.

1.6 The Main Purpose and Specific Objectives of the Study

The main purpose of this study is to investigate the strategic planning process and implementation in public higher educational institutions in Indonesia. This includes ascertaining whether the objectives and goals have been achieved, according to HELTS and as set out in the Indonesian DGHE guidelines, by examining organisational performance measurements. The specific objectives to be achieved are to:

1. Examine the processes of strategic planning.
2. Examine whether the objectives and goals of the strategic planning are congruent with the Indonesian Higher Education Long Term Strategy.
3. Evaluate the relationships between strategic planning, implementation and organisational performance.
4. Examine the relations between strategic planning and performance measurement.
5. Determine the performance measurement indicators employed by public universities in Sulawesi.
6. Identify the features that are needed to develop an appropriate performance measurement model for possible implementation in public universities in Sulawesi

1.7 Key Research Questions

There are six key research questions which guide this study and clarify its specific objectives:

1. What are the processes of strategic planning at public universities in Sulawesi?

This question is to explore the process of strategic planning comprehensively within public universities, with an emphasis on the formulation and cycle of strategic planning.

2. Is the existing strategic planning congruent with the objectives and goals, as set out in the HELTS guidelines?

This question is to determine whether the university's strategic planning is consistent with the HELTS guidelines.

3. What is the relationship between strategic planning, implementation and organisational performance in public universities in Sulawesi?

This question is to ascertain the relationship between strategic planning, its implementation, and the impact on organisational performance.

4. What is the relation between strategic planning and performance measurement?

This question is to analyse the strategic planning in public universities and its relation to performance measurement.

5. What are the performance measurement indicators that are being employed by public universities in Sulawesi?

This question is to identify the performance measurement indicators that are currently being applied in public universities.

6. What are the features that should be included in an appropriate performance measurement model for implementation by public universities in Sulawesi?

This question looks at the possibility of developing a more appropriate performance measurement model to be implemented across the public universities in Sulawesi.

1.8 Research Methodology, Design and Sample

This study employed both quantitative and qualitative dimensions in its research methodology, and used surveys based on comprehensive questionnaires, followed by individual interviews based on a semi-structured interview schedule. Additionally, the research involved the analyses of relevant primary documents.

The approval of the Human Research Ethics Committee (HREC) was obtained, and a pilot of the survey instrument was conducted after it had been translated into Bahasa Indonesia. The pilot data was subjected to validity and reliability tests by employing the SPSS software package prior to finalising the questionnaire, and before using it in the formal research.

The purposive sampling technique has been chosen for the purpose of data collection. The five universities chosen for this study were in five provinces in Sulawesi, namely North Sulawesi, Gorontalo, South Sulawesi, Central Sulawesi and South-East Sulawesi.

The quantitative data has been statistically analysed using descriptive and inferential statistics employing the SPSS software package (SPSS, 2011). During the second phase of the study, documentary analyses and individual interviews have been conducted based on a semi-structured interview schedule. The interview transcripts have been prepared to produce written accounts or texts which have been analysed by using the N-vivo software package (N-vivo, 2012) to develop major themes from the qualitative data. The data have also been transformed into a narrative discussion and tables.

1.9 Theoretical Framework

There are multiple approaches to performance measurement, including: Benchmarking; Total Quality Management (TQM); The European Foundation for Quality Management (EFQM); Performance Prism; and the Balanced Scorecard. However, the balanced scorecard (BSC) is one of the most commonly used approaches that accentuates the need for multiple performance indicators (Kaplan & Norton, 1992). The main focus for utilising BSC in an educational institution is because BSC affords to manage or measure performance, and offers continuous improvement of higher education

institutions and its quality, which can be related to their organisational vision and mission (Stephenson, 2014). Therefore, to guide this study, the approach of the balanced scorecard proposed by Kaplan and Norton (1992) has been employed.

The balanced scorecard (BSC) method, postulated in 1992, presents a framework for selecting multiple performances emphasising the critical aspects of the business. It is an approach to performance measurement that aims to translate the vision and strategy of an organisation into objectives, measures and targets covering four different aspects: the financial; the customer; the internal processes; and innovation and learning (Kaplan & Norton, 1992). Kaplan and Norton (1996) have asserted that the balanced scorecard combines financial and non-financial measures of performance. It focuses on the link between business processes, decisions and results. Therefore, the scorecard is an appropriate tool to guide strategy formulation, implementation and communication.

Performance measurement must be linked to the organisation's strategy, and not merely measure the group's financial and non-financial aspects. The fundamental part of the balanced scorecard approach is to articulate the linkage between performance measures and business strategy. Thus, performance measurement may go beyond the monitoring of performance, towards a more proactive role in the organisation management (Cullen, Joyce, Hassal &

Broadbent, 2003; Banker, Chang & Pizzini, 2004). The balanced scorecard approach had been widely used because:

It is a simple, systematic, easy to understand approach for performance measurement, review and evaluation. It is also a convenient mechanism to communicate strategy and strategic objectives to all levels of management. (Pandey, 2005, p. 65)

In measuring performance, and the linkage with strategic planning, the balanced scorecard approach can be developed to measure both quantitative and qualitative measures. Therefore, the concept of the balanced scorecard developed by Kaplan and Norton is considered practical. This approach has been adopted in designing the research instruments and has provided structure to the data analysis.

1.10 The Significance of the Study

In the absence of similar high level studies in the Indonesian higher education context, this study can be regarded as significant for improving the present knowledge and understanding of strategic planning and performance measurement. From a practical point of view, this study is expected to provide a clear view of how the process of strategic planning and performance measurement works in public universities in Sulawesi.

The evaluation of the performance measurement model will be a very worthwhile exercise for discovering the extent to which public universities in Sulawesi have accomplished the process of strategic planning and performance

measurement. Moreover, the model will potentially provide guidance for policy makers and become a sustainable and competitive contribution in the future, particularly for university accreditation rankings.

The findings of the study can be beneficial, as managerial practices and lessons learned can provide useful knowledge and an understanding of the strategic planning process and performance measurement in the public universities. The findings will also be a significant addition to the existing knowledge base in relation to educational administration in Indonesia.

1.11 Definition of the Key Terms

- **Strategic planning:** can be defined as

a disciplined effort to produce fundamental decisions and actions that shape and guide what an organisation is, what it does, and why it does it. (Olsen & Eadie, 1982, p.4)
- **Measure:** in the context of performance measurement in organisations, can be defined as

Indicators of organisational functioning identified by an institution, department, or a program as appropriate for assessing organisational outcomes and achievement levels and the criteria used to assess performance and to track improvements. In the context of strategic planning, measures would be used to evaluate the effectiveness and efficiency of the planning and implementation processes and outcomes. (Tromp & Ruben, 2004, p. 86)

- **Performance Measurement:** can be defined as

the process of quantifying the efficiency and effectiveness of past actions. (Neely, Adams & Kennerley, 2002, p. 13)

- **Balanced Scorecard:**

is an instrument that translates an organisation's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system. The scorecard measures organisational performance across four balanced perspectives: financial, customers, internal business processes and learning and growth. (Kaplan & Norton, 1996, p. 2)

- **Sulawesi Island:** One of the five major islands in Indonesia, with an area of 174,600 square kilometers, comprising six provinces. Sulawesi was formerly known as Celebes. For the purpose of the study, the research will be undertaken with public universities in five provinces.

1.12 An Overview of the Following Chapters

This thesis is presented in eight chapters. Chapter 1 has presented the introduction to the study. Chapter 2 undertakes a comprehensive literature review related to strategic planning and performance measurement in higher educational institutions and provides the theoretical foundation for the research.

Chapter 3 discusses the research methodology, research design, samples, data collection and justification for the research methodologies selected. Chapter 4 presents the analyses of the data from the empirical survey. Chapter 5 presents interview results based on individual interviews Chapter 6 provides analysis from selected documentary resources. Chapter 7 presents a triangulation of the quantitative and qualitative data and provides direct responses to the study's research questions. Chapter 8 provides the conclusions and recommendations.

CHAPTER 2

LITERATURE REVIEW

2.1 Chapter Overview

This chapter provides a review of the literature on strategic planning and performance measurement in public universities, focusing primarily on the theoretical concepts. For this purpose, the chapter is divided into five major sections. The first section reviews the theoretical concepts of strategic planning and their relationship to performance measurement, with an emphasis on strategic planning and performance measurement in universities. The second section reviews the relevant literature on strategic planning in higher education in Indonesia, and the literature on the Higher Education Long Term Strategy from the Indonesian Directorate General of Higher Education. The third section provides research findings regarding the performance indicators employed in higher education, focusing primarily on public universities. The fourth section provides a review of the relevant concepts of strategic planning implementation and organisational performance. The final section presents a review of the literature on performance measurement models for public universities, followed by a brief conclusion.

2.2 Strategic Planning

In corporate strategic management, strategy is a company's game plan which provides a framework for managerial decisions and reflects a company's awareness of how, when and where it should compete, against whom and for what purpose (Pearce & Robinson, 2000). In other words, strategic planning

can be defined as an organised structure for the future, as the foundation in the present, but it also provides for the construction of directions (Smith, 1994). This definition is slightly different from the definition advanced by Olsen and Eadie (1982), which stated that “strategic planning is a consistent effort which generates pivotal decisions and actions that mold the organisation” (see Chapter 1, p. 27). However, the definitions from Pearce and Robinson (2000) and Smith (1994) seem to be more appropriate to direct this study. Both definitions are considered to be more relevant and fit with the values of strategic planning in higher education. These two definitions address the structure of the strategic planning of higher education institutions that should be designed carefully, appropriately, and accommodate their specific needs.

From the definition above, strategic planning could be used as a pivotal instrument which provides guiding principles, a ground for decisions making and a compass to guide the future development. It is suggested that every organisation considers this instrument as a means to manage their future directions.

2.2.1 Historical Context of Strategic Planning

The literature in strategic management indicates that the first use of strategic planning appears in the military arena, with the earliest evidence being provided by the Greeks and Romans (Dooris, 2003; Sloan, 2006; Viljoen & Dann, 2003). The word strategy comes from the Greek word ‘strategos’, which means “a chief

magistrate and military commander-in-chief responsible for employing the science and art of the political, economic, psychological and military forces ... to afford the maximum support to adopted policies in peace or war” (Webster’s Third New International Dictionary, 1993). Strategy can also be defined as a general plan of action, planning and managing, especially armies in war, or a plan that is intended to achieve a particular purpose. Another definition of strategy is the planning and conduct of war (Oxford Learner’s Pocket Dictionary, 1995; English Dictionary, 2010). Thus, strategy can be defined as a comprehensive plan of actions which considers and anticipates many factors to attain a specific purpose.

Having observed the history of strategic planning, Sloan (2006) asserts that the concept of strategy has been closely related to the military. The military analogy became popular within the business context during the 1950’s, when companies attempted to develop operational plans to defeat competitors, conquer markets and be successful in product wars.

After its emergence in the 1950’s, strategic planning became increasingly popular in the 1960’s and 1970’s, when it was considered a perfect solution for every problem in organisations, but afterward was ignored for more than a decade. The revival of strategic planning was started in the mid 1990’s when people considered that planning was not a panacea, but “a process with particular benefit in particular context” (Mintzberg, 1994, p. 4).

Research by Gluck, Kaufman and Walleck (1982) divided the strategic planning evolution into four consecutive phases:

Phase One. Basic financial planning: attempting to find better operational control through the budgets.

Phase Two. Forecast-based planning: trying to establish more effective planning for growth by predicting the future.

Phase Three. Externally oriented planning or strategic planning: seeking escalated responsiveness to markets and competition by striving to think strategically.

Phase Four. Strategic management: trying to manage all resources to develop a competitive advantage and to achieve future goals successfully.

On the other hand, Porter (1983) suggests the development of the strategic planning concept as a new perspective by integrating the theories proposed by experts in the strategic management field. The first approach consists of two major phases. The next approach is the concept of competitive strategy framework, which emerges to complete the gap in the previous phases, as described in the following.

The first phase of the development of the strategic planning concept began with the work of Learned, Christensen, Andrews and Guth (1969) at the Harvard Business School, which concluded with the development of the concept of corporate strategy in the 1960's. Learned et al, proposed that there

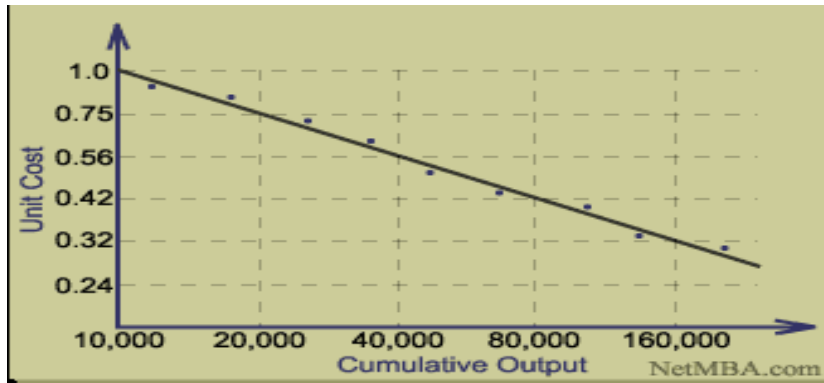
are four components of business strategy: company strengths and weaknesses; economic and technical opportunity and threats; broader societal expectations; and personal values of the key implementers.

However Porter (1983) argues that these four components trigger relevant questions for the firms, such as: What are the opportunities and threats; What are the company's strengths and weaknesses; and is the strategy consistent internally with the environment? These questions lead an organisation to develop answers suitable to its industry and competitive situation, which creates the gap that causes managers to have to find the ways to overcome it. Learned et al, describe business strategy as completely situational and state that it cannot be generalised.

The second phase in the development of the strategic planning concept, according to Porter (1983), was the Experience Curve, introduced by the Boston Consulting Group (BCG) at the end of the 1960's, which has been called the grandfather of the new planning concept. Fundamentally, the experience curve was developed to justify price and competitive behaviour in the rapidly growing business, which generally implied that the producer should have the lowest costs and the highest profits in a product segment. Therefore, with the experience curve, the stability of competitive relationship should be predictable, as the value of market share and the effects of growth rates should be calculable. The experience curve provides a theoretical rationale for corporate

portfolio planning techniques, and is repeatedly used to explain the aggressive pricing of new products (Conley, 1970; Boston Consulting Group, 1972).

Figure 2.1 The Experience Curve



Source: <http://www.netmba.com/strategy/experience-curve/>

The inventor of the experience curve, Bruce Henderson, justified the theoretical rationale as follows:

The experience curve is the rate of change in the cumulative cash input divided by the cumulative physical output. The denominator and the numerator are both cumulative. Because of that, the ratio between them is exponentially smoothed. If the experience curve rate of cost decline is constant, then the current unit cost will become the cumulative average cost when the total cumulative experienced has doubled. This relationship between cumulative cash input and cumulative physical input is the central issue of the experience curve. It is the rate of change in that ratio which is the rate of cost decline of unit cost with each doubling of output. (Henderson, 1984)

After the emergence of the experience curve, subsequent concepts appeared in the following years, such as the growth/share portfolio matrix, the

McKinsey/General Electric/Shell attractiveness screen, Product Life Cycle, the PIMS (Profit Impacts of Market Strategies) Program model and the Planning and Forecasting Model (Abell & Hammond, 1979).

The experience curve produces successful rules as they relate to the impact of accumulated experience. Nevertheless, these concepts still left serious questions unanswered, such as: what is the relevance of the experience curve to other competitive phenomena, and the particular shape, defensibility and properties of the experience curve? (Porter 1983). Gemawat (2002) affirms that in the early 1970's the strategic implication of the experience curve had conveyed a "powerful oversimplification" due to the assumption that these basic rules were likely to overcome the competition, as they relate to the impact of accumulated experience on competitor's costs, industry prices and the interrelation between the two. Therefore, it is assumed that "the stability of a competitive relationship should be predictable, the value of market share change should be calculable [and] the effects of growth rate should [also] be calculable" (Henderson, 1972 cited in Gemawat, 2002, p. 46).

In the case of the growth/share matrix, the sufficiency of the axes to catch the strategic situation of business units is also still questionable. The McKinsey/General Electric/Shell Screens concept questions the analysis to plot a business, and the sufficiency of the axes to establish the strategic alternatives and the relevance between the business plot and the indicated strategy. In

Product Life Cycle, questions arise about its generality and the implementation of specific strategy. In PIMS, the questionable items are the model of competition, the generality of findings, and the sufficiency of the data and statistics. In the Planning and Forecasting Models, the uncertainty is in the suitability of the reality and data input (Porter, 1983).

Based on the evidence above, Porter (1983) then identified a third phase of the strategic planning concept as the bridge to fill the gap in the unanswered questions of the former concepts. The proposed strategic planning concept was the competitive strategy framework, the core of which was drawn from the industrial organisation tradition, in that there are five basic forces which impact on competition: new rivals that enter the industry; competition among sellers; bargaining power of buyers; bargaining power of suppliers; and competition from other industries that have substitute products or services.

Porter (1983) afterwards points out several things concerning the competitive strategy framework:

- A model of industry evolution is the final element of the competitive strategy framework that may identify the economic processes and examine the structure for change. This analysis leads to the predictions of industry structural change.
- Generates specific analysis of strategic problems.

- Identifies the crucial economic and competitive issues in the particular industry and competition.
- Provides analytical tools to develop strategic implications because the model starts from the fundamental, broad level and ultimately offers a specific deep analysis.
- The application of a competitive strategy framework conveys a comprehensive assessment of an industry and the competitive position of the company.

In the context of the evolution of strategic planning, Sloan (2006) highlights three phases: the first ancient Greek concept of strategy; the twentieth century corporate strategy; and lastly, strategy and consultancies. These three phases are described in detail below:

- Ancient Greek concept of strategy

Subjective relativism had a significant influence on the ancient Greek concept of strategy. The ancient Greeks believed that a human being was a microcosm of the universal macrocosm and considered plants, animals, and the land as organisms with particular 'personalities' and purposes. A feature of their concept of strategy was the idea of *metos*, which referred to the ability to guide a way between the world of order (cosmos), of forms and laws, to deal with the world of chaos, in order to plan a practical course. Influenced by the idea of *metos* they considered

strategy as the movement between order and uncertainty, requiring long term future planning and actions (Cummings & Wilson, 2003).

- 20th century corporate strategy

In 1908, the Harvard Business School initiated the notion that encouraged managers to think strategically and not merely act as functional administrators (Botticelli, 1997). In the 1930s, top executives began a discourse on the need for a formal approach to corporate strategy and argued that managers should focus on strategic factors that depend on personal or organisational action. The formal approach consists of: strategy and the academy, and strategy and consultancies.

Strategy and the academy

- Design school

Recognition for the design school of strategy was generated by Philip Selznick in 1957 and Alfred Chandler in 1962. Selznick brought the idea of distinctive competence, underlining the merger of an organisation's internal state with external expectations (Selznick, 1957). Subsequently, by the 1960's the SWOT analysis approach (strengths, weaknesses, opportunities and threats) was identified in academic discussion and has continued to be influential.

- Planning school

The Planning school was initiated by Igor Ansoff after the early success of the Design School. He discovered a gap between the business environment and the activities of multi-business firms in his work *Corporate Strategy* (1965). McKiernan (1996) asserts that Ansoff's approach was more comprehensive and formal than the Design School. Ansoff emphasised that environment, market position and internal resources should be placed at the core of a business strategy.

Strategy and consultancies

The 1960's and 1970's were the era of strategy consulting practices, when the Boston Consulting Group (BCG) had a huge impact on quantitative research on business and corporate strategy problems. Bruce Henderson, as BCG founder, conceived that a quantitative approach may lead to a set of general rules to develop strategies. Consequently, quantitative measures generated a major suite of analytical tools, models and metrics to predict, monitor and measure strategic planning.

- Shift in Corporate Strategy Role

The shift in corporate strategy started in the early 1980's when companies began to create business units with planning responsibilities, and the concept of strategy became a shared responsibility. The role of

corporate planning shifted into providing technical input and analysis.

This required managers to be capable of analysing data, identifying information, transforming perspectives, being creative and adjusting to new situations immediately.

- Organisational strategy

In this stage, several definitions of conceptual and organisational strategy were proposed by some business authors. Prahalad and Hamel (1993) defined organisational strategy as a central idea that connect the organisation along its journey and guides in setting decision, determine options, choices and alternatives. It refers to a leadership position created in relation to a company's competitors and provides a specific feature through which a company can highlight progress. Furthermore, in the book *Strategic Thinking: An Executive Perspective*, DeKluyver (2000) defined strategy as:

positioning an organization for sustainable competitive advantage. It involves making choices about which industries to participate in, what products and service to offer, and how to allocate corporate resources to achieve such a sustainable advantage. (DeKluyver, 2000, p. 3)

Throughout its history and evolution, from ancient to modern times, many scholars and experts have attempted to find the 'best way' to define strategic planning. Strategic planning is a continuous and sustainable process and tends

to be renewed from time to time. It should be fitted to an organisation's uniqueness and cultures. Viljoen and Dann (2003) propose what factors indicate the 'right' strategy: it must fulfil a real market need, be competitively defended, and suit the internal organisational resources and skills as well as the culture of the organisation.

In summary, the idea of strategy was first introduced by the Greeks and Romans and then used by the military. Since that time, strategic planning became ubiquitously utilised by the private sector and commonly discoursed by scholars who also postulated the theories of strategic planning. It became a discourse in academic institutions and was then adopted by business sector. The literature on the concept of strategic planning indicates that its purpose of is to generate a strategy that may lead an organisation to achieve its goals. The strength points of strategic planning can be demonstrated through organisation achievement, improved decision making and development of organisational effectiveness. However, to some extent strategic planning can develop as a rigid document that may disadvantage the organisation when they miss opportunities and need to change direction because of a situational change.

2.2.2 Basic Concept of Strategic Planning in Higher Education

2.2.2.1 Defining Strategic Planning

A basic understanding of strategic planning in higher education is provided by Rowe, Mason, Dickel, Mann, and Mockler (1994). They argue that strategic planning is part of a four factor strategic model, which is a systems framework

for strategic management. The model consists of strategic planning, strategic control, resource requirements, and organisational structure. It illustrates how an institution's strategy must be balanced with the demands enforced by external and internal environmental factors, suit the overall functioning of the institution, and use resources effectively to meet goals and satisfy values. Strategic planning is the key link between strategic management and the institution's external environment.

A simple and clear definition is proposed by Fidler (1989), who defined strategic planning as the process used to create and determine a strategy to respond to future events and a plan of how to implement it. Another definition which has been cited many times in the literature, is provided by Kotler and Murphy (1981), who defined strategic planning as "the process of developing and maintaining a strategic fit between the organisation and its changing market opportunities" (Kotler & Murphy, 1981, p. 471).

There are various dimensions to the importance of strategic planning. Firstly, it may improve organisational performance. Proponents of this rationale argue that well designated strategic plans provide an operational framework that allows an organisation to enjoy distinct competitive advantage, therefore experiencing improved performance. Another rationale for developing strategic plans would be to provide staff members with information about the direction of the organisation, as spelled out by the strategic plan, with the expectation that

this information will motivate these individuals. An additional reason for developing a strategic plan is to balance the objectives of different stakeholders in the organisation. Finally, an organisation often needs to develop strategic plans to appease funding sources or lending institutions (Schraeder, 2002).

2.2.2.2 Strategic Planning in Higher Education

In the context of higher education institutions, Rowley, Lujan and Dolence (1997) state that “strategic planning is a formal process designed to help a university identify and maintain an optimal alignment with the most important elements of the environment ... within which the university resides.” This environment consists of “the political, social, economic, technological, and educational ecosystem, both internal and external to the university” (Rowley et al., 1997, pp. 14-15). The Higher Education Funding Council for England (HEFCE), in its Strategic Planning in Higher Education Guide (2000), states that strategic planning is concerned with identifying the long-term direction of the institution, generating ideas and choices, taking the necessary steps to achieve the stated goals and monitoring progress in order to adopt a future strategy (Tolmie, 2005).

According to Lockwood (1972), planning processes have existed in almost all universities and while there are planning systems or processes in each university, they may not be recognised. Few developments occur by accident in universities, in the sense that they are not the result of deliberate

decisions. Kotler and Murphy (1981) assert that the general concept of planning is not new to higher education. Similarly, Dooris, Kelley and Trainer (2002) state that strategic planning in higher education institutions in the United States has taken place since the 1950s, and originally focused on facilities and space planning.

Kotler and Murphy (1981) further explain that many institutions have implemented three major levels of planning, which are budgeting, a scheduling process, and short-range and long-range planning. However, most planning documents do not serve as a blueprint or become institutionalized and, generally, only a few higher education institutions have been able to achieve significantly successful results (Lerner, 1999; Kotler & Murphy, 1981). Engaging in a strategic planning process brings advantages to higher education institutions in a variety of ways. According to Lerner (1999), strategic planning:

- Creates a construction for determining the direction a university should take to achieve its desired future
- Provides a framework for achieving competitive advantage
- Allows all university constituencies to participate and collaborate towards accomplishing goals
- Raises the vision of all key participants, encouraging them to reflect creatively on the strategic direction of the university

- Allows dialogue between participants, improving understanding of the organisation's vision and fostering a sense of ownership of the strategic plan that belongs to the organisation
- Aims to align the university with its environment
- Allows the universities to set their priorities. (Lerner, 1999)

Thus, according to Lerner (1999), strategic planning has important key components which can be utilised by every organisation. This includes highlighting methods to generate strategies and encourage the people within an organisation to move towards their goals, and consider their own situation and the priorities to be addressed.

Townsley (2008) asserts that a large proportion of American institutions, both private and public, are facing the risky condition of declining revenues. Decreasing enrolments, the cost of delivering education and research, debt loads, financial aid and decreasing tuition revenues are likely to force an institution to the edge of financial crisis. Therefore, the institution should maintain and strengthen its ability to provide services that bestow significant value to students and society, as well as develop a realistic financial plan in order to survive. The financial plan should depend on effective strategic analysis. The institution must have a clear picture of producing revenues, expending funds and using its financial reserves. Townsley (2008) also suggests that strengths, weaknesses, opportunities and threats (SWOT)

analysis is considered as an excellent tool for portraying the internal and external factors of a university's strategic condition.

Evidently, funding reforms in higher education in Western countries, such as budget cuts, performance-based allocation of funds and the diversification of the funding base for research and teaching are also affecting Asian countries (Altbach & Ogawa, 2002). Government plays a key role as the main source of funding for universities. In developing countries the government is often less stable and less powerful than in industrialised countries. However, they have a strong funding role and are able to investigate and gather information about higher education. By using such information, governments can design development plans for higher education systems (Lall, 1993; 1998). Universities in developing countries also experience under funding and are unable to have the latest research equipment. The faculty and staff are likely to be less qualified, on average, compared to more developed countries. Therefore, the higher education institutions in developing countries usually have lower academic standards, compared to more developed countries. Hence, universities have to constantly improve their teaching and research capabilities in order to meet society's future needs (The World Bank, 2000; Altbach, 1998).

Conway, Mackay and Yorke (1994) argue that higher education institutions have to struggle for funds from both public and private sectors and also compete for potential students. Universities in Asia, for example Japan and

Thailand, also experienced similar circumstances which led to the competition between private and public universities to attract more students due to gradual budget cuts from government (Gamage, Suwanabroma, Ueyama, Hada & Sekikawa, 2008). In order to survive, competitive strategies have to be devised which satisfy the needs of potential customers and other stakeholders. From this perspective, strategic planning becomes an essential tool to guide the institution's response to the increasingly competitive environment in which they have been placed. Similarly, with increasing and competing stakeholder demands, it is neither possible nor acceptable for universities to drift along without a clear focus, therefore, deliberate decisions must be taken to drive the institution in a particular direction (Cowburn, 2005).

The challenge of decreasing budgets in the education field urges higher education institutions to think and act more strategically. It bestows a substantial change in the management of higher education institutions. The decision to adopt strategic planning plays an important part in surviving and competing globally. The goals set are crucial to institutional success, and contribute to a universities' development, but they also have to consider that the strategic plan must be realistic and compatible with the organisation's environment. Therefore, universities should create clear mission statements to meet their stakeholders' needs. Moreover, universities should acknowledge and recognise the market mechanisms and put their efforts to improving the quality

of services (Gamage et al., 2008). The mission statements in higher education should clearly reflect the institution's values and principles. It has a clear direction to approach the future and should synchronise the statements with institution's strategy (Gordan & Pop, 2013).

In summary, in this time of rapid change no higher education institution can remain static for too long and no institution can survive without constantly responding to change. Strategic planning should be an essential tool to minimise a crisis mode of decision making. Although the financial support of higher education is most likely to decline, the demand for services will still continue to expand. Strategic planning in higher education offers the opportunity for universities to map their course and focus on their future goals. Strategic planning also appears to be both an intellectual exercise and a unique process which fits well with higher education institutions (Paris, 2003).

The literature discussed above is important to this research context, particularly in that public universities in Indonesia have also experienced similar situations. Due to the pressure of government funding, higher education institutions have to struggle to overcome budget constraints and at the same time should improve their quality. Public universities may have several sources of funding but they are not profit oriented businesses. However, the world changing situation and influence of globalisation has impacted on higher education, urging the universities to adopt the corporate nature of efficiency and

profit oriented management (Zajda, 2009). Therefore, to cope with this situation, public universities should adopt business like management to direct the institution. Systems such as strategic planning and performance measurement are fundamentally needed.

2.2.3 Strategic Planning in Public Universities

Strategic planning has developed into a major field and has been accepted as a part of management since the 1950's. At the same time, a set of analytical tools have been generated to help managers in planning business strategy (Porter, 1983). Similarly, strategic planning was widely adopted by colleges and universities throughout the 1980's and 1990's. Dooris (2003) criticized strategic planning, arguing that the initiative is too linear, has some difficulties in presenting information, is too formalised and structured, disregards organisational context and culture, and discourages creative and positive change. However, by the end of 1990's strategic planning started to be widely acknowledged, and became mainstream in higher education where it was also considered as a good practice.

Nevertheless, it must be acknowledged that there are some differences between strategic planning in business and in education, with these two fields being considered as totally separate areas which deal with things very differently. The main difference is that the structure in which business operates usually has instability, whereas in education the structure remains more stable,

but less flexible. Moreover, in business, 'inputs' and 'processes' are things that can be controlled, can be varied and can be flexible, while in education the experience is reversed. In terms of systems, a business organisation has a decentralised system and a short-term or medium-term vision, whereas in education they tend to have a centralised system and a long term vision (Tsiakkios & Pashiardis, 2002). Finally, the product in business is visible but in education it is not readily visible as it takes time to see the quality of the product. However, strategic planning certainly can be effectively implemented in education, and there are no reasons to be reluctant in applying strategic planning, since business organisations have utilised this successfully over a long period (Tsiakkios & Pashiardis, 2002).

In the context of university strategic planning, the planning needs a good information management system, in order to gain the support and participation of the university's staff and to manage a proportional budget. Furthermore, not only should the goals be clear, the actions to reach the goals must be matched with a timeline. The system for funding, monitoring and evaluating should also be put together. Generally, unsuccessful planning occurs due to insufficient funding, failure to nominate a person who is responsible for the planning execution, and failures in managing the monitoring and evaluation process. Therefore, strategic planning in a university should be realistic, varied and fitted to the university's conditions (Anderson, et al., 1999).

To sum up, strategic planning in public universities essentially adopts a traditional private sector approach to strategic planning, with some adaptations. The adaptations are required to develop effective strategic planning that is appropriate to higher education institutions, such as public universities.

2.3 Performance Measurement

This section presents an exploration of the concept of performance measurement. The first part clarifies the historical context, the next part details the basic concepts, and the last part contains the explanation as to how it is applied in public universities.

2.3.1 Historical Context of Performance Measurement

The initiatives of performance measurement have existed for more than a hundred years. In fact, preceding performance ideas and current performance measurement and management have a very close relationship (Van Dooren, Bouckaert & Halligan, 2010). Van Dooren et al., (2010) clustered the evolution of performance measurement and management into three time phases from 1900, as follows:

- The First Phase: 1900 – 1940s

There were three kinds of performance measurement movements in this phase. The first was the social movement, driven by social reformers focussing on social problems with an emphasis on social inequalities. The next was scientific management, and the science of administration,

which was a reaction to the need for infrastructure, mobilisation and industrialisation. The last movement was cost accounting. This was the development of public and private sector collaboration along with tracking, recording and analysing costs related to the organisation's activities.

- The Second Phase: 1950s – 1970s

The second phase of performance measurement was the activity of performance budgeting. This was demonstrated in the 1960s through the introduction of Planning Programming Budgeting Systems (PPBS). The purpose of PPBS was to analyse long-term policy objectives and the ways to achieve them. It was aligned with the decision making framework and budget formulation process. PPBS was the pioneer of initiatives such as Management by Objectives (MBO) and Zero Based Budgeting (ZBB).

The next system was Management by Objectives (MBO), used for connecting the organisations to the budget requests. It was a process to embrace manager's responsible in accomplishing the organisation's objectives.

The next performance budgeting method was Zero-Based Budgeting (ZBB). Practically, zero-based budgeting set priorities based on programme results that could be attained at alternative spending

levels, and budget spending should be below the current funding available. In budget proposals, the alternatives were ranked in sequence from the lowest unit level of organisation without reference to the past budget (General Accounting Office, 1997 in Van Dooren et al., 2010). Although performance budgeting applied in many countries, such as France, Australia, Austria, Belgium, Canada, Ireland and Japan, there was no consensus use of PPBS, MBO or ZBB. The dominance of system thinking which linked everything together in a large scheme, and is committed to a systemic dimension, ultimately led to the demise of performance budgeting.

After almost two decades of economic growth and prosperity, the demand for social data emerged. In 1966, Bauer proposed the social indicators movement by publishing a book on the social side effects of the NASA space investment programmes. The social indicators movement tried to establish the standard measures of state of health, crime, well-being, education and many other social characteristics in a population and their living environment. The statistics on the social conditions of a population supported performance measurement systems to assess the effectiveness of government actions (Bauer, 1966; De Neufville, 1975; Eckersley, 1998).

- The Third Phase: 1980s – 2000

In this period, performance management turned into a growth industry, particularly in the UK, and focused on organisational objectives and measuring output performance. A fundamental part of the approach was the use of performance indicators (PIs) (Williams, 2000). In the 1980's a diffuse set of management reforms emerged and spread globally in the form of the New Public Management (NPM) model. The NPM was recommended for public agencies so that they could be divided into small policy units and larger performance-based management organisations. Performance was purposed to evaluate agencies which required measurement in a comprehensive way. The use of performance indicators then employed in almost all management functions.

The 1980s and 1990s saw the rise of performance as an issue in public sector theory and it was seen in all levels of government performance documentation and in all assessments of the outcomes of government action. These trends continued until the 2000's with a familiar slogan "if you can't measure it, you can't manage it" (Talbot, 1999; Radin, 2000).

The most recent performance movement is the evidence-based policy (EBP). EBP was originally used in Britain to determine the facts and figures of outcomes, based on the information of policy decisions

rather than ideologies or opinions. BEP was initially utilised in the medical and public health sector, and by the end of the 1990s had disseminated to all policy sectors (Solesbury, 2001; Davies, Nutley & Smith, 2000).

The recent literature on the subject of the development of performance measurement and management framework in the last two decades (1991-2011) identified that the trends of performance management measurement can be classified into five broad issues (Yadav, Sushil & Sagar, 2013). The development of the framework is described the Table 2.1.

Research in performance management and measurement for the last twenty years has transformed from financial measures to integrated measures, from an operational perspective to a strategic perspective and segmented stakeholders to all stakeholders. In the first phase of development (1991 - 2000) major issues of performance measurement were related to technical and practical aspects, such as manufacturing operation, productivity, waste, cycle time, response time, time, cost, quality, delivery time, process and technology. However in the next phase, after the year 2000, the major issues changed to services and new performance measures such as leadership, training, education, innovation, capabilities, knowledge and personal improvement (Yadav, Sushil & Sagar, 2013).

Table 2.1 Framework of Performance Management and Measurement (PMM)
Development from 1991 to 2011

No.	Theme	Frameworks
1.	Classical and dominant. This theme contributes to the knowledge base related to the incorporation of non-financial performance measures, quality, self assessment and inclusion of stakeholders	Balanced scorecard Performance pyramid EFQM (European Foundation for Quality Management) Performance prism
2.	Holistic and integrated. This theme about aligning performance with the future, bringing individual performance with company performance and integrating operational, functional and strategic aspect of company performance	Consistent PMS (Performance Management System) Dynamic performance measurement system Dynamic multi-dimensional performance framework Holistic performance management work
3.	Updating Balanced Scorecard (BSC) work. In this theme the issue of balanced scorecard has been widely discussed and updated with organisational view, modelling, cognitive map and intellectual and social perspective.	Kanji's business scorecard Holistic scorecard Total performance scorecard System dynamic based BSC Proactive BSC
4.	Context-specific PMM This category is about discussion of performance in specific contexts such as economic values, social values, quantitative factors and performance value chain.	Measures for time-based competition Economic value added Input-process-output-outcome framework Shareholder value Quantitative models for performance measurement system The action-profit linkage model Beyond budgeting The performance planning value chain
5.	Recently developed PMM In this stage the framework of PMM have been developed in the last three or four years and discussed all the issues related to company's performance.	Flexible strategy game-card Sustainability performance measurement system

Overall, the evolution has led to the development of performance measurement as an effective tool that can be used across sectors to measure important indicators for organisations. Since its popularity in the 1980's,

performance measurement now has been adopted both in private and public sectors, and at all levels of government.

2.3.2 Basic Concept of Performance Measurement

In discussing performance measurement systems, there are some definitions and explanations which have been proposed by researchers, academicians, as well as practitioners. Simmons (2000) suggested a basic understanding of performance measurement as a system that has a systematic method of setting goals with periodic feedback to indicate the progress against the organisational goals. Neely, Mills, Gregory and Platts (1995) proposed definitions for performance measurement, a performance measure and a performance measurement system as follows:

Performance measurement can be defined as the process of quantifying the efficiency and effectiveness of action.

A performance measure can be defined as a metric used to quantify the efficiency and/or effectiveness of action.

A performance measurement system can be defined as the set of metric used to quantify both efficiency and effectiveness of the action. (Neely, et al., 1995, p. 80)

Moullin (2007) argues that these definitions emphasise effectiveness and efficiency but disregard the substance of performance measurement which should be quantified so as to drive the managers to challenge their performance measurement system. He suggests the definition of performance measurement

as: “Evaluating how well organisations are managed and the value they deliver for customer and other stakeholders” (Moulin, 2007, p. 188).

This definition provides further guidance to people who are involved in performance measurement to consider to what extent the organisation measures its value to customers and how the main aspects of performance have been managed. Moreover, performance measurement offers the information to evaluate the organisation’s values and achievements. This definition also has an affinity with aspects of the balanced scorecard approach: financial, customer/stakeholder, internal processes, innovation and learning. While financial aspects implies delivering value, the customers and stakeholders are key to the definition, and internal processes, innovation and learning are central to the way the organisations are directed (Moullin, 2007).

To sum up, the concept of performance measurement is vital to the effectiveness of every organisation. To be effective, performance measurement should be linked with organisation’s strategies and goals.

