

# Building the Balances Scorecard for the University Case Study: The University in Thailand

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## Introduction

To ensure academic excellence in a time of increasing competition in the higher education sector, a university must apply an appropriate performance measurement system that reflects and gives the opportunity to improve on its research and teaching quality, and on the quality of its facilities and staff. Such a performance measurement system should also incorporate the perspectives of all university stakeholders. The performance of a university must be evaluated via an appropriate method and the adoption of a robust performance measurement system can be key to improving the competitive status of a university, both locally and internationally, while at the same time maintaining its academic excellence.

The Balanced Scorecard is a widely used method to diagnose and improve on an organisation's performance. It is a management tool that translates an organisation's mission and strategy into a comprehensive set of performance measures that provide a framework for a strategic management and measurement system. Developed by Robert Kaplan and David Norton in 1992 (Kaplan and Norton, 1992), the Balanced Scorecard methodology is a comprehensive approach that analyses an organisation's overall performance from four perspectives: financial, customer, internal business processes, and learning and growth. As a structure, the Balanced Scorecard cascades an organisation's mission and strategies into objectives, measures, targets and initiatives within each perspective. Links are established between each perspective in the Balanced Scorecard to represent causal relationships. For example, improvement in learning and growth may lead to better internal business processes, resulting in customer satisfaction, which in turn, leads to good financial performance.

The development of the Balanced Scorecard can be broken down into three distinct generations (Cobbold and Lawrie, 2002). The 1<sup>st</sup> generation Balanced Scorecard was initially described as a simple one with four perspectives. In this generation, Kaplan and Norton primarily focused on the selection of a limited number of measures in each perspective (Kaplan and Norton, 1992). The concept of strategic objectives and causality was highlighted in the 2<sup>nd</sup> generation Balanced Scorecard. In this generation, the Balanced Scorecard was described as an element of a strategic management system (Kaplan

and Norton, 1996). The concept of the 'strategy map' was also introduced in this generation (Kaplan and Norton, 2001). The concept of the destination statement was introduced in the 3<sup>rd</sup> generation Balanced Scorecard. The destination statement describes the consequences of implementing the strategic objectives at a particular future date (Cobbold and Lawrie, 2002). It assists in the process of selecting strategic objectives, the design of causality between those objectives, and the setting of the targets.

Although the concept of the Balanced Scorecard is very popular in the business world, it is applied less frequently to higher education, particularly in Thailand. Here most management techniques used in state universities are based on the government budgeting system. However a de-bureaucratisation process is underway for state universities, and it is worth investigating the benefits the Balanced Scorecard as a management tool could achieve should it be applied.

In this study, Thammasat University, one of the Thailand's largest and most highly thought of universities is chosen as a case study. It is chosen because it is able to represent a typical public university in Thailand. It is also the place where the author works as a lecturer, making the process of data collection more convenient. The quality of the data collected is believed to be higher than that available from other universities. Thammasat University is also searching for a new performance measurement system, making implementation of the Balanced Scorecard more likely. The objectives of this study are first to explore the uses of the Balanced Scorecard in other foreign universities,

then to design the Balanced Scorecard based on the perception of Thammasat University's stakeholders and to investigate the perception of management staff in the University based on the designed Balanced Scorecard. These initial activities will undergird the main contribution of this study, that is, the creation of a Balanced Scorecard and a strategy map of the University. The scorecard and the map will thus be based on input from stakeholders, a practice rarely reported in the literature, and this should ease the aspects of change involved in its application.

### Research Questions and Methodology

This study attempts to investigate the possibility of applying the Balanced Scorecard to a university in Thailand by choosing Thammasat University as a case study. The questions for this research can be separated into three main parts:

1. How do other universities apply the Balanced Scorecard?
2. What does the proposed model of the Balanced Scorecard for the University based on the perception of Thammasat University's stakeholders look like?
3. What is the perception of Thammasat University's management staff on the use of the Balanced Scorecard for the University?

For the first part, questionnaires were distributed to staff in foreign universities that currently apply or were mentioned in connection with the Balanced Scorecard. The names of these universities were obtained by asking academics and practitioners in the Performance Measurement Association and via Internet search. There are currently twenty-nine

universities in English-speaking countries that use or are mentioned in connection with the Balanced Scorecard. Twenty-nine questionnaires were then distributed directly to the unit in each university that uses the Balanced Scorecard. In cases where the Balanced Scorecard was used for the university as a whole, the questionnaire was distributed to the member of senior management that is responsible for its implementation. The questionnaire was constructed on the website and an email was sent to staff in the unit that uses the Balanced Scorecard in each university asking them to fill in the questionnaire, with the address of the website provided. The data obtained from each questionnaire was gathered from the website after the deadline was passed. This method is selected because it enables the questionnaire to be directed to the most appropriate person, the one with experience in using the Balanced Scorecard for a university. The information gained in this part is used as a basis for the study in the second part.

In the second part, the methods used to collect data are both qualitative and quantitative, including interviews and the questionnaire. Ten in-depth interviews were conducted to gather qualitative data. Those interviewed are Thammasat University stakeholders, comprising of academic staff, students, management, administrative staff, managers, and financial supporters. All of these stakeholders were carefully selected based on knowledge of measurement of university performance. Since it was necessary that these interviewees be familiar with the Balanced Scorecard methodology, valuable insights of the usages of this tool were provided. Undergraduate and postgraduate

students were carefully selected according to their knowledge of this method, which can be measured by way of asking questions and reviewing their academic record with regards to subjects closely related to performance measurement frameworks. Before inviting administrative staff and financial supporters to the interview session, their knowledge of the Balanced Scorecard was tested to ensure that they possessed an appropriate level of knowledge and thereby provide useful opinions on its use in the University.

Ninety-one questionnaires were distributed to all one hundred and eight academic staff within the Faculty of Commerce and Accountancy; thirty-nine were returned, giving a return rate of 43%. The reason the questionnaires were distributed only to the academic staff in the