2.3.3 Performance Measurement in Public Universities

Through the development of the New Public Management approach in the 1980s, and the introduction of rational ‘businesslike’ management practices, many universities have established their management and control systems to include performance measurement (Bogt & Scapens, 2009). Jarrar and Schiuma (2007) argue that a challenge for the adoption and implementation of

performance management systems in the public sector is the ability to evaluate and manage knowledge and intangible resources. Therefore, knowledge of the economy is also important for public sector organisations in order to represent strategic resources. According to Canibano and Sanchez (2009), universities have similar concerns to companies. Both are operating in a global market, competing, innovating and struggling for funds, good employees (in universities lecturers and researchers), customers (students) and partners.

Similar to other public sector services, higher education has had an interest in performance measurement since the 1980s. The requirement to improve the efficiency of systems requires an emphasis on operational performance. This, primarily, is because increasing numbers of student enrolments was not being supported by appropriate funding from governments. Performance in higher education is closely linked to quality. This has led to quality audits, quality assessments, quality assurances, quality accreditations and the latest being quality enhancement (Sarrico, 2010).

Evidence from the Sarrico (2010) study indicates that performance management in higher education highlights the following points:

- Evaluation in universities needs to emphasise the developmental perspective of performance management.

- Quality assurance may clarify past performance while quality enhancement should anticipate the future. It needs the integration of control and planning within the management structure.
- All stakeholders should be formally represented in the universities' governing bodies and they should have active policies to encourage members to be actively involved in decision making.
- The importance of communication in performance management. For example, giving feedback to stakeholders about the results of quality management practices through newsletters or other social marketing mechanisms.
- The importance of motivation in performance management, by celebrating good results and rewarding the good performances of staff.
- Developing a good partnership between non-academics and academics.
- The importance of staff development policies. (Sarico, 2010)

The results above reflect the development of performance in the public sector. Higher education should take responsibility and initiative for quality and performance improvement and be accountable to the state, market and to the institution (Sarrico, 2010).

Therefore, it is crucial for the universities to set up their performance measurements similarly to the private sector. Universities are now forced to

evaluate improvement and observe trends through the reliable information provided by performance measurement.

2.4 The Relationship between Strategic Planning and Performance Measurement

The strategic planning process will influence the outcomes and achievements which are essential to evaluate the effectiveness of planning. In evaluating outcomes and achievements, measurement activity is very important. Measurements can include: accomplished tasks, quantitative assessment such as goals achieved, events held, staff surveyed, and focus group or individual involvement in the planning process (Tromp & Ruben, 2004). Dusenbury (2000) also confirms that strategic planning envisions the desired goals while performance measurement looks back at the achievements. Thus, a combination of strategic planning and performance measurement produce a sustainable process and form a cycle.

In performance management, planning is only the first step, as the actual performance of the organisation should then be monitored and measured against the plan, with corrective action taken if required. The organisation must set the targets to be achieved; recognise the current position; identify the resources implications and encourage people to be accountable for achieving targets. It is important that performance measurement should come with an effective planning system, where planning processes cannot solely develop

alone but should be aligned with the performance management system (Viljoen & Dann, 2003).

2.5 Strategic Planning of Higher Education in Indonesia

2.5.1 The Higher Education System in Indonesia

Primarily, the education system in Indonesia was the product of the Dutch, who colonised Indonesia for more than three hundred years from 1619 to 1942. After Independence Day on 17th August 1945, Indonesian higher education improved gradually, with an increasing number of public and private universities. Under parliamentary democracy, from 1950 to 1959, Indonesian higher education achieved such fundamentals as objectives, missions, organisational structure and education system. During this time, the European education system model was changed to an Anglo-American model (Fahmi, 2007; Buchori & Malik, 2004).

The Higher Education system in Indonesia is administered by the Ministry of National Education through, the Directorate General of Higher Education (DGHE) and other ministries such as the Ministry of Religious Affairs and the Ministry of Finance. The first law on higher education was established in 1961 (Act Number 15/1961), which stated that the mission of higher education encompass three pillars of national higher education: learning, research and community service.

There are five forms of Indonesian higher education, based on the most recent regulations of the National Education System (2003):

- Academies (provides one particular applied science, engineering or art).
- Polytechnics (provides education for special knowledge or specific practical skills).
- Advanced Schools (provides professional education in one specific discipline, offers academic degree programs in specific fields of study).
- Institutions and Universities (consists of many faculties/departments in one knowledge discipline, offers training and higher education in various disciplines, offers undergraduate and graduate programs in a specific fields of study).
- Open University (Distance Education). (Fahmi, 2007)

The five forms of higher education providers are categorised as private or public institutions. The tuition fees for public institutions is lower compared to private ones, however, it may be varied in every institution. The admission test into public institutions is highly competitive and creates limited availability in public institutions (Nizam, 2006). Students who pass the admission test in public institutions generally come from low socio-economic background. In contrast, students from high socio-economic background tend to choose private institutions (Buchori & Malik, 2004; Welch, 2006).

The higher education sector in Indonesia is highly privatised. Over 3400 higher education institutions are owned privately and only 140 are operated by the government (Royono & Rahwidiati, 2013). Higher education fees have

become expensive and there seems to be an unrealistic expectation for every individual to have a tertiary education level. Under these circumstances, the gap in education access between rich and poor has become wider. Therefore, the most efficient way to finance higher education could be through a loan system, which currently is not used in Indonesia. Higher education institutions also face an autonomy issue because both public and private institutions are still under the tight control of the government. The ministry of education and culture has authority over the universities statutes and decides the study program offered by higher education institutions (Suryadarma & Jones, 2013).

2.5.2 Implementation of Higher Education Long Term Strategy in Indonesia

The first higher education long-term strategy was called the Higher Education Long Term Development Framework, and was initiated by the Directorate General of Higher Education in 1975, for the term from 1975 to 1985. The strategy was focused on the requirements of a solid connection between higher education and national development. It established the dual system of academic and professional streams and also introduced three program levels in higher education: diploma, bachelor and graduate. In this period credit systems, student academic evaluation, study load, and a staff promotion system were also introduced (DGHE, 2003).

The second Higher Education Long Term Development Framework was published by the government in 1986, for the term from 1986 to 1995. This

framework was regarded as unsuccessful due to inadequate public and political support. The government also blamed the fall of the oil price for causing the drop in enrolment rates in public institutions, while the enrolment in private institutions was steadily increasing (DGHE, 2003).

The third Higher Education Long Term Development Framework was introduced in 1996, for the term from 1996 to 2005. This plan emphasised the implementation of a new paradigm in higher education management, quality improvement and geographical and social equity. However, the global economic crisis in 1997, followed by political and economic instability, led to the total failure of the strategy (DGHE, 2003).

The next long term strategy was launched by the Directorate General of Higher Education in 2003, for the term from 2003 to 2010. The main goals of this strategy were: improving the nation's competitiveness, autonomy and decentralization for universities and improving the organisational health of universities (DGHE, 2003).

2.6 Determining Performance Indicators by Using the Balanced Scorecard Approach

2.6.1 Introduction to the Balanced Scorecard

The balanced scorecard developed by Kaplan and Norton (1996) can help an organisation to clarify its corporate vision and strategy, communicate and link strategic objectives and measure to plan, set targets and link strategic

initiatives, and enhance strategic feedback and learning (Kaplan & Norton, 1996). Kaplan and Norton (1996) describe the balanced scorecard as follows:

Balanced scorecard complements financial measures of past performance with measures of the drivers of future performance. The objectives and measures of the scorecard are derived from an organisation's vision and strategy. The objectives and measures view organisational performance from four perspectives: financial, customer, internal business process and learning and growth. These four perspectives provide the framework for the balanced scorecard. (Kaplan & Norton, 1996, p. 8)

The balanced scorecard intends to present a complete picture of performance using the perspectives of financial, customer, internal process and learning and growth, as described below;

Table 2.2 The Four Perspectives of the Balanced Scorecard

Perspective	Type	Performance Issues addressed
Financial	Result	How do we look to our shareholders? Are we producing the right financial result?
Customer	Result	How do customers judge our products and services? Are we exceeding the expectations of the marketplace? What specifically must we excel at if customers are to buy from us?
Internal Process	Driver	What changes do we need to make to our internal processes to become more competitive and improve customer satisfaction? What do we need in terms of new products, services, channel management and process improvement?
Learning & Growth	Driver	What objectives do we have to pursue to develop our people, information technologies and leadership for the future? What is our organisational change agenda?

Note: Adapted from *The measurement and Management of Strategic Change: A Guide to Enterprise Performance Management*, by P. Walsh, P Lok and M. Jones, 2006 p. 93.

In general, the process for building a scorecard consists of four steps: firstly, develop and link strategic objectives across the four perspectives; secondly, select measurements to track progress against the objectives; thirdly, select targets for each measurement; and fourthly, disseminate to lower organisation levels and manage the business around scorecards (Walsh et al., 2006).

Niven (2003) describes the balanced scorecard in a comprehensive way as being composed of three elements: measurement system, strategic management system and communication tool. As a measurement system, the balanced scorecard serves as a translation of an organisation's strategy which measures not only financial perspectives but also customer/stakeholder, internal processes and learning and growth. As a strategic management system, the balanced scorecard may overcome the vision barrier through the translation of strategy; disseminating the scorecard to overcome the people barrier; strategic resource allocation to overcome the resource barrier and strategic learning to overcome the management barrier. On the other hand, the balanced scorecard can also be used as a communication tool, by sharing the scorecard results with the organisation, it will provide employees with strategy information and the opportunity to discuss, learn any unexpected results and create a dialogue for future adjustment. The employees also recognise the organisation's objectives and know how to contribute during the journey.

In fact, the importance of the word 'balanced' in balanced scorecard is to represent the balance between financial and non-financial indicators, internal and external constituents of an organisation and the lag and lead of the indicators (Niven, 2003).

The balanced scorecard has developed over the last two decades and has become a very popular tool in performance measurement. It evolved from a simple tool to a complex multi-faceted performance measurement system. The framework of the balanced scorecard has been used by many organisations, who realised the drawbacks and adjusted the scorecard to fit to their own purposes. The scorecard is essential to developing a more focused performance measurement system. The achievement of the company can be measured through improved performance as an indicator of successful implementation. The balanced scorecard is a powerful instrument and may contribute significant benefits when applied properly in an organisation. Nevertheless, it must not be perceived as a miracle solution that will improve the performance of a struggling organisation. It must be noted that the organisation can manage their performance effectively if they have a clear direction of how they perform. The particular version of the balanced scorecard for implementation must match carefully with the requirement list of the organisation (Perkins, Grey & Remmers, 2014).

2.6.2 The Practice of the Balanced Scorecard in Higher Education

Although the balanced scorecard has been successfully implemented and is well documented in the business sector and other for-profit organisations, there is still very limited research regarding the application of the balanced scorecard in the education sector (Karathanos & Karathanos, 2005; Rompho, 2004; O'Neil, Bensimon, Diamond, & More1999; Shuterland, 2000). However, some studies show that the balanced scorecard can be applied successfully in the higher education sector. A study carried out by Umashankar and Dutta (2007) applied the balanced scorecard concept and discussed in what ways it could be applied in the Indian higher education context. The balanced scorecard provided institutions the opportunity to formulate a flow of measures to translate missions into a comprehensive, coherent and communicable framework for stakeholders and for one another.

Another study by Rompho (2004), explored how the balanced scorecard allowed a university in Thailand to investigate the stakeholder's perception of the university. The result shows that stakeholders welcomed the use of the balanced scorecard and how a university strategy map, based on stakeholder's perceptions, could be established.

A further study undertaken by Papenhausen and Einstein (2006) presents how the balanced scorecard approach, as a performance management system, could be implemented successfully at a college of

business in the United States of America. The results demonstrate that the balanced scorecard approach is applicable to the higher education situation and allows the alignment of measurement with the college's mission and strategy. The recent study in the United States of America undertaken by Stephenson (2014) also reveals that higher education institutions measure their performance relative to cause-and-effect strategies by using the balanced scorecard conceptual framework. The study suggests that the balanced scorecard can be a modern managerial approach to replace the traditional fund accounting operating model.

Thus the balanced scorecard is flexible and can be applied to all types of organisations, including higher education institutions, despite the original design purpose in for-profit companies (Papenhausen & Einstein, 2006).

2.6.3 Performance Indicators in Public Universities

The balanced scorecard is also a mechanism to display an institution's key performance indicators (KPIs). The performance indicators are presented numerically and are usually aggregated or summarised (Lyddon & McComb, 2008). Key performance indicators in balanced scorecards represent a balanced perspective:

- Stakeholder indicators: present what is important to stakeholders in strategic plans, for example: student satisfaction, student retention, graduation rates and community support.

- Process indicators: show how the institution's processes are performing in the context of outcomes, such as the time range needed to complete education and an efficiency measurement for the number of students.
- Learning and innovation indicators: show how well people, groups and the overall institution are learning and innovating to achieve the desired outcomes, for example: professional development impacts, continuous improvement and knowledge management.
- Resources indicators: show what resources are required to achieve the desired outcomes, for example: student enrolments, funds available and budgets balanced. (Kaplan & Norton, 1996, 2000; Niven, 2003, Lyddon & McComb, 2008)

2.7 The Performance Measurement Model for Public Universities

In recent decades, higher education and universities have had the challenge of transformation, using new theories, and influencing and being influenced by policy changes (Gibbons et al., 1994). The consequences of these transformations create increasing functions for universities to fulfil. Universities are expected not only to provide training and research but also promote lifelong learning, help companies to boost their innovative capacities and be actively involved in a range of social problems. Hence, universities now have multiple functions and missions and should be awarded more autonomy to determine their strategies and provided with sufficient financial resources. As the results

show, universities are able to accomplish their functions and be more accountable to multiple stakeholders and a large society (Laredo, 2007; Bonnaccorsi & Daraio, 2007; Canibano & Sanchez, 2009).

To cope with these phenomena, there is a constant need for universities to improve their strategies and performance in order to respond to a challenging future. Higher education needs to adopt business-like performance measurement models such as the balanced scorecard. Likewise, Nayeri, Mashhadi and Mohajeri (2008) state some studies as evidence that the balanced scorecard model can be implemented in the higher education sector. Similarly, O'Neil et al., (1999) assert that though the balanced scorecard was designed for business organisations, the framework can be applied to the unique characteristics of an academic organisation. Moreover, they confirm that "the scorecard is attractive because it offers a format within which to establish common measures across academic units that have shared characteristics" (O'Neil et al., 1999, p. 40). It is conceivable that the balanced scorecard will be workable if it can be modified according to the distinctive characteristics of higher education.

Reviewing the existing literature, the balanced scorecard has been applied to higher education and is able to link different types of measurement. Research from Sayed (2013) confirms that either the classical or modified balanced scorecard approach can be applied in non-profit organisations,

including universities. However, the modified approach needs to be further modified to suit the universities particular situation. The features of the balanced scorecard have been modified for higher education, and some universities have used it to develop performance measures.

The table below shows the original features of the balanced scorecard, in terms of its four perspectives (stakeholder, internal business process, learning and growth and financial), and the modified features that are used in higher education. Each perspective in the balanced scorecard is linked to the several points in key success factors and performance indicators. The points in key success factors and performance indicators have been modified to be suitable and fit with the nature of higher education so that it can be implemented in universities.

Within this research, the balanced scorecard can be used in universities because the approach is flexible, participative, longitudinal and strategic. Moreover, universities are likely to adopt the balanced scorecard because of its familiarity and it is easier to be applied in a faculty (Sayed, 2013).

Table 2.3 The Use of the Balanced Scorecard in Universities: Holistic View

Balanced scorecard Perspective	Key success factors	Performance indicators
Stakeholder's perspective (to be successful how must universities look to their stakeholders?)	Student's perspective Business community perspective Board's perspective Public's perspective Faculty and staff's perspective	Skill development, Educational experience, student outcome Employer rating Mission appropriateness, Leadership, Accountability Resource management, Resource diversity, educational diversity (extra curriculum activities) Faculty and staff well-being, Workplace environment
Internal business process perspective (to satisfy stakeholders what universities must excel at?)	Teaching and learning Operational efficiency Institutional management	Learning outcome, teaching diversity, teaching effectiveness, university environment Operational processes and turnaround time, stakeholder's involvement and satisfaction, resource availability, resource utilisation Organisational controls, program diversity, student recruitment and composition, student's use of university resources, service outcome (student retention rate, degree completion rate, student satisfaction, post-degree performance/satisfaction)
Learning and growth perspective (how universities must excel at? what they do?)	Research and scholarly activity Curriculum/program Faculty and staff	Productivity, quality, collaborations Curriculum innovation, curriculum quality Opportunities for professional growth, workplace diversity
Financial perspective (what must university do to be financially sustainable?)	Revenue sources Resource management	Source productivity, source quality, source diversity, growth Fiscal responsibility, resource efficiency, resource quality

Note: Adapted from "Ratify, Reject or Revise: Balanced Scorecard and Universities," by N. Sayed, 2013, *International Journal of Educational Management*, 27, p. 214.

2.8 Chapter Summary

This chapter presented a review of the literature concerning strategic planning and performance measurement. Strategic planning is a process of defining the institutional objectives and best approaches to achieve those objectives. It is a dynamic improvement process that effectively monitors organisational performance against goals, analyses achievements and short-falls, as well as adjusting activity to accomplish desired results. The strategic planning process can be as simplistic or as complex as necessary. It is most important that the strategic plan is developed to consider the unique needs and context that the organisation is operating within.

Furthermore, the strategic plan should be viewed as a tool that evokes action within the organisation. It is a document that guides the activities of the organisation in a purposeful manner. Performance measurement is developed to align with strategic planning. Performance measurement should be consistent with the mission, vision and core values of the organisation.

Therefore this study is designed to investigate the process of strategic planning in universities particularly in public universities, to determine its consistency with the government's guidelines, ascertain the relationship between strategic planning implementation and organisational performance, analyse the relationship of strategic planning and performance measurement, identify the current performance measurement indicators and propose a more

appropriate performance measurement model. The next chapter details the methods employed in the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Chapter Overview

This chapter provides a detailed explanation of the methods of research that have been undertaken. Firstly, the chapter begins with the research questions which guide the data collection of the study, followed by the research design. The next section describes the sites of study, the sampling techniques of the quantitative and qualitative phases, which is then followed by instrument design. The subsequent part justifies the data collection procedure, data analysis and research validity. Finally, a brief summary is presented.

3.2 Research Questions

The following research questions were designed based on a comprehensive literature review, and the purpose and specific objectives of the study. The research questions were as follows:

1. What are the processes of strategic planning at public universities in Sulawesi?
2. Is the existing strategic planning congruent with the objectives and goals as set out in the HELTS guidelines?
3. What is the relationship between strategic planning and implementation with organisational performance in public universities in Sulawesi?
4. What is the relation between strategic planning and performance measurement?

5. What are the performance measurement indicators that are being employed by public universities in Sulawesi?
6. What are the features that should be included in an appropriate performance measurement model for implementation by public universities in Sulawesi?

3.3 Research Design

This study consists of both quantitative and qualitative components, which provide distinctive approaches in social research. Further, as both components are merged in responding to the research questions, the research design can be classified as mixed methods. Creswell and Clark (2007) describe mixed methods research as a mixing procedure for collecting and analysing quantitative and qualitative research in a single study in order to understand research problems. However, mixed methods research not only combines two different strands of research, it also involves merging, integrating, linking, embedding or mixing quantitative and qualitative data. In regard to educational research, Wiersma and Jurs (2005) state that mixed methods is a suitable term to clarify research studies which involve two or more methods, possibly more related to evaluation than educational research. In line with this Punch (2009) simply concluded that:

Mixed method research is empirical research that involves the collection and analysis of both qualitative and quantitative

data. In mixed methods research, qualitative and quantitative methods and data are mixed or combined in some way. A single study that combines qualitative and quantitative data is mixed methods, but the term can also refer to several studies that combine both types of data. (Punch, 2009, p. 288)

Thus, in this study, using a questionnaire was employed in the first phase and an interview and documentary analysis were used in the second phase.

3.3.1 Survey Phase

In the survey phase, a questionnaire was employed as the instrument to collect data across a range of academic and administrative staff in five public universities in Sulawesi. The factors of strategic planning and performance measurement applicable to this study were identified, based on the literature review. These factors formed the framework of the questionnaire used in this phase. The purpose of this questionnaire was to investigate the strategic planning process and implementation at public universities in Indonesia. It also functioned to ascertain whether the objectives and goals have been achieved according to the Higher Education Long Term Strategy (HELTS) guidelines, by examining the organisational performance measurement.

The questionnaire was designed during the review of literature on strategic planning and performance measurement in higher education. It was developed based on several studies that have been conducted in this area

using a similar strategy. The questionnaire was modified to suit the Indonesian public universities' context. Kriemadis (1997) used a similar method to study the strategic planning process in higher education athletics departments in the USA. Another study using this strategy was conducted by Alashloo, Catska and Sharp (2005), which aimed to identify the impediments to strategy implementation in the higher education sector of Iran. The studies by Al-Omari and Salameh (2009), Cotter and Paris (2007) and Bailey, Chow and Haddad (1999) also influenced the content of the questionnaire.

3.3.2 Interview Phase

As the study aimed to gather information about specific subjects that are relatively complex, the researcher analysed and interpreted the data (contextualization and interpretation) in order to generate an end result (developing a model of performance measurement). The interview phase allowed the researcher to expand their understanding about the issue (Glesne & Peskin, 1992). Rapley (2004) concurs with Glesne and Peskin (1992), when he states that qualitative interviews are effective in providing insight into a research topic. In this study, interviews were conducted to collect information about strategic planning and performance measurements that have been implemented at the five public universities in Sulawesi to gain information about the strategic planning and performance measurement process. From these

data, recommendations about a strategic planning and performance measurement model have been developed.

3.3.3 Documentary Analysis Phase

Additional information from university documentation about strategic planning and performance measurement and other relevant materials were also collected. The researcher obtained clarification of the documents from relevant persons, where required. The documents used in this study also provided background material about institutional activities and important information and valuable resources for corroborating participant's comments. Documents accessed and analysed during this study included university strategic plans, performance measurement reports and HELTS guidelines.

3.3.4 Sites of Study

The sites of this study were five major public universities in Sulawesi. All data collection was conducted on campus. These universities were chosen due to their similarity in characteristics to public universities in the eastern part of Indonesia, and because they were geographically established on one island. Therefore, the results of the study can only be applied to these universities.

3.4 Sampling Technique

3.4.1 Survey Phase

In this phase, quota sampling was employed to generate findings as precise as probability sampling, with less time and cost, by dividing the population into several groups based on their known characteristics (Gobo, 2004; Kumar,

1996). In this study, the sample was drawn from both academic staff and administrative staff. The reason that these two groups were both included in the sample in the quantitative phase was to ensure that at least two different perspectives could be collected during the study.

The population of academic and administrative staff in the five universities is estimated to be slightly less than 5,000. The information relating to the administrative and academic staff can be downloaded from university websites. Following research ethics approval, 600 questionnaires were distributed. From the questionnaires distributed, 468 questionnaires were completed and returned to the researcher.

3.4.2 Interview Phase

In this study, semi-structured interviews were conducted with different university stakeholders, including the university's rector, deputy rectors, several faculty deans and deputy deans. The staff were identified as the personnel who had previously been involved in planning and performance measurement activities within those five public universities. Interviews were proposed for 50 respondents, which divided into ten participants per university. However, 46 interviews were eventually obtained. As required by the University Human Research Ethics Committee, consent forms were sent to the participants, prior to the interview process, and were mailed back to the researcher.

In this phase, purposive sampling was applied by selecting subjects based on their ability to provide the best information and their willingness to share their thoughts about the study subject (Kumar, 1996). This strategic allowed the researcher to gather information from a wide range of respondents in order to maximize variation (Gobo, 2004). Thus, in this study purposive sampling was applied to a group of middle management staff who were actively involved in strategic planning and performance measurement activities at university.

3.5 Instrument Design

Two instruments, the questionnaire and interview schedule, were designed to gather information about strategic planning and performance measurement in public universities in Sulawesi.

3.5.1 Questionnaire

The questionnaire was developed in accordance with the purposes of the study, and consisted of three main parts, as can be seen in Table 3.1.

The questionnaire is attached in Appendix 1 (p. 276). The pilot questionnaire was peer reviewed by the Faculty Research Ethics Committee and through the senior staff of the Faculty of Education and Arts. The designated questionnaire was then translated into Bahasa Indonesia and reviewed by the Indonesian Consulate in Sydney.

Table 3.1 Questionnaire

Sections	Content
Part One	Background Information; to gather information about the name of the university, gender, membership category, experience and role of the participant in strategic planning and performance measurement.
Part Two	List of questions that describe the participant's perceptions of strategic planning and performance measurement.
Item A	This item has 14 questions for the respondents to rate their perceptions of the process of strategic planning and the congruence of the objectives and goals with HELTS guidelines within the university using a four-point Likert scale, ranging from 1 ('strongly disagree') to 4 ('strongly agree').
Item B	This item has 3 questions for the respondents to rate their perceptions of the relationship between strategic planning implementation and organisational performance using a four-point Likert scale, ranging from 1 ('very insignificant') to 4 ('very significant').
Item C	This item has 47 questions for the respondents to rate their perceptions of the indicators of performance measurement in the university using a four-point Likert scale, ranging from 1 ('not important') to 4 ('very important') and one open question for comments relating to other aspects of the performance indicators that can be adopted by the university.
Item D	This item has 3 questions for the respondents concerning the performance measurement model using a four-point Likert scale, ranging from 1 ('strongly disagree') to 4 ('strongly disagree') and three open questions relating to strategic planning and performance measurement, team that should be involved in performance measurement, the significant features that should be included and the appropriate time period for strategic planning performance measurement.
Item E	This item has one open question for the respondents to provide any further comments relating to strategic planning and performance measurement.
Part Three	An invitation for participants to voluntarily be interviewed.

3.5.2 Interview Schedule

Interviews for this research were conducted with a broad representation of educational leaders in the five public universities who were considered as key

persons involved in undertaking strategic planning and performance measurement. The purpose of the interview was to gather information on strategic planning and performance measurement in the universities.

The interviews were semi-structured, consisting of five main questions related to the research questions in the study. The interview schedule can be seen in Table 3.2.

The researcher provided a brief explanation of the background to the study to each interviewee before the interview. Each interview took around 30 to 40 minutes and was audio-taped after gaining permission from each interviewee. The interviewees were provided with the opportunity to read the interview transcript and make comments or changes, if necessary. The interview schedule is attached in Appendix 2 (p. 286).

The semi-structured interview was developed, based on literature reviews on strategic planning, primarily from studies conducted to investigate strategic planning in higher education, such as the studies of Kriemadis (1997), Ardekani and Haug (1997) and Welsh, Nunez and Petrosko (2005). These studies were conducted using a semi-structured interview questionnaire based on conclusions drawn from the literature review. The studies by Al-Omari and Salameh (2009), Cotter and Paris (2007) and Bailey et al. (1999) also influenced the development of the questions for this interview.

Table 3.2 Interview Schedule

Questions	Content
Question One	Addressed the processes of strategic planning in higher educational institutions and their compatibility with the objectives and goals of the HELTS guidelines. This part contained five sections for the participant to explain their understanding and roles in the processes of strategic planning and their knowledge of HELTS, along with the implementation of the DGHE guidelines for university strategic planning.
Question Two	Addressed strategic planning implementation and its integration with organisational performance. This part contained four sections for the participant to comment on the benefit of strategic planning implementation, the system for aligning strategic planning and organisational performance, and the relationship between strategic planning and university accreditation.
Question Three	Addressed the relationship between strategic planning and performance measurement.
Question Four	Addressed the current performance measurement indicators that are being employed. This part contained three sections seeking respondent's views on the performance measurement indicators that have been used so far and the factors that support or hinder the application of the performance measurement indicators.
Question Five	The possible appropriate design of a performance measurement model for implementation within public universities in Sulawesi. This part contained six sections seeking the respondent's opinion about the structure of university performance measurement; the team or department that should be involved; important aspects of the performance measurement process and the documents used in performance measurement; the best approach for implementing performance measurement; the challenges faced and the best practice for performance measurement implementation.

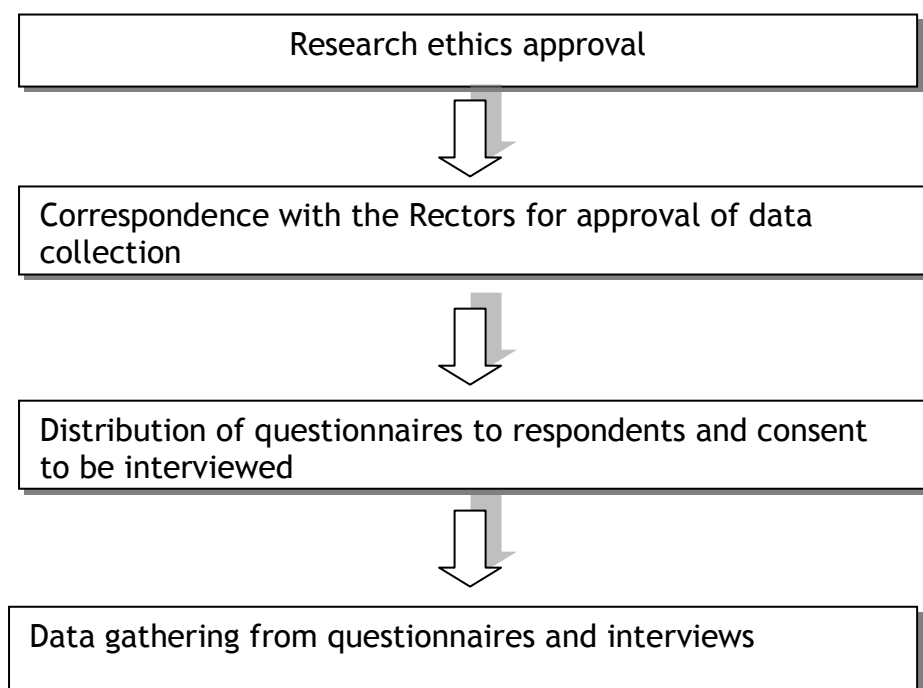
3.6 Data Collection Procedure

After approval from the Human Research Ethics Committee (HREC), the covering letter and consent forms to conduct the survey and interview were sent to the five targeted public universities. Correspondence was initiated with the

rectors of the five universities to obtain their consent for data collection through the distribution of questionnaires and interviews with respondents. The respondents consisted of administrative and academic staff.

Upon their approval, the questionnaires were then distributed to the respondents, along with an invitation to be interviewed. The participation was voluntary and the respondents were advised that their responses were confidential. The questionnaires and consent forms were returned in a sealed envelope and put in box located in the Dean's office. Consent forms from the Chancellor, Deputy Chancellors, Deans and Deputy Deans were mailed directly to the researcher. The next step was the collection of the questionnaires and consent forms from the Dean's office of each faculty and then the interviews were conducted by appointment. The process of data collection is presented in the following flowchart:

Figure 3.1. Flowchart of Data Collection Procedure



3.7 Data Analysis

3.7.1 Quantitative Data

The data analysis employed the SPSS software package (SPSS, 2007). The SPSS software package was used to generate the frequency, percentage and where appropriate, the mean, and standard deviation for each variable. Factor analysis was employed in developing scales from individual items and scale reliabilities were calculated. Finally, t-test, and analysis of variance (ANOVA) were used, when appropriate, to consider differences between groups. Details of the analyses and presentation of information are presented in tables and graphs in Chapter 4.

3.7.2. Qualitative Data

In qualitative method, data collection generally relies on unstructured research methods such as in-depth or focus group interviews (Boeije, 2010). Therefore, a good perspective and a range of views from respondents can be obtained.

The original transcription of the interviews was in Bahasa Indonesia (an Indonesian language) and then translated into English. Data analysis in this phase organized the interview results by developing coding schemes, based on organizing the data and drawing conclusions from the themes (Glesne and Peshkin, 1992). The interview transcript was analysed to produce a written account or text that can then be referred to as an academic discussion (Taylor, 2001).

The qualitative aspects of the data were analysed using the N-vivo software package. This data analysis tool assisted the researcher to interpret and analyse the research findings. Within this study, the interactive system in N-vivo, such as the document system and node system, have been used to develop thematic and analytic coding categories. The document system was used to store and manage raw data such as interview transcripts and the node system was utilised to create the coding analysis. Each coding appeared hierarchically to cluster the data into related themes. It assists the researcher to manage with the data searching, categorisation and organisation of the data when doing the analysis. However, the responsibility of theme development, coding system and the analysis result should be completed by the researcher. The qualitative data from interviews are presented in Chapter 5.

3.7.3 Documentation

Documents were used in this study to provide background information about institutions and to support the evidence gained from interviews. Documents accessed and analysed during this study included institutional strategic plans such as published university strategic plans, university performance measurement reports and other relevant materials, such as the HELTS guidelines from DGHE and accreditation assessment documents from the National Accreditation Agency for Higher Education. The qualitative data of documentary analysis are presented in Chapter 6.

3.8 Validity

To increase its validity, this study applied triangulation in order to eliminate potential bias (Silverman, 2005; Flick, 2002), including:

- Data triangulation: in the quantitative phase, data is gathered from different groups while in the qualitative phase, data is obtained from individual interviews.
- Methodology triangulation: the interview guide and questionnaire were pre-tested.

Thus in this study, triangulation was pursued through the multiple sources of evidence. In the context of the study, and to answer the research questions, data was gathered from questionnaires, interviews and document analysis. These approaches consistent with the view of Mason (1996): “At its best, triangulation encourages the researcher to approach their research questions from different angles and explore their intellectual puzzle in a rounded and multi-faceted way” (Mason, 1996, p.17).

3.9 Chapter Summary

This chapter has provided a detailed explanation of the methodology employed in the study. The study was conducted at five public universities in Sulawesi, applying both quantitative and qualitative methods, and institutional information. The questionnaire and interview schedule were developed based on the literature review and sampling strategies were detailed. The quantitative data was analysed using SPSS, and qualitative data from the interview

transcripts were analysed using N-Vivo. The next chapter provides the results of the data analyses.

CHAPTER 4

ANALYSIS OF THE QUESTIONNAIRE DATA

4.1 Chapter Overview

This chapter presents the results of data analysis from the questionnaires returned by a range of staff at public universities in Sulawesi. The first section of the chapter provides profiles of the respondents and describes the response rate; the next section presents the results of the questionnaire, including the results from the open-ended questionnaire. The last section presents a chapter summary.

4.2 Profiles of the Respondents and Response Rate

A total of 600 questionnaires were distributed and 468 completed questionnaires were obtained, an effective overall response rate of 78%. The respondents' information analysed in this study included: gender, position, years of experience in strategic planning and their role in strategic planning.

The results are shown in Table 4.1 below:

Table 4.1 Profile of Respondents

Characteristic	Categories	Number	Percentage (%)
Gender	Male	311	66.5
	Female	157	33.5
	Total	468	100.0
Position	Vice Rector, Dean, Vice Dean	7	1.5
	Head of Department	28	6.0
	Head of Program	129	27.6
	Academic Staff	304	65.0
	Total	468	100.0
Experience in strategic planning		222 participants stated they have experience in strategic planning	47.4
Role in strategic planning		169 participants stated they have role in strategic planning process	36.1

As shown in Table 4.1, two-thirds of respondents were males and one-third were females. The table also shows that almost two-thirds of the respondents were academic staff, approximately one-third from middle management, and very few from senior management. In relation to the respondent's positions, the highest numbers of responses were from academic staff (65%) and the fewest was from the group of vice rector, dean, vice dean (1.5%). The results also indicate that the heads of department group had 6% of the respondents in the survey and the heads of program group had 27.6%.

In terms of experience and role in strategic planning, almost one-half stated that they had experience in strategic planning, and more than one-third stated that they had a role in strategic planning. All the heads of department had experience in strategic planning, but only some of the academic staff did. These results indicate that the respondents had educational administration experience.

4.3 Results of Questionnaires and Analysis of Research Variables

This section reports the descriptive data and the methodology for the further analysis of the data. The questionnaire was structured in five parts, Sections A, B, C, D and E. Sections A and B were designed as closed questions with single responses quantified using a Likert scale, with four possible answers. Sections C and D were designed with closed and open questions, and Section E was an open question. The questionnaire is attached in Appendix 1 (p. 276). The

questionnaires were structured based on the research questions, which focus on five key issues:

- (1) the processes of strategic planning at public universities in Sulawesi (Section A).
- (2) the congruence of these with the objectives and goals set out in the Higher Education Long Term Strategy (HE LTS) guidelines (Section A).
- (3) the relationship between strategic planning and implementation with organisational performance in public universities in Sulawesi (Section B).
- (4) the importance of the performance measurement indicators that are being employed by public universities in Sulawesi (Section C).
- (5) the features that should be included in an appropriate performance measurement model for implementation by public universities in Sulawesi (Sections D and E).

The statistical techniques used for the questionnaire data included descriptive statistics such as frequencies, means and standard deviations. Subsequent analyses utilised factor analysis to determine construct validity and inform scale development. Scale scores were created and t-test and ANOVA were used to examine differences between means. All analysis was performed using the Statistical Package for Social Science (SPSS). For convenience, the list of items in the tables of mean and frequency distribution were presented in

the same order as the list of variables in the questionnaire (Section A, B, C and D).

4.4 The Processes of Strategic Planning and Its Congruency with HELTS Guidelines (Section A)

This section presents the results relating to the respondent's perceptions of the strategic planning processes at their universities and the congruence of these with the objectives and goals set out in the HELTS guidelines. There are 14 items which requested respondents to indicate their agreement level on a 4 point Likert scale, ranging from 4 (strongly agree) to 1 (strongly disagree). The first part of the research question focuses on the process of strategic planning, which is expressed in Item A questions 1 to 11, and the second part describes the congruency with HELTS, expressed in items 12 to 14 of the questionnaires. The results are presented in Table 4.2.

4.4.1 Mean and Frequency Distribution of the Processes of Strategic Planning and their Congruency with HELTS Guidelines (Section A)

Table 4.2 shows that, in the opinions of the respondents, the processes of strategic planning at public universities in Sulawesi, and the congruency with the objectives and goals of the HELT guidelines were accomplished well to some extent. All item mean scores were above 2.5 on the Likert scale, which is the mid-point between agreement and disagreement. Most of the respondents believed that the strategic planning process produced a very high contribution to the university (means 3.62). However, as can be seen from the table, some

respondents show lower levels of agreement about whether the process of strategic planning had developed appropriately; the conduct of monitoring and evaluation of strategic planning objectives and goals; and the dissemination of strategic planning goals (mean 2.91, 2.97, 2.87). These tables further show that more than 20% of respondents disagreed with these three items. Because all the item distributions had a negative skew to some extent, numbers in each of the four categories are presented in the table to supplement the mean scores, to indicate more clearly the differences in the level of disagreement of the respondents.

Table 4.2 also indicates some variations in the respondents' results. Most of the items had means ranging from 3.04 to 3.62. The item of contribution of strategic planning had the highest level of agreement, with 65.2% of respondents who strongly agreed and 31.2% who agreed. However, the items concerning the process of strategic planning development, the procedure of goals achievement, monitoring and evaluation of strategic planning objectives and goals, strategic planning goals dissemination, and the dissemination of HELTS from DGHE had a mean below 3, which indicated a greater level of disagreement.

Table 4.2 Distributions of Responses to the Processes of Strategic Planning and Their Congruency with HELTS Guidelines

Items (Section A)	Strongly Agree (4)		Agree (3)		Disagree (2)		Strongly Disagree (1)		Mean	SD
	N	%	N	%	N	%	N	%		
1. Strategic planning process as a great contribution	305	65.2	146	31.2	17	3.6	-	-	3.62	.557
2. Existence of strategic planning as a systematic process	151	32.3	282	60.3	33	7.1	2	0.4	3.24	.593
3. The implementation of strategic planning as continual process	126	26.9	297	63.5	45	9.6	-	-	3.17	.580
4. Process of strategic planning developed appropriately	67	14.3	296	63.2	103	22.0	2	0.4	2.91	.611
5. Procedure of goals achievement clearly stated	98	20.9	273	58.3	93	19.3	4	0.9	2.99	.666
6. Conducting monitoring and evaluation of strategic planning objectives and goals	114	24.4	230	49.1	118	25.2	6	1.3	2.97	.740
7. Resources for strategic planning activities provided by university	122	26.1	259	55.3	76	16.2	11	2.4	3.05	.718
8. Strategic planning goals disseminated	89	19.0	235	50.2	138	29.5	6	1.3	2.87	.721
9. Institutional research is part of strategic planning process	134	28	279	59.6	51	10.9	4	0.9	3.16	.636
10. University allocating resources to improve the weakness of strategic planning	140	29.9	272	58.1	47	10.0	9	1.9	3.16	.672
11. Changes through evaluation of strategic planning result	122	26.1	254	54.3	80	17.1	12	2.6	3.04	.731
12. Higher Education Long Term Strategy from Directorate General of Higher Education has been disseminated	111	23.7	245	52.4	99	21.2	13	2.8	2.97	.748
13. Consistency of vision, mission with Higher Education Long Term Strategy	172	36.8	265	56.6	22	4.7	9	1.9	3.28	.642
14. Consistency objectives and goals with Higher Education Long Term Strategy	154	32.9	280	59.8	30	6.4	4	0.9	3.25	.606

Table 4.2 also shows that Item 8, concerning the dissemination of strategic planning, had the highest level of disagreement/strong disagreement, as indicated by the relatively low mean (2.87) and more than 30% disagreeing. Other items with higher disagreement were development of strategic planning (Item 4), monitoring and evaluation of strategic planning (Item 6) and dissemination of HELTS from DGHE (Item 12) which indicated more than 20% disagreement by respondents.

4.4.2 Relationships between Variables

From the literature review, it is anticipated that there are three aspects of strategic planning that can be identified by respondents. These are strategic planning contribution, procedure and evaluation. These views are asserted by Sinha (1990), who stated that strategic planning has a contribution to decision making, and Mudrick, Steiner and Pollard (1992) who also affirmed that the content and procedures that comprise strategic planning are crucial. Furthermore, Khakee (1998) states that evaluation is a permanent part of planning and so it cannot be detached.

To determine the extent to which the data collected fitted the pattern hypothesized above, the 14 variables in Section A were subjected to a Principal Components Factor Analysis. Hair, Black, Babin, Anderson, and Tatham (2006) suggest that when using factor analysis to develop scales, variables with factor loadings above 0.3 to 0.4 are the minimum level, and above 0.5 are considered

practically significant. Therefore, for the purpose of the study, variables with low factor loadings were eliminated and those with a factor loading of more than 0.5 were retained.

The factor analysis results for the processes of strategic planning and the congruency with the HELTS guidelines are provided in Table 4.3. The factor analysis generated three factors:

Factor 1 can be described as strategic planning contribution

Factor 2 is concerned with strategic planning procedure, and

Factor 3 is concerned with strategic planning evaluation

Factor 1, strategic planning contribution, comprises variables 1 to 3, which describe the elements of strategic planning contribution. Each variable had a high factor loading above 0.7.

Factor 2, strategic planning procedure, consists of variables 4 to 8, which demonstrate the development, procedure and the output of strategic planning. All the factor loadings were above 0.5.

Factor 3, strategic planning evaluation, included variables 9 to 14, which display the features of strategic planning evaluation and its consistency with the HELTS guidelines. All the factor loadings were above 0.5. Variable 7 also loaded significantly on this factor, but was not included here for two reasons: conceptually, it is was seen to be an appropriate component of planning

procedure (i.e., Factor 2) and it had a higher loading on the second factor in any case.

Table 4.3 Results of Factor Analysis for the Processes of Strategic Planning and the Congruency with HELTS Guidelines

Items	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
	<i>SP Contribution</i>	<i>SP Procedure</i>	<i>SP Evaluation</i>
1. Strategic planning process as a great contribution	.725		
2. Existence of strategic planning as a systematic process	.750		
3. The implementation of strategic planning as continual process	.727		
4. Process of strategic planning developed appropriately		.733	
5. Procedure of goals achievement clearly stated		.694	
6. Conducting monitoring and evaluation of strategic planning objectives and goals		.764	
7. Resources for strategic planning activities		.598	.503
8. Strategic planning goals disseminated		.580	
9. Institutional research is part of strategic planning process			.586
10. Allocating resources to improve strategic planning			.688
11. Changes through evaluation of strategic planning result			.699
12. Higher Education Long Term Strategy from Directorate General of Higher Education has been disseminated			.717
13. Consistency of vision, mission with Higher Education Long Term Strategy			.709
14. Consistency objectives and goals with Higher Education Long Term Strategy			.609
Cronbach's Alpha scale reliability	.739	.830	.857

Overall, the rotated component matrix indicates that the three factors consist of variables with factor loadings of 0.58 or above. The reliability of the three scales developed from these items (using Cronbach's Alpha) were greater than 0.70, and two were greater than 0.80, thus indicating the scales were reliable.

A scale mean score was calculated based on each of the three factors established by factor analysis. These were:

- the contribution of strategic planning
- the procedure of strategic planning
- the evaluation of strategic planning

The results shown in Table 4.4 indicate high mean scores for strategic planning procedure and strategic planning evaluation, indicating that the majority of respondents perceive both the existence and contribution of strategic planning. They also indicated that the strategic planning evaluation and its consistency with higher education long term strategy have been adequately applied by the university. However, the mean score for strategic planning procedure was lower (less than 3 on the 4-point scale) which indicates that a larger proportion of respondents perceived the procedure of strategic planning in universities was not adequately achieved.

4.4.3 Scale Score Comparisons by Gender and Position

The perceptions of respondents were examined to determine whether there were significant differences in the agreement level based on a respondent's gender and position. Firstly, t-tests were used to investigate the significant difference for gender in relation of the three factors (see Table 4.4)

Table 4.4 Gender Differences for the Scale Scores

Factors	Mean		SD		t. value	Sig. (2-tailed)	Overall Mean	SD
	Male	Female	Male	Female				
1.SP contribution	3.41	3.20	.451	.469	4.638	.000	3.34	.467
2.SP procedure	2.98	2.91	.514	.571	1.239	.216	2.95	.534
3.SP evaluation	3.15	3.11	.544	.512	.796	.427	3.13	.533

When the mean scores were compared by gender, male respondents had a higher level of agreement compared to female respondents in perceiving the contribution of strategic planning, whereas the second and third factors show no significant gender difference.

A one-way analysis of variance (ANOVA) was used to compare the mean scores on the three scales for the four positions, ranging from Dean to academic staff. The results are shown in Table 4.5.

Table 4.5 ANOVA Results Based on Position

Factors	Position	Mean	SD	F	Sig.
1.SP contribution	Vice Rector, Dean, Vice Dean	3.52	.465	.744	.526
	Head of Department	3.35	.405		
	Head of Program	3.37	.481		
	Academic Staff	3.32	.467		
2.SP procedure	Vice Rector, Dean, Vice Dean	2.97	.292	.345	.793
	Head of Department	2.92	.472		
	Head of Program	2.92	.545		
	Academic Staff	2.97	.540		
3.SP evaluation	Vice Rector, Dean, Vice Dean	3.34	.320	.894	.444
	Head of Department	3.02	.301		
	Head of Program	3.11	.484		
	Academic Staff	3.15	.571		

There was no significant difference between the mean scores by position, which implies that the respondents have very similar perceptions about all aspects of strategic planning, regardless of their position.

4.5 Relationship between Strategic Planning and Implementation with Organisational Performance (Section B)

This section presents the results relating to the respondent's perceptions of the relationship between strategic planning and implementation with organisational performance. There are three items which requested respondents to indicate how significant they thought strategic planning was for organisational performance using a 4-point Likert scale, ranging from 4 (very significant) to 1 (very insignificant). The results are presented in Table 4.6.

4.5.1 Mean and Frequency Distribution of Relationship between Strategic Planning and Implementation with Organisational Performance

Table 4.6 shows that, in the opinion of the respondents, the relationship between strategic planning and implementation with organisational performance was significant to some extent. Although all item mean scores were below 3 on the Likert scale, they were above the neutral value of 2.5. In each case, a minority of respondents (between one fifth and more than a quarter) considered the relationship between strategic planning implementation and organisational performance to be insignificant.

It should be noted that the distributions of the first two items in Section B were negatively skewed. However, the differences between the means and the

medians of the distributions (shown in Table 4.6) were not large. Given these differences were relatively small, and that there are many comparisons between the normally-distributed and skewed variables made in this and subsequent sections, it was decided that a level of consistency was needed and should be imposed. Consequently, mean scores were compared in each case using t-test and F-test as appropriate.

Table 4.6 Distribution of Responses to Strategic Planning and Organisational Performance

Items (Section B)	Very Significant (4)		Significant (3)		Insignificant (2)		Very Insignificant (1)		Mean	Median	SD
	N	%	N	%	N	%	N	%			
1. Improvement of university with strategic planning implementation	73	15.6	264	56.4	129	27.6	2	0.4	2.87	3.00	.658
2. Value of strategic planning in organisational performance	56	12.0	301	64.3	109	23.3	2	0.4	2.88	3.00	.596
3. Relationship between strategic planning and organisational performance	77	16.5	292	62.4	95	20.5	4	0.9	2.94	3.00	.632

Table 4.6 also indicates that the relationship between strategic planning and organisational performance had the highest significance level, with more than 75% of respondents choosing this item as very significant. The item concerning improvement of the university with strategic planning implementation had the lowest significance level, with more than 25% of respondents choosing this item as insignificant.

4.5.2 Relationships between Variables

The three variables in Section B were factor analysed to determine whether they could be considered to form a coherent scale measuring the importance of strategic planning and implementation for organisational performance (see Table 4.7). The scale measures the importance of strategic planning implementation and performance.

Table 4.7 Result of Factor Analysis of the Relationship between Strategic Planning and Implementation with Organisational Performance

<i>Items</i>	<i>Factor 1</i> <i>SP Implementation and Performance</i>
1. Improvement of university with strategic planning implementation	.883
2. Value of strategic planning in organisational performance	.825
3. Relationship between strategic planning and organisational performance	.811
Cronbach's Alpha scale reliability	.788

The component matrix shows that all three variables have a factor loading above 0.80. The reliability of the scale that could be developed from these three items (using Cronbach's Alpha) was 0.79, indicating that the scale was reliable.

A scale score was calculated based on the single factor established by factor analysis. This was strategic implementation and performance. The result shown in Table 4.8 indicates the average mean score for strategic planning implementation and performance was above 2.5, which was lower compared to

other scale scores but it was still in the positive region. It indicates that only a minority of respondents perceive that the relationship between strategic planning implementation and performance was between significant and insignificant.

4.5.3 Scale Score Comparisons by Gender and Position

The perceptions of respondents were examined to determine whether there were significant differences in agreement levels based on the respondents' gender and position. Firstly, t-tests were used to investigate the significant difference for gender in relation of the one factor (see Table 4.8).

Table 4.8 Gender Differences for the Scale Score in Strategic Planning Implementation and Performance

Factor	Mean		SD		t. value	Sig.(2- tailed)	Overall Mean	SD
	Male	Female	Male	Female				
1. Strategic planning implementation and performance	2.90	2.89	.545	.492	.125	.900	2.89	.527

When the mean scores were compared by gender, there was no significant difference between the male and female respondents' perception of strategic planning implementation and performance.

When comparing results by position, the one-way ANOVA is shown in Table 4.9.

Table 4.9 ANOVA Results Based on Position in Strategic Planning Implementation and Performance

Factor	Position	Mean	SD	F	Sig.
1. Strategic planning implementation and performance	Vice Rector, Dean, Vice Dean	3.10	.163	1.461	.224
	Head of Department	3.04	.292		
	Head of Program	2.84	.540		
	Academic Staff	2.90	.542		

The ANOVA test confirmed that there was no significant difference between the mean scores by position, indicating that the respondents have similar perceptions about the relationship between strategic planning implementation and performance, regardless of their position.

4.6 Performance Measurement Indicators in Public Universities (Section C)

This section presents the results relating to the respondents' perceptions of the importance of the performance measurement indicators used in the university. There are 47 items which requested respondents to indicate the importance level on a 4-point Likert scale, ranging from 4 (very important) to 1 (not important). Section C is divided into four parts:

- financial perspective (8 items)
- customer/stakeholder perspective (16 items)
- internal process perspective (15 items) and
- learning and growth perspective (8 items)

The results are presented below in Tables 4.10, 4.11, 4.12 and 4.13.

4.6.1 Mean and Frequency Distribution of Performance Measurement Indicators

Table 4.10 shows that in the opinion of the respondents, the indicators of performance measurement from the financial perspective were approaching very important. All item mean scores were above 3 on the Likert scale. Most of the respondents perceived that the variable of efficiency and effectiveness of budget was between important and very important (mean 3.71), whereas the item concerning deficit budget had a lower score (mean 3.29). This table further shows that there were 9.6% of respondents who considered budget deficit as less important or not as important as a financial indicator. The item distributions indicated that very high proportions of respondents considered these items as very important or important, giving the distributions a negative skew. Consequently, to assist in interpretation, the four categories of respondent's choice are presented in the table together with the mean scores.

Table 4.10 Distribution of Financial Perspective

Items (Section C, financial perspective)	Very Important (4)		Important (3)		Less Important (2)		Not Important (1)		Mean	SD
	N	%	N	%	N	%	N	%		
1. Surplus rate	214	45.7	226	48.3	24	5.1	4	0.9	3.39	.626
2. Tuition fee	245	52.4	213	45.5	10	2.1	-	-	3.50	.542
3. Amounts of grants	233	49.8	220	47.0	15	3.2	-	-	3.47	.560
4. Business fund	216	46.2	234	50.0	13	2.8	5	1.1	3.41	.602
5. Balance budget	309	66.0	155	33.1	4	0.9	-	-	3.65	.495
6. Deficit budget	198	42.3	225	48.1	30	6.4	15	3.2	3.29	.728
7. Funds totally accountable	298	63.7	169	36.1	1	0.2	-	-	3.63	.486
8. Efficiency and effectiveness of budget	333	71.2	133	28.4	2	0.4	-	-	3.71	.465

Table 4.10 also indicates that items such as tuition fees, balanced budgets and funds accountability were considered as highly important components of the financial perspective, with mean scores above 3.5. The items of surplus rate, amounts of grants, business funds and deficit budget had mean scores in the range from 3.29 to 3.47, which indicated that, overall, respondents considered them as less important items in the financial perspective.

Table 4.11 shows that the indicators of performance measurement related to the customer/stakeholder's perspective were seen as important by respondents and, in many cases, as very important. All item mean scores were above 3 (important) on the Likert scale. Most of the respondents considered that the quality of student and graduate effectiveness were evidently important (mean 3.74 and 3.68). However, the items on the parent's response to the university survey and attendance conference show lower levels of importance (mean 3.28 and 3.27). This table also shows that there were some respondents (6.6% and 10.9%) who considered these two items as less important indicators for performance measurement in the customer/stakeholder's perspective.

Table 4.11 Distribution of Customer/Stakeholder Perspective

Items (Section C, customer/stakeholder perspective)	Very Important (4)		Important (3)		Less Important (2)		Not Important (1)		Mean	SD
	N	%	N	%	N	%	N	%		
1.Number of students	282	60.3	180	38.3	6	1.3	-	-	3.59	.518
2. Quality of student	361	77.1	96	20.5	6	1.3	5	1.1	3.74	.533
3. Market share of student enrolment	257	53.9	207	44.2	2	0.4	2	0.4	3.54	.532
4. Geographic draw area	213	45.5	222	47.4	31	6.6	2	0.4	3.38	.628
5. Graduate effectiveness	325	69.4	135	28.8	8	1.7	-	-	3.68	.503
6. Employers survey	272	58.1	178	38.0	18	3.8	-	-	3.54	.571
7. Community perception of community and staff	252	53.8	198	42.3	16	3.4	2	0.4	3.50	.587
8. University outreach programs for community	239	51.1	215	45.9	14	3.0	-	-	3.48	.557
9. Parents response to university survey	167	35.7	268	57.3	31	6.6	2	0.4	3.28	.601
10. Participation in decision making	268	57.3	190	40.6	10	2.1	-	-	3.55	.539
11. Encouragement of research	280	59.8	171	36.5	17	3.6	-	-	3.56	.565
12. Attendance of conference	184	39.3	229	48.9	51	10.9	4	0.9	3.27	.683
13. Level of publication	226	48.3	214	45.7	24	5.1	4	0.9	3.41	.630
14. Student/teacher ratio	248	53.0	205	43.8	13	2.8	2	0.4	3.49	.576
15. Percentage of doctoral	259	55.3	185	39.5	20	4.3	4	0.9	3.49	.623
16. Quality of faculty and accreditation status	323	69.0	137	29.3	6	1.3	2	0.4	3.67	.523

Table 4.11 shows that more than 60% of respondents considered that the items of number and quality of students, graduate effectiveness and quality of faculty and accreditation status were very important factors within the customer/stakeholders perspective. The percentages of respondents indicating these items were either less important or not important was below 11%.

Table 4.12 shows that, in the opinions of the respondents, the indicators of performance measurement, in terms of the internal process perspective, were important and for many items very important. All item mean scores were above 3 on the Likert scale. Most of the respondents considered that student satisfaction was fundamentally important (mean score 3.64). However, as can be seen from the table, some respondents indicated a lower level of importance for the peer review and availability of internship items (mean 3.25 and 3.28). This table further shows that there were 10.5% and 6.8% of respondents who considered these two items as less important indicators in the internal process perspective.

The respondent's results in Table 4.12 also indicated that a majority of the respondents considered that the items of student satisfaction, quality and technological level of computer and library, periodic review of each program, degree of innovation, updated curriculum with educational business and commercial trends, faculty development plans and outcomes were fundamentally very important, with mean scores above 3.5. Some items were considered as less important or not important; however the percentage for these items was below 11%.

Table 4.12 Distribution of Internal Process Perspective

Items (Section C, Internal process perspective)	Very Important (4)		Important (3)		Less Important (2)		Not Important (1)		Mean	SD
	F	%	F	%	F	%	F	%		
1. Student satisfaction	310	66.2	148	31.6	10	2.1	-	-	3.64	.523
2. Evaluation by external reviewers and employers	210	44.9	22.3	47.6	31	6.6	4	0.9	3.37	.645
3. Peer review	168	35.9	251	53.6	49	10.5	-	-	3.25	.632
4. Quality and technological level of computer and library	293	62.6	160	34.2	15	3.2	-	-	3.59	.553
5. Periodic review of each program	263	56.2	178	38.0	25	5.3	-	-	3.51	.598
6. Number of new courses developed	185	39.5	259	55.3	24	5.1	-	-	3.34	.574
7. Degree of innovation	260	55.6	192	41.0	16	3.4	-	-	3.52	.564
8. Updated curriculum with educational business and commercial trends	280	59.8	170	36.3	16	3.4	2	0.4	3.56	.585
9. Faculty development plans and outcomes	275	58.8	173	37.0	20	4.3	-	-	3.54	.578
10. Contact with business and industry	252	53.8	181	38.7	29	6.2	6	1.3	3.45	.670
11. Multimedia used in classroom	260	55.6	182	38.9	24	5.1	2	0.4	3.50	.616
12. Degree duration	198	42.3	245	52.4	23	4.9	2	0.4	3.37	.597
13. Percentage of student completing program in 4 years	215	45.9	208	44.4	34	7.3	9	1.9	3.35	.700
14. Percentage of budget for learning	248	53.0	194	41.5	14	3.0	12	2.6	3.43	.680
15. Availability of internship	189	40.4	235	50.2	32	6.8	12	2.6	3.28	.704

Table 4.13 shows that, in the opinion of the respondents, the indicators of performance measurement, in terms of the learning and growth perspective, were important and in many items as very important. All item mean scores were above 3 on the Likert scale. Most of the respondents perceived that the adequacy of classrooms, equipment, computers, library and percentage of budget for improved facilities were very important (mean 3.60 and 3.65). However, new initiatives, courses and programs had a lower level of importance (mean 3.31). This table also shows that there were 7.3% of respondents who considered that this item was a less important indicator in terms of the learning and growth perspective.

Table 4.13 Distribution of Learning and Growth Perspective

Items (Section C, learning and growth perspective)	Very Important (4)		Important (3)		Less Important (2)		Not Important (1)		Mean	SD
	F	%	F	%	F	%	F	%		
1. Grants for research travel, library, computer	259	55.3	183	39.1	24	5.1	2	0.4	3.49	.616
2. Teaching assessment	254	54.3	198	42.3	16	3.4	-	-	3.51	.565
3. Level of equipment	201	42.9	246	52.6	19	4.1	2	0.4	3.38	.586
4. Number of new initiatives, courses, programs	185	39.5	247	52.8	34	7.3	2	0.4	3.31	.622
5. University innovation versus other universities	238	50.9	200	42.7	26	5.6	4	0.9	3.44	.640
6. Adequacy of classrooms, equipment, computers and library resources	316	67.5	119	25.4	29	6.2	4	0.9	3.60	.646
7. Percentage of budget for improved facilities	334	71.4	107	22.9	25	5.3	2	0.4	3.65	.600
8. Evaluation of strategic planning result	287	61.3	144	30.8	37	7.9	-	-	3.53	.639

Table 4.13 also indicates that a majority of respondents (more than 60%) chose the items of adequacy of classrooms, equipment, computers and library resources, percentage of budget for improved facilities, and evaluation of strategic planning results as the very important items from the learning and growth perspective. The percentage for less important and not important items was below 10%.

Generally, the ranges of the mean scores for the financial perspective, customer and stakeholder's perspective, internal process perspective and learning and growth perspective show above 3 on the Likert scale. The results indicate that the majority of the respondents perceived that those items were important.

4.6.2 Relationships between Variables

Principal components factor analysis was used to analyse the items from Section C to confirm the construct validity of the four proposed scales:

- financial perspective (8 variables)
- customer/stakeholder perspective (16 variables)
- internal process perspective (15 variables) and
- learning and growth perspective (8 variables)

The factor analysis results for the financial perspective, customer/stakeholder perspective, internal process perspective and learning and growth perspective are provided in Tables 4.14, 4.15, 4.16 and 4.17.

For the financial perspective (Table 4.14), the factor analysis generated two factors: Factor 1 can be described as university revenue and Factor 2 is concerned with the university budget.

Factor 1, university revenues, comprises variables 1 to 4, which describe the sources of income obtained by the university. Each variable has a factor loading above 0.5.

Factor 2, university budget, consists of variables 5 to 8, and refers to the type of budgets established in the university. Items with factor loadings above 0.5 were retained for further analysis. Consequently, Item 6, deficit budget, with a factor loading of 0.424 was not included in the scale development.

Table 4.14 Factor Analysis for Financial Perspective

<i>Items</i>	<i>Factor 1 University Revenues</i>	<i>Factor 2 University Budget</i>
1. Surplus rate	.762	
2. Tuition fee	.547	
3. Amount of grant	.832	
4. Business fund	.851	
5. Balanced budget		.737
6. Deficit budget		(.424)
7. Funds totally accountable		.791
8. Efficiency and effectiveness of budget		.822
Cronbach's Alpha scale reliability	.796	.754

*Cronbach Alpha value 0.796 after variable of deficit budget was removed

The factor analysis results for the customer/stakeholder's perspective are presented in Table 4.15. The factor analysis generated three factors: Factor 1 can be described as student development; Factor 2 can be described as

community participation and staff development; and Factor 3 is concerned with research development.

Factor 1, student development, comprised variables 1 to 6, which included the phase of university students from enrolment to graduation and the students existence in the community. The variables have factor loadings above 0.6, except for variable 1, number of students (0.43), and variable 4, geographic draw area (0.393). These two variables, with factor loadings less than 0.5, have been eliminated from further analyses.

Factor 2, community and staff development, consists of variables 7 to 10, which demonstrate the efforts of the university relating to the improvement and encouragement of staff and community participation. Factor 3, research development, included variables 11 to 16, which relates to the improvement of research development in the university.

The reliability of the three scales that were developed from the items were greater than 0.70, and one was greater than 0.8, indicating the scales were reliable.

Table 4.15 Factor Analysis for Customer/Stakeholder Perspective

<i>Item</i>	<i>Factor 1 Student Development</i>	<i>Factor 2 Community Participation and Staff Development</i>	<i>Factor 3 Research Development</i>
1. Number of students	(.439)		
2. Quality of student	.765		
3. Market share of student enrolment	.679		
4. Geographic draw area	(.393)		
5. Graduate effectiveness	.687		
6. Employers survey	.670		
7. Perception of community and staff		.682	
8. University outreach programs for community		.614	
9. Parents response to university survey		.632	
10. Participation in decision making		.591	
11. Encouragement of research			.628
12. Attendance of conference			.674
13. Level of publications			.768
14. Student/teacher ratios			.771
15. Percentage of doctoral			.751
16. Quality of faculty and accreditation status			.722
Cronbach's Alpha scale reliability	.769	.729	.861

*Cronbach Alpha value 0.796 after variables of student number and geographic draw area were removed

The results of the factor analysis for the internal process perspective are presented in Table 4.16. The factor analysis generated two factors: Factor 1 can be described as university improvement and assessment, and Factor 2 can be described as academic improvement.

Factor 1, university improvement and assessment, consists of variables 1 to 5 and variables 8 to 11, refers to the attributes of the appraisal of human resources and facilities improvement. The factor loadings were above 0.5, except for variable 11, contact with business and industry (0.46). This variable was eliminated from further analysis.

Factor 2, academic improvement, consists of variables 6 to 7 and, combined with variables 12 to 15, refers to the expansion of the university to enhance the quality.

The values of Cronbach's Alpha coefficients for the two factors were greater than 0.80, indicating that the scales were reliable.

Table 4.16 Factor Analysis for Internal Process Perspective

<i>Items</i>	<i>Factor 1 University Improvement and Assessment</i>	<i>Factor 2 Academic Improvement</i>
1. Student satisfaction	.727	
2. Evaluation by external reviewers and employers	.675	
3. Peer review	.669	
4. Quality and technological level of computer and library	.567	
5. Periodic review of each program	.534	
6. Number of new courses developed		.609
7. Degree of innovation		.567
8. Updated curriculum with educational, business and commercial trends	.559	
9. Faculty development plans and outcomes	.689	
10. Contact with business and industry	(.468)	
11. Multimedia used in classroom	.676	
12. Degree duration		.793
13. Percentage of students completing program in 4 years		.736
14. Percentage of budget for learning		.699
15. Availability of internships		.720
Cronbach's Alpha scale reliability	.864	.853

*Cronbach Alpha value 0.864 after variable contact with business and industry was removed.

Table 4.17 Factor Analysis for Learning and Growth Perspective

<i>Items</i>	<i>Factor 1</i> <i>Facilities Improvement and Achievement</i>
1.Grants for research, travel, library and computers	.709
2.Teaching equipment	.823
3.Level of equipment	.784
4.Number of new initiatives, courses, programs	.758
5.University innovation versus other universities	.766
6. Adequacy of classroom, equipment, computers and library resources	.786
7. Percentage of budget for improved facilities	.775
8. Evaluation of Strategic Planning result	.812
Cronbach's Alpha scale reliability	.906

All variables had factor loadings above 0.70. The value of Cronbach's Alpha is 0.90, which indicates that the scale was reliable. A scale mean score was calculated based on the factors established by factor analysis. These were:

- University revenues and university budget (financial perspective)
- Student development, community participation and staff development, research development (customer/stakeholder perspective)
- University improvement and assessment, academic improvement (internal process perspective)
- Facilities improvement and achievement (learning and growth perspective)

The results are shown in Tables 4.18, 4.19, 4.20 and 4.21. For the financial perspective, the results shown in Table 4.18 indicate high mean scores for the scales of university revenue and university budget (above 3.0), indicating

that the majority of respondents considered that the indicators for the financial perspective were important.

For the customer/stakeholder perspective (see Table 4.19), the results shown high mean scores for the scales relating to student development, community and staff development and research development (above 3.0), indicating that the majority of respondents considered that the indicators listed for the customer/stakeholder's perspective were important.

For the internal process perspective (Table 4.20), the results show high mean scores for the scales relating to university improvement and assessment and academic improvement (above 3.0). This indicates that the majority of respondents considered that the indicators listed for the internal process perspective were important.

For the learning and growth perspective (Table 4.21), the results also show high mean scores for the scales relating to facilities improvement and achievement (above 3.0). This indicates that the majority of respondents considered that the indicators listed for the learning and growth perspective were important.

Generally, the mean scale scores for the financial perspective, customer/stakeholder's perspective, internal process perspective and learning and growth perspective are above 3 on the Likert scale. This indicates that the majority of respondents perceive that the four perspectives, and the variables,

were significant enough to be applied to the university performance measurement indicators.

4.6.3 Scale Score Comparisons by Gender and Positions

Possible gender differences were investigated using t-tests. The factors to be examined were the financial perspective (2 factors); customer/stakeholder perspective (3 factors); internal process (2 factors); and learning and growth perspective (1 factor). The statistical tests are presented in Table 4.18, 4.19, 4.20 and 4.21.

The financial perspective (Table 4.18) shows that there was no significant difference for both factors according to the t-test result. It indicates that both genders had the same perception of the indicators from a financial perspective.

Table 4.18 Gender Differences for the Scale Scores in the Financial Perspective

Factors	Mean		SD		t. value	Sig. (2-tailed)	Mean	SD
	Male	Female	Male	Female				
1.University revenues	3.42	3.47	.466	.444	-1.238	.216	3.44	.459
2.University budgets	3.54	3.61	.403	.382	-1.712	.088	3.57	.397

In relation to the customer/stakeholders perspective (Table 4.19), the results reveal that there was a significant difference in Factor 2, community and staff development, indicating a difference of opinion between males and

females. Female respondents considered that community and staff development are more important compared to the male respondents.

Table 4.19 Gender Differences for the Scale Scores in the Customer/Stakeholder Perspective

Factors	Mean		SD		t. value	Sig. (2-tailed)	Mean	SD
	Male	Female	Male	Female				
1.Students development	3.57	3.57	.378	.364	.122	.903	3.57	.373
2.Community and staff development	3.42	3.51	.438	.389	-2.250	.025	3.45	.424
3.Research development	3.50	3.45	.487	.408	1.103	.271	3.48	.462

Regarding the results for the internal process perspective (Table 4.20) and the learning and growth perspective (Table 4.21), there was no significant difference by gender.

Table 4.20 Gender Differences for the Scale Scores in the Internal Process Perspective

Factors	Mean		SD		t. value	Sig. (2-tailed)	Mean	SD
	Male	Female	Male	Female				
1.University improvement and assessment	3.47	3.51	.447	.370	-1.00	.318	3.49	.423
2.Academic improvement	3.37	3.40	.511	.430	-.773	.440	3.38	.485

Table 4.21 Gender Differences for the Scale Scores in the Learning and Growth Perspective

Factor	Mean		SD		t. value	Sig. (2-tailed)	Mean	SD
	Male	Female	Male	Female				
1.Facilities improvement and achievement	3.50	3.46	.482	.465	.784	.433	3.48	.476

A one-way ANOVA was used to investigate the same scales, based on the four positions, ranging from Dean to academic staff. The results are shown in Tables 4.22, 4.23, 4.24 and 4.25.

The ANOVA test results for the financial perspective (Table 4.22), shows no significant difference for Factor 1, university revenue, while Factor 2, university budget, revealed a significant difference ($p < 0.05$). The heads of program and academic staff valued the university budget as more important in the financial perspective (means 3.56 and 3.59) compared to the position of vice rector, dean, vice dean and head of program (means 3.39 and 3.38).

Table 4.22 ANOVA Results Based on Position in the Financial Perspective

Factors	Position	Mean	SD	F	Sig.
1.University revenues	Vice Rector, Dean, Vice Dean	3.17	.278	1.434	.232
	Head of Department	3.34	.463		
	Head of Program	3.47	.528		
	Academic Staff	3.44	.428		
2.University budget	Vice Rector, Dean, Vice Dean	3.39	.243	3.028	.029
	Head of Department	3.38	.363		
	Head of Program	3.56	.413		
	Academic Staff	3.59	.391		

Results identified by the ANOVA test for the customer/stakeholder's perspective (Table 4.23) indicate that there were significant differences in community and staff development, Factor 2 ($p=0.001$), and research development, Factor 3 ($p=0.047$). In community and staff development (Factor 2), the heads of department considered that the levels of importance of the indicators were lower (mean 3.14), compared to the other positions with mean values above 3.4. In contrast, for research development (Factor 3), the positions of vice rector, dean and vice dean perceived a higher level of importance for the indicators (mean 3.71), compared to the other positions which had mean values ranging from 3.39 to 3.51.

Table 4.23 ANOVA Results Based on Position in the Customer/Stakeholder Perspective

Factors	Position	Mean	SD	F	Sig.
1.Students development	Vice Rector, Dean, Vice Dean	3.54	.343	1.937	.123
	Head of Department	3.47	.324		
	Head of Program	3.63	.350		
	Academic Staff	3.56	.385		
2.Community participation and staff development	Vice Rector, Dean, Vice Dean	3.42	.313	5.526	.001
	Head of Department	3.14	.399		
	Head of Program	3.45	.441		
	Academic Staff	3.47	.411		
3. Research development	Vice Rector, Dean, Vice Dean	3.71	.393	2.669	.047
	Head of Department	3.39	.404		
	Head of Program	3.40	.555		
	Academic Staff	3.51	.419		

In relation to the internal process perspective (Table 4.24), ANOVA test results revealed significant differences in Factor 1, university improvement and assessment ($p=0.02$), and Factor 2, academic improvement ($p=0.01$). The results indicate that all the positions had different perceptions regarding these two factors. The Scheffe test was used to determine which individual groups were different. In the university improvement and assessment factor, the group of vice rector, dean, vice dean and academic staff perceived that the level of importance of the indicators were higher (mean 3.52 and 3.54) compared to other respondents. In the academic improvement factor, the group of academic staff showed a higher mean (3.42) compared to other positions.

Table 4.24 ANOVA Results Based on Position in the Internal Process Perspective

Factors	Position	Mean	SD	F	Sig.
1.University improvement and assessment	Vice Rector, Dean, Vice Dean	3.52	.447	4.897	.002
	Head of Department	3.34	.328		
	Head of Program	3.39	.499		
	Academic Staff	3.54	.385		
2.Academic improvement	Vice Rector, Dean, Vice Dean	3.26	.212	3.721	.012
	Head of Department	3.11	.506		
	Head of Program	3.36	.551		
	Academic Staff	3.42	.450		

In the area of the learning and growth perspective (Table 4.25), ANOVA results also showed a significant difference between positions. The head of department had lower perceptions (mean 3.21) compared to respondents in

other positions regarding the importance level of indicators in the learning and growth perspective.

Table 4.25 ANOVA Results Based on Position in the Learning and Growth Perspective

Factors	Position	Mean	SD	F	Sig.
1.Facilities improvement and achievement	Vice Rector, Dean, Vice Dean	3.46	.358	4.192	.006
	Head of Department	3.21	.417		
	Head of Program	3.44	.548		
	Academic Staff	3.53	.442		

The ANOVA test results had variations of significant differences to some extent. Some scales had significant differences and some had no significant differences. All the summary of scale scores, differences in gender and position can be seen in Table 4.30 in the chapter summary.

4.7 The Features of the Performance Measurement Model (Section D)

This section presents the results relating to the respondent's opinions of the features that should be included in an appropriate performance measurement model for implementation by public universities in Sulawesi. There are three items which requested respondents to respond on a 4-point Likert scale, ranging from 4 (strongly agree) to 1 (strongly disagree). The results are presented in Table 4.26.

4.7.1 Mean and Frequency Distribution of Features in a Performance Model

Table 4.26 shows that respondents agreed, at some level, with the features listed for possible inclusion in an appropriate performance measurement. All item mean scores were above 3 on the Likert scale. Most of the respondents agreed that the new features listed in Section D of the questionnaire should be included in the performance measurement model.

Table 4.26 Distribution of Responses to Features in a Performance Measurement Model

Items (Section D)	Strongly Agree (4)		Agree (3)		Disagree (2)		Strongly Disagree (1)		Mean	SD
	N	%	N	%	N	%	N	%		
1. A new model of performance measurement should be developed	227	48.5	216	46.2	25	5.3	-	-	3.43	.594
2. Performance measurement should be modified when strategic objectives change	234	50.0	215	45.9	17	3.6	2	0.4	3.46	.589
3. University utilises performance measurement to identify a strategic focus	229	48.9	220	47.0	19	4.1	-	-	3.45	.574

Table 4.26 also indicated that the item of performance measurement should be modified as strategic objective change had the highest level of agreement from respondents (mean score 3.46). The disagreement level from respondents was low, with the percentage below 5.5%. Both of the other items had mean scores very close to this item, indicating a high level of agreement.

4.7.2 Relationships between Variables

The three variables in Section D were factor analysed to determine a scale measuring the agreement of the features in a performance measurement model (Table 4.27).

The factor analysis generated one factor that can be included in the performance measurement model. The factor comprises the three variables concerned with recommendations in the modifying performance measurement model. Each variable has a high factor loading above 0.8. The value of Cronbach's Alpha for a scale developed from these three variables is 0.78, indicating such a scale would be moderately reliable.

Table 4.27 Factor Analysis for Features that should be Included in a Performance Measurement Model

<i>Items</i>	<i>Factor 1</i> <i>Performance Measurement Model</i>
1. A new model of performance measurement should be developed	.814
2. Performance measurement should be modified when strategic objectives change	.858
3. University utilises performance measurement to identify a strategic focus	.836
Cronbach's Alpha scale reliability	.785

A scale mean score was calculated based on the factor established by factor analysis. This was the performance measurement model. The results shown in Table 4.28 indicate high mean scores on the performance

measurement model, indicating the high level of agreement (above 3) from respondents in relation to this new model for performance measurement.

4.7.3 Scale Scores Comparisons by Gender and Position

Firstly, a potential gender difference on the scale was examined using a t-test.

The results (presented in Table 4.28) indicate no significant difference between males and females in perceiving the features that should be included in a performance measurement model.

Table 4.28 Gender Differences for the Scale Score in a Performance Measurement Model

Factor	Mean		SD		t. value	Sig.(2- tailed)	Overall Mean	SD
	Male	Female	Male	Female				
1.Performance measurement model	3.45	3.43	.496	.476	.377	.706	3.44	.489

Secondly, differences in the performance measurement model based on position were tested using an ANOVA. The results are shown in Table 4.29.

Table 4.29 ANOVA Results Based on Position for a Performance Measurement Model

Factors	Position	Mean	SD	F	Sig.
1.Performance measurement model	Vice Rector, Dean, Vice Dean	3.04	.558	2.942	.033
	Head of Department	3.27	.471		
	Head of Program	3.47	.509		
	Academic Staff	3.45	.476		

The test results indicate that there was a significant difference between the positions. The head of program and academic staff had a different perception, compared to the positions of vice rector, dean, vice dean and head of department. It shows that the mean score of 3.47 from the head of program and 3.45 for the academic staff were higher than those for respondents in the other positions (means 3.04 and 3.27).

4.8 Analysis of the Data Collected from the Open-Ended Questionnaire

The parts of the questionnaire which have open-ended questions are shown in Table 4.30.

Table 4.30 Questions and Contents of the Open-Ended Questionnaires

Question Parts	Contents
Part Two, Item C	Asked to express comments relating to other aspects of the performance indicators that can be adopted by the university
Part Two, Item D (question number 4)	Asked about the persons who should be involved in strategic planning and the performance measurement team.
Part Two, Item D (question number 5)	Asked about the significant features that should be included in performance measurement
Part Two, Item D (question number 6)	Asked about years of strategic planning and performance measurement
Part Two, Item E	Further comments relating to strategic planning and performance measurement for public universities in Sulawesi.

The results of the open-ended questionnaires are summarised in Table 4.31.

Table 4.31 Results of the Open-Ended Questionnaires

Questions	Comments
Aspects of performance indicators that can be adopted	<ul style="list-style-type: none"> -Graduates employability -Number of publications and research -Number of patents -Accreditation status -Student's GPA -Community service activities -Staff achievements -International collaboration
Persons that should be involved in strategic planning and performance measurement	<ul style="list-style-type: none"> -Management level in faculty and university - The board of quality assurance -Stakeholders -Academic staff -Administration staff -Strategic planning expert -Research centre department -Students representative and alumni
Significant features of performance measurement	<ul style="list-style-type: none"> -Progress report in one year plan -Applicable research for community service -University ranking
Years of strategic planning	<ul style="list-style-type: none"> -3 years -4 years -5 years
Years of performance measurement	<ul style="list-style-type: none"> -1 year -2 years
Further comments relating to strategic planning and performance measurement	<ul style="list-style-type: none"> -Strategic planning and performance measurement assist the university to be accountable and transparent -Strategic planning should focus on three functions of higher education: education and learning, research and community service

Table 4.31 shows that respondents had experience in strategic planning and performance measurement ranging from one to five years. The respondents recognised some important factors and significant features that need to be carried out in the strategic planning and performance measurement process. Regarding the persons who should be involved in strategic planning, the respondents identified that the management team, academic and administrative, experts in strategic planning, students' representatives and alumni should be participating in the process. Furthermore, the respondents expected that strategic planning can be conducted in accountable and transparent ways which focus on education and learning, research and community service.

4.9 Chapter Summary

This chapter presented the results of a quantitative analysis of the questionnaire items. Two-thirds of the respondents were male. Based on factor analyses, 13 scales were developed as measures of the perceptions of respondents concerning strategic planning. The significance indication in relation to gender and position for these scale scores can be seen in Table 4.32.

Table 4.32 Scale Scores, Gender and Position Differences

No	Scale Scores	Gender/Position	Significant	Not Significant
1.	The contribution of strategic planning	Gender	*	
		Position		*
2.	The procedure of strategic planning	Gender		*
		Position		*
3.	The evaluation of strategic planning	Gender		*
		Position		*
4.	Strategic planning implementation and performance	Gender		*
		Position		*
5.	University revenues	Gender		*
		Position		*
6.	University budget	Gender		*
		Position	*	
7.	Student development	Gender		*
		Position		*
8	Community participation and staff development	Gender	*	
		Position	*	
9.	Research development	Gender		*
		Position	*	
10.	University improvement and assessment	Gender		*
		Position	*	
11.	Academic improvement	Gender		*
		Position	*	
12.	Facilities improvement and achievement	Gender		*
		Position	*	
13.	Performance measurement model	Gender		*
		Position	*	

The 13 scales had acceptable to very high reliabilities, and scale mean scores were calculated. Differences in the 13 scale scores based on gender and positions held were tested using t-tests and one-way ANOVAs. Differences

of perception based on gender were discovered for the scale scores of strategic planning contribution, and the customer/stakeholder's perspective. Differences in perceptions by positions were discovered in the scale scores of the financial perspective, the customer/stakeholder's perspective, the internal process perspective, the learning and growth perspective and the performance measurement model.

The last section of the chapter is the summary of the open-ended questionnaires. In general, the results from the open-ended sections of the questionnaire showed that the respondents realised specific important factors and features required in strategic planning and performance measurement. The important factors in strategic planning could be an additional team member who is involved in the strategic planning processes, improvement in strategic planning implementation and the strategic planning implementation should be conducted in an accountable and appropriate way.

A discussion of these results will be presented in Chapter 7. The next chapter will describe and explain the interview results.

CHAPTER 5

INTERVIEW RESULTS

5.1 Chapter Overview

This chapter provides the results of the interviews. The first section describes the interview phase, which consists of the profile of the respondents. The second section describes the interview results, with a focus on the main research questions. A chapter summary is then presented.

5.2 Interview Phase

5.2.1 Profile of the Respondents

The interviews were conducted with 46 senior academic and administrative personnel. The targeted sample consisted of one rector, fourteen vice rectors, three directors of postgraduate studies, sixteen deans, two vice deans, nine department heads and one secretary of a department head. These staff were identified as personnel who had previously been involved in the strategic planning and performance measurement activities at the universities. The interviews were semi-structured and conducted face-to-face in five public universities in Sulawesi. All interview activities were conducted on campus. The consent forms were given to the participants prior to the interview process and the interviews were conducted by appointment. The data collected have been clustered under specific themes, based on the research questions, as shown in Table 5.1.

Table 5.1 Themes in the Interview Results

Research questions topic	Themes
Processes of strategic planning and congruence with the HELTS guidelines	<ul style="list-style-type: none"> -Process of strategic planning -Congruence between strategic planning and Higher Education Long Term Strategy (HELTS) -Roles of participants -Challenges in HELTS implementation -Advantages and disadvantages of HELTS
Relationship between strategic planning and implementation with organisational performance	<ul style="list-style-type: none"> -Benefits of strategic planning implementation -Aligning strategic planning and organisational performance -Improvement or achievement of the university -Strategic planning and university accreditation
The relation between strategic planning and performance measurement	<ul style="list-style-type: none"> -Strategic planning and performance measurement
The importance of performance measurement indicators	<ul style="list-style-type: none"> -Performance measurement indicators -Factors that hinder performance measurement
The features in a performance measurement model	<ul style="list-style-type: none"> -Structure of performance measurement model -Approach, challenge and best practice

5.3 Interview Results

The interview results are presented below, and are identified by themes related to the research questions of the study. An analysis of the results and quotations of the respondents from the interviews are presented in the following paragraphs.

5.3.1 The Processes of Strategic Planning and the Congruence with HELTS Guidelines

This section presents interview results for the processes of strategic planning in public universities and their relation to the Higher Education Long Term Strategy (HELTS) guidelines from the Directorate General Higher Education

(DGHE). The responses by participants are clustered under the following themes:

- The process of strategic planning
- The congruence between strategic planning and HELTS
- Roles of participants in the strategic planning process
- Challenges in implementation of HELTS
- Advantages and disadvantages of HELTS

5.3.1.1 Processes of Strategic Planning

The processes of strategic planning have been conducted using both the top-down and bottom-up approaches. The top-down approach has been employed because strategic planning is an obligation for higher education institutions governed by the Directorate General Higher Education (DGHE), Ministry of National Education. The bottom-up approach has been used because the formulation of strategic planning started within institutions from the lowest level work unit or study program. Most of the respondents agreed that the process of generating the strategic planning of the university, such as suggestions and recommendations were initially collected from all study programs, departments and faculties. These results then discussed at the university level by senate members, after reach the consensus; they proceed to design a strategic planning. At the end of the procedure university then produce the strategic planning. However, there was one university (University C) that has a specific

development team to design the university's strategic planning by encapsulating all the suggestions and recommendations and then assembling the university strategic plan. They are responsible for the process of strategic planning up until the publication level. Some exemplar responses from the interviews are indicated below:

The process of university strategic planning is top-down and bottom-up, when we receive guidelines from DGHE we disseminate it up to the study program level. The bottom-up approach is when the study program submits their guidelines, according to their situation and come up with a strategic planning draft that has been integrated with the guidelines from central government. Then it is discussed at the faculty and university level and then our university strategic planning document is generated. (University B, Vice Rector 2/Respondent 20)

After the dissemination of the guidelines from DGHE, we seek to produce the university strategic planning draft using a bottom-up approach, starting from the study program and the faculty, all the way through to being discussed in rector's chamber with senate members. (University A, Dean of Faculty of Agriculture/Respondent 1)

When we begin to design the university strategic planning, all the work units coordinate and give their participation, suggestions and recommendation and the results of the strategic planning work is handed over to the development team. Our university has designed a new strategic plan for the

period 2010-2014; we have the development team for it.
(University C, Vice Rector 2/Respondent 23)

In the process of designing strategic planning we meet with all units, allocated and selected the suggestions and recommendations. For short term work planning, which is for one year, we used the evaluation from last year to design the new work plan for the next year which fitted in with the long term strategic planning (4 years). We also involved stakeholders such as the government and private sectors in the process of strategic planning. (University C, The Head of Development Team/Respondent 25)

To summarise, most of the senior administrative staff stated that the existing process of strategic planning was generally effective by using both the top-down and bottom-up approaches. The top-down approach occurred when the dissemination of information from central government was communicated through work meetings all the way down to the bottom level of work unit in the universities. The bottom-up approach occurred when the planning process was generated by encouraging participation by staff members, starting from the study program, to the faculty level, all the way up to the university level. All suggestions and recommendations were formulated into the design of university strategic planning.

5.3.1.2 Congruence between Strategic Planning and HELTS

Most of the respondents agreed that the design of university strategic planning had followed the guidelines in HELT. The integration of the university's objectives and goals with DGHE guideline was entirely followed. Each interview participant spoke positively about the consistency of the university's strategic planning with HELTS. This is because it is an obligation of every higher education institution in Indonesia to follow the rules and regulations from DGHE and the Ministry of National Education (MONE). However, they have to modify their approach to fit with their own situation. The following quotations illustrate the respondent's views about the integration between the university's strategic planning and HELTS:

We have formal links with DGHE and MONE, so we have to refer to HELTS when we design our Strategic Planning, since the vision and mission should be integrated with HELTS.
(University A, Vice Rector 4/Resp.10)

We are really sure that our plan refers well to HELTS, We did the top-down and bottom-up approach and adjusted the plan to suit our situation which also relates to budget management.
(University A, director of Postgraduate Studies/Respondent 4)

The process of Strategic Planning accommodated the recommendation from study program to university level; and refers to HELTS because we are under the Ministry of National Education. The copy of our Strategic Planning is forwarded to DGHE so they can see that we have followed the

guidelines. (University B, Dean of Faculty of Economy/Respondent 12)

Every higher education in Indonesia has to follow guidelines from DGHE, we cannot avoid it, but we should adjust it to fit with our own situation and condition. (University C, Director of Post Graduate Studies/Respondent 21)

Although the majority of respondents confirmed that university strategic planning is consistent with HELTS, there was a tendency for the planning only being done because there was the need to comply with central government requirements, which include following HELTS guidelines. Respondents also indicated that a copy of the university's strategic planning documents should be forwarded to DGHE, implying that all the strategic planning formulations and outcomes should be monitored by DGHE.

5.3.1.3 Roles of the Participants

Most of the respondents indicated that they had been involved in strategic planning because of their position in management. Their involvement in strategic planning was also to make sure that the HELTS guidelines were harmonised with the university's strategic planning. All units related that they had been involved through work meetings from the study program level, and the faculty and university level in order to formulate the university's strategic planning. The following quotations illustrate their role in the strategic planning process:

I coordinate all the related work units, gather all the information, and identify it according to priorities per year (short term) and for four years (long term). We allocate the budget to execute all the programs in strategic planning and ratified by senate and the planning design should be related with the vision and mission from DGHE. (University A, The Head of Quality Assurance Department/Respondent 5)

I have to identify the internal and external factors in this postgraduate study, share it with all the staff in work meetings, accommodate suggestions and recommendations and then we can design the strategic planning. Then I become a motor to generate the implementation of strategic planning. (University B, Director of Post Graduate Studies/Respondents 15)

When we began to design the programs and activities in strategic planning we asked for member's participation and sent all the suggestions and recommendations to the development team. They would summarise and formulate it into a strategic planning document, publish it and give the copy to DGHE. (University C, Vice Rector 2/Respondent 23)

I have the responsibility to make sure that the design of strategic planning is in accordance with HELTS from DGHE and also our university master plan. (University C, Dean of Faculty of Economy/Respondent29)

In summary, all the respondents indicated that they have been actively engaged in the process of strategic planning, from the brainstorming stage with staff at work unit level, all the way to the final formulation process at the

university level. The respondents also stated the importance of synchronising university strategic planning with HELTS, to forward the documents to DGHE, and to be responsible for executing all the programs and activities involved in strategic planning, as well as to ensure that the process of implementation is in line with budget allocation. The respondents had participated fully in the strategic planning process implementation.

5.3.1.4 Challenges in HELTS Implementation

In terms of the application of the HELTS guidelines into university strategic planning, particularly the challenges, the majority of respondents revealed similar perceptions. They perceived that it is quite difficult to achieve the targets because DGHE impose the same national standards on all universities in Indonesia, without any adjustment for their particular situation. They should consider that every university has its own unique culture and situation. There are some universities in the Western part of Indonesia that were established much earlier, and so are more advanced in monitoring and meeting the requirements of quality education. Other universities are still lagging behind because they were established much later, for example the universities on Sulawesi Island. The participants provided their feedback, as described in the quotations below:

HELTS from DGHE we use as the national standard. I admit that some targets can be reached and some cannot. The most difficult thing is international publications, that is why we are

still far from world class university status because that is one of the main criteria to be fulfilled in order to obtain world class university status. (University C, Director of Post Graduate Studies/Respondent 21)

We strive to integrate university objectives and the DGHE guidelines. On paper, yes we did, but in reality I think generally the targets have not been achieved yet. They are too high and unaffordable for us to achieve and every university is different with their own problems. For example, the quality of the lecturers and the number of students. (University B, Secretary of Accounting Department/Respondent 19)

The challenge for us mainly is how to improve the quality and I think it is a never ending process. In our vision we want to be an excellent university but we are still far from a world class university. However, compared to the previous years I can say that we have made some significant improvements. For example, in library resources, IT centre, laboratory instruments, human resources etc. (University B, Vice Rector 2/Respondent 20)

The challenge for us is because we are in the eastern part of Indonesia we are left behind compared to the universities in the Western part of Indonesia, particularly in facilities, because they have been established long before, so the government funding for those universities is much higher and also the income from student's fees is significantly higher compared to us. (University A, Vice Rector 4/Respondents 4)

It is obvious we can't reach the targets of HELTS from DGHE. They try to measure the education quality and compare it with

the measurement in the Western part of Indonesia, particularly on Java Island. It is not fair to measure the national standard like that; in this case they should cluster the areas. It is evident that we are still left far behind. They do not recognise our situation in that we still lack facilities, infrastructure and human resources. Moreover, they do not know our condition geographically. (University E, Vice Rector 1/Respondent 41)

To summarise, most of the respondents criticised the HELTS targets from DGHE, indicating that there are several reasons for their inability to meet the standards from central government. Respondents referred to the lack of facilities, infrastructure, quality and the issue of isolation. It is evident that universities in the Western part of the country are much more developed, compared to universities in the Eastern part of the country. The most difficult issue was to achieve the status of world-class university which was regarded as quite impossible because of the lack of international journal publications, an important requirement for a world class university. Thus it is necessary, and fundamentally important, to consider the circumstances of different locations before setting the national standards.

5.3.1.5 Advantages and Disadvantages of HELTS

Most respondents mentioned that the advantages of the HELTS guidelines are that they create the unity to achieve the goals, and a clear direction of how to design university strategic planning so that all higher education institutions in Indonesia can reach similar levels of education quality. Moreover, the

institutions share the same vision and still have financial support from central government. However, one disadvantage is the centralisation factor, that every decision should have the approval of central government, and this procedure is time consuming. Furthermore, there is a lack of facilities, human resources and the issue of isolation. The following comments are typical of what the interviewees said:

Advantages:

The advantage is that we have the same vision and mission according to DGHE guidelines so we can achieve similar levels of quality all over Indonesia and diminish the gap between developed universities and underdeveloped universities. (University B, Head of Accounting Department/Respondent 17)

We can manage the university according to HELTS targets, we have the programs and activities, that could be executed because they are related to HELTS targets and we have the support in funding. (University C, Vice Rector 4/Respondent 24)

Disadvantages:

The problem of implementation sometimes is about a centralisation issue. For example, we can't open a new study program which is popular and suited to the market's demand and could attract more students. In this case we have struggled to get permission from DGHE, and it causes us to lose the opportunity to gain income for the faculty. (University B, Dean of Faculty of Economy/Respondent 12)

The disadvantage for us to follow the guideline from DGHE could be the geographic factor because our location is far from central government and it is difficult for us to compete with other universities, particularly the universities in the Western part of Indonesia, which are geographically close to central government and well established. For example, in information dissemination from DGHE, indeed we have internet connection but here it has not become the habit yet to connect with the internet every day to find out information. (University A, Dean of Faculty of Language and Arts/Respondent 3)

The disadvantage of HELTS implementation is that we cannot reach the targets. We still lack human resources, so how can we compete globally. In fact we are still struggling with a language barrier caused by our lack in English language ability. It is obvious that to compete globally skill in the English language is extremely important. Moreover, for journal publication, we are still trying for accreditation with our local journal. So how come we can publish in international journals! So in general we cannot reach the vision from DGHE, it is unreachable for us. (University E, Dean of Faculty of Fishery/Respondent 46)

In summary, the respondents confirmed similar perceptions regarding the advantages and disadvantages of HELTS. The advantages indicated are: that the universities have developed a vision from HELTS; a commitment to unify the HELTS vision and the university's strategic planning; and it helps the institutions to keep the focus on reaching a similar level to other universities.

The disadvantages are: HELTS becomes the mandate from central government; despite the high standards being unattainable targets, which puts more pressure on institutions, they have to attract students and keep increasing their income; and the bureaucratic process may delay reaching the HELTS targets.

5.3.2 The Relationship between Strategic Planning and Implementation with Organisational Performance

This section investigates the relationship between strategic planning and implementation with organisational performance in public universities in Sulawesi. The responses by participants were clustered in the following themes:

- Benefits of strategic planning implementation
- The system for aligning strategic planning and organisational performance
- Improvement or achievement of the university
- Relation between strategic planning and university accreditation

5.3.2.1 Benefits of Strategic Planning Implementation

The respondents described the relationship between strategic planning and implementation with organisational performance as highly correlated and noted that strategic planning is fundamentally important for a university's direction. However, sometimes during the implementation of strategic planning there are sudden policy changes and it may affect the organisational performance. The participant's responses are expressed below:

I think that strategic planning implementation and organisational performance are closely related because the implementation of strategic planning can be measured in our organisational performance. The benefit of strategic planning implementation is we have a clear direction for what to do and the result can be measured through performance, and how far we can accomplish the plan. Moreover, we have one direction to go from here. (University A, Dean of Engineering Faculty/Respondent 2).

I think the better the strategic planning, the better the implementation as long as it fits in with the budget. (University A, Vice Rector 4/Respondent 10)

I believe the main benefit of strategic planning is we have the guidelines to carry out to achieve the necessary performance, it is like a compass which direct us what to do for the next five years. (University A, Dean of Agriculture Faculty/Respondent 1)

In strategic planning implementation, we put our effort into fulfilling the strategic plan but sometimes there are unexpected policy changes from central government and we have to adjust to that new policy, which can influence the whole plan and requires detailed adjustment and so it has an effect on organisational performance. (University B, Dean of Faculty of Economy/Respondent 12)

The responses show a high degree of commonality corresponding with the concept of the benefits of strategic planning implementation. This indicates that strategic planning has the ability to focus on a university's goals and

objectives. It is an essential tool to draw the attention of organisations to be on the same page, and has the added benefit of being able to measure organisational performance.

5.3.2.2 Aligning Strategic Planning and Organisational Performance

In terms of aligning strategic planning and organisational performance, the respondents suggested several systems which can be introduced. The summary of respondent's opinion is presented in Table 5.2 below:

Table 5.2 Documents to Align Strategic Planning and Organisational Performance

Report documents	Performance measurement report
Monitoring and evaluation activities	-Monthly monitoring -Quality assurance monitoring
Reward system	-Best students and best lecturers nomination
Work performance evaluation	-Standard operation procedure -The main functions and tasks (job description) -Lecturers work evaluation performance -Lecturers certification

The above responses demonstrate that there are several systems available to align strategic planning and organisational performance. Universities conducted a performance measurement report once a year to measure the achieved targets that had been set by their strategic planning. In monitoring and evaluation, there are monthly monitoring and quality assurance monitoring of academic activities. Monthly monitoring was carried out in every faculty to monitor the learning process. For example, to record the subject of the

day, this also functioned as an attendance list for lecturers. Quality assurance monitoring was conducted by the board of quality assurance to monitor the learning process in every faculty, and it was done regularly, once a week or once a month in some universities. In their reward systems some universities nominated best students and best lecturers. The best students were given a scholarship and the best lecturers were given a salary bonus or incentive, based on their achievement.

In work performance evaluation there are standard operating procedures, job descriptions, lecturer's performance evaluation and lecturers' certification. The standard operating procedure is a set of standardised work units, a kind of procedure for daily working performance, applicable to both academic and administrative staff. The main functions and tasks is a job description, a list of general tasks and functions, which are applicable for both academic and administrative staff. Each lecturer's work evaluation is one of the processes of evaluation used to attain a lecturing certificate, and is conducted to measure lecturer's teaching performance in class. Lecturing certification is a type of reward for a lecturer, based on their academic qualifications and achievements. The qualification and achievements are related to their performance or abilities in teaching, researching and public service which are also the three functions of Indonesian higher education (education and teaching, research and community service).

5.3.2.3 Improvement and Achievement of a University

Through strategic planning implementation there have been some significant improvements and achievements in the universities. A summary of the respondents' opinions is categorised into four areas, and is presented in Table 5.3 below.

Table 5.3 University's improvements and Achievements

In management	-Better financial systems -IT and online use in administration
In university improvement	-Enhanced facilities and laboratory instruments -Better accreditation status
In staff achievement	-Postgraduate and doctoral degrees for lecturers -Lecturers participation in courses and training -Patents for scientific inventions
In students' improvement	-Increasing the number of students -Employability of graduates -Students' interest in enrolling in university -The balance of input and output of students

The above responses describe in summary the improvements and achievements of the five public universities in Sulawesi. These factors can also be used as indicators of performance measurement and may lead to an increased faculty and university accreditation status.

5.3.2.4 Strategic Planning and University Accreditation

It was found that strategic planning implementation was also related to the university's accreditation status. Through accreditation, the university may identify how far it has been effective in accomplishing its vision and mission.

Moreover, it may improve the university's quality and its public reputation. The respondent's opinions are indicated below:

Accreditation facilitates us to improve our quality and to see how far the programs in strategic planning have been implemented. Through accreditation we know where our position is and we know what to do next about our weaknesses and strengths. (University A, Head of Education and Learning Department/Respondent 11)

Strategic planning has a big impact on our accreditation system because from strategic planning we conduct our performance measurement which records all the accomplishment targets which in the end relates to our accreditation status. (University A, Dean of Faculty of Engineering, Respondent 2)

Strategic planning is also important to accreditation status; accreditation is essential as it can be a guarantee for stakeholders and the public that we have shown the good quality of our education. (University A, Vice Rector 4/Respondent 10)

Accreditation is related to targets achievement or the final result of implementation of all the programs and activities in strategic planning. (University B, Director of Post Graduate Studies/Respondent 15)

Accreditation and strategic planning is closely related. It is a requirement from the Ministry of Education to assess our university, so we can improve our quality. Therefore we put our effort into fulfilling all the programs and activities in

strategic planning. (University B, Vice Rector 2, Respondent 20)

In summary, most of the respondents share some common understandings regarding strategic planning and that a university's accreditation status may enrich a university's image with the public. The positive aspect of strategic planning was able to envision and define the future, and anticipated the approach that may be used to achieve goals. The accreditation process is a mandate from central government to assess university performance and to determine whether standards are being met, maintained and enhanced.

5.3.3 The Relation between Strategic Planning and Performance Measurement

This section outlines the relation between strategic planning and performance measurement, based on the interviews with senior academics and administrative personnel. The responses by the participants were clustered under one theme, namely strategic planning and performance measurement.

Most of the respondents confirmed that strategic planning and performance measurement are entwined and cannot be separated. Performance measurement is crucial to identify whether the targets in strategic planning have been achieved or not. The respondents provided the comments as indicated below:

Strategic planning gives us a direction, gives us a picture of what we hope to achieve in the future and with performance measurement we can see how far we have progressed and

the targets that we have achieved. Therefore it cannot be detached. (University B, Dean of Faculty of Economy/Respondent 12)

The degree of the implementation of strategic planning is seen in the performance measurement. So I can say that performance measurement is the result of strategic planning implementation. (University B, Director of Post Graduate Study/Respondent 15)

Performance measurement is designed based on strategic planning and under strategic planning we have what is called the work plan which has the targets that we should achieve, those target become indicators, it gives information whether we have reached it or not. (University B, Secretary of Accounting Department in Faculty of Economy/Respondent 19).

We conduct performance measurement reports every year; from it we can see how far the strategic planning has been accomplished through performance measurement. (University A, Vice Rector 4/Respondent 10)

Strategic planning supports us and functions like a compass to implement programs while performance measurement is the evaluation of what that has been achieved. (University A, Director of Education and Learning/Respondent 11)

Through strategic planning we have the pattern to support us in executing the programs/activities. Performance measurement helps us to do the monitoring and evaluation; in

this university we do it annually. (University A, Vice Rector 3/Respondent 8)

The responses above reveal similar opinions about strategic planning and performance measurement. The participants understand the need for performance measurement in evaluating strategic planning. They addressed the key role of performance measurement to assist in the monitoring and evaluation process. Performance measurement was seen as an effective tool to indicate the true realities within organisations.

5.3.4 The Importance of Performance Measurement Indicators

This section aims to discover the importance of the performance measurement indicators that are being employed by public universities in Sulawesi. The responses by participants were clustered under the following themes:

- Performance measurement indicators
- Factors that hinder performance measurement indicators.

5.3.4.1 Performance Measurement Indicators

There are some major performance measurement indicators that have been used by universities which were referred to by the respondents during the interviews. The indicators were classified using the balanced scorecard approach. This approach has been adopted as a theoretical framework in designing the research instruments and data analysis in this study (see Chapter 1). The summary of responses is presented in Table 5.4 below:

Table 5.4 Performance Measurement Indicators

1	Financial Perspective	Status of qualified opinions from auditing process, budget allocation, research grant, income from student enrolment
2	Customer/Stakeholder Perspective	Increasing number of students enrolling, students and lecturers ratio, GPA results, scholarships for students, government and private sector collaboration, employability rate of graduates, student service improvements
3	Internal Process Perspective	Facilities improvement, building expansion and renovation, laboratory instruments, new study programs, upgraded teaching modules
4	Learning and Growth Perspective	Postgraduate and doctoral degrees of lecturers, IT usage for lecturers, number of research projects and publications, lecturer's performance, IT improvements

The responses above describe the performance measurement indicators that can be categorised into the four perspectives of the balanced scorecard approach. Through this, it is evident that the balanced scorecard approach can be adopted to map the performance measurement indicators in universities.

5.3.4.2 Factors that Hinder Performance Measurement Indicators

The respondents described the factors that are obstructive in applying performance indicators. Below are the results of the interviews which demonstrate the following factors that can be classified as impeding the performance measurement indicators.

Table 5.5 Factors that Hinder Performance Measurement

Human Resources	<ul style="list-style-type: none"> -Mindset or behaviour of academic or administrative staff -Staff should be motivated to improve performance -Lack of discipline and self motivation -Leader as a role model
Facilities	<ul style="list-style-type: none"> -Lack of IT skill and IT awareness -Lack of laboratory instruments -Limited IT equipment -Lack of library resources
Finance	<ul style="list-style-type: none"> -Delay of funding

The responses above illustrate the factors that hinder performance measurement. The interviewees pointed out that the common obstructions to performance measurement can be classified into human resources, facilities and finance. The comments collected from the interviews suggested that the factors that impede performance measurement are associated with the intrinsic characteristics of individual academics or administrative staff. A major complaint about the application of performance measurement involved the motivation, behaviour and discipline of academics and administrative staff to engage in their daily work activities. The participants were generally aware that the obstacles also could be associated with insufficient facilities and financial problem.

5.3.5 The Features in Performance Measurement Model

This section presents the results of the interviews showing the features that should be included in an appropriate performance measurement model. The responses by the participants were clustered in the following themes:

- Performance measurement model
- Approach, challenges and best practice

5.3.5.1 Performance Measurement Model

The respondents had varied perceptions about the performance measurement model. More than half of the respondents agreed with the existing performance measurement, while some perceived that it should be modified. The modified model of performance measurement can be used for internal purposes only, because the universities are governed by the rules and regulations from DGHE. The universities have a team for performance measurement, which is known as the Board of Quality Assurance. In relation to this theme, the general consensus of the respondents can be grouped into three categories. The first category of response was to not agree to a performance measurement modification because they preferred to retain the current performance measurement. The second category was somewhat agreed because they concurred with some kind of modification model that it could be used in a gradual process, and just for internal used. The third category agreed and supported the modification in performance measurement. The respondents suggested that the modification was necessary and possible to implement in performance measurement.

The expressions below are related to the first category (do not agree with modification):

We have the board of quality assurance that assesses the university's performance, so I think we just can use the

existing system. (University B, Vice Dean 3 Faculty of Economy/Respondent 22)

It is quite difficult to modify the model because this is a public university, therefore we have to follow the established pattern. However, we still can do it for internal purposes, for example the reward system, reward for the best student, best lecturer and best administrative staff. (University A, Vice Rector 4/Respondent 10)

The responses below represent the second category (somewhat agree with modification):

I don't think that we can design a model that can be implemented in performance measurement. To find an effective model is difficult because the demand of every university is different. However, with the model that we have now it can be developed according to the situation. It is clear that in performance measurement there are indicators, so the model can be designed according to the targets that we want to achieve. Probably gradually we can set the model of performance measurement. For now we have the board of quality assurance that assesses performance measurement. (University B, Vice Rector 2/Respondent 23)

It is possible to modify, I mean it should be designed to be more specific and suit the situation in the university or faculty, but still considering the standard of performance measurement from DGHE, we can use it internally. However, when it comes to reporting to the DGHE, we have to follow the national standard. (University B, Vice Rector 2/Respondent 20)

In relation to the third category (agreed and supported the modification) the respondents expressed their opinion as follows:

I think we can modify the performance measurement model to also focus on qualitative assessment because the system that has been used so far just emphasises on quantitative assessment, and then the team for performance measurement will not be necessary because it is not allocated in the budget. (University C, Vice Dean 3/Respondent 22).

I think we can develop a new model that more specifically suits our institution. For example we can design the measurement criteria so our indicators will reflect market demand. (University B, Vice Dean 1 Faculty of Economy/Respondent 18).

We can design a performance measurement system specifically for higher education because the present work performance measurement for academic staff is using the same format as for the Indonesian civil servant. I think we should use a different system to measure the performance of academic staff because the current measurement is not objective as it doesn't look at their academic ability performance. (University B, Head of Accounting Department, Faculty of Economy/Respondent 17).

In summary, some of the respondents indicated that there is a need to modify the model of performance measurement and some respondents were not, or not in agreement. The main issue for them is the modification of the model because the existing model is not adequate to measure academic ability,

had insufficient performance indicators, and does not accommodate a qualitative assessment. On the other hand, there were respondents who did not want to modify the existing model because of their compulsion to follow the rules and regulations from DGHE.

5.3.5.2 Approach, Challenge and Best Practice

The respondents indicated different opinions concerning the approach to implementing performance measurement, the main challenges and the best practice for performance measurement implementation. A summary of comments is presented in Table 5.6.

Table 5.6 Approach, Challenge and Best Practice in Performance Measurement

Approach to performance measurement	<ul style="list-style-type: none"> -Strengthen human resources, for example: assessment of staff competence in their work performance according to their job descriptions -Authority delegation (Participation decision making, coordination)
Challenges	<ul style="list-style-type: none"> -Mental attitude of staff -New regulations/Policy changes -Leadership style
Documents for performance measurement	<ul style="list-style-type: none"> -Performance measurement report -Performance appraisal for lecturers -Student/peer assessment for lecturers -Questionnaire assessed by students or colleagues
Best practice	<ul style="list-style-type: none"> -The application of research for community purposes -Accreditation with A status -Provide the best accurate data -Collaboration with local government in conducting performance measurement in the government sector -New study programs opened

The responses from most of the groups above show their points of view on the approach, challenges and best practice in performance measurement. When participants were asked about the approach that can be used to implement performance measurement in their institution, they indicated that human resources issues and authority delegation become the main factors. To strengthen human resources could be done through the assessment of staff competence. The competence issue could be professional (knowledge), personal (behaviour) or social competence (human relation). Academic and administrative staff should have knowledge, awareness and good work behaviour to fit with their job description. It refers to their strong commitment to comply with rules and regulations in their institution. Moreover, the respondents believe that authority delegation factor played an important role in implementing performance measurement. The respondents revealed that authority delegation involved participation in decision making and coordination, for example, encouraging academic and administrative staff to state their ideas in management level meetings and to coordinate with their subordinates in decision making activities.

In regard to the challenges, the universities face difficulties with the nature of the organisation, such as in the mental attitude of staff, policy regulation changes and leadership styles. The participants indicated that the mental attitude of staff was one of the obstacles to implementing performance

measurement. Some of the staff were resistant to the policy change, showed poor job performance and reluctant attitude to obey rules and regulation.

Performance measurement implementation could be challenging when policy change occurred, for example, the changes of rules and regulations, and curriculum and work performance assessment. All the work activities in institutions should be adjusted to be consistent with changes.

The participants revealed that the leadership style factor was important to guide the success of performance measurement implementation. Institutions need the right leadership style to direct the performance measurement activities. For example, a democratic style of leadership which can build consensus through participation, or the transformational style of leadership which can share the vision, communicate, delegate and motivate staff to reach goals.

When participants were asked about the important documents in performance measurement implementation, they indicated that the performance measurement report, work performance assessment and student/peer assessment report were the essential documents. A Performance measurement report is prepared by each university annually and forwarded to the Indonesian Director General Higher Education. A performance appraisal is a report which assesses each lecturer's ability in performing the three obligations of higher education (education and teaching, research development, and community

service). The student/peer assessment report is an assessment of teaching performance made by students and colleagues.

When respondents were asked their opinion regarding the best practice to optimize and execute better strategy in performance measurement implementation, they indicated that the institution used the method and system that had been endorsed by government for public universities. In this case they followed the rules and regulations from the National Accreditation Agency for Higher Education (NAAHE). Moreover, the respondents revealed that the results of performance measurement implementation can be seen through the targets that have been achieved, such as: accreditation status; number of research projects and the contribution to community; and the number of new study programs and collaborations with local government. The participants indicated a strong link between accreditation status, research projects undertaken, collaboration with government and new study programs. It appeared that the achievement of a university can also be measured by those elements, as being important indicators in performance measurement.

The responses above suggest that the five public universities have taken steps to improve their performance measurement. It revealed that most of the respondents recognised the correct approach, challenges, documents and best practice in performance measurement implementation.

5.4 Chapter Summary

This chapter presents the results of the interviews. The results of the interviews indicated that the process of strategic planning in public universities utilised both top-down and bottom-up approaches. The consistency of strategic planning with HELTS guidelines was, to some extent, due to the issue of compulsion. Regarding the relationship between strategic planning and organisational performance, strategic planning provides a clear direction to shape a university's performance. Performance measurement can develop into an effective tool to evaluate the achievement of strategic planning. In terms of the performance indicators, the indicators collected from universities can be categorised into four perspectives in the balanced scorecard approach, and can be used to map performance measurement in universities. Some respondents indicated that they believed that the performance measurement model can be modified as long as it does not breach the DGHE rules. The next chapter will present the results of the documentary analysis.

CHAPTER 6

DOCUMENTARY ANALYSIS

6.1 Chapter Overview

This chapter contains of the results of the documentary analysis. The first section provides an overview of the documents, which consists of the HELTS guidelines, documents from the National Accreditation Agency for Higher Education, the universities' strategic planning and performance measurement. The second section provides the results of the document analysis which related to the main themes of the research questions. A chapter summary is then presented.

6.2 Overview of Profile of Documents

This section provides an overview of the documents that related to the Higher Education Long Term Strategy (2003-2010), the standard accreditation document from the National Accreditation Agency for Higher Education, and the university's strategic planning and performance measurement reports. All these administrative documents were used as additional information sources for comparison with the other information collected. The documents came in the forms of a booklet, handbook or electronic copy that can be downloaded from websites. All the original documents were written in the Indonesian language (Bahasa Indonesia), and have been translated and summarised as necessary for this study.

The documents for analysis are categorised into two levels, the first is the national level and the second is the university level. At the national level, the

analysis will be focused on HELTS documents from the DGHE and the standard accreditation documents from the National Accreditation Agency for Higher Education. At the university level, the analysis will be focused on university strategic planning and performance measurement reports.

6.2.1 Higher Education Long Term Strategy (HELTS) 2003 - 2010

The HELTS document can be downloaded from the DGHE website. *HELTS 2003 – 2010* is a guide to Indonesian higher education policy. This document is the main reference for improving the role of higher education in enhancing the nation's competitiveness at a global level. HELTS has three types of documents: the first is for higher education; the second is for policy makers, and the third is for the public. In this study the document analysis will focus only on the first type of document directly concerned with higher education.

The HELTS document declared that all universities are attached to one vision for Indonesian higher education, by 2010 the education system in Indonesia was to be transformed into a healthy higher education system and contribute to the nation's competitiveness, with the characteristics of: high quality, fair access to Indonesian citizens and the expansion of higher education autonomy (HELTS-DGHE/DIKTI, 2004).

6.2.2 Accreditation Standard from the National Accreditation Agency for Higher Education

The National Accreditation Agency for Higher Education is an independent agency for evaluation. Their main task is to determine the adequacy of

programs and/or education units at the higher education level by referring to the national standard of education. The National Accreditation Agency for Higher Education is a non-profit, independent agency under the Ministry of National Education. The standards of accreditation for study programs and higher education institutions are as follows:

- Vision, mission, objectives, aims and attaining strategies
- Governance, leadership, management systems and quality assurance
- Students and graduates
- Curriculum, instruction and academic atmosphere
- Finance, facilities, infrastructure and information systems
- Research, community service and partnership

(Adapted from BAN-PT/NAAHE, 2009)

6.2.3 University Strategic Planning

In this study the relevant documents for strategic planning were collected from five public universities in Sulawesi. The planning cycle of a university's strategic planning is four years. The strategic planning documents in this study cover the period from 2008 to 2014. The university strategic plans for the five public universities are freely available and readily accessible both in hard paper formats or a soft (electronic) copy.

6.2.4 Performance Measurement Report

The performance measurement report is the annual report that is essential for a cycle of planning, monitoring and feedback. It is the accountability report of a higher education institution for government and stakeholders. This report reveals the performance results and all the target achievements in accordance with a university's strategic plan, particularly its objectives and goals. Moreover, it describes how far the targets have been achieved and the barriers to achieve those targets, as well as the steps to overcome barriers and any anticipated actions. The performance measurement reports that are used in this study cover the period from 2009 to 2010.

6.3. Document Analysis Results

6.3.1 Strategic Planning and Congruency with the HELTS Guidelines

To observe the congruence between strategic planning and the HELTS guidelines, the data were collected from university strategic plans and HELTS documents. The data analysis of strategic planning is described in Tables 6.1, 6.2, 6.3 and 6.4.

6.3.1.1 Analysis of Data Collected from the University's Strategic Plan

The institutional strategy components of vision, mission, goals and objectives across the five universities are summarised in the Tables 6.1 to 6.4.

Table 6.1 Universities' Visions

	University A	University B	University C	University D	University E
Vision	Be a competitive university to create intelligent, skilful and well equipped graduates through excellent service	Develop the University to be an excellent university	Become a centre for education, arts, science and technology development for the professional graduates	Be an excellent university in community service through education and research development in 2020	Become an advanced, prestigious and academically cultured university to form intelligent and competitive human resources

Commonalities in Vision (Table 6.1)

- The data indicates that each university maintained a strategic planning strategy that focused on university development to create proficient graduates and thereby enhance national human resources.
- The second common strategic theme was that some of the institutions emphasise that research results can be competitive, and increase the university's ranking.
- The third, the most common strategy, was the development of quality assurance and Information Technology.

Differences in Vision (Table 6.1)

- The vision of University C was slightly different compared with the other four universities. University C stated that their vision was to be a centre of education, arts, science and technology development for professional graduates. On the other hand,

other universities' visions were focused on becoming an excellent university in relation to human resources, research and community service.

Table 6.2 Universities' Missions

	University A	University B	University C	University D	University E
Mission	<ul style="list-style-type: none"> -Strengthen resources so as to become a high quality university and create intelligent human resources -Enforce competitiveness through IT and excellent service in academic and non-academic areas based on efficiency, transparency and accountability -Improve human resources capacity to fit in with campus autonomy, social changes and global development through hard skills and soft skills -Image building to be a scientific centre 	<ul style="list-style-type: none"> Build up the quality, image development, welfare and develop sustainability 	<ul style="list-style-type: none"> -Provide professional human resources in education -Provide best education services to community -Improve the quality of education, teaching, learning, and community service -Expand access to education for all levels of the community -Develop the institution as a centre for teaching and research towards becoming a world class university 	<ul style="list-style-type: none"> -Improve the quality in education, become a modern and relevant university in line with market demands -As a research centre for science and technology for community welfare and the nation -Research results for community service purposes 	<ul style="list-style-type: none"> -Develop research based education to create competitive graduates in global competition -Develop excellent research with a focus on publication and patentable results -Applied research results for institution welfare, community, and advanced technology -Strengthen good governance and accountability -Develop student's potential in analytical thinking, sports, arts, culture and entrepreneurship and to build a good image of the institution locally and globally -Develop a comfortable, secure and healthy environment -Improve the university quality and assurance system

Commonalities in Mission (Table 6.2)

- The data concerning the universities' missions indicate that each university had a common focus to improve their qualities. Some of the major focus areas were in education, teaching and learning, human resources, IT, research, and quality assurance.
- The five universities had an awareness that they anticipated to focus on research development and to build their university as a centre for teaching, science and technology.
- The universities had a common mission to strengthen their competitiveness, particularly for Universities A, D and E.
- The universities had a parallel mission to diversify their networking, partnerships and external collaborations, particularly for Universities B, C and D.

Differences in Missions (Table 6.2)

- In terms of their mission statements, none of the universities were courageous enough to declare their ambition to become a world class university except for University C.

Table 6.3 Universities' Objectives

	University A	University B	University C	University D	University E
Objectives	<ul style="list-style-type: none"> -Revitalize all the resources to be a high quality university -Maintain the benefit of IT usage in improving service in academic or non-academic areas -Develop soft skills and hard skills to enforce competitiveness -Maintain the academic atmosphere on campus 	<ul style="list-style-type: none"> -Be excellent in teaching, research and community service -Be an accountable institution -Expand external collaboration and improve internal resources 	<ul style="list-style-type: none"> -Create professional graduates -Become accountable and have good governance -Produce scientific and technological products -Expand partnership networking and collaboration in education, research and community service -Improve the quality of education through a healthy academic atmosphere 	<ul style="list-style-type: none"> -Create an intellectual and competitive human resource through the learning process -Improve organisational performance in education -Gain patents in science and technology research to strengthen national competitiveness - Improve research quality -Research results for community service purposes - Expand networking to reinforce community service 	<ul style="list-style-type: none"> -Improvement in education quality to be relevant and competitive -Improvement in research quality -Students achievement in arts, culture, entrepreneurship and sports -Availability of a comfortable and secure campus -Development of academic quality assurance in all faculties

Commonalities in Objectives (Table 6.3)

- Generally the universities were seeking to improve their education quality, accountability and expand their networks for collaboration and partnership.

Differences in Objectives (Table 6.3)

- The objectives of University D included gaining royalties from patents in science and technology research to strengthen the nation's competitiveness.

Table 6.4 Universities' Goals

	University A	University B	University C	University D	University E
Goals	<ul style="list-style-type: none"> -Improvement in quality assurance -Availability of Information and technology -Improvement in soft skills -Create a comfortable, secure and green environment 	<ul style="list-style-type: none"> -Improvement of education access and learning quality -IT development through research and community service -Development of partnerships and entrepreneurship -Improvement of university ranking and institutional function 	<ul style="list-style-type: none"> -Increase the research grant -Library quality improvement -Development in teaching and learning programs, lecturer competence and research facilities -Develop internal quality assurance -Campus maintenance -Increase the production of academic journals -Accreditation for every study program -Curriculum development 	<ul style="list-style-type: none"> -Offer contribution in higher education, provide relevant curriculum according to market demands -A modern library -Increased number of doctorate lecturers -Create excellent and competitive study programs -Increase accreditation status to be A or B for all study programs -Become a corporate university -Expand community access for education -Improvement of laboratory facilities -Increased number of students -Improvement of education quality service -Improvement in learning processes based on IT -Improvement in student facilities -Skill improvement for graduates -Improvement in students/alumni organisation and activities 	<ul style="list-style-type: none"> -“B” Accreditation status for every study program, have international standard study program, Masters degree for lecturer at graduate level, have 5% professors from total lecturers, have all certified lecturers, have educational hospital, 30% scholarship awardees students -Collaboration in research, journal publication of 100 articles per year in national journals and 10 articles in international journals, have certified laboratory -Expand 2 new faculties and 1 study program, have information management and integrated database system, have a business unit

	University A	University B	University C	University D	University E
			<ul style="list-style-type: none"> -Improve the amount of supervisor's guidance for research students -Improve learning evaluation activity -Achieve the accreditation standard -Improve learning activities in laboratories -Improve quality in student activities 	<ul style="list-style-type: none"> -Good characteristics of students -Skill Improvement of administrative staff in IT -Staff improvement in managerial skills and competency -Availability of job descriptions and standard operating procedures -Improvement in organisational performance -Availability of a security campus system -Availability of university inventory assets -Availability of Planning and Budgeting mechanism - Availability of Planning bureau and information system -Improved public image -Availability of research procedure guidelines -Become an excellent research centre -Availability of university research information facilities 	<ul style="list-style-type: none"> -Achievement in sporting competition, participate in national robotic expo -Revision in campus landscape and buildings, have sport facilities, city forest and be a green campus -Every faculty to conduct quality assurance, fulfil the education quality standard and have certified internal auditor

Commonalities in Goals (Table 6.4)

- In respect to the universities' goals, the most common focus was on improving their accreditation status to A or B rank, particularly for Universities C, D and E.
- The next most common goal was from Universities A, C and E, who had the same focus on quality assurance.
- Universities B and D had the common goal of expanding education access for the local community.

Differences in Goals (Table 6.4)

- The specific difference from University E was the desire to have collaboration in research, and to produce 100 national journal articles and 10 international journal articles per year, while the other universities did not set those kinds of targets.

The strategic planning documents show evidence that universities attempted to formulate their strategic planning by following the guidelines in HELTS. These appeared in their commonalities features. However, some of the universities had specific differences developed by selecting different features to fit in their organisational situation and to maintain their uniqueness and prominence in order to compete with other universities.

6.3.1.2 Analysis of Data Collected from HELTS

The Indonesian Government issued the guidelines for university strategic planning through the Higher Education Long Term Strategy guidelines. The HELTS visions were that in 2010 Indonesian higher education institutions were to develop into healthy higher education institutions and be able to contribute to national competitiveness with the following characteristics:

Encompass Quality:

- Higher education should be focused on the student's requirements, and develop the student's intellectuality to become a responsible citizen and contribute to the nation's competitiveness. The activities of the postgraduate programs as the incubators of development of an economic system based on adaptable and sustainable science and the integration of advanced technology to maximise access and scientific applications.
- The education system should provide a positive contribution to democratic community development, be transparent and accountable.
- Encompass a comprehensive financial management system supported by stakeholders, to invest in university development.

Higher Education Access:

- Higher education accessibility to all Indonesian citizens
- Open opportunity for all citizens to pursue higher education

- Chance for every Indonesian citizen to have sufficient education, so they are competent to be intellectual, skilful, and able to make a contribution in community.

University Autonomy:

- More autonomy from central government to higher education institutions.
- Establish rules and regulations; develop financial structures and support higher education reformation to be efficient and excellent.

This section will explain the congruency of the strategic planning in public universities with HELTS. The congruence with the objectives and goals set out in the HELTS guidelines can be seen from the university strategic planning documents. All the five public universities tried to synchronise their strategic plan with the HELTS vision from DGHE.

The first point of commonality for strategic planning, in terms of proficient graduates and quality improvement in human resources, corresponds with the HELTS vision to incorporate quality by developing the student's intellectuality. The second point about research results being competitive and increasing university rankings is in accordance with the HELTS vision of the nation's ability to compete globally. The third point of commonality concerns the development of quality assurance and information technology. It is in parallel with the point of incorporating quality, the integration of advanced technology to maximise accessibility and science application, and the point of university autonomy in

terms of establishing its own rules and acts, financial structure and management processes that support reformation, efficiency and excellence.

In the interview results the respondents shared similar opinions in terms of the alignment between strategic planning and HELTS. It is evident that universities had to follow the guidelines due to their obligations to central government. Therefore, they need to keep the university's strategic planning in line with the HELTS guidelines.

6.3.2. Strategic Planning, Implementation and Organisational Performance

To observe the relationship between strategic planning and implementation and organisational performance, data were collected from university strategic planning and performance measurement reports. The data analysis is described in Tables 6.5, 6.6, 6.7 and 6.8. Performance measurement reports were collected from four out of the five universities. One university (University A) did not provide their performance measurement report. The performance measurement report in University A was considered a confidential document and the institution refused to provide the information to the researcher.

6.3.2.1 Analysis of Data Collected from University Strategic Planning and Performance Measurement Reports

The data in Tables 6.5, 6.6, and 6.7 refer to the performance measurement reports from University B, C, D and E. Table 6.5 contains the information from four universities about their missions in strategic planning. The missions used as platform to determine their programs/activities and measured

results/indicators. Table 6.6 provides the information for the programs/activities and measured results/indicators of Universities B and C, and Table 6.7 for Universities D and E. The data in Table 6.5 has the same information as the data in Table 6.2 about universities' missions. It is necessary to include the table again to make it easier to check the relevant points of universities' the missions with the universities' programs/activities and target measurements.

Table 6.5 Universities' Missions

	University B	University C	University D	University E
Mission	<p>Build up quality</p> <p>Image development</p> <p>Improvement of welfare</p> <p>Sustainability development</p>	<p>-Provide professional human resources in education</p> <p>-Provide best education service to community</p> <p>-Improve the quality of education, teaching, learning, and community service</p> <p>-Expand education access for all levels of community</p> <p>-Develop the institution as centre for teaching and research towards becoming a world class university</p>	<p>-Improve the quality in education, become a modern and relevant university in line with market demand</p> <p>-As a research centre for science and technology for community welfare and the nation</p> <p>-Research results for community service purposes, good management system to improve quality in higher education, healthy, transparent and democratic</p>	<p>-Develop research based education to create competitive graduates in global competition</p> <p>-Develop excellent research which focuses on publications and gaining royalties</p> <p>-Applied research results for institution welfare, community, and advanced technology</p> <p>-Strengthen good governance and accountability</p> <p>-Develop student's potential in analytical thinking, sports, arts, culture, entrepreneurship and to build the good image of the institution locally and globally</p> <p>-Develop comfortable, secure and healthy environments</p> <p>-Improve the university's quality assurance system</p>

Table 6.6 Programs/activities and Target Measurements of Universities B and C

University B		University C	
Program/Activities	Measures	Program/Activities	Measures
Improve accessibility and quality learning processes	<ul style="list-style-type: none"> -Improvement in learning quality for graduate and postgraduates studies -Expansion of study program -Improvement in learning processes for specific studies -Improvement in academic staff competency -Improvement in research quality and community service 	<ul style="list-style-type: none"> -Competency improvement of academic and administrative staff -Library service improvement 	<ul style="list-style-type: none"> -Participation in courses, training and workshops -Books procurement -e-journal and journal magazine -Library quality improvement
IT development through research and community service	<ul style="list-style-type: none"> -Improvement in student's enrolment system -Improvement in soft skills -Development of computer laboratory -Development of language centre -Development of library -Development of science laboratory 	<ul style="list-style-type: none"> -Improvement in education and learning 	<ul style="list-style-type: none"> -Improvement of education and learning processes -Student enrolment increased -Graduation numbers increased -Student's GPA increased -Student academic achievement increased
Development of partnerships and entrepreneurship	<ul style="list-style-type: none"> -Development of research and community service at local level -Development of research and community service at national level -Development of research and community service at international level 	<ul style="list-style-type: none"> -Improve lecturers ability in research -Improvement in laboratory instruments -Improvement of entrepreneurship mindset for lecturers and students 	<ul style="list-style-type: none"> -Research development and journal publication -Procurement of education instruments -Entrepreneurship education subject
Image building	<ul style="list-style-type: none"> -Expansion of institution publications through website, media and electronic media -Collaboration with high schools 	<ul style="list-style-type: none"> -Campus cleanliness and green environment 	<ul style="list-style-type: none"> -Improvement in landscape management -Improvement in office and building maintenance

University B		University C	
Program/Activities	Measures	Program/Activities	Measures
Development of partnership and entrepreneurship	<ul style="list-style-type: none"> -Collaboration with an audit department and local government -Collaboration with private and non-government organisations 	<ul style="list-style-type: none"> -Improvement in student welfare -Administration management improvement 	<ul style="list-style-type: none"> -Student scholarships -Improvement in administration and financial management
Improvement of institution status and function	<ul style="list-style-type: none"> -Improvement in student's enrolment system -Improvement in academic and administration staff recruitment -Development and improvement in administration and academic system, financial management and asset management -Validation of academic and administration management based on meritocracy -Improvement of accreditation status -Improvement of quality assurance unit -Partnership with alumni -Partnership within universities, national and international institutions -Partnership development with health institutions to support health program -Development of reward and punishment system -Review of master plan development -Review and development of university status transformation -Improvement of revenue generating program -Improvement of senate function and role 	<ul style="list-style-type: none"> -Improvement in infrastructure -Improvement in campus security -Improvement in Education quality 	<ul style="list-style-type: none"> -Improvement in office equipment procurement -Engine maintenance and repair -Building facilities maintenance -Improvement in security facilities -Curriculum development -Teachers evaluation and certification -Improvement of international funding

Table 6.7 Programs/activities and Target Measurements of Universities D and E

University D		University E	
Program/Activities	Measures	Program/Activities	Measures
- Overseas Masters scholarship for lecturers	-Granted for 3 lecturers	-Building renovation	-4 units
-Doctorate overseas scholarship for lecturers	-Granted for 18 lecturers	-Books procurement	-4 units
-Masters scholarship for lecturers	-Granted for 49 lecturers	-Online academic system	-4 units
-Financial measurement reports	-12 reports	-Education equipment	-4 units
-IT equipment	-59 units	-Operational vehicles	-6 units
-Scholarship for university access	-315 students	-Collaboration with private and government sectors	-5 Memorandums of Understanding
-Student activities units		-Undergraduate student enrolments	-1 activity
-Student scholarships	-20 units	-Postgraduate student enrolments	-1 activity
-Laboratory equipment	-2091students	-Graduation ceremony	-1 activity
-Undergraduate students enrolment 2011	-135 units	-Postgraduate socialisation	-1 activity
-Postgraduate students 2011	-4000 student	-National postgraduate seminar	-20 activities
-Human Resources courses and workshops for lecturers	-700 students	-Students participation in local or national competitions	-10 activities
-Research from DGHE fund	-50 lecturers	-Sports competition	-10 activities
-Fundamental research		-Scholarships for students	-2070 students
-Collaboration research	-11 research studies	-Curriculum enhancement for study programs	-50 study programs
-Community service activities	-2 research studies	-Training/apprenticeships for students	-1 activity
-Journal publication	-3 research studies	-Overseas scholarships for lecturers	-8 lecturers
-Integrated information system (online system)	-2 activities	-Postgraduate studies for lecturers/administration staff	-25 persons
-Study program that achieves high quality learning	-1 journal publication	-Candidates for Professorships	-25 persons
-Study program that achieves high academic standard	-1 system	-Strategic research	-5 research studies
		-Research tasks	-22 research studies
	-8 study programs	-Collaboration with local government for community service	-43 activities
	-1 study program	-Infrastructure for science laboratory	-1 package
		-Postgraduate evaluation	-2 activities

The tables indicate that all universities structured their performance measurement into: mission, program/activities and measured results/indicators. The significant similarity in most universities was the commitment to improve education quality. The improvement of most universities could be seen in their indicators, such as the competency of their academic and administrative staff through further education, workshops, courses and training; development in research collaboration; and improvement in facilities, for example, procurements in the library and of laboratory instruments.

At Universities C and D, journal publication was a concern for quality improvement. Both universities put it as a measures indicator. Universities B, C, and D had a common measure indicator in student enrolments. Whereas, for Universities C, D and E, the common measure indicator was in increased number of student scholarships.

A significant difference was found at Universities D and E, in the way they conducted the indicators of measurement. Universities B, C and D conveyed the indicators of measurement in written explanations, while Universities D and E conveyed it in a quantities approach. Furthermore, University B was the only one that put a reward and punishment system in their measurement.

Overall, it can be seen from the tables that all universities attempt to maintain the parity between missions and programs/activities, and then

measure all the programs with achieved targets. It is evident that strategic planning implementation leads to improved organisational performance and can be seen through all the targets that have been measured.

The performance measurement reports link strategic planning implementation and organisational performance. It is also supported by the interview results, where respondents were asked about what system to support in strategic planning and organisational performance.

6.3.3 Performance Measurement Indicators

6.3.3.1 Analysis of Data Collected from Performance Measurement Reports

Data were collected from performance measurement reports in order to discover the importance of the performance measurement indicators being employed by the four public universities. It is organised in Table 6.8 and is classified into the four perspectives of the balanced scorecard approach.

Table 6.8 Performance Measurement Indicators

	University B	University C	University D	University E
Financial Perspective Indicators	-Budget allocation and expenses	-Budget allocation and expenses	-Budget allocation and expenses	-Budget allocation and expenses
Customer/ Stakeholder Perspective Indicators	<ul style="list-style-type: none"> -Student scholarships -Student activities -Collaboration and partnership with government and private sectors -Student entrepreneurship activities -Image publication to stakeholders -Best students awards -Student enrolments 	<ul style="list-style-type: none"> Student entrepreneurship activities -Student activities in arts and sports competitions -Collaboration with government and private sectors 	<ul style="list-style-type: none"> -Student entrepreneurship activities -Student activities in arts and sports competitions -Collaboration with government and private sectors 	<ul style="list-style-type: none"> -Scholarships for students -Collaboration with government and private sectors -Undergraduate and postgraduate student enrolments -Graduation numbers -Student activities in arts and sports competitions -Training/ apprenticeships for students
Internal Process Indicators	<ul style="list-style-type: none"> -Lecturers academic qualification -Lecturers work performance evaluation -Courses and training -Seminars and workshops -Research development -Human resources improvement -Quality assurance -Best lecturers award -Accreditation status 	<ul style="list-style-type: none"> -Lecturers academic qualifications -Courses and training -Learning activity improvement -Research development 	<ul style="list-style-type: none"> -Overseas scholarship for lecturers -Workshop and training for lecturers -Research development -Community service activities -Journal publication -Study program quality 	<ul style="list-style-type: none"> -Curriculum enhancement -Overseas scholarships for lecturers

	University B	University C	University D	University E
Learning and Growth Perspective Indicators	<ul style="list-style-type: none"> -Library resources -Facilities and buildings improvement -Laboratory instruments and education equipment -Library filing and documentation system -Building and vehicles maintenance -Monitoring and evaluation process -Campus security 	<ul style="list-style-type: none"> -Library improvement -Building and landscape maintenance -Campus security 	<ul style="list-style-type: none"> -IT equipment and online system -Laboratory instrument improvement 	<ul style="list-style-type: none"> -Building renovation -Library resources -Online academic system -Education equipment -Vehicles maintenance

The data in Table 6.8 shows that all the universities had a significant similarity in the financial perspective. The indicators of budget and allocation expenses can be clustered in the financial perspective. Some similarities in the indicators among the universities, such as student enrolments, student scholarships, student entrepreneurship, and collaboration with government and private sector can be clustered in customer/stakeholder indicators. The similar indicators among the universities, such as lecturers' academic qualification, overseas scholarship for lecturers, research development, course, training, seminars and workshop activities can be clustered in internal process. Some common indicators, such as library resources, laboratory instrument improvement, building and vehicles maintenance and campus security can be put together in the learning and growth perspective.

Table 6.8 also shows that University B had best students' awards as the main different indicator in the customer/stakeholder perspective. In the internal process perspective, University B also had best lecturers' awards as a different indicator and University E had curriculum enhancement.

Thus, the results from the documentary analysis and the interviews revealed that a set of measurements in the balanced scorecard evidently could act as a comprehensive performance measurement system with four perspectives that are equally important. The four perspectives of the balanced scorecard could be used as a tool which thoroughly evaluates the universities'

Before the process of accreditation can begin, the study program should have an operational license and provide proof to the National Accreditation Agency for Higher Education (NAAHE). The study program has to conduct a self-evaluation process according to the self-evaluation guidelines from NAAHE. In the next step, NAAHE provides the eligible applying study program with the accreditation instrument package which should be filled in and returned to NAAHE with the self-evaluation summary report attached. In general, the assessment from NAAHE covers the areas of curriculum, quality and quantity of lecturers, student welfare, institution's facilities and infrastructure and management administration.

The next step is a desk evaluation phase where NAAHE will verify the accreditation documents through an assessment process (two assessors for Diploma and Undergraduate study programs and three assessors for Masters and Doctorate programs). The same assessors then immediately visit the related study program and hand their report to NAAHE after one week. In the last phase, NAAHE will verify and validate the assessor's report and proceed to a plenary final judgment, then announce the accreditation result to the study program and related stakeholders.

The accreditation award has four grades A, B, C and D. Accreditation Grade A (satisfactory/very good) has a score between 361 – 400, accreditation Grade B (good) has a score between 301 – 360, and accreditation Grade C

(fair) has a score between 200 – 300, and Grade D (unsatisfactory/non accredited) has a score of less than 200. Institutions that have a score of less than 200 will receive a recommendation to close the program. With the institutions that pass the grade, NAAHE will issue the accreditation certificate and also give feedback and recommendations for further development and improvement. The accreditation process is repeated every five years (BAN- PT (NAAHE), 2009, Wicaksono & Friawan, 2011, Global Business Guide Indonesia, 2014).

The accreditation model from NAAHE consists of study program accreditation and higher education institution accreditation. The accreditation models are conducted based on the same dimensions, standards and aspects. The features can be seen in Table 6.9, and the model of accreditation can be seen in Figure 6.2 (BAN-PT (NAAHE), 2009).

This accreditation model (Figure 6.2) was obtained from NAAHE, as the accountable agency for higher education accreditation in Indonesia. Therefore, this model was applied to all higher education in Indonesia to assess their accreditation status. The adapted/proposed model for public universities added the features of the balanced scorecard perspectives. The NAAHE model has three stages of performance measurement (input, process and output) and they determine the assessment criteria in each stage. In the proposed model for public universities, all assessment criteria are modified and clustered into four

perspectives of the balanced scorecard. The details of the comparison of performance measurement between the NAAHE model and the proposed model can be seen in Table 7.2 in Chapter 7.

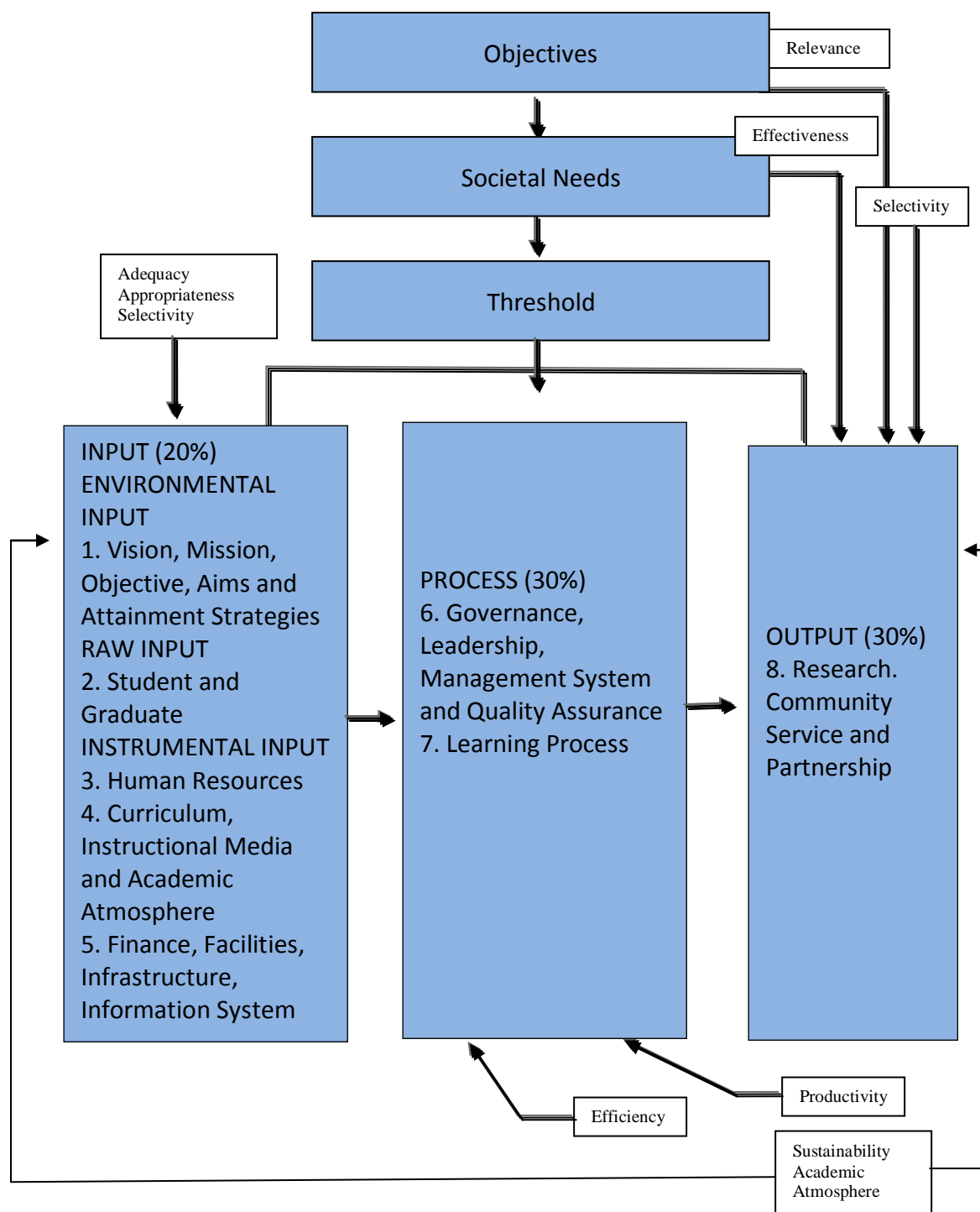
The model from NAAHE needs some adaptation because the assessment method that used tends to generalise the whole study programs or faculties in all over Indonesia. As in fact, every institution has a different situation and nature. The proposed model may address this issue with the added feature of the balanced scorecard. The assessment can be made more detailed and comprehensive by using performance indicators from four perspectives of the balanced scorecard and adjusted to meet the institutions' context (see Table 7.2). Table 6.9 describes all the aspects in the accreditation system from NAAHE.

Table 6.9 Features of Accreditation from NAAHE

Dimension	Standards			Aspects to be Assessed
<u>INPUT:</u> <u>Environmental input:</u> -Vision, mission, objectives, aims and attainment strategy <u>Raw input:</u> Student and graduate	Higher Education Institution	Study Program for: Doctoral	Study Program for: Diploma, Undergraduate and Masters Study Program	<u>1.RELEVANCE:</u> degree of relationship between study program objectives, output with societal needs and global society <u>2.ACADEMIC ATMOSPHERE:</u> Conducive climate for academic activities, interaction between students
	1.Leadership	1.Vision, mission, aims, objectives of study program	1.Integrity, identity, vision, mission, aims and objectives	
	2.Student affaires	2.Program management and governance	2.Students affairs	

Dimension	Standards			Aspects to be Assessed
<u>Institutional input:</u> -Human resources -Curriculum, instructional media, academic atmosphere -Finance, facilities, infrastructure, information system <u>PROCESS:</u> -Governance, leadership, management system and quality assurance -Learning process <u>OUTPUT:</u> -Research community service and partnership				and lecturers
	3.Human Resources	3.Students and guidance service	3.Faculty members and supporting staff	<u>3. INSTITUTIONAL MANAGEMENT:</u> Leadership, feasibility and adequacy
	4. Curriculum	4. Curriculum	4. Curriculum	
	5. Infrastructure and facilities	5. Lecturer and supporting staff	5. Infrastructure and facilities	<u>4. SUSTAINABILITY:</u> Continuity, selectivity and equity
	6. Financing	6. Facilities and infrastructure	6. Supporting fund	
	7. Governance	7. Funding	7. Governance	<u>5. EFFICIENCY:</u> - Punctuality (time to accomplish the program), - Effectiveness (capability to achieve the objectives) and - Productivity (the degree of success that measured by existence of the concrete product)
	8. Management system	8. Learning process and evaluation of Student achievement	8. Program Management	
	9. Instructional system	9. Research and dissertation	9. Learning system	
	10. Academic atmosphere	10. Academic atmosphere	10. Academic atmosphere	
	11. Information system	11. Graduates and other products	11. Information system	
	12. Quality assurance system		12. Quality assurance system	
	13. Graduates		13. Graduates	
	14. Research and community service		14. Research and community service, publication, thesis and other products	
	15. Study programs			

Figure 6.2 Accreditation Model from NAAHE



Source: BAN-PT/NAAHE, 2009.

Explanation and Justification of the Accreditation Model from NAAHE

An accreditation standard is a set of standards that must be fulfilled by a university, faculty or study program. The standards are used as a basis of measurement, and specifies the quality and eligibility of a university or study program to perform their program. NAAHE have their standards and assessment criteria to carry out the evaluation of an accreditation status. Table 6.9 shows that the dimensions of assessment divided into three elements as input, process and output. The accreditation has three categories, for higher education institutions, for Doctoral study programs and for Diploma, Undergraduate and Masters study programs. The assessment for higher education institutions has 15 standards, for Doctoral study programs it has 11 standards, and for Diploma, Undergraduate and Masters study programs, it has 14 standards. The accreditation applies similar criteria of assessment.

Figure 6.2 presents a clear description of the NAAHE accreditation model. The model suggests that accreditation has several aspects of assessment, such as relevancy, effectiveness, selectivity, productivity, academic atmosphere, sustainability, efficiency, adequacy and appropriateness. The explanation of each aspect is as follows:

- The relevancy aspect relates to the measurement of the output of the higher education institutions, specifically how their graduates knowledge and skills are relevant to public demands locally or globally.

- The academic atmosphere aspect relates to the measurement of the supportive situation in the academic environment, it refers to good relations between students and lecturers, and good relations among students and colleagues, in order to optimise the learning process. Academic atmosphere should occur in every stage of the activities, starting from input, process and output.
- The adequacy and appropriateness dimension measures whether the achievement of all the programs in input, process and output stages are meet with the standards provided by NAAHE are in appropriate level and the level of improvement of activities are in adequate level.
- The sustainability aspect is measures the sustainability of the programs, how far the institutions maintain all activities in the input, process and output stages to reach optimum result and maintain the continuity of the measurement cycle.
- Selectivity dimension is related to how the institution selects the ideas or suggestions to maintain the activities in input, process and output stage.
- The efficiency aspect is measures all the activities in the process stage, whether all the actions taken to run the process stage lead to good results in output stage.

- Productivity measures all the output results (graduates, research, publications, and community service activities) whether all the sectors are reach the target as planned (BAN-PT (NAAHE), 2009).

Thus, the process of performance measurement by NAAHE can be seen in Figure 6.1 which describes the cycles of study program accreditation and in Figure 6.2, the accreditation model from NAAHE. NAAHE attempts to measure all the academic activities in institutions through their accreditation mechanism. At the end of the process the feasibility of institutions will be determined.

6.4 Chapter Summary

This chapter presents the results of the documentary analyses. The results of these analyses justified the congruency between the universities' strategic planning and the HELTS guidelines. The performance measurement report described the parity of the strategic planning targets achieved. The performance measurement indicators from the performance measurement reports can also be categorised into the four perspectives of the balanced scorecard approach. The features of the performance measurement can be seen through the cycle and model of accreditation from NAAHE. The next chapter will present a discussion of the data analysis, interview results and document analysis.

CHAPTER 7

DISCUSSION

7.1 Chapter Overview

This chapter contains three major sections. The first section is a restatement of the purpose and specific objectives of the study. The next section discusses the major findings of the analysis of the data reported in Chapter 4, as well as the interview results and document analysis information reported in Chapter 5 and Chapter 6. At the end of the chapter, a summary of the findings is provided.

7.2 The Purpose and Specific Objectives of the Study

The main purpose of this study was to investigate the strategic planning process and its implementation in public higher educational institutions in Indonesia. This includes ascertaining whether the objectives and goals have been achieved, according to the HELTS framework as set out in the Indonesian DGHE guidelines, by examining organisational performance measurements.

The specific objectives to be achieved were to:

1. Examine the processes of strategic planning
2. Examine whether the objectives and goals of the strategic planning are congruent with the Indonesian Higher Education Long Term Strategy
3. Evaluate the relationships between strategic planning, implementation and organisational performance
4. Examine the relations between strategic planning and performance measurement

5. Determine the performance measurement indicators employed by public universities in Sulawesi, Indonesia
6. Identify the features that are needed to develop an appropriate performance measurement model for possible implementation in public universities in Sulawesi, Indonesia.

The research questions were generated from the specific objectives. The six research questions in this study were answered through the analysis of surveys, interviews and documents (see Table 7.1).

7.3 Discussion of the Major Findings

This section provides an integrated discussion, based on the major findings from the questionnaires, interviews and document analysis. There were thirteen scale scores developed from the survey (see Chapter 4 p. 139). The developing scale scores covered the areas of strategic planning, budget, university development, improvement, achievement and the performance measurement model. In this chapter, those scale scores are used as key elements in responding to the research questions, together with the interview responses.

The findings from the document analysis, drawn from the universities' strategic planning documents, open-ended questionnaire, performance measurement reports and the accreditation documents from the National

Accreditation Board for Higher Education (NAAHE) website have been similarly used.

The discussion is presented according to each research question of the study. The methods used to answer the research questions can be seen in Table 6.1.

Table 7.1 Data Sources Used to Answer the Research Questions

RESEARCH QUESTIONS	SURVEY	INTERVIEW	DOCUMENTS
Q1 Processes of strategic planning at public universities	Y	Y	
Q2 Congruence of strategic planning and HELTS guidelines from DGHE	Y	Y	Y
Q3 Strategic planning implementation and organisational performance	Y	Y	Y
Q4 Relationship of strategic planning and performance measurement		Y	
Q5 Performance measurement indicators in public universities	Y	Y	Y
Q6 Features in performance measurement model in public universities	Y	Y	Y

7.3.1 Research Question 1: What are the processes of strategic planning at public universities in Sulawesi?

This section is divided into two parts based on the major themes in the research findings. It is concerned with the strategic planning processes and the key elements.

7.3.1.1 Strategic Planning Processes

There was a range of agreement and disagreement among the respondents regarding the success of the strategic planning processes, although, on balance there was considerably more agreement, as can be seen in Chapter 4 (pp. 101-102). Results showed that variables such as strategic planning development, information to disseminate the program, plan activities to all working units in university, and targets achievement of HELTS were not fully accomplished. In particular, some respondents thought that the universities should be more concerned with the improvement of research collaboration, facilities improvement, international journal publication and government or private sector partnerships.

The findings are generally in agreement with the report from The Organisation for Economic Co-operation and Development (OECD), which concludes that higher education in Indonesia needs improvement. According to the OECD, both access and the quality of university education are still at an inadequate level. The quality of Indonesian higher education was still well behind international standards compared to developed countries, which makes it difficult for Indonesian universities to get international recognition (OECD, 2012).

Male respondents agreed more strongly than female respondents that strategic planning helped the university to achieve its targets. Although gender

might be thought to be linked with the level of the respondent's position, and that it was position rather than gender that was important, there were no differences in perceptions of the utility of strategic planning by position. In these circumstances, it would seem likely that the difference in perception identified was based on the respondent's gender, although the reasons for this were not clear.

From the perspective of the respondents who were actively involved in strategic planning formulation, the processes were considered effective when employed using both the top-down and bottom up approaches (see Chapter 5 pp. 144-146). This was a suitable and appropriate approach which involved participatory decision-making, gathered important information for innovation and transformational change, at the same time as it was given direction from central government to implement guidelines. A study by Delprino, 2013 also confirms that in the strategic planning process the faculty, staff, student perceptions, reactions and participation will determine the success or failure of a strategic plan, as well as changes in strategic plan. The strategic planning process should consider the perspective of groups or individuals from the institution to gain valuable outcomes and at the same time addressing opposition opinions to change the plan.

7.3.1.2 Key Elements

The processes of strategic planning in this study can be categorised as having three key elements concerning strategic planning: contribution, procedure and evaluation. The results also confirm the relevance of the studies by Sinha (1990); Mudrick et al (1992) and Khakee (1998), which postulated that strategic planning has an important contribution to decision making, in that the content and procedure are crucial and that evaluation is a permanent part of strategic planning (see Chapter 4 p. 104).

7.3.2 Research Question 2: What is the congruence of strategic planning with the objectives and goals that are set out in the HELTS guidelines?

This question was proposed to provide a comprehensive understanding of the strategic planning in public universities and provide examples of the practice of strategic planning implementation. This question was also intended to gauge the level of congruency between the universities' strategic planning and the HELTS guidelines, moreover, to identify and assess the strategies developed by public universities.

Universities develop their own strategies as a requirement to produce formal strategic plans. The evaluation of the documents and participants' responses showed that the level of congruency between strategic planning and the HELTS guidelines seemed markedly high because there was a requirement for universities to comply with central government requirements. The document

analysis also highlighted that university strategic planning generally followed the HELTS guidelines.

It can be interpreted that the tendency to follow the rules and regulations from DGHE is also: (1) an effort to improve the university's quality; (2) to achieve a better university's accreditation status; and (3) a response related to the intensified competition between the universities. In Indonesia, each university's accreditation status is an important measurement of quality. The National Accreditation Agency for Higher Education (NAAHE) is the sole government body that assesses university quality. An accreditation certificate is used to guarantee a university's quality (Baskoro, 2009). The accreditation statuses of undergraduate and diploma programs are classified into four levels: A (satisfactory), B (good), C (fair) and D (unsatisfactory). Postgraduate programs are categorised into three levels: U (excellent), B (good) and T (fair) (BAN-PT (NAAHE), 2009). Therefore, it is crucial for universities to comply with government rules and regulations to obtain a better accreditation status. Achieving higher accreditation status was very important to universities because it acknowledges the quality of education that is provided, it increases reputation, and it improves credibility for prospective students.

University strategic planning should be synchronised with the government guidelines. In the performance measurement process, the accreditation agency (NAAHE) can gauge how far the targets have been

achieved in accordance with the university's strategic planning. After the assessment process, as the final result, the accreditation status then will be determined.

This finding is also in agreement with the study by Baskoro (2009) which affirms that higher education institutions have a right to autonomy but must follow rules and regulations from central government to ensure quality because if they fail to follow the rules and regulations from DGHE, they will be not considered as qualified. So-called 'university excellence' usually has characteristics such as: the university can meet the rules and regulations by DGHE without difficulties, and has been awarded an accreditation certificate from NAAHE for a specific period of time.

Thus, the congruence of the universities' strategic planning with the HELTS guidelines had been followed mainly for compliance with the regulation, even though the targets from DGHE were considered high. The results from the interviews reinforced the interpretation that most of the respondents realised that the targets from DGHE were to some extent unrealistic. Secondly, the process of conforming is seen as part of the effort to improve quality, and to be a qualified university by gaining better accreditation status from NAAHE.

7.3.3 Research Question 3: What is the relationship between strategic planning and implementation with organisational performance in public universities in Sulawesi, Indonesia?

The section is divided into three parts, based on the major themes in the research findings. It concerns the relationship between strategic planning implementation and organisational performance, the key elements which were developed from the scale scores, and the impact of strategic planning on organisational performance.

7.3.3.1 The Relationship between Strategic Planning Implementation and Organisational Performance

The majority of respondents (more than three-quarters) considered that the relationship between strategic planning implementation and organisational performance was important. However, that still left a substantial minority who considered that the relationship was not important. It can be interpreted that the performances of the universities were not improved as much as expected with strategic planning. The universities expected through strategic planning implementation that organisational performance could be improved. However, the results showed that the universities' performance was still left behind as there were some important targets in strategic planning, such as world class university status, international journal publication, international collaboration and maximum facilities improvement, which had not been adequately achieved.

This view concurs with the work of Wicaksono and Friawan (2011), who conclude that public higher education institutions in Indonesia are of poor quality, which can be seen from the low qualification levels of teaching staff, insufficient laboratory equipment and limited library resources. Royono and Rahwidiati, 2013 also confirm that none of Indonesia's higher education institutions have a high international reputation. Even the leading university in Indonesia (University of Indonesia) was ranked 201st in the Times Higher Education World University Rankings. Moreover, in relation to the production of research publications, the result from the Scopus database of peer-reviewed literature show that only 51 Indonesian universities are producing scientific publications. The production of research publications covers 85% of Indonesia's total scientific publications. In reality, higher education institutions in Indonesia are struggling to reach world class university status. Obstacles such as a lack of talent and limited resources, including public funding, research contracts, endowment funds and tuition fees are major impediments in reaching that goal.

A report from the Asian Development Bank in 2011 also suggests that government should focus more on the resources of the second-tier (regional public) and third-tier (largely private) colleges and universities rather than resources on top-tier universities which ambitiously want to be world class universities. However, some governments in the region perceive that a top-tier university is an indicator of modernity, economic improvement and an important

factor for the education system. It is understandable that both components are important for the quality of higher education, therefore government should consider the appropriate balance to allocating education resources (Asian Development Bank, 2011; Varghese, Chien, Montjourides, Tran, Sigdel, Katayama & Chapman, 2014).

In relation to this study, the poor condition of Indonesian higher education urge the necessity to set targets with a clear strategic vision in strategic planning. Higher education institutions also need to implement enhanced methods to measure their organisational performance. In general, higher education institutions need major reform to improve the quality and resources of the university system. Nizam and Nurdin (2014) confirm that higher education institutions need to undertake a reformation of funding, personnel (academic and administrative staff), and the governance structure.

In regard to strategic planning and organisational performance, the relatively low quality of Indonesian higher education is also because the system has grown rapidly, but this has not been reflected in the quality of the academic staff. The rapid expansion of higher education has not been accompanied by appropriate long-term planning, vision and a good funding system. The universities have struggled with internal inefficiency, poor innovation in research and lack public accountability. Although the government, through the DGHE, has carried out major reforms to enhance quality, efficiency and relevance,

Indonesian universities still search for the best system and practices to face the challenges of the future (Wicaksono and Friawan, 2011). Most of the public universities in Indonesia experience relatively low research productivity and low education quality, both of which lead to low national and international rankings. Therefore, it is important for the universities to set reachable targets in their strategic planning, and to use appropriate indicators of performance. Critical assessment of university performance may contribute information and evidence for setting the objectives and goals in strategic planning. Universities should also have better reporting structures which communicate the gap between strategic planning and actual performance.

Both genders had a similar perception that the relationship between strategic planning implementation and organisational performance was important. There was also no significant difference by respondent position on the importance of the relationship.

7.3.3.2 Key Elements

The relationships between strategic planning implementation and organisational performance in this study can be categorised in one key element: strategic planning implementation and performance. This is related to the study by Owolabi and Makinde (2012) which confirms that strategic planning has a positive correlation with corporate performance and has benefits for the

organisation in achieving goals. The study by Schmidt (2010) also suggests that strategic planning has a positive effect on corporate performance.

7.3.3.3 Impact of Strategic Planning on Organisational Performance

In terms of the impact of strategic planning on organisational performance in public universities in Sulawesi, the results showed that strategic planning implementation has a positive impact on an organisation's performance. It enhanced improvements and achievements in the universities, and led to a better accreditation status.

The document analysis also confirmed that the universities within this study have conducted all their programs and activities based on their mission statements in strategic planning. All the activities were measured and reported in a performance measurement report carried out once a year.

Previous research has suggested that there is a positive and significant correlation between strategic planning implementation and organisational performance (Owolabi and Makinde, 2012; Schmidt, 2010). Strategic planning benefits universities by determining objectives and goals and by making a positive impact on organisational performance.

Indonesian public universities have taken on this paradigm and adopted it in their management systems. However, in reality public universities are still struggling to achieve targets in their strategic planning to improve their quality and performance. This fact is reinforced by the report by NAAHE that stated

that the quality of higher education institutions in Indonesia is still below standard. According to their 2002 report, 85% of 6,777 study programs were classified as either B (good) or C (fair) which alarmed the higher education institutions in Indonesia into focusing on their quality (Wicaksana & Friawan, 2011; The World Bank, 2014). Approximately 15.75% of public higher education institutions were accredited A (satisfactory/very good), and 5.26% of private higher education institutions were accredited A. The B (good) and C (fair) accreditation statuses were classified according to the results points between 301-360 for B, and between 200-300 for C status (Wicaksana & Friawan, 2011; Global Business Guide Indonesia, 2014).

7.3.4 Research Question 4: What is the relation between strategic planning and performance measurement?

There is a positive relation between strategic planning and performance measurement. Most of the participants clearly understand that performance measurement is an instrument to monitor and evaluate the achieved targets that have been set in strategic planning.

The results showed that the respondents identified that performance measurement can be an effective tool to gauge how well the university performed in meeting the institutional goals and objectives in the universities' strategic planning.

The findings from the study agree with the conclusions of Tromp and Ruben (2004); Dusenbury (2000) and Viljoen and Dann (2003), who stated that

the strategic planning process will impact on the outcomes and achievements that are important to evaluate planning effectiveness; strategic planning envisions the goals and performance measurement looks back at the achievements; planning is the first step, and performance should be monitored and measured against the plan, with corrective action taken if required (see Chapter 2 pp. 65-66).

7.3.5 Research Question 5: What are the performance measurement indicators that are being employed by public universities in Sulawesi, Indonesia?

The section is divided into two parts based on the major themes in the research findings. It consists of the key elements which were developed from the scale scores and a section which discusses the performance measurement indicators in public universities.

7.3.5.1 Key Elements

This section presents a description of the key elements in the performance measurement indicators from the four perspectives of the balanced scorecard approach (financial, customer/stakeholders, internal process, and learning and growth). The performance measurement indicators based on financial perspectives in this study can be categorised by two key elements: university revenue and university budget. Consideration of the customer/stakeholder perspective can be categorised by the three key elements: student development, community participation and staff development, and research

development. The internal process perspective can be categorised by the measurement of two key elements: university improvement and assessment and academic improvement. The learning and growth perspective can be categorised by one key element: facilities improvement and achievement.

The key elements above regarding the components of the four perspectives in the balanced scorecard (financial, customer/stakeholders, internal process, and learning and growth) agreed with the study by Ruben (1999) about the use of the balanced scorecard approach for higher education, particularly about the framework of indicators. Ruben (1999) proposes the possible cluster measures for a higher education dashboard as an excellent measurement framework. This is also similar to the study of Chen, Wang, and Yang (2009) about the application of performance measure indicators for universities. Chen et al. (2009) revealed the lead indicators to measure performance by using the balanced scorecard approach.

7.3.5.2 Performance Measurement Indicators in Public Universities

The performance measurement indicators were divided into four perspectives based on the balanced scorecard approach namely, the financial perspective, customer/stakeholder perspective, internal process perspective and learning and growth perspective (Kaplan & Norton, 1996)

The majority of respondents agreed with regard to the importance of the current indicators in performance measurement. Both genders considered that

most of the indicators currently used were important. However, when a comparison was made based on position level, there were slightly different perceptions about the importance of performance measurement indicators. The group of vice rector, dean and vice dean perceived that some of the indicators were more important compared to others. Those in higher positions placed greater emphasis on some specific indicators, such as research development, university improvement and assessment, facilities improvement and the universities' achievements. Those indicators were considered more important than others. It can be assumed that due to their position and job they had more experience and involvement in the performance measurement process, compared to other respondents in lower positions. The activities of the performance measurement processes they experienced allowed them to make a better assessment about which indicators were more important and should consequently be given more attention. These circumstances also related to the study by Stukalina (2014) who confirms that the available resources in higher education institutions such as education and research, university services and facilities, and university academic staff should be given specific attention to stimulate universities' excellence.

In terms of the performance measurement indicators that are currently used in public universities in Sulawesi, the indicators used in performance measurement are related to the study by Chen et al. (2009), and stress the

importance of the establishment and application of performance measurement indicators for universities.

The study shows that the balanced scorecard approach could be adopted and implemented in higher education institutions and used together with the performance measurement system from NAAHE. The performance measurement mechanism from NAAHE has a tendency to be over generalised because they use the same assessment standards for entire study programs or faculties in Indonesia. A balanced scorecard application may help universities to map their performance indicators into four perspectives (financial, customer/stakeholders, internal process, learning and growth) that can be easily understood and communicated to all levels within the institutions. Moreover, the balanced scorecard might cluster all the performance indicators in a specific way, which could be helpful in matching each university's own environment and organisational nature. An array of studies regarding balanced scorecard approaches in higher education has been proposed by scholars across the globe. This approach concurs with studies by Umashankar and Dutta (2007) on utilising the balanced scorecard in managing higher education institutions in the Indian context; Yek, Penney and Seow (2007) investigating using the balanced scorecard to improve the quality and performance of Vocational Education and Training in Singapore; Karathanos and Karathanos (2005) applying the balanced scorecard approach to education, the authors descriptively present

that the Baldrige Education criteria for performance excellence has adapted the balanced scorecard to education and also present discussion about the differences and commonalities of the balanced scorecard for business and education; Ruben (1999) proposing the balanced scorecard approach for a college and university excellence indicators framework in the USA; and Chen, Yang and Shiau (2006) who proposed the application of balanced scorecard in performance evaluation for higher education in Taiwan; Binden, Mziu and Suhaimi (2014) adopting the balanced scorecard approach to measure performance in higher education in Malaysia and propose the framework to integrate the four perspectives of balanced scorecard; Stephenson (2014) suggested the balanced scorecard can be used in higher education to measure the performance as a modern managerial approach that can be reconceptualising and to replace the traditional fund accounting report.

Thus, it is clear that the balanced scorecard approach formulated by Kaplan and Norton (1992) can be usefully adopted by public universities in regard to the indicators used in performance measurement.

7.3.6 Research Question 6: What are the features that should be included in an appropriate performance measurement model for the implementation by public universities in Sulawesi, Indonesia?

This section is divided into three parts, based on the major themes in the research findings. It includes key elements, the general features of a

performance measurement model and a proposed performance measurement model.

7.3.6.1 Key Elements

The key element, as developed from the scale scores for features that should be included in an appropriate model was: a performance measurement model. According to the study by Sudirman (2012), there are two types of performance measurement in higher education in Indonesia. The first is financial reports that describe whether budget expenses have been in accordance with university plans prepared by the top management. The second type of performance measurement is accreditation. An accreditation document is prepared for all study programs in universities and has to be submitted to the NAAHE. The accreditation status confirms that the study programs have fulfilled the minimum quality standard set by government. According to NAAHE, accreditation is:

A process of deciding quality standards, and assessing and evaluating institutional performance based on the decided standards. In the higher education system, this includes higher education institutions (university, institute, college, academy, polytechnic), and their study programs. It is a kind of external evaluation of related institutions. These types of higher education institution have their own specific characteristics concerning their functions, management systems, program contents and student profile. Accreditation is understood as a decision on quality standards and an evaluation of a higher education institution by an external agency. The criteria for

higher education accreditation are varied due to the nature of the higher education (BAN-PT/NAAHE, 2009).

Thus it can be concluded that accreditation is a process to endorse the quality, competence and credibility of higher education by an external party. The activities include assessment and evaluation based on the criteria and standards from the accreditation board against the actual achievement or performance of the higher education institutions.

7.3.6.2 Features of a Performance Measurement Model

Respondents of both genders agreed about the new features that should be included in modifying the performance measurement model. Based on position level, the results indicated that the head of program and academic staff groups agreed more strongly with the new features in the performance measurement model, compared to other groups (vice rector, dean, vice dean, and department heads).

The respondents were in agreement to some extent about the new features to modify the performance measurement model. There were three kinds of responses. Firstly, approximately 50% of the interview respondents agreed that the performance measurement model should be modified. Secondly, another group of respondents, roughly a quarter, wanted to retain the existing performance measurement model. The third group of remaining

respondents agreed that modification was necessary, but only for internal use, because institutions have to obey the rules and regulations from DGHE.

Nevertheless, a previous study showed that the balanced scorecard approach can be implemented in public universities in Indonesia. The study by Sudirman (2012) in one public university in Indonesia confirmed that the balanced scorecard is a performance management system that can be used to improve accountability and lead to more improvements in higher education institutions. It helps the university to transform the vision and mission in strategic planning into a series of performance indicators. Therefore, it is necessary for each university to identify specific key success factors, according to their vision. According to this study, the university that implements the balanced scorecard approach has obtained benefits in resolving problems and better managing the institution (Sudirman, 2012).

The accreditation scheme from NAAHE was analysed in order to describe the performance measurement model that currently exists in public universities. A new model of performance measurement that will fit with a university's characteristics may be developed based on the model from NAAHE.

7.3.6.3 Proposed Performance Measurement Model

The participants responded positively to a modification in the performance measurement model by the inserting the balanced scorecard approach. The literature review also highlighted the fact that balanced scorecards were

applicable in higher education performance measurement. According to Binden et al. (2014), the balanced scorecard approach has been commonly utilised as an effective business tool in business corporations. Many academic institutions around the world have been adopting the balanced scorecard successfully by aligning the four perspectives with their strategic plan (university's mission, policies and goals).

The findings from the documents show that the Indonesian government, through DGHE, have already developed and shared guidelines for university strategic planning. Along with that, the NAAHE have the performance measurement standard for higher education accreditation. However, in this context, some flexibility was required in the performance measurement model, which was by adding the balanced scorecard approach. A report from The World Bank in 2014 also revealed that the accreditation level from NAAHE does not give a complete description of higher education quality, as the measurement is merely against the minimum standard of study programs in higher education. Potential students may not be well-informed about the various accreditation levels when they apply to the study programs (The World Bank, 2014). Evidence also showed that the balanced scorecard could be applied in the education field, particularly in higher education. Therefore, this study developed a reference performance measurement model that can be inserted into a university's current performance measurement system.

The proposed performance measurement model was initially developed by identifying the guidelines from DGHE and what a university may initiate in their own strategic planning. The performance measurement process can be conducted according to the vision, missions, objectives and goals that are set out in the strategic planning. Performance measurement in public universities may adopt the balanced scorecard approach and set performance measurement indicators based on a financial perspective, a customer/stakeholder perspective, an internal process perspective and a learning and growth perspective. In the next stage, the university is able to measure whether targets are achieved and can carry out their performance measurement report. The results may lead to the university gaining accreditation status. The process of strategic planning then begins again after one cycle of the strategic plan has been completed. The main difference between the proposed model and the performance measurement model from NAAHE is that the proposed model contains the feature of a balanced scorecard to measure performance. The proposed performance model can be seen in Figure 7.1.

Figure 7.1 Proposed Performance Measurement Model

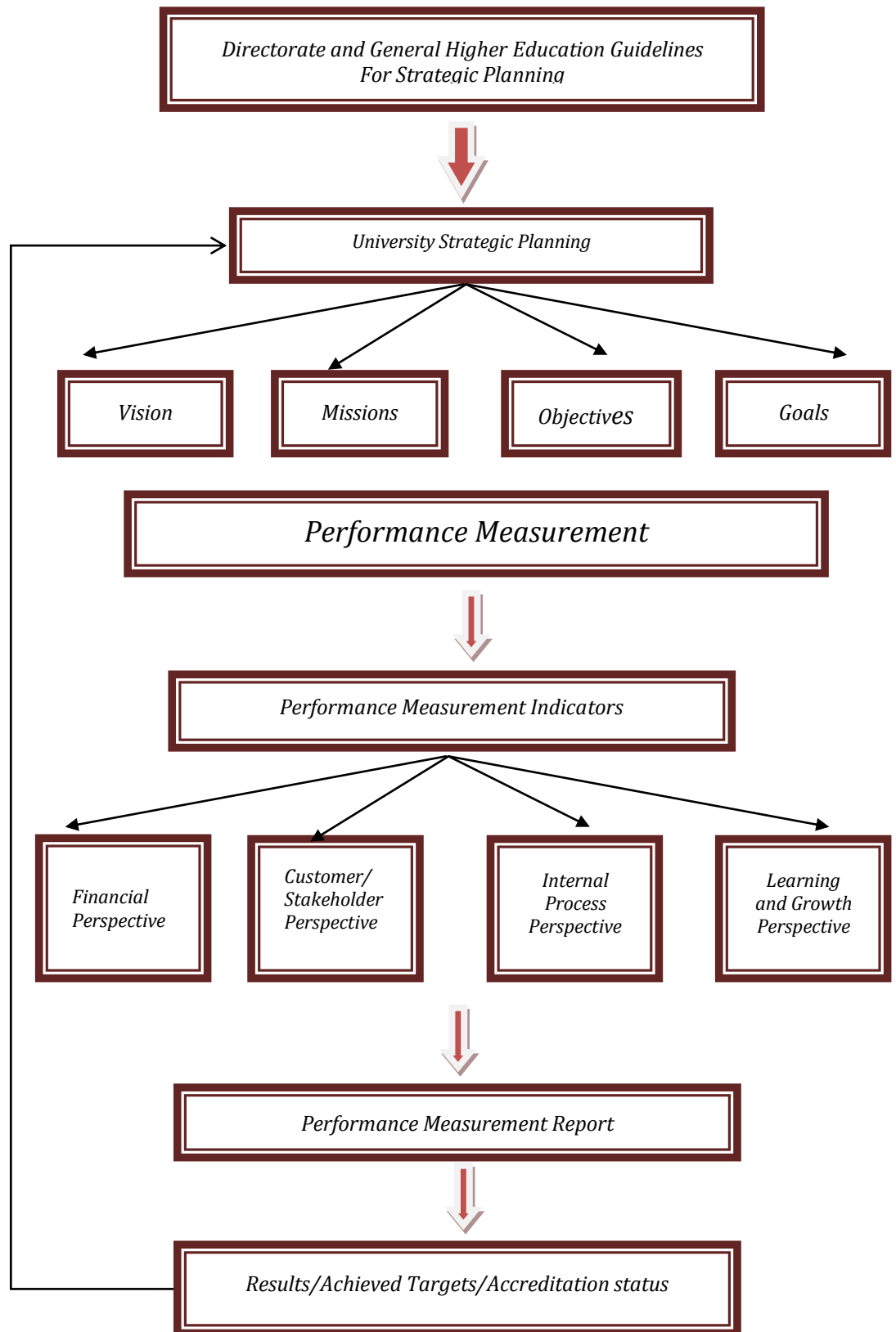


Table 7.2 is presented to differentiate the features in the performance measurement from NAAHE and the proposed performance measurement model in detail.

Table 7.2 Comparison of Differences between the Existing NAAHE Model and the Proposed Model

Performance measurement Model from NAAHE	The Proposed Performance Measurement Model
Five main aspects for assessment: 1.Relevance 2.Academic atmosphere 3.Institutional management 4.Sustainability 5.Efficiency	Four perspective indicators for assessment 1.Financial perspective 2.Customer/stakeholder perspective 3.Internal process 4.Learning and growth
Three stages of processes to obtain the outcomes: 1.Input 2.Process 3.Output	Six stages of processes to obtain the results: 1.Follow guidelines from DGHE 2.Refer to university strategic planning vision, missions, objectives and goals 3.Performance measurement initiated 4.Determine performance measurement indicators and classified into four perspectives 5.Documentation of performance measurement report 6.The results, achieved target and obtain accreditation status
Features during the processes: 1.Input Environmental input: vision, missions, objectives, aims and attainment strategies Raw input: students and graduates Instrumental input: human resources, curriculum, instructional media, academic atmosphere, finance, facilities, infrastructure, information system 2.Process Governance, leadership, management system, quality assurance and learning process 3.Output Research, community service and partnership	Features during the processes: (Some features from NAAHE can be inserted into the four perspectives of the balanced scorecard) 1.Financial perspective: finance feature 2.Customer/stakeholder perspective: students and graduates, human resources, community service and partnership 3. Internal process perspective: curriculum, instructional media, academic atmosphere, governance, leadership, management system and quality assurance, learning process, research. 4.Learning and growth perspective: facilities, infrastructure, information system

7.4 Chapter Summary

This chapter discussed the results of the study in relation to the major findings of the data analysis, the interview results and document analysis. The research findings indicated that university strategic planning has complied with the guidelines from DGHE. The universities realised that the targets were set as a compulsory national standard and acknowledge that it is still difficult to fulfil all of the targets. It is evident that strategic planning implementation has a positive correlation with organisational performance, that will in turn lead to university accreditation.

However, the results of studies have shown that public universities in Indonesia are required to improve their quality and performance. In terms of the relation between strategic planning and performance measurement, the findings showed that they are part of a continuous process, are closely related, and cannot be separated. The universities may adopt the balanced scorecard approach to determine their performance measurement indicators. The indicators have been classified into four perspectives, namely: financial perspective, customer/stakeholder perspective, internal process perspective and a learning and growth perspective. Finally, a performance measurement model has been proposed for adoption, particularly for public universities in Sulawesi, Indonesia. This model has been modified to suit the conditions in public universities and can be used in the performance measurement process.

The next chapter will present the conclusions and recommendations followed by the limitations of the study and recommendations for further research in the area.

CHAPTER 8

CONCLUSIONS AND RECOMMENDATIONS

8.1 Chapter Overview

This chapter is divided into three sections. The first section presents the conclusions and recommendations of the study. The next section provides the limitations of the study and the identification of potential areas for further research. A chapter summary is provided as the last section, which is also an overview of the major outcomes of the whole study.

8.2 Conclusions and Recommendations

Conclusions and recommendations in this section are presented based on the research questions and the results of this study, which are thoroughly discussed in Chapter 7. This section presents the conclusions derived from the results of the research findings within the areas of: 1) the processes of strategic planning; 2) the congruency between university strategic planning and the Higher Education Long Term Strategy (HELTS) guidelines; 3) the relationship between strategic planning, implementation and organisational performance; 4) the relationship between strategic planning and performance measurement; 5) performance measurement indicators; and 6) the performance measurement model. This is followed by recommendations that contain suggestions for future improvement and development of strategic planning and performance measurement in public universities in Sulawesi.

8.2.1 Conclusions

The first research question guiding this study aimed to examine the processes of strategic planning at public universities in Sulawesi. The study indicates that the strategic planning processes were conducted by using both the top-down and bottom-up approaches. The strategic planning process in public universities is considered to be effective from the formulation process to the strategic plan document. It follows the criteria that have been set in the Directorate General Higher Education (DGHE) guidelines.

A principal target in HELTS was that by 2010, higher education in Indonesia was envisioned to have significantly improved and contributed to the nation's competitiveness at a global level (see Chapter 1 p. 6). Therefore, universities should improve their quality to achieve world class university status. It is important to reach world class university status so that universities in Indonesia can be internationally recognised. Generally, universities in Indonesia should improve the number of international journal publications and increase funding for research and innovation in Information Technology so that they can improve their positions in the world rankings.

Another specific improvement was that universities needed to have qualified academic staff, for example, by having more academic staff study abroad for higher degrees and build collaborations with global universities for research and journal publications. In this context, the process of strategic

planning in public universities was influenced by the DGHE guidelines, beginning with their strategic planning formulation activities and the production of a formal strategic plan. The study revealed that universities were also concerned with global competition and planned their activities in response to escalating competition.

Strategic planning in five universities indicated concern with their vision and mission. Universities had prominent strategies such as improving their image, improving quality by developing research, enhancing facilities and infrastructure, increasing research collaboration with other universities and journal publications.

However, the outcomes did not reach all the targets that had been set in the strategic planning guidelines from DGHE, particularly on the point of competing globally. In reality, the quality of Indonesian universities, particularly in the eastern part of the country, is still behind international standards and these institutions are currently unable to meet the DGHE expectations.

The second research question aimed to examine the congruency between university strategic planning and the HELTS guidelines. The HELTS visions were that in 2010 Indonesian higher education institutions were to develop into healthy institutions and be able to contribute to national competitiveness at an international level. The HELTS guidelines set the targets

that higher education in Indonesia should improve in quality, justice and accessibility for all the community and expand university autonomy.

The universities have attempted to implement strategic planning based on the guidelines from DGHE. They synchronized the HELTS guidelines with their strategic planning documents to accommodate their conditions. The universities have commonalities in determining their vision and mission. The documents indicate that each university maintained a strategy that focused on the development of human resources to create proficient graduates. It also demonstrates that they placed an emphasis on the development of research, quality assurance and Information Technology. Some universities emphasised their visions and missions to be centres of education, arts, science and technological development. Other universities also indicate in their visions the ambition to become a world class university, focussed on becoming an excellent university in relation to human resources, research and community service. They also stated their aim to gain royalties from patents in science and technology research, expand research collaboration and increase the number of international journal publications.

The findings of this study suggest that universities conduct the strategic planning as a compulsory activity through which they should maintain consistency with the HELTS guidelines. Every higher education institution in Indonesia is regulated by the Ministry of Education through the Directorate

General Higher Education. The university follows the strategic planning guidelines from the DGHE in order to fulfil the requirements of central government. However, this study has highlighted that many staff believe some targets from the guidelines are quite unrealistic, for example in regard to international journal publications and world class university status. Furthermore, the compulsory university strategic planning process has the purpose of improving university performance and obtaining a better university accreditation, therefore, recognition for the improved performance.

The third research question aimed to evaluate the relationship between strategic planning, implementation and organisational performance. The study highlighted that strategic planning and its implementation did not improve the universities' organisational performance as expected. It is expected that, through the implementation of strategic planning, the university may increase their accreditation status. The universities attempted to synchronise their missions and programs/activities, then measure these against the achieved targets. They strived to achieve some targets such as an improvement in learning processes, IT development, partnership networking, library resources, laboratory equipment and administration and management. Specifically, universities in Sulawesi still struggle to achieve higher degrees for academic staff, research collaboration, research/journal publications and new study programs. However, there are some targets in the strategic planning that cannot

be achieved in the required timelines set up by DGHE, such as sufficient numbers of international journal publications, higher degree academic staff and adequate research funds. These all have an impact on organisational performance. Moreover, the improvement and targets achieved were still not adequate to bolster their accreditation statuses and university rankings. These findings related to the work by Conway et al (1994), Altbach and Ogawa (2002), Paris (2003), Cowburn (2005) and Townsley (2008) who found that higher educational institutions struggle for funds and compete with each other to increase student enrolment and more closely meet stakeholder demands. Therefore, strategic planning becomes an essential tool to map strategies and to overcome the increasing challenges.

Some studies have shown that strategic planning has a positive correlation and a positive effect on corporate performance (Owolabi & Makinde, 2012; Schmidt, 2010). When the program is not fully implemented then it impacts on organisational performance, therefore the universities in Sulawesi are still challenged to be proactive to improve their quality and performance.

The fourth research question aimed to examine the relationship between strategic planning and performance measurement. The study confirms that there is a positive relation between strategic planning and performance measurement. It is evident that performance measurement can be a benchmark for strategic planning and cannot be separated from strategic planning.

Performance measurement is an evaluation tool which measures the targets in strategic planning. This is clearly supported by several studies (Tromp & Ruben (2004); Dusenbury (2000); Dann (2003)), and the high agreement level in the responses from the research participants both in the questionnaires and the interviews. Through the university performance measurement report documents, it can be seen that the missions and programs/activities set in strategic planning were evaluated with the achieved targets. It revealed that the relationship between strategic planning and performance measurement was inseparable and intertwined.

The fifth research question aimed to determine the performance measurement indicators that could be used in performance measurement. The four perspectives of the balanced scorecard approach from Kaplan and Norton (1996) were found to drive the universities to classify their performance measurement indicators. The four perspectives of the balanced scorecard approach were used as the theoretical framework to guide the study. The four perspectives assisted the researcher to classify and determine the performance indicators used in public universities. These were: the financial perspective, the customer/stakeholder perspective, the internal process perspective, and the learning and growth perspective. Based on the results of the questionnaires, interviews and the previous studies of the balanced scorecard approach (see Sudirman, 2012), this study suggests that performance measurement indicators

in the balanced scorecard approach could be adopted and applied to public universities in Sulawesi. It is essential that the balanced scorecard approach is adopted as the features can evaluate not only the financial measurements but also the non-financial measurements, such as the condition of stakeholders, internal processes, and learning and growth.

The study also revealed that the balanced scorecard may act as a framework which is relevant to performance measurement issues. The four perspectives of the balanced scorecard help to determine performance measurement indicators and operate as a tool which presents information. The balanced scorecard can be used as a specific instrument for measurement that assists organisations to monitor and know the specific areas which are effective or need improvement.

The sixth research question aimed to identify the features that are needed to develop an appropriate performance measurement model. The study suggests that the features of the four perspectives of the balanced scorecard should be added to the university performance measurement model. Some of the respondents opted to use the existing model, but a greater number of them supported the modification of the performance measurement model in their university by adding the four perspectives of the balanced scorecard. It is also noted that there are several studies which support the use of the balanced scorecard approach in university performance measurement, for example

studies by Sudirman (2012); Umashankar and Dutta (2007); Yek et al. (2007); Karathanos and Karathanos (2005); Ruben (1999) and Chen et al. (2006).

The results of this study indicate that in the Indonesian context, strategic planning in public universities is included as a compulsory process and is a part of the rules and regulations from DGHE. Performance measurement has a purpose in evaluating the achieved targets that have been set in strategic planning. As a part of DGHE regulations, every university also has to prepare a performance measurement report annually to monitor the program/activities in their strategic planning. The study also indicated that the balanced scorecard can be used in determining performance measurement indicators and can be added to performance measurement models.

The added feature of the balanced scorecard approach used in the modified performance measurement model is that it may assist public universities in Sulawesi to complement the existing performance measurement model from the National Accreditation Agency for Higher Education (NAAHE). The modified performance measurement model tended to be more suitable and fit the situation in public universities in Sulawesi, and therefore could be applied as a comprehensive performance measurement model.

8.2.2 Recommendations

Based on the findings and conclusions of this research, this section presents the recommendations of the study. The recommendations of this study should

be of theoretical and practical significance to public universities in dealing with strategic planning and performance measurement.

The national standards that have been set up by DGHE were difficult to achieve to some extent. They could not work as a one-size-fits-all solution because of geographic and developmental issues. Therefore, the standards from DGHE should consider the specific circumstances of the universities. A further recommendation related to the DGHE standards in strategic planning is to issue a more developmental framework that encourages universities to meet requirements over a period of time, for example, they have specific strategic planning with set targets that suits the university and can be monitored in a specific period of time.

It should be noted that the geographic issue should become a fundamental part of the standards. Central government should consider the condition of universities in different parts of Indonesia. It would be better to cluster areas and set different standards, for example for the Eastern part, the Central part and the Western part of the country, based on the current development statuses of these geographic regions.

This study increases the awareness of the linkage between strategic planning implementation and performance measurement. Performance measurement in public universities should consider utilising both the quantitative and qualitative approaches. The quantitative approach is related to

budget and revenue, for example, the financial measurement perspective while the qualitative approach is related to customer/stakeholder, internal process, and learning and growth.

The performance measurement model developed in this study, which modified the existing NAAHE model (see Chapter 6 p. 199) could be adopted by public universities in Sulawesi. The model presented here (Chapter 6) aims to provide a suitable model for performance measurement and includes the four perspectives of the balanced scorecard approach from Kaplan and Norton (1996), which consists of the financial, customer/stakeholder, internal process, and learning and growth perspectives. The model needs to be circulated to public universities for comments and further refinement to suit their circumstances.

8.3 Limitations of the Study

This study has a number of limitations. The first limitation was a geographic issue that makes it difficult to undertake a nationwide study, as Indonesia is a country that has five major islands (Sumatera, Kalimantan, Java, Sulawesi, Papua) and around 6000 inhabited small islands. The sample included data only from one specific island of Indonesia (Sulawesi). There may be several aspects, such as the organisational culture and personal characteristics of the respondents, which were different compared to the other universities outside Sulawesi. Therefore, it will be an opportunity for future researchers to conduct

further study on other islands of Indonesia to obtain more comprehensive results regarding strategic planning and performance measurement.

The second limitation is the small sample size. The study was undertaken in only five public universities, one each from the five provinces where public universities are established in Sulawesi. Despite similarities between universities, the small sample size may limit acceptance of the findings among other public universities. However, it is suggested that the methodology of the study could be applied in the context of similar public universities, particularly those located in the Eastern part of Indonesia. In order to expand and validate the findings of this study it may be appropriate to undertake a similar study in the private university sector in the near future as well.

Another limitation of the study was the tendency of respondents to agree to items posed in the survey. This may have been influenced by the culture of courtesy in Indonesia that caused some of the respondents to tend to be polite and provide positive responses or comments. In future research, the questionnaire should be redesigned by providing more varied response options to accommodate their aspirations, for example, the questionnaire could have seven options from strongly agree, agree, somewhat agree, somewhat disagree, disagree, strongly disagree and undecided. Seven options in a questionnaire may accommodate the participant's desire to express only a mild agreement or disagreement so as not to offend. The undecided option may

indicate a response that is something less than agree or disagree. Although an undecided option normally can be avoided, in some situations the undecided option may be necessary, and would at least indicate that they did not agree (or disagree) with the statement.

8.4 Recommendation for Further Research

There were several areas that need to be improved. These recommendations include: develop specific standardisations which consider a particular university's conditions. This standardisation also included a framework to meet the requirement for specific time frames and regular monitoring. The next recommendation is for area clustering; the purpose of which is to give the opportunity to the universities which are in the same regional areas to cooperate with each other, for example, as joint universities for research. Another recommendation is the modified performance measurement model that needs to be adopted by public universities in Sulawesi, although it still needs validation and further refinement to suit their circumstances.

8.5 Overview and Final Comments

This final chapter has presented the conclusions, recommendations and limitations of the study that are valuable to strategic planning and performance measurement for public universities in Sulawesi. The results of this study provide insights into how public universities in Sulawesi manage their strategic planning and performance measurement.

Each institution's strategic planning document is a crucial document in higher education. Strategic planning should not only be a compulsory document but also must represent an image of the university's excellence in the future, with realistic targets to be achieved. The noticeable indicator of whether strategic planning can be successfully implemented is the ability to select the right strategic targets and provide adequate resources to fulfil the targets. This condition leads to the improvement of organisational performance.

Strategic planning is not a one-stop attempt to guide, direct and envision the future of institutions. Evaluation and assessment of strategic planning should be followed by performance measurement. The indicators of performance measurement in higher education institutions are complex and unique making them different from other profit-making organisations. However, businesslike performance measurement, such as the balanced scorecard approach, can be valuable to determine and group higher education performance measurement indicators into specific areas. Therefore the balanced scorecard approach can be inserted in the current performance measurement system in public universities to create a new modified model of performance measurement.

The data collected from the questionnaires, interviews and the documentary analysis have enriched the mixed method used in this study. The findings have important implications for public universities in Sulawesi and

many areas may be developed for further study. The study also provides an opportunity for other researchers to expand on the findings with similar research. The proposed performance measurement model may assist public universities to carry out their performance measurement reports and eventually will provide a positive impact on their accreditation status. This study has the potential to provide a contribution to the improvement of the strategic planning and performance measurement in public universities in Sulawesi.

In conclusion, strategic planning is not a way out of a predicament but it has a purpose in choosing the right strategic targets and in organising resources to engage with the targets set. The relationship between strategic planning and performance measurement is critical. Performance measurement should be used as a tool to monitor the achieved targets of the strategic planning. The combined use of the balanced scorecard approach in performance measurement emphasises that this approach can be used in non-profit organisations such as public universities, particularly in Sulawesi.

REFERENCE LIST

Reference List

- Abell, D., & Hammond, J. (1979). *Strategic market planning*. New Jersey: Prentice-Hall.
- Alashloo, F. R., Castka, P., & Sharp, J. M. (2005). Towards understanding the impellers of strategy implementation in higher education. *Quality Assurance in Education*, 13(2), 132-147.
- Albach, P. G., Selvaratnam, V. (Eds.). (1989). *From dependence to autonomy: The development of Asian universities*. Dordrecht, Netherlands: Kluwer.
- Altbach, P. (1998). *Comperative higher education: Knowledge, the university, and development*. Greenwich, CT: Ablex.
- Altbach, P., & Ogawa, Y. (Eds.). (2002). Editorial of special issue on higher education in Japan: Reform and change in the 21st century. *Higher Education*, 43(1), 1-6.
- Albach, P. G. (2010). The Asian higher seducation century? the future of Asia. *The Boston College Centre for International Higher Education, Spring 2010*(59), 3-5.
- Anderson, D., Johnson, R., & Milligan, B. (1999). *Strategic planning in Australian universities*. In (Evaluations and Investigations Program/Australia). Canberra: Department of Education, Training and Youth Affairs. Higher Education.
- Al-Omari, A. A., & Salameh, K. M. (2009). Strategic planning effectiveness in Jordanian universities: Faculty members' and academic administrators' perspectives. *Research in Post-Compulsory Education*, 14(4), 415-428.

- Alexander, F. K. (2000). The changing face of accountability: Monitoring and assessing institutional performance in higher education. *The Journal of Higher Education*, 71, 411-431.
- Ardekani, M. Y., & Haug, R. S. (1997). Contextual determinants of strategic planning processes. *Journal of Management Studies*, 34, 729-765.
- Asian Development Bank (ADB). (2011). *Higher education across Asia: An overview of issues and strategies*. Manila: ADB.
- BAN-PT/NAAHE: Badan Akreditasi Nasional Perguruan Tinggi. (2009). Retrieved from <http://ban-pt.kemdiknas.go.id/>
- Bailey, C., Chow, C., & Haddad, K. (1999). Continuous improvement in business education: Insight from the for-profit sector and business school deans. *Journal of Education for Business*, 74(3), 165.
- Banker, D. J., Chang, H., & Pizzini, M. J. (2004). The balanced scorecard: Judgement effects of performance measures linked to strategy. *American Accounting Association*, 79(1), 1-23.
- Baskoro, G. (2009). Quality matter for (Indonesia) private higher education institution. *Jurnal Teknik Industri*, 11(2), 101-110.
- Bauer, R. A. (1966). *Social indicators*. Cambridge, MIT Press.
- Binden, W., Mziu, H., & Suhaimi, M. A. (2014). Employing the balanced scorecard (BSC) to measure performance in higher education-Malaysia. *International Journal of Information and Communication Technology Research*, 4(1), 38-44.

- Boeije, H. R. (2010). *Analysis in qualitative research*. London: Sage Publications Limited.
- Bogt, H. J., & Scapens, R. W. (2009). *Performance Measurement in Universities: A comparative study of two A&F groups in the Netherlands and the UK*. Paper presented at the 7th ENROAC Conference in Dundee, Scotland.
- Bologna Declaration. (1999), The Bologna Declaration on the European space for higher education: An explanation. Retrieved from <http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf>.
- Bonnaccorsi, A., & Daraio, C. (Eds.). (2007). *Theoretical perspective on university strategy*. Cheltenham: Edward Elgar.
- Boston Consulting Group. (1972). *Perspective on experience*. Boston: Boston Consulting Group.
- Botticelli, P. (1997). Competition and business strategy in historical perspective. Draft paper prepared for president and fellows of Harvard College. Harvard Business School Publishing.
- Boyd, K. B., & Elliott, E. R. (1998). Research notes and communications a measurement model of strategic planning. *Strategic Management Journal*, 19, 181-192.
- Bradmore, D. J., & Smyrnios, K. X. (2009). The writing on the wall: Responses of Australian public universities to competition in global higher education. *Higher Education Research & Development*, 28(5), 495-508.
- Buchori, M., & Malik, A. (2004). The Evolution of Higher Education in Indonesia. In P.G. Altbach & T. Umakoshi (Eds.), *Asian universities: Historical*

perspectives and contemporary challenges (pp. 249–277). Baltimore: The Johns Hopkins University Press.

Canibano, L., & Sanchez, P. (2009). Intangibles in universities: Current challenges for measuring and reporting. *Journal of Human Resources Costing and Accounting*, 13(2), 99-104.

Central Intelligence Agency. (2013). The world fact book. USA: CIA. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/id.html>.

Chen, S. H., Yang, C. C., & Shiau, J. Y. (2006). The application of balance scorecard in the performance evaluation of higher education. *The TQM Magazine*, 18(2), 190-205.

Chen, S. H., Wang, H. H., & Yang, K. J. (2009). Establishment and application of performance measure indicators for universities. *The TQM Magazine*, 21(3), 220-235.

Conway, T., Mackay, S., & Yorke, D. (1994). Strategic planning in higher education: Who are the customers? *International Journal of Educational Management*, 8(6), 29-36.

Conley, P. (1970). Experience curves as a planning tool. In Boston Consulting Group pamphlet.

Cotter, M., & Paris, K., (2007). *A survey of strategic planning practices in higher education*. Office of Quality Improvement. University of Wisconsin-Madison. Retrieved from <http://oqi.wisc.edu/resource/library/uploads/resources/Survey%20of%20Strategic%20Planning%20in%20Higher%20Education%20DEC%202007.pdf>.

- Cowburn, S. (2005). Strategic planning in higher education: Fact or fiction? *Perspectives: Policy and Practice in Higher Education*, 9(4), 103-109.
- Cresswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications.
- Cullen, J., Joyce, J., Hassal, T., & Broadbent, M. (2003). Quality in higher education: From monitoring to management. *Quality Assurance in Education*, 11(1), 5-14.
- Cummings, S., & Wilson, D. (2003). *Images of strategy*. Malden, MA: Blackwell.
- Davies, H. T. O., Nutley, S. M., & Smith, P. C. (2000). *What works?: Evidence-based policy and practice in public services*. London: Policy Press.
- DeKluyver, C. A. (2000). *Strategic thinking: An executive perspective*. Upper Saddle River, NJ: Prentice-Hall.
- Delprino, R. P. (2013). The human side of the strategic planning process in higher education. *Planning for Higher Education*, 41(2), 194-210.
- De Neufville, J. I. (1975). *Social indicators and public policy: Interactive processes of design and application*. Amsterdam: Elsevier.
- Department of Education, Employment and Workplace Relations, Australia. (2011). Overview of tertiary education quality and standard agency. Department of Education, Employment and Working Relation, Australia. Retrieved from <http://www.deewr.gov.au/HigherEducation/Policy/teqsa/Pages/Overview.aspx>.

- Dill, D. D., & Soo, M. (2005). Academic quality, league tables, and public policy: A cross-national analysis of university ranking systems. *Higher Education*, 49, 495 - 533.
- Direktorat Jenderal Pendidikan Tinggi (DIKTI). (2004). *Strategi pendidikan tinggi jangka panjang 2003-2010 mewujudkan perguruan tinggi berkualitas*. Departemen Pendidikan Nasional Republik Indonesia. Retrieved from <http://www.inherent-dikti.net/files/HELTS2003-2010B.pdf>.
- Directorate General of Higher Education (DGHE). (2003). *Basic framework for higher education development (2003-2010)*. Technical report, Directorate of Higher Education. Ministry of National Education Republic of Indonesia.
- Dooris, M. J. (2003). Two decades of strategic planning. *Planning in Higher Education*, 31(2), 26-32.
- Dooris, M. J., Kelley, J. M., & Trainer, J. F. (2002). Strategic planning in higher education. *New Directions for Higher Education*, 116, 5-11.
- Dusenbury, P. (2000). Strategic planning and performance measurement. *Governing for results and accountability*. Washington DC: The Urban Institute.
- Eckersley, R. (1998). *Measuring progress: Is life getting better?* Collingwood: CSIRO Publishing.
- English Dictionary. (2010). Scotland: Geddes & Grosset.
- Fahmi, M. (2007). *Indonesian higher education: The chronicle, recent development and the new legal entity universities*. Working paper in

Economics and Development Studies. Department of economics,
Padjadjaran University, Bandung, Indonesia.

Fidler, B. (Ed.). (1989). *Strategic Management: Where is the school going? A guide to strategic thinking*. Harlow: Longman.

Flick, U. (2002). *An introduction to qualitative research*. London: Sage.

Gamage, D.T., Suwanabroma, J., Ueyama, T., Hada, S., Sekikawa, E. (2008). The impact of quality assurance measures on student services at the Japanese and Thai private universities. *Quality Assurance in Education*, 16(2), 181-198.

Gemawat, P. (2002). Competition and business strategy in historical perspective. *The Business History Review*, 76(1), 37-74.

Gibbons, M., Limonges, C., Nowotny, H., Schwartzman, S., Scott, P., & Two, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. London: Sage.

Glesne, C., & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. New York: Longman.

Global Business Guide Indonesia, (2014). Education. Ensuring quality over quantity in higher education. Retrieved from http://www.gbgindonesia.com/en/education/article/2011/ensuring_quality_over_quantity_in_higher_education.php.

Gluck, F. W., Kaufman, S. P., & Walleck, A. S. (1982). The four phases of strategic management. *Journal of Business Strategy*, Winter 1982, 9-21.

- Gobo, G. (2004). Sampling, representativeness and generalizability. In C. Seale., G. Gobo., J. F. Gubrium., & D. Silverman (Eds.), *Qualitative research practice*. London: Sage.
- Gordan, C., & Pop, M. (2013). Mission statements in higher education: Context analysis and research propositions. *Economic Science Series, 22*(2), 653-663.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2006). *Multivariate data analysis (6th ed.)*. New Jersey: Pearson Prentice Hall.
- Hayward, F. M., Ncayiyana, D. J., & Johnson, J. E. (2003). *Strategic planning for African higher education institutions*. South Africa: USAID.
- Hazelkorn, E. (2009). *Impact of global rankings on higher education research and the production of knowledge*. Paris: UNESCO.
- Healey, N. M. (2008). Is higher education in really 'internationalising'? *Higher Education, 55*, 333-355.
- Henderson, B. D. (1984). The application and misapplication of the experience curve. *The Journal of Business Strategy, 4*(3), 3-9.
- Hill, H., & Wie, T.K. (2013). Indonesian universities: Rapid growth, major challenges. In D. Suryadarma & G.W. Jones (Eds.), *Education in Indonesia*. Singapore: Institute of Southeast Asian Studies.
- Hinton, K. E. (2012). *A practical guide to strategic planning in higher education*. Society for college and university planning. Retrieved from <http://oira.cortland.edu/webpage/planningandassessmentresources/planningresources/SCPGuideonPlanning.pdf>.

- Hladchenko, M. (2013). The strategic management of the German higher education institutions as a transparent, cyclic and participative process. *Euromentor Journal*, 4(4), 14-36.
- Hoare, D. (1996). *Review of management of higher education institutions*, Department of Education, Training and Youth Affairs. Canberra: Australian Government Publishing Service.
- Iskandar, I. (2009). *Higher education in ASEAN*. Working paper in EU Centre Intern and NUS Political Science Honours Graduate. Retrieved from <http://www.eucentre.sg/wp-content/uploads/2013/06/WorkingPaper-HEAinASEAN-2009-08-01.pdf>.
- Jarrar, Y., & Schiuma, G. (2007). Measuring performance in the public sector: Challenges and trends. *Measuring Business Excellence*, 11(4), 4-8.
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard: Measures that drive performance. *Harvard Business Review*, 71-79.
- Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard: Translating strategy into action*. Boston: Harvard Business School Press.
- Karathanos, D., & Karathanos, P. (2005). Applying the balanced scorecard to education. *Journal of Education for Business*, 222-230.
- Kementrian Pendidikan dan Kebudayaan/Kemendikbud (Indonesian Ministry of Education and Culture). (2014). Visi dan misi kementrian pendidikan dan kebudayaan. Retrieved from <http://www.kemdikbud.go.id/kemdikbud/tentang-kemdikbud-visi>.

- Kennerly, M., & Neely, A. (2003). Measuring performance in a changing business environment. *International Journal of Operations and Production Management*, 23(2), 213-229.
- Khakee, A. (1998). Evaluation and Planning: Inseparable Concept. *The Town Planning Review* 69(4), 359-374.
- Kotler, P., & Murphy, P. E. (1981). Strategic planning for higher education. *The Journal of Higher Education*, 52(5), 470-489.
- Kriemadies, A. (1997). Strategic planning in higher education athletic department. *International Journal of Education Management*, 11(6), 238-247.
- Kumar, R. (1996). *Research methodology: A step-by-step guide for beginners*. Melbourne: Longman.
- Lall, S. (1993). Promoting technology development: The role of technology transfer and indigenous effort. *Third World Quarterly*, 14(1), 95-108.
- Lall, S. (1998). Changing perceptions of foreign direct investment in development. In P. K. M. Tharakan., & D. Van den Bulcke (Eds.), *International trade: Foreign direct investment and the economic environment*. Essays in honour of Professor Sylvain Plasschaert (pp.101-134). Basingtoke: St. Martin's Press.
- Laporan Monitoring dan evaluasi (monev) rencana strategis (renstra) Universitas Brawijaya (2008). Malang, Indonesia: Universitas Brawijaya. Retrieved from http://www.ub.ac.id/files/dokumen_resmi_kampus/laporan_monevin_implementation_renstra_ub_2006_2011_20100803212231.pdf.

- Laredo, P. (2007). Revisiting the third mission of universities: Towards a renewed categorization of university activities? *Higher Education Policy*, 20(4), 495-500.
- Learned, E. P., Christensen, C. R., Andrews, K. R., & Guth, W. (Eds.). (1969). *Business policy* (Revised edition. Original edition 1965). Irwin, Homewood Ill.
- Lerner, A. L. (1999). A strategic planning primer for higher education. Retrieved from <http://www.csun.edu./Estrplan>.
- Lockwood, G. (1972). Planning in a university. *Higher Education*, 1(4), 409-434.
- Lyddon, J. W., & McComb, B. (2008). Strategic reporting tool: Balanced scorecard in higher education. *Journal of Applied Research in the Community College*, 15(2), 163-170.
- Marginson, S. (1997). Competition and contestability in Australian higher education, 1987 – 1997. *Australian Universities Review*, 40(1), 5-44.
- Marginson, S., & Considine, M. (2000). *The enterprise university: Power, governance and reinvention in Australia*, New York: Cambridge University Press.
- Mason, J. (1996). *Qualitative researching*. London: Sage.
- McKiernan, P. (1996). *Historical evolution of strategic management*. Aldershot, England: Dartmouth Publishing Company Limited.
- Mintzberg, H. (1994). *The rise and fall of strategic planning*. Hertfordshire, Great Britain: Prentice Hall Europe.

- Moullin, M. (2007). Performance measurement definition: Linking performance measurement and organisational excellence. *International Journal of Health Care Quality Assurance*, 20(3), 181-183.
- Mudrick, N. R., Steiner, J. R., & Pollard, W. L. (1992). Strategic planning for school of social work. *Journal of Social Work Education*, 28(3), 278-290.
- Nayeri, D., Mashhadi, M. M., & Mohajeri, K. (2008). Universities strategic evaluation using balanced scorecard. *World Academy of Science, Engineering and Technology* 37, 332-337.
- Neave, G. (2002). Anything goes: Or how the accommodation of Europe's universities to European integration integrates an inspiring number of contradictions. *Tertiary Education and Management*, 8, 181 - 197.
- Neely, A. D., Mills, J. F., Gregory, M. J., & Platts, K. W. (1995). Performance measurement system design-a literature review and research agenda. *International Journal of Operations and Productions Management*, 15(4), 80-116.
- Neely, A. D., Adams, C., & Kennerley, M. (2002). *The performance prism: The scorecard for measuring and managing stakeholder relationship*. London: Financial Times/Prentice Hall.
- Niven, P. R. (2003). *Balanced scorecard step by step for government and non-profit agencies*. New Jersey: John Wiley & Sons.
- Nizam (2006). *Indonesia: The need for higher education reform*. In Higher Education in South-East-Asia. Bangkok: The UNESCO Asia and Pacific Regional Bureau for Education. Retrieved from <http://unesdoc.unesco.org/images/0014/001465/146541e.pdf>.

Nizam., & Nurdin, M. (2014). Governance reforms in higher education: A study of institutional autonomy in Indonesia. In N. V. Varghese., & M. Martin (Eds.), *Governance reform in higher education: A study of institutional autonomy in Asian countries*. Paris, France: International Institute for Educational Planning. UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0022/002272/227242e.pdf>.

NVivo Qualitative Data Analysis Software: QSR International Pty Ltd. Version 10, 2012.

OECD, The Organisation for Economic Co-operation and Development, Southeast Asian Economic Outlook 2011/12. (2012). *Indonesia. Structural Policy Country Notes: Medium Term Policy Challenges*. Retrieved from: <http://www.oecd.org/dev/49954032.pdf>.

Olsen, J. B., & Eadie, D. C. (1982). The game plan : Governance with foresight. Washington, DC: Council of Strategic Planning Agencies.

O'Neil, H., Bensimon, E., Diamond, M. & Moore, M. (1999). Designing and implementing an academic scorecard. *Change*, 31(6), 32-40.

Owolabi, S. A., & Makinde, O.G. (2012). The effect of strategic planning on corporate performance in university education: A study of Babcock university. *Kuwait Chapter of Arabia Journal of Business and Management Review*, 12(4), 27-44.

Oxford Advanced Learner's Dictionary. (2000). Oxford: Oxford University Press.

Pandey, I. M. (2005). Balanced scorecard: Myth and reality. *Vikalpa*, 30(1), 51-66.

- Paris, K. (2003). *Strategic planning in the university*. Wisconsin, Madison: University of Wisconsin system board of regents. Retrieved from <http://oqi.wisc.edu/resource/library/uploads/resources/Strategic%20Planning%20in%20the%20University.pdf>.
- Papadimitriou, A. (2014). Strategic planning and benchmarking organizational routines of universities in the Western Balkans. *The TQM Journal*, 26(3), 261-274.
- Papenhausen, C., & Einstein, W. (2006). Insights from the balanced scorecard at a collage of business. *Measuring Business Excellence*, 10(3), 15-22.
- Pearce, J., & Robinson, R. (2000). *Strategic management: Formulation, implementation, and control*. USA: McGraw-Hill.
- Perkins, M., Grey, A., & Remmers, H. (2014). What do we really mean by "Balanced Scorecard"? *International Journal of Productivity and Performance Management*, 62(2), 148-169.
- Porter, M. (1983). Industrial organisation and the evolution of concepts for strategic planning: The new learning. *Managerial and Decision Economics*, 4(3), 172 - 180.
- Prahalad, C. K., & Hamel, G. (1993). The core competence of the corporation. *Harvard Business Review*, March – April, 80-91.
- Punch, K. (2009). *Introduction to research methods in education*. London: SAGE Publication Ltd.
- Puruhito. (2006). Challenging changes facing Indonesian higher education reform. Retrieved from

www.acenet.edu/Content/NavigationMenu/ProgramsServices/cii/current/dialogues/Puruhito.ppt.

- Raciti, M. (2010). Marketing Australian higher education at the turn of the 21st century: A précis of reforming commercialisation and the new university hierarchy. *e-Journal of Business Education & Scholarship of Teaching*, 4(1), 32-41.
- Radin, B. A. (2000). The government performance and result act and the tradition of federal management reform: Square pegs in round holes. *Journal of Public Administration: Research and Theory*, 10, 111-135.
- Rapley, T. (2004). Interviews. In C. Seale., G. Gobo., J. F. Gubrium., & D. Silverman (Eds.), *Qualitative research practice*. London: Sage Publ.
- Rompho, N. (2004). *Building the balanced scorecard for the university case study: The University in Thailand*. Paper presented at the Fourth International Conference of the Performance Measurement Association.
- Rowe, A. J., Mason, R. O., Dickel, K. E., Mann, R. B., & Mockler, R.J. (1994). *Strategic management: A methodological approach*. Reading, MA: Addison-Wesley Publishing Company.
- Rowley, D. J., Lujan, H. D., & Dolence, M. G. (Eds.). (1997). *Strategic change in colleges and universities*. San Francisco, CA: Jossey-Bass Publishers.
- Rowley, D. J., & Sherman, H. (Eds.). (2001). *From strategy to change: Implementing the plan in higher education*. San Fransisco: Jossey-Bass Publishers.
- Royono, R., & Rahwidiati, D. (2013). Beating the odds: Locally relevant alternatives to world-class universities. In D. Suryadarma & G.W. Jones

(Eds.), *Education in Indonesia*. Singapore: Institute of Southeast Asian Studies.

- Ruben, B. D. (1999). Towards a balance scorecard for higher education: Rethinking the college and university excellence indicators framework *Higher Education Forum QCI, Centre for Organisational Development and Leadership, Rutgers University, Fall 99*(02), 01-10.
- Sarico, S. C. (2010). On performance in higher education: Towards performance governance. *Tertiary Education and Management*, 16(2), 145-158.
- Sayed, N. (2013). Ratify, reject or revise: Balanced scorecard and universities. *International Journal of Educational Management*, 27(3), 203-220.
- Schmidt, A. M. (2010). Strategic planning and corporate performance. What is the relationship. Working paper in Department of Management. No.2010-02. Aarhus School of Business at Aarhus University, Denmark. Retrieved from http://old-hha.asb.dk/man/cmsdocs/wp/2010/wp2010_02.pdf
- Schraeder, M. A. (2002). A simplified approach to strategic planning: Practical considerations and illustrated examples. *Business Process Management Journal*, 8(1), 8-18.
- Selznick, P. (1957). *Leadership in administration: A sociological interpretation*. Evanston, IL: Row, Peterson.
- Shuterland, T. (2000). Designing and implementing an academic scorecard. *Accounting Education News, Summer*, 11-14.
- Simmons, R. (2000). *Performance measurement and control systems for implementing strategy, text and cases*. New Jersey: Prentice-Hall, Inc.

- Sinha, K. D. (1990). The contribution of formal planning to decisions. *Strategic Management Journal*, 11(6), 479-492.
- Silverman, D. (2005). *Doing qualitative research*. 2nd ed. London: Sage.
- Smith, N. I. (1994). *Down to earth strategic planning*. Sydney, NSW: Prentice Hall.
- Sloan, J. (2006). *Learning to think strategically*. Burlington, USA: Elsevier.
- Solesbury, W. (2001). *Evidence based policy: When it came and where it's going*. London: ESRC UK Centre for Evidence Based Policy and Practice.
- SPSS: IBM Corp. Released 2011. IBM SPSS Statistic for Windows, Version 20.0. Armonk, NY: IBM Corp.
- Stephenson, S. (2014, July/August). Continuing higher education: Balancing cause and effect as performance measurement. *Cost Management* 28(4), 35-48.
- Stukalina, Y. (2014). Strategic management of higher education institutions. *Management of Organizations: Systematic Research* (70), 79-90.
- Sudirman, I. (2012). Implementing Balanced Scorecard in higher education management case study: Hasanuddin University of Indonesia *International Journal of Business and Social Science* 3(18), 199-204.
- Suryadarma, D., & Jones, G. W. (Eds.). (2013). *Education in Indonesia*. Singapore: Institute of Southeast Asian Studies.

- Talbot, C. (1999). Public performance - towards a new model? *Public Policy and Administration*, 14, 15-34.
- Tapinos, E., Dyson, R. G., & Meadows, M. (2005). The impact of performance measurement in strategic planning. *International Journal of Productivity and Performance Management*, 54(5/6), 370-384.
- Taylor, S. (2001). Locating and conducting discourse analytic research. In M. Wetherall., S. Taylor., & S. J. Yates (Eds.), *Discourse as data: A guide for analysis*. London: Sage.
- Taylor, J. S., Amaral, A., & Machado, M.L. (2007). Strategic planning in U.S. higher education: Can it succeed in Europe? *Planning for Higher Education*, 35(2), 5-17.
- Tertiary Education Quality and Standards Agency. (2012). The role and functions of TEQSA. Tertiary Education and Standards Agency. Retrieved from <http://www.teqsa.gov.au/about-teqsa>.
- The United Nations, (2014). World population prospects: The 2011 revision population database. Retrieved from The United Nations. http://esa.un.org/wpp/unpp/panel_population.htm.
- The World Bank. (2000). *Higher education in developing countries: Peril and promise*. Washington: World Bank. Retrieved from http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079956815/peril_promise_en.pdf.
- The World Bank. (2014). *Indonesia's higher education system: How responsive is it to the labor market*. Jakarta: Human Development Sector, World Bank Office. Retrieved from <http://www.wds.worldbank.org/external/default/WDSContentServer/WDS>

P/IB/2014/07/15/000442464_20140715132755/Rendered/PDF/892220B
RI00P120abor0Market0May02014.pdf.

Tolmie, F. (2005). The HEFCE guide to strategic planning: The need for a new approach. *Perspectives: Policy and Practice in Higher Education*, 9(4), 110-114.

Townsley, M. (2008). Effective financial leadership of stressed colleges and universities. In J. Martin., & J. E. Samels (Eds.), *Turnaround: Leading stressed colleges and universities to excellence*. Baltimore, MD, USA: Jhons Hopkins University Press.

Tromp, S., & Ruben, B. (2004). *Strategic planning in higher education: A guide for leaders*. Washington, DC: National Association of College and University Business Officers.

Tsiakkios, A., & Pashiardis, P. (2002). Strategic planning and education: The case of Cyprus. *The International Journal of Education Management*, 16(1), 6-17.

Umashankar, V., & Dutta, K. (2007). Balanced scorecard in managing higher education institutions: An Indian perspective. *International Journal of Educational Management*, 21(1), 54-67.

Van Dooren, W., Bouckaert, G., & Halligan, J. (2010). *Performance management in the public sector*. New York, Routledge.

Varghese, N.V., Chien, C.L., Montjourides, P. Tran, H., Sigdel, S., Katayama, H., & Chapman, D. (2014). *The reshaping of higher education across Asia*. In (Higher Education in Asia: Expanding Out Expanding Up. The Rise of Graduate Education and University Research). Canada: UNESCO. Institute for Statistics. Retrieved from

<http://www.uis.unesco.org/Library/Documents/higher-education-asia-graduate-university-research-2014-en.pdf>.

Venkatraman, N., & Ramanujam, V. (1987). Planning system success: A conceptualization and an operational model. *Management Science*, 33(6), 687-705.

Viljoen, J., & Dann, S. (2003). *Strategic management*. Malaysia: Prentice Hall, Pearson Education Australia.

Walsh, P., Lok, P., & Jones, M. (2006). *The measurement and management of strategic change: A guide to enterprise performance management*. French Forest, NSW: Pearson Education Australia.

Webster's Third New International Dictionary of the English Language Unabridged. (1993). Springfield, MA: Merriam-Webster.

Welch, A. R. (2006). Blurred vision?: Public and private higher education in Indonesia. *Higher Education* 54, 665-687.

Welsh, J. F., Nunez, W. J., & Petrosko, J. (2005). Faculty and administrative support for strategic planning: As comparison of two and four years institutions. *Community College Review*, 32(4), 20-39.

Wicaksono, T. Y., & Friawan, D. (2011). Recent developments in higher education in Indonesia: Issues and challenges. In S. Armstrong & B. Chapman (Eds.), *Financing higher education and economic development in East Asia* (pp. 159-187). Canberra: The Australian National University E Press.

Wiersma, W., & Jurs, S. G. (2005). *Research methods in education (8th ed.)*. Boston: Allyn & Bacon.

- Williams, D. W. (2000). Reinventing the proverbs of government. *Public Administration Review*, 63, 643-659.
- Wisniewski, M., & Dickson, A. (2001). Measuring performance in Dumfries and Galloway constabulary with the balanced scorecard. *Journal of the Operational Research Society*, 52, 1057 - 1066.
- Yadav, N., Sushi., & Sagar, M. (2013). Performance measurement and management frameworks. Research trends of the last two decades. *Business Process Management*, 19(6), 947-970.
- Yek, T. M., Penney, D., & Seow, A. C. H. (2007). Using Balance Scorecard (BSC) to improve quality and performance of vocational educational and training (VET): A case study in Singapore. AARE 2007 Conference, November 25 - 29: Fremantle, Australia.
- Zajda, J. (2009). Globalisation and comparative research: Implication for education. In J. Zajda & V. Rust (Eds.), *Globalisation, policy and comparative research* (pp. 1-12). Dordrecht: Springer.
- Zechlin, L. (2010). Strategic planning in higher education . In E. Baker., B. McGaw & Peterson, P. (Eds.), *International encyclopedia of education*, (3rd ed.), (pp. 256-263). Amsterdam: Elsevier Ltd.

APPENDICES

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Appendix 1 Research Questionnaire (English Version)

RESEARCH QUESTIONNAIRE

STRATEGIC PLANNING AND PERFORMANCE MEASUREMENT PUBLIC UNIVERSITIES IN SULAWESI ISLAND, INDONESIA

Researcher :

Associate Professor Dr. David Gamage, The University of Newcastle, Australia

Dr. Donald Adams, The University of Newcastle, Australia

Elni Jeini Usuh MLM Ed.(Hons), The University of Newcastle, Australia

Instructions :

This questionnaire consists of three parts. The first part is the background information, the second part is the lists of questions which consist of five items (Item A to Item E) and the last part is the mechanism of questionnaire collection and the researchers contact details .

Please be kind enough to fill the background information and give your response by ticking the most appropriate answers or by filling the available spaces according to your opinion. If you cannot answer the question, please leave it blank. Should you have questions about this survey please feel free to contact the researcher. The approximate time to fill this questionnaire will be 30 minutes.

Part One

Background Information

Name of University :

Gender :

Membership Category (Please tick) :

Academic Staff	()
Rector	()
Deputy Rector	()
Dean	()
Deputy Dean	()
Head of Program	()

Years of experience in strategic planning
and performance measurement : _____ years

Please describe your role in strategic planning and performance measurement

Part Two

Below are the several lists of items that may be used to describe your perception of Strategic Planning and Performance Measurement. Each item can be answered by ticking the most appropriate answer according to your opinion (Item A to Item D) or filling the available answer space.

Item A

This item seeks information on the process of strategic planning and the congruent of objectives and goals towards the Higher Education Long Term Strategy within your university. Please tick the response of either: Strongly Agree, Agree, Disagree and Strongly Disagree.

No	Questions	Responses			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	Strategic planning processes give a great contribution to the university to fulfil its mission				
2	The university has a systematic process of strategic planning				
3	The university implements strategic planning as a continual process				
4	The strategic planning process has been developed appropriately				
5	Procedures for assessing goals achievement are clearly stated				
6	All areas of university conduct the monitoring and evaluation of strategic planning objectives and goals achievement				
7	The university provides sufficient resources for strategic planning activities				
8	Departmental strategic planning goals are generally disseminated to the individuals in the departments				
9	Institutional research (data collection and analysis) is an integral part of university's strategic planning process				
10	The university is committed to allocating resources to improve the weaknesses found through the strategic planning				
11	Specific changes have occurred through systematic evaluation of strategic planning result				
12	The Higher Education Long Term Strategy from Directorate General of Higher Education (DGHE) has been disseminated to the faculty member of the university in general				
13	In general the vision and mission of the university are consistent with the vision and mission of Higher Education Long Term Strategy				
14	Overall the university's objectives and goals are congruent with Higher Education Long Term Strategy guidelines				

Item B

This item relates to the relationship between strategic planning implementation and organisational performance. Please tick the response of either: Very Significant, Significant, Not Significant and Not at all.

No	Statements	Responses			
		Very Significant	Significant	Insignificant	Very Insignificant
1	How do you rate the process of improvement of your university, considering the strategic planning implementation; over the last five years				
2	What is the value of the strategic planning implementation in your organisational performance				
3	How do you rate the relationship between strategic planning implementation and university accreditation status				

Item C

This item comprises of the indicators of performance measurement which are used in the university. Please tick the response of either: Very Important, Important, Less Important and Not Important.

No	Statements	Responses			
		Very Important	Important	Less Important	Not Important
	In your university, how do you rate the following perspectives				
1	Financial perspective measurement				
	a.Revenue from operation				
	a.1. Surplus rate				
	a.2. Tuition fee				
	a.3. Number and amounts of grants a.4. Business funds generated				
	b.Financial management-Budgeting				
	b.1. Balance budgets				
	b.2. Deficit budget				
	b.3. Funds totally accountable				
	b.4. Efficiency and effectiveness of budget				
2	Customer/Stakeholder perspective measurement				
	a. Student				
	a.1. Number of student				
	a.2. Quality of student				
	a.3. Market share of student enrolment				
	a.4. Geographic draw area				
	b. Community; employers, alumni, parents				
	b.1. Graduates effectiveness				
	b.2. Employers survey				
	b.3. Community perception of faculty and staff				

No	Statements	Responses			
		Very Important	Important	Less Important	Not Important
	how do you rate the following perspectives				
	b.4. University outreach programs for the community				
	b.5. Parents response to university survey				
	c. Faculty and University				
	c.1. Participation in decision making				
	c.2. Encouragement of research				
	c.3. Attendance of conference				
	c.4. Level of publications				
	c.5. Student/teacher ratios				
	c.6. % of doctoral				
	c.7. Quality of faculty and accreditation status				
3.	Internal process perspective measurement				
	a. Teaching/ Learning excellence				
	a.1. Students satisfaction with teaching quality				
	a.2. Evaluation by external reviewers and employers				
	a.3. Peer review				
	a.4. Quality and technological level of computer labs and libraries				
	b. Curriculum/Program excellence				
	b.1. Periodic review of each program				
	b.2. Number of new courses developed				
	b.3. Degree of innovation				
	b.4. Degree to which curriculum is up-to-date with educational business and commercial trends				
	c. Quality and currency of faculty				
	c.1. Faculty development plans and outcomes				
	c.2. Contact with business and industry				
	c.3. Utilisation rate of multimedia in classrooms				

No	Statements	Responses			
		Very Important	Important	Less Important	Not Important
	how do you rate the following perspectives				
	d. Efficiency and effectiveness of service				
	d.1. Degree duration				
	d.2. % of students completing program in 4 years				
	d.3. % of budget dedicated directly to learning				
	d.4. Availability of internships				
4.	Learning and Growth perspective measurement				
	a. Teaching and learning innovation and faculty development				
	a.1. Grants for research, travel, library, computer				
	a.2. Teaching assessment				
	a.3. Level of equipment				
No	Statements	Responses			
		Very Important	Important	Less Important	Not Important
	how do you rate the following perspectives				
	a.4. Number of new initiatives/courses/programs				
	a.5. University Innovation versus other universities				
	b. Quality of facilities				
	b.1. Adequacy of classrooms, equipment, computers and library recourses				
	b.2. % of budget for improved facilities				
	c. Strategic decision implementation				
	c.1. Evaluation of strategic planning result				

5. Please express/views and your comments relating to the other aspects of performance indicators that can be adopted by the university which are not listed above

Item D

Performance measurement model. Please tick the response of either: Strongly Agree, Agree, Disagree and Strongly Disagree.

No	Statements	Responses			
		Strongly Agree	Agree	Disagree	Strongly Disagree
	Are you of the opinion that				
1.	A new model of performance measurement in the university should be developed.				
2.	Performance measurement should be modified when there are changes in the organisation's strategic objectives				
3.	The university utilise performance measurement to identify areas that require a strategic focus				

4. If a strategic planning and performance measurement team was needed, the persons who should be involved are:

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

5. What are the significant features that you think should be included in performance measurement?

6. How many years do you think would be the appropriate time period for strategic plan and performance measurement in your university?

_____ years

Item E

If you have further comments relating to Strategic Planning and Performance Measurement for Higher Education in Sulawesi Island, Indonesia, please write in the space below:

Part Three

Thank you for your assistance in completing this questionnaire. Please return the questionnaire in the envelope provided within 7 days to the box provided in the Dean Office of your faculty or the box in the central office.

The researcher invites you to participate in the interview phase of this study. The interview will be conducted voluntarily and will last approximately 20 minutes and take place on campus. The interview will seek clarification and additional information on issues concern strategic planning and performance measurement for higher education in Sulawesi Island, Indonesia. All data obtained from the interview will be treated confidentially. If you wish to participate, please complete the attached consent form. In order to protect the anonymity of the questionnaire responses, please detached it from questionnaire and return both to the box provided. The researcher will contact you within one week. Thank you.

Researchers contact detail:

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This project has been approved by the University of Newcastle Human Research Ethics Committee, Approval (H-2011-002). Should you have concerns about this research, or you have a complaint about the manner in which the research is conducted, please direct them to the researcher or supervisor of the project (Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 and Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916) or to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.:(61)-2-49216333, email: Human.Ethics@newcastle.edu.au.

Appendix 2 Interview Schedule (English Version)

Interview Schedule

STRATEGIC PLANNING AND PERFORMANCE MEASUREMENT FOR PUBLIC UNIVERSITIES IN SULAWESI ISLAND, INDONESIA

This interview schedule is a guideline for the interview in this study. There are four research questions that will be explored through individual interview as listed below.

Preliminary:

- Thank the interviewee
- Provide a brief explanation about the study
- Give assurances about confidentiality
- Gain the interviewee agreement on tape recording the interview

Discussion:

Research question 1.

What are the processes of strategic planning in higher educational institutions and the congruent of objectives and goals towards the Higher Education Long Term Strategy guidelines?

(Question for Rectors, Deputy Rectors, Deans, Deputy Deans)

Prompts:

- The interviewees understand the processes of strategic planning in the university.
- The interviewee can describe his/her role in strategic planning process
- The long range and short range plan, vision, mission, objectives and goals.

- The interviewee has the general knowledge about Higher Education Long Term Strategy from Indonesian Directorate General Higher Education (DGHE).
- The integration of university's objectives and goals with the DGHE guidelines.
- Interviewee opinions about the implication of DGHE guidelines into university strategic planning; the process, the challenges, the advantages or disadvantages and the effectiveness.

Research question 2.

How can strategic planning and implementation be integrated with organisational performance?

(Question for Rectors, Deputy Rectors, Deans, Deputy Deans, Head Program)

Prompt:

- The benefits of strategic planning implementation for the institution.
- The system for aligning strategic planning and organisational performance.
- The improvement or achievement of the university so far.
- The relation between strategic planning and university accreditation.

Research question 3

The relation between strategic planning and performance measurement

Research question 4.

What are the current performance measurement indicators that are being employed in public higher education institutions in Sulawesi, Indonesia?

(Question for Rectors, Deputy Rectors, Deans, Deputy Deans and Head Program)

Prompts:

- The performance measurement indicators that have been used so far.
- The indicators that can be used in :
 - Financial perspectives
 - Customer/stakeholder
 - Internal process
 - Learning and growth
- The factors that may hinder or facilitate in applying the performance measurement indicators.

Research question 5.

How to design an appropriate performance measurement model for the implementation within public higher educational institutions in Sulawesi, Indonesia?

(Question for Rectors, Deputy Rectors, Deans, Deputy Deans, Head Program)

Prompts:

- The structure of university performance measurement.

- The team, person, department that should be involved in performance measurement.
- Items that should be considered and included in performance measurement process and document.
- The approach for implementing performance measurement.
- The main challenges of performance measurement implementation.
- Share the best practices of performance measurement implementation.

This project has been approved by the University of Newcastle Human Research Ethics Committee, Approval (H-2011-0002). Should you have concerns about this research, or you have a complaint about the manner in which the research is conducted, please direct them to the researcher or supervisor of the project (Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 and Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916) or to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.: (61)-2-49216333, email: Human.Ethics@newcastle.edu.au.

Appendix 3 Research Questionnaire (Indonesian Version)

KUESIONER PENELITIAN

PERENCANAAN STRATEGIS DAN PENGUKURAN KINERJA PADA UNIVERSITAS NEGERI DI SULAWESI, INDONESIA

Peneliti :

Associate Professor Dr. David Gamage, The University of Newcastle, Australia

Dr. Donald Adams, The University of Newcastle, Australia

Elni Jeini Usuh MLM Ed.(Hons), The University of Newcastle, Australia

Instruksi :

Kuesioner ini terdiri dari tiga bagian. Bagian pertama adalah latar belakang informasi, bagian kedua adalah daftar pertanyaan yang terdiri dari lima bagian (Poin A sampai Poin E) dan yang terakhir adalah mekanisme pengumpulan kuesioner dan detail kontak peneliti.

Silakan memberikan respon anda dengan mengisi latar belakang informasi dan memberi tanda centang (V) atas jawaban yang dianggap paling sesuai atau dengan mengisi bagian yang kosong sesuai dengan pendapat anda. Apabila ada pertanyaan yang tidak bisa dijawab silakan dibiarkan kosong. Silakan menghubungi peneliti jika anda memiliki pertanyaan sehubungan dengan survey ini. Waktu yang diperlukan untuk mengisi kuesioner kurang lebih 30 menit.

Bagian Satu**Latar Belakang Informasi**

Nama Universitas :

Jenis Kelamin :

Kategori Jabatan (Beri tanda V) :

Staf Akademik	()
Rektor	()
Pembantu Rektor	()
Dekan	()
Pembantu Dekan	()
Ketua Jurusan	()
Ketua Program	()

Pengalaman dalam perencanaan strategis
dan pengukuran kinerja : _____ tahun

Mohon berikan gambaran mengenai peranan anda dalam perencanaan strategis dan
pengukuran kinerja

Bagian Dua

Di bawah ini ada beberapa daftar pertanyaan yang digunakan untuk menggambarkan persepsi anda mengenai Perencanaan Strategis dan Pengukuran Kinerja. Masing-masing poin pertanyaan dapat dijawab dengan memberi tanda centang (V) pada jawaban yang dianggap paling sesuai menurut pendapat anda atau dengan mengisi jawaban pada bagian yang kosong.

Poin A

Poin ini ditujukan untuk mencari informasi mengenai proses perencanaan strategis dan kongruensi tujuan dan sasaran dari perencanaan strategis dengan Strategi Jangka Panjang Pendidikan Tinggi dalam universitas anda. Silakan memberi tanda centang (V) pada bagian: Sangat Setuju, Setuju, Tidak Setuju dan Sangat Tidak Setuju.

No	Pernyataan	Respon			
		Sangat Setuju	Setuju	Tidak Setuju	Sangat Tidak Setuju
1	Proses perencanaan strategis memberikan kontribusi yang besar terhadap universitas untuk mencapai misi universitas.				
2	Universitas memiliki proses yang sistematis dalam perencanaan strategis.				
3	Universitas mengimplementasikan perencanaan strategis sebagai proses yang berkelanjutan.				
4	Proses perencanaan strategis telah dikembangkan dengan memadai.				
5	Prosedur untuk menilai pencapaian tujuan dijabarkan dengan jelas.				
6	Semua bagian di universitas melaksanakan monitoring dan evaluasi terhadap pencapaian tujuan dan sasaran dari perencanaan strategis.				
7	Universitas menyiapkan sumber daya yang memadai untuk kegiatan perencanaan strategis.				
8	Sasaran perencanaan masing-masing departemen disebarluaskan secara merata kepada individu dalam departemen.				
9	Lembaga penelitian (pengumpulan data dan analisis) merupakan bagian dari proses perencanaan strategis universitas.				

No	Pernyataan	Respon			
		Sangat Setuju	Setuju	Tidak Setuju	Sangat Tidak Setuju
10	Universitas berkomitmen untuk mengalokasikan sumber daya dalam rangka memperbaiki kelemahan yang ditemukan dalam perencanaan strategis.				
11	Ada perubahan yang spesifik karena mengadakan evaluasi yang sistematis terhadap hasil perencanaan strategis				
12	Strategi jangka panjang perguruan tinggi dari DIKTI secara umum telah disebarluaskan kepada anggota fakultas di universitas				
13	Visi dan misi universitas konsisten dengan visi dan misi Strategi Jangka Panjang Perguruan Tinggi				
14	Secara umum tujuan dan sasaran universitas kongruen dengan pedoman Strategi Jangka Panjang Perguruan Tinggi.				

Poin B

Poin ini berkaitan dengan hubungan antara implementasi perencanaan strategis dan kinerja organisasi. Silakan memberi tanda centang (V) pada bagian: Sangat Signifikan, Signifikan, Tidak Signifikan dan Sangat Tidak Signifikan.

No	Pernyataan	Respon			
		Sangat Signifikan	Signifikan	Tidak Signifikan	Sangat Tidak Signifikan
1	Bagaimana anda menilai proses perbaikan universitas anda, dengan mempertimbangkan pelaksanaan perencanaan strategis selama lima tahun terakhir.				
2	Apa nilai dari implementasi perencanaan strategis dalam kinerja organisasi.				
3	Bagaimana anda menilai hubungan antara implementasi perencanaan strategis dan status akreditasi universitas.				

Poin C

Poin ini berisi tentang indikator pengukuran kinerja yang digunakan di universitas. Silakan beri tanda centang (V) pada bagian : Sangat Penting, Penting, Kurang Penting dan Tidak Penting.

No	Pernyataan	Respon			
		Sangat Penting	Penting	Kurang Penting	Tidak Penting
	Bagaimana anda menilai perspektif berikut ini di universitas anda				
1	Pengukuran perspektif keuangan				
	a.Revenue /Penghasilan				
	a.1. Tingkat surplus				
	a.2. Biaya kuliah				
	a.3. Jumlah dana hibah				
	a.4. Dana yang dihasilkan dari kegiatan usaha				
	b.Manajemen keuangan/anggaran				
	b.1. Keseimbangan anggaran				
	b.2. Defisit anggaran				
	b.3. Total dana dapat dipertanggungjawabkan				
	b.4. Efisiensi dan efektivitas anggaran				
2	Pengukuran perspektif pelanggan/stakeholder				
	a. Mahasiswa				
	a.1. Jumlah mahasiswa				
	a.2. Kualitas mahasiswa				
	a.3. Pangsa pasar pendaftaran mahasiswa				
	a.4. Area cakupan geografis				
	b. Masyarakat, pemberi kerja, alumni dan orang tua				
	b.1. Effectivitas mutu lulusan				
	b.2. Survey penyerapan tenaga kerja				
	b.3. Persepsi masyarakat mengenai fakultas dan staf				
No	Pernyataan	Respons			
		Sangat Penting	Penting	Kurang Penting	Tidak Penting
	Bagaimana anda menilai perspektif berikut ini di universitas anda				
	b.4. Program jangkauan universitas untuk kepentingan masyarakat				
	b.5. Survey tentang respon orang tua terhadap universitas				
	c. Fakultas dan Universitas				
	c.1. Partisipasi dalam pengambilan keputusan				

No	Pernyataan	Respon			
		Sangat Penting	Penting	Kurang Penting	Tidak Penting
	Bagaimana anda menilai perspektif berikut ini di universitas anda				
	c.2. Motivasi dalam penelitian				
	c.3. Kehadiran dalam konferensi				
	c.4. Tingkat publikasi				
	c.5. Perbandingan dosen dan mahasiswa				
	c.6. Persentasi jumlah doktor				
	c.7. Kualitas fakultas dan status akreditasi				
3.	Pengukuran perspektif proses internal				
	a. Belajar/Mengajar				
	a.1. Kepuasan mahasiswa terhadap kualitas pengajaran				
	a.2. Evaluasi oleh pemeriksa eksternal dan pemberi lapangan pekerjaan				
	a.3. Pengkajian ulang				
	a.4. Kualitas dan tingkat teknologi dari laboratorium, komputer dan perpustakaan				
	b. Kurikulum/Program unggulan				
	b.1. Pengkajian periodik untuk setiap program				
	b.2. Jumlah mata kuliah dan program studi baru yang dikembangkan				
	b.3. Tingkat inovasi				
	b.4. Sejauh mana kurikulum sesuai dengan pendidikan dan kecenderungan pasar.				
	c. Kualitas dan pengembangan fakultas				
	c.1. Rencana pengembangan fakultas dan hasil				
	c.2. Hubungan fakultas dengan dunia bisnis dan industri				
	c.3. Tingkat penggunaan multimedia dalam ruangan kelas				
	d. Efisiensi dan efektivitas pelayanan				
	d.1. Durasi pencapaian gelar				
	d.2. Persentasi mahasiswa yang menyelesaikan kuliah dalam waktu 4 tahun				
	d.3. Persentase anggaran yang diberikan secara langsung untuk pengajaran				
	d.4. Ketersediaan kegiatan magang				
4.	Pengukuran perspektif pembelajaran dan pertumbuhan				
	a. Inovasi pengajaran dan pembelajaran dan pengembangan fakultas				

No	Pernyataan	Respon			
	Bagaimana anda menilai perspektif berikut ini di universitas anda	Sangat Penting	Penting	Kurang Penting	Tidak Penting
No	Pernyataan	Respons			
	Bagaimana anda menilai perspektif berikut ini di universitas anda	Sangat Penting	Penting	Kurang Penting	Tidak Penting
	a.1. Dana hibah untuk penelitian, perjalanan, perpustakaan dan computer				
	a.2. Penilaian pengajaran				
	a.3. Tingkat penggunaan peralatan				
	a.4. Banyaknya inisiatif, mata kuliah, program				
	a.5. Inovasi universitas dibandingkan dengan universitas lain				
	b. Kualitas fasilitas				
	b.1. Ruang kelas yang memadai, peralatan, komputer dan sumberdaya perpustakaan.				
	b.2. Persentase anggaran untuk meningkatkan fasilitas				
	c. Implementasi keputusan strategis				
	c.1. Evaluasi hasil perencanaan strategis				

5. Silakan memberi pendapat dan komentar anda mengenai aspek-aspek lain dari indikator kinerja yang dapat diadopsi oleh universitas yang tidak dicantumkan dalam daftar diatas

Poin D

Model pengukuran kinerja. Silakan beri tanda centang (V) pada bagian: Sangat Setuju, Setuju, Tidak Setuju dan Sangat Tidak Setuju.

No	Pernyataan	Respon			
		Sangat Setuju	Setuju	Tidak Setuju	Sangat Tidak Setuju
	Apakah anda berpendapat bahwa				
1.	Universitas harus mengembangkan model baru dalam pengukuran kinerja.				
2.	Pengukuran kinerja harus dimodifikasi apabila ada perubahan dalam tujuan strategis organisasi				
3.	Universitas menggunakan pengukuran kinerja untuk mengidentifikasi area yang membutuhkan fokus strategis.				

4. Apabila tim perencanaan strategis dan pengukuran kinerja dibutuhkan, para individu yang harus terlibat adalah:

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

5. Menurut anda apa saja hal-hal signifikan yang bisa dimasukkan dalam pengukuran kinerja?

6. Menurut anda, periode yang tepat bagi rencana strategis dan pengukuran kinerja dalam universitas anda adalah? _____ tahun

Poin E

Apabila anda memiliki komentar lebih lanjut yang berkaitan dengan perencanaan strategis dan pengukuran kinerja universitas negeri di Sulawesi, silakan ditulis di bagian yang kosong di bawah ini:

Bagian Tiga

Terima kasih atas bantuan anda dalam mengisi kuesioner ini. Mohon dikembalikan dalam amplop tertutup dan dimasukkan dalam kotak yang telah disiapkan selama 7 hari di kantor dekan fakultas atau di kantor pusat.

Selanjutnya peneliti bermaksud meminta anda untuk berpartisipasi pada fase wawancara penelitian ini. Wawancara ini bersifat sukarela dan memakan waktu sekitar 20 menit dan bertempat di kampus. Wawancara ini dimaksudkan untuk memperoleh penjelasan dan informasi lebih lanjut mengenai perencanaan strategis dan pengukuran kinerja pada universitas negeri di Sulawesi. Data yang diperoleh dari wawancara akan dirahasiakan dan hanya digunakan untuk keperluan studi.

Apabila anda ingin berpartisipasi silakan mengisi formulir persetujuan terlampir. Mohon pisahkan formulir persetujuan wawancara dari kuesioner untuk menjaga kerahasiaan anda dan dimasukkan dalam kotak yang disediakan. Peneliti akan menghubungi anda dalam waktu satu minggu. Terima kasih.

Detail kontak peneliti:**Associate Professor David Gamage**

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 The University of Newcastle, Australia
 Callaghan Campus
 University Drive, Callaghan, NSW 2308, Australia
 Email : David.Gamage@newcastle.edu.au

Dr. Donald Adams

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Elni Jeini Usah MLM Ed.(Hons)

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Proyek ini telah disetujui oleh the University of Newcastle Human Research Ethics Committee, Persetujuan (H-2011-0002). Apabila ada sesuatu dan lain hal mengenai penelitian ini atau ada keluhan sehubungan dengan cara penelitian yang dilaksanakan, silakan ditujukan langsung kepada peneliti atau supervisor proyek penelitian (Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 dan Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916) atau ke Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.:(61)-2-49216333, email: Human.Ethics@newcastle.edu.au.

Appendix 4 Interview Schedule (Indonesian Version)

Rencana Wawancara

PERENCANAAN STRATEGIS DAN PENGUKURAN KINERJA PADA UNIVERSITAS NEGERI DI SULAWESI, INDONESIA

Rencana wawancara ini digunakan untuk menuntun proses wawancara dalam penelitian. Berikut ini terdapat empat pertanyaan yang akan dieksplorasi melalui wawancara perorangan.

Pendahuluan:

- Berterima kasih kepada partisipan
- Memberikan penjelasan singkat mengenai penelitian ini
- Meyakinkan partisipan mengenai kerahasiaan wawancara
- Memperoleh persetujuan untuk merekam proses wawancara

Diskusi:

Pertanyaan penelitian 1.

Bagaimana proses perencanaan strategis di institusi pendidikan tinggi anda dan apakah tujuan dan sasaran dari perencanaan strategis telah sesuai dengan Petunjuk Strategi Jangka Panjang Pendidikan Tinggi?

(Pertanyaan untuk Rektor, Pembantu Rektor, Dekan, Pembantu Dekan)

Topik wawancara:

- Partisipan mengerti mengenai proses perencanaan strategis di universitas.
- Partisipan dapat menggambarkan peranannya dalam proses perencanaan strategis.
- Dapat menjelaskan mengenai rencana jangka panjang, jangka pendek, visi, misi, tujuan dan sasaran.
- Partisipan memiliki pengetahuan umum mengenai Strategi Jangka Panjang Pendidikan tinggi dari DIKTI.
- Menjelaskan integrasi tujuan dan sasaran universitas sesuai dengan petunjuk dari DIKTI.
- Pendapat partisipan mengenai implikasi petunjuk dari DIKTI terhadap perencanaan strategis universitas, proses, tantangan, keuntungan, kerugian dan efektifitas.

Pertanyaan penelitian 2.

Bagaimana implementasi dari perencanaan strategis diintegrasikan dengan kinerja organisasi?

(Pertanyaan untuk Rektor, Pembantu Rektor, Dekan, Pembantu Dekan, Ketua Program)

Topik wawancara:

- Manfaat dari implementasi perencanaan strategis terhadap institusi

- Sistim untuk menyesuaikan perencanaan strategis dengan kinerja organisasi.
- Kemajuan dan pencapaian universitas selama ini.
- Hubungan antara perencanaan strategis dan akreditasi universitas.

Pertanyaan penelitian 3.

Bagaimana hubungan antara perencanaan strategis dan pengukuran kinerja

Pertanyaan penelitian 4.

Apa indikator pengukuran kinerja yang digunakan di institusi pendidikan tinggi negeri di Sulawesi?

(Pertanyaan untuk Rektor, Pembantu Rektor, Dekan, Pembantu Dekan dan Ketua Program)

Topik wawancara:

- Indikator pengukuran kinerja yang telah digunakan selama ini
- Indikator yang digunakan dalam perspektif
 - Keuangan
 - Pelanggan/stakeholder
 - Proses internal
 - Pembelajaran dan pertumbuhan
- Faktor-faktor yang dapat menghalangi dalam mengaplikasikan indikator pengukuran kinerja.

Pertanyaan penelitian 5.

Bagaimana merancang model pengukuran kinerja yang lebih sesuai untuk diimplementasikan dalam institusi pendidikan tinggi di Sulawesi, Indonesia?

(Pertanyaan untuk Rektor, Pembantu Rektor, Dekan, Pembantu Dekan dan Ketua Progam)

Topik wawancara:

- Struktur pengukuran kinerja di universitas
- Tim, individu, department yang harus dilibatkan dalam pengukuran kinerja.
- Hal-hal yang harus dipertimbangkan dan dimasukkan dalam proses pengukuran kinerja dan dokumen.
- Pendekatan untuk mengimplementasikan pengukuran kinerja.
- Tantangan dalam mengimplementasikan pengukuran kinerja
- Menceritakan pengalaman terbaik mengenai implementasi pengukuran kinerja.

Proyek ini telah disetujui oleh the University of Newcastle Human Research Ethics Committee, Persetujuan (H-2011-0002). Apabila ada sesuatu dan lain hal mengenai penelitian ini atau ada keluhan sehubungan dengan cara penelitian yang dilaksanakan, silakan ditujukan langsung kepada peneliti atau supervisor proyek penelitian (Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 dan Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916) atau ke Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.:(61)-2-49216333. email: Human.Ethics@newcastle.edu.au.

Appendix 5

Ethics Approval

HUMAN RESEARCH ETHICS COMMITTEE



Notification of Expedited Approval

To Chief Investigator or Project Supervisor:	Associate Professor David Gamage
Cc Co-investigators / Research Students:	Doctor Donald Adams Ms Elni Usoh
Re Protocol:	Strategic Planning and Performance Measurement in Public Universities in Sulawesi Island, Indonesia
Date:	18-Mar-2011
Reference No:	H-2011-0002
Date of Initial Approval:	18-Mar-2011

Thank you for your **Response to Conditional Approval (minor amendments)** submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under **Expedited** review by the Ethics Administrator.

I am pleased to advise that the decision on your submission is **Approved** effective **18-Mar-2011**.

In approving this protocol, the Human Research Ethics Committee (HREC) is of the opinion that the project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research, 2007, and the requirements within this University relating to human research.

Approval will remain valid subject to the submission, and satisfactory assessment, of annual progress reports.

If the approval of an External HREC has been "noted" the approval period is as determined by that HREC.

The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal *Certificate of Approval* will be available upon request. Your approval number is **H-2011-0002**.

If the research requires the use of an Information Statement, ensure this number is inserted at the relevant point in the Complaints paragraph prior to distribution to potential participants You may then proceed with the research.

Conditions of Approval

This approval has been granted subject to you complying with the requirements for *Monitoring of Progress*, *Reporting of Adverse Events*, and *Variations to the Approved Protocol* as detailed below.

PLEASE NOTE:

In the case where the HREC has "noted" the approval of an External HREC, progress reports and reports of adverse events are to be submitted to the External HREC only. In the case of Variations to the approved protocol, or a Renewal of approval,

you will apply to the External HREC for approval in the first instance and then Register that approval with the University's HREC.

- **Monitoring of Progress**

Other than above, the University is obliged to monitor the progress of research projects involving human participants to ensure that they are conducted according to the protocol as approved by the HREC. A progress report is required on an annual basis.

Continuation of your HREC approval for this project is conditional upon receipt, and satisfactory assessment, of annual progress reports.

You will be advised when a report is due.

- **Reporting of Adverse Events**

1. It is the responsibility of the person **first named on this Approval Advice** to report adverse events.
2. Adverse events, however minor, must be recorded by the investigator as observed by the investigator or as volunteered by a participant in the research. Full details are to be documented, whether or not the investigator, or his/her deputies, consider the event to be related to the research substance or procedure.
3. Serious or unforeseen adverse events that occur during the research or within six (6) months of completion of the research, must be reported by the person first named on the Approval Advice to the (HREC) by way of the Adverse Event Report form within 72 hours of the occurrence of the event or the investigator receiving advice of the event.
4. Serious adverse events are defined as:
 - Causing death, life threatening or serious disability.
 - Causing or prolonging hospitalisation.
 - Overdoses, cancers, congenital abnormalities, tissue damage, whether or not they are judged to be caused by the investigational agent or procedure.
 - Causing psycho-social and/or financial harm. This covers everything from perceived invasion of privacy, breach of confidentiality, or the diminution of social reputation, to the creation of psychological fears and trauma.
 - Any other event which might affect the continued ethical acceptability of the project.
5. Reports of adverse events must include:
 - Participant's study identification number;
 - date of birth;
 - date of entry into the study;
 - treatment arm (if applicable);
 - date of event;
 - details of event;
 - the investigator's opinion as to whether the event is related to the research procedures; and
 - action taken in response to the event.
6. Adverse events which do not fall within the definition of serious or unexpected, including those reported from other sites involved in the research, are to be reported in detail at the time of the annual progress report to the HREC.

- **Variations to approved protocol**

If you wish to change, or deviate from, the approved protocol, you will need to submit an *Application for Variation to Approved Human Research*. Variations may include, but are not limited to, changes or additions to investigators, study design, study population, number of participants, methods of recruitment, or participant information/consent documentation. **Variations must be approved by the (HREC) before they are implemented** except when Registering an approval of a variation from an external HREC which has been designated the lead HREC, in which case you may proceed as soon as you receive an acknowledgement of your Registration.

Linkage of ethics approval to a new Grant

HREC approvals cannot be assigned to a new grant or award (ie those that were not identified on the application for ethics approval) without confirmation of the approval from the Human Research Ethics Officer on behalf of the HREC

Best wishes for a successful project.

Professor Alison Ferguson

Chair, Human Research Ethics Committee

For communications and enquiries:

Human Research Ethics Administration

Research Services
Research Integrity Unit
HA148, Hunter Building
The University of Newcastle
Callaghan NSW 2308
T +61 2 492 18999
F +61 2 492 17164
Human-Ethics@newcastle.edu.au

Linked University of Newcastle administered funding:

Funding body	Funding project title	First named investigator
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Appendix 6 Information Statement and Consent Form (English Version)



Information Letter and Consent Form

The University of Newcastle, Australia
Callaghan Campus
University Drive, Callaghan, NSW 2308, Australia

Associate Professor David Gamage
School of Education, Faculty of Education and Arts
The University of Newcastle
Callaghan, NSW 2308, Australia
Phone: (61)-2-4921-5914
Fax: (61)-2-4921-7887
Email : David.Gamage@newcastle.edu.au

Dr. Don Adams
School of Education, Faculty of Education and Arts
The University of Newcastle
Callaghan, NSW 2308, Australia
Phone: (61)-2-4921-5907
Fax: (61)-2-4921-7916
Email: Donald.Adams@newcastle.edu.au.

Elni Jeini Usuh MLMEd.(Hons)
PhD in Education Candidate
School of Education, Faculty of Education and Arts
The University of Newcastle
Callaghan, NSW2308, Australia
Phone: (61)-432448310
Email: c3069046@uon.edu.au

Information Statement for the Research Project: Strategic planning and performance measurement for public universities in Sulawesi island, Indonesia

Chancellor of Universitas Negeri ____ (University Name) ____

Dear Chancellor,

I am a lecturer at the Universitas Negeri Manado (UNIMA) and I am currently studying PhD in Education at The *University* of Newcastle. I have planned to undertake research for my thesis, which will involve data gathering about strategic planning and performance measurement in your university. The purposes of this research are to examine the process of strategic planning and whether the objectives and goals are congruent with the Higher Education Long Term

Strategy; to evaluate the relationship between strategic planning, implementation and organisational performance; to determine the performance measurement indicators employed by public higher education in Sulawesi, Indonesia; and to design a more appropriate performance measurement model for implementation in public universities in Sulawesi, Indonesia.

This research will be conducted with the guidance of Associate Professor David Gamage and Dr. Don Adams of School of Education the University of Newcastle who are supervising my PhD thesis. The University of Newcastle Ethics Committee has approved this project.

This study will be undertaken in two phases. Firstly, by distributing questionnaires to the administrative and academic staff. In this first phase, the researcher would like to nominate one person in each university to assist with questionnaire distribution. Secondly, by interviewing administrative staff who hold the position as educational leader and have approved to be interviewed.

There is no potential risk of harm to the respondents involved in this study. Their participation is voluntarily. The questionnaire is anonymous and it will not identify respondents or faculties from their answers or results of the study. The University name will be indicated in the questionnaire as background information; however it will remain anonymous when it appears into the Thesis. In the data analysis the university name will be indicated in the letter for example University A, B, C, D and E. The completed questionnaires will be returned in sealed envelopes to the researcher. All staff will be invited for interviews, and the researcher will request permission from respondents to record the interview and the respondent will be given an opportunity to read the interview transcript and provide necessary comments. Copies of the information letters, questionnaires and interview schedules are attached. Raw data from this study will only be accessed by the researcher and the supervisor. Paper copies will be destroyed after the thesis is accepted, and electronic data will be retained within the research data storage system with the University of Newcastle for 5 years.

The findings from this research can provide a basic understanding about strategic planning and performance measurement for public universities as well as a refine model of performance measurement that may suit with the universities within Sulawesi Island. The results of the

research will be reported in a thesis to be submitted as a requirement PhD in Education at The University of Newcastle. A report will also be provided to each university.

I hereby request your permission to conduct this study. Your support and cooperation in this research is very much appreciated. If you do approve this research, please complete the attached consent form and return it to the researcher in the pre paid envelope attached.

Yours Faithfully

Elni Jeini Usoh, MLM Ed.(Hons)

Associate Professor David Gamage
Principal Supervisor

Dr. Donald Adams
Co-Supervisor

This project has been approved by the University of Newcastle Human Research Ethics Committee, Approval (H-2011-0002). Should you have concerns about this research, or you have a complaint about the manner in which the research is conducted, please direct them to the researcher or supervisor of the project (*Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 and Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916*) or to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.:(61)-2-49216333, email: Human.Ethics@newcastle.edu.au.



Consent Form

Associate Professor David Gamage
School of Education, Faculty of Education and Art
The University of Newcastle, Australia
Callaghan Campus
University Drive, Callaghan, NSW 2308, Australia
Email : David.Gamage@newcastle.edu.au

Dr. Donald Adams
School of Education
The University of Newcastle
Callaghan, NSW2308, Australia
Phone: (61)-2-4921-5907
Fax: (61)-2-49217916
Email: Donald.Adams@newcastle.edu.au.

Consent Form for the Research Project:

Strategic planning and performance measurement for public universities in Sulawesi island, Indonesia

Assoc. Prof. David Gamage - Dr. Don Adams - Elni Jeini Usuh MLMEd.(Hons)

I agree for the administrative and academic staffs of the University (University name) to participate in the above research project and give my consent freely.

I understand that the project will be conducted as described in the Information Statement, a copy of which I have retained.

I understand the staff can withdraw from the project at any time and do not have to give any reason for withdrawing.

I consent to allowing the staff to:

- complete questionnaire;
- participate in an interview and having it recorded

I understand that any personal information will remain confidential to the researchers.

I will be given the opportunity to review and edit the transcript of interview.

I have had the opportunity to have questions answered to my satisfaction.

Name : _____

Signature : _____

Date : _____

Please return the consent form in the self addressed prepaid envelope attached

This project has been approved by the University of Newcastle Human Research Ethics Committee, Approval (H-2011-002). Should you have concerns about this research, or you have a complaint about the manner in which the research is conducted, please direct them to the researcher or supervisor of the project (Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 and Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916) or to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.:(61)-2-49216333, email: Human.Ethics@newcastle.edu.au.

Appendix 7 Information Statement and Consent Form (Indonesian Version)



Surat Permohonan dan Formulir Persetujuan

The University of Newcastle, Australia
Callaghan Campus
University Drive, Callaghan, NSW 2308, Australia

Associate Professor David Gamage
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Callaghan, NSW 2308, Australia
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Dr. Don Adams
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Elni Jeini Usuh MLMEd.(Hons)
PhD in Education Candidate
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Phone: (61)-432448310
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Surat Pemberitahuan untuk Proyek Penelitian: Perencanaan Strategis dan Pengukuran Kinerja pada Universitas Negeri di Sulawesi, Indonesia

Kepada Rektor Universitas Negeri _____

Dengan hormat,

Saya adalah salah satu staf pengajar di Universitas Negeri Manado (UNIMA) yang sementara menempuh pendidikan pada program PhD in Education di The University of Newcastle, Australia. Saya merencanakan untuk mengumpulkan data penelitian mengenai perencanaan strategis dan pengukuran kinerja di Universitas yang anda pimpin. Tujuan penelitian ini adalah

untuk mengetahui proses perencanaan strategis dan kongruensi tujuan dan sasaran perencanaan strategis di universitas dengan Strategi Jangka Panjang Pendidikan Tinggi; untuk mengevaluasi hubungan antara perencanaan strategis dengan implementasi dan kinerja organisasi; untuk menentukan indikator pengukuran kinerja yang digunakan oleh universitas negeri dan merancang model pengukuran kinerja yang sesuai untuk diimplementasikan di universitas negeri di Sulawesi.

Penelitian ini dilaksanakan dengan bimbingan Associate Professor David Gamage dan Dr. Don Adams dari School of Education, The University of Newcastle sebagai supervisor. Proyek penelitian telah disetujui oleh Ethics Committee The University of Newcastle.

Penelitian akan dilaksanakan dalam dua fase. Fase pertama adalah dengan mendistribusikan kuesioner kepada staf administrasi dan staf akademik. Untuk tahap ini peneliti bermaksud menominasikan salah satu staf pada masing-masing universitas untuk membantu dalam pendistribusian kuesioner. Fase kedua adalah dengan melaksanakan wawancara dengan staf administrasi yang menjabat sebagai pimpinan dan telah setuju untuk diwawancara.

Tidak ada resiko yang bisa membahayakan responden yang terlibat dalam studi ini. Partisipasi yang diberikan berdasarkan kerelaan masing-masing. Responden tidak akan menuliskan namanya di kuesioner, oleh karena itu jawaban kuesioner dan hasil penelitian tidak akan mengungkapkan identitas responden atau fakultas. Nama universitas akan muncul di kuesioner sebagai latar belakang informasi; tetapi tidak akan diungkapkan pada penulisan thesis. Pada analisis data nama universitas akan diidentifikasi dengan menggunakan huruf misalnya Universitas A, B, C, D dan E. Kuesioner yang telah diisi akan dikembalikan dalam amplop tertutup kepada peneliti. Staf administrasi akan diundang dalam fase wawancara, peneliti akan meminta ijin dari responden untuk merekam proses wawancara dan akan memberikan kesempatan kepada responden untuk merekam proses wawancara dan akan memberikan kesempatan kepada responden untuk membaca catatan wawancara dan memberikan komentar yang diperlukan. Bersama ini dilampirkan salinan surat pemberitahuan, kuesioner dan rencana wawancara. Data sementara dari studi ini hanya bisa diakses oleh peneliti dan supervisor. Salinan pada kertas akan dimusnahkan setelah tesis diterima dan data elektronik akan disimpan selama 5 tahun.

Hasil penelitian ini dapat memberikan pengertian dasar mengenai proses perencanaan strategis dan pengukuran kinerja untuk universitas negeri beserta model pengukuran kinerja yang diperbarui yang bisa sesuai dengan universitas negeri di Sulawesi. Hasil penelitian akan dilaporkan dalam thesis yang merupakan persyaratan pada program PhD in Education di The University of Newcastle, Australia. Laporan yang sama juga akan diberikan untuk masing-masing universitas.

Dengan ini saya memohon ijin dari Rektor untuk mengadakan penelitian. Saya menyampaikan penghargaan yang setinggi-tingginya atas dukungan dan kerjasamanya. Apabila penelitian ini disetujui, mohon mengisi formulir persetujuan terlampir dan dikembalikan kepada peneliti dalam amplop yang telah disediakan.

Hormat kami,

Elni Jeini Usuh, MLM Ed.(Hons)

Associate Professor David Gamage
Principal Supervisor

Dr. Donald Adams
Co-Supervisor

Proyek ini telah disetujui oleh the University of Newcastle Human Research Ethics Committee, Persetujuan (H-2011-002). Apabila ada sesuatu dan lain hal mengenai penelitian ini atau ada keluhan sehubungan dengan cara penelitian yang dilaksanakan, silakan ditujukan langsung kepada peneliti atau supervisor proyek penelitian (Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 dan Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916) atau ke Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.: (61)-2-49216333, email: Human.Ethics@newcastle.edu.au.

Formulir Persetujuan

Associate Professor David Gamage
School of Education, Faculty of Education and Art
The University of Newcastle, Australia
Callaghan Campus
University Drive, Callaghan, NSW 2308, Australia
Email: David.Gamage@newcastle.edu.au

Dr. Donald Adams
School of Education
The University of Newcastle
Callaghan, NSW2308, Australia
Phone: (61)-2-4921-5907
Fax: (61)-2-49217916
Email: Donald.Adams@newcastle.edu.au

Surat Persetujuan untuk Proyek Penelitian

Perencanaan Strategis dan Pengukuran Kinerja pada Universitas Negeri di Sulawesi, Indonesia

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Dengan ini saya memberikan persetujuan bagi para staf administrasi dan staf akademik untuk berpartisipasi dalam proyek penelitian yang disebutkan di atas.

Saya memahami bahwa proyek penelitian ini akan dilaksanakan sesuai dengan yang dijabarkan dalam pernyataan pada surat permohonan yang salinannya ada pada saya.

Saya memahami bahwa para staf sewaktu-waktu dapat mengundurkan diri dari proyek ini kapan saja tanpa harus memberikan alasan.

Saya memberikan persetujuan bagi staf untuk:

- Mengisi kuesioner;
- Berpartisipasi dalam wawancara dan bersedia untuk direkam

Saya mengerti bahwa informasi yang menyangkut hal-hal pribadi akan tetap dirahasiakan oleh peneliti.

Saya memiliki kesempatan untuk mendapatkan jawaban dari pertanyaan yang saya ajukan.

Nama : _____

Tanda tangan : _____

Tanggal : _____

Mohon mengembalikan surat persetujuan ini pada amplop terlampir

Proyek ini telah disetujui oleh the University of Newcastle Human Research Ethics Committee, Persetujuan (H-2011-0002). Apabila ada sesuatu dan lain hal mengenai penelitian ini atau ada keluhan sehubungan dengan cara penelitian yang dilaksanakan, silakan ditujukan langsung kepada peneliti atau supervisor proyek penelitian (Assoc. Prof. David Gamage, tel.: (61)-2-49215914, fax: (61)-2-49217887 dan Dr. Donald Adams, tel.: (61)-2-49215907, fax: (61)-2-49217916) atau ke Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW2308, Australia, tel.: (61)-2-49216333, email: Human.Ethics@newcastle.edu.au.

Appendix 8 Factor Analysis

This appendix relates to Chapter 4, for sections relationship between variables.

The variables for Item A, B, C and D were subjected to a Principal Component Factor Analysis. The factor loadings in yellow colour have values above 0.5 and are considered as practically significant therefore it can be retained. The red colour are the factor loadings below 0.5 so it cannot be retained and should be eliminated.

8.1 Factor Analysis for Item A

Processes of Strategic Planning and Their Congruency with HELTS Guidelines

Rotated Component Matrix^a

	Component		
	1	2	3
A.Q1 Useful of SP	.252	-.055	.725
A.Q2 Existancy of SP	.234	.299	.750
A.Q3 How's the implementation of SP	.093	.338	.727
A.Q4 Process of SP	.193	.733	.261
A.Q5 Goals achievement	.188	.694	.361
A.Q6 Monev of SP objectives and goals	.276	.764	.123
A.Q7 Resources for SP activities	.503	.598	.088
A.Q8 SP goals disseminated	.461	.580	-.031
A.Q9 Institutional research is part of SP process	.586	.251	.332
A.Q10 Allocating resources to improve SP	.688	.256	.269
A. Q11 Changes through evaluation of SP result	.699	.352	.205
A. Q12 HELTS from DGHE has been disseminated	.717	.316	-.024
A. Q13 Consistency vision, mission with HELTS	.709	.109	.336
A. Q14 Consistency objectives and goals with HELTS	.609	.201	.441

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

8.2 Factor Analysis for Item B

Strategic Planning and Organisational Performance

Component Matrix^a

	Component
	1
B.Q1 Improvement of university with SP implementation	.825
B.Q2 Value of SP in organisational Performance	.883
B.Q3 Relationship between SP and org. performance	.811

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

8.3 Factor Analysis for Item C

8.3.1 Performance Measurement Indicators Financial Perspective

Rotated Component Matrix^a

	Component	
	1	2
C.Q1a.1 Financial perspective, surplus rate	.762	.130
C.Q1a.2 Tuition fee	.547	.318
C.Q1a.3 amounts of grants	.832	.231
C.Q1a.4 Business fund	.851	.215
C.Q1b.1 Balance budget	.247	.737
C.Q1b.2 Deficit budget	.286	.424
C.Q1b.3 Funds totally accountable	.224	.791
C.Q1b.4 Efficiency and effectiveness of budget	.098	.822

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

8.3.2 Performance Measurement Indicators Customer/Stakeholder Perspective

Rotated Component Matrix^a

	Component		
	1	2	3
C.Q2a.1 Customer perspective, Number of student	.038	.439	.184
C.Q2a.2 Quality of student	.135	.765	-.063
C.Q2a.3 Market share of student enrolment	.288	.679	.204
C.Q2a.4 Geographic draw area	.063	.393	.547
C.Q2b.1 Graduate effectiveness	.159	.687	.185
C.Q2b.2 Employers survey	.085	.670	.455
C.Q2b.3 Community perception of community and staff	.084	.464	.682
C.Q2b.4 University outreach programs for community	.346	.081	.614
C.Q2b.5 Parents response to university survey	.234	.255	.632
C.Q2c.1 Participation in decision making	.312	.074	.591
C.Q2c.2 Encouragement of research	.628	.137	.318
C.Q2c.3 Attendance of conference	.674	-.128	.491
C.Q2c.4 Level of publications	.768	.083	.273
C.Q2c.5 Student/teacher ratios	.771	.245	.153
C.Q2c.6 Percentage of doctoral	.751	.138	.154
C.Q2c.7 Quality of faculty and accreditation status	.722	.260	-.004

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

8.3.3 Performance Measurement Indicators Internal Process Perspective

Rotated Component Matrix^a

	Component	
	1	2
C.Q3a.1 Internal Process perspective, students satisfaction	.727	.073
C.Q3a.2 Evaluation by external reviewers and employers	.675	.319
C.Q3a.3 Peer review	.669	.314
C.Q3a.4 Quality and technological level of computer and library	.567	.273
C.Q3b.1 Periodic review of each program	.534	.503
C.Q3b.2 Number of new courses developed	.317	.609
C.Q3b.3 Degree of innovation	.502	.567
C.Q3b.4 Updated curriculum with educational business and commercial trends	.559	.415
C.Q3c.1 Faculty development plans and outcomes	.689	.239
C.Q3c.2 Contact with business and industry	.468	.428
C.Q3c.3 Multimedia used in classroom	.676	.343
C.Q3d.1 Degree duration	.142	.793
C.Q3d.2 Percentage of students completing program in 4 years	.264	.736
C.Q3d.3 Percentage of budget for learning	.358	.699
C.Q3d.4 Availability of internships	.252	.720

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

8.3.4 Performance Measurement Indicators Learning and Growth Perspective

Component Matrix^a

	Component
	1
C.Q4a.2 Teaching assessment	.823
C.Q4.c1 Evaluation of SP result	.812
C.Q4b.1 Adequacy of classroom, equipment, computers and library resources	.786
C.Q4a.3 Level of equipment	.784
C.Q4b.2 Percentage of budget for improved facilities	.775
C.Q4a.5 University innovation versus other universities	.766
C.Q4a.4 Number of new initiatives, courses, program	.758
C.Q4a.1 Learning and Growth perspective, grants for research, travel, library, computer	.709

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

8.4 Factor Analysis for Item D

Features in Performance Model

Component Matrix^a

	Component
	1
D.Q1 A new model of performance measurement should be developed	.814
D.Q2 PM should be modified when strategic objectives change	.858
D.Q3 University utilise performance measurement to identify a strategic focus	.836

Extraction Method: Principal Component Analysis.

a. 1 components extracted.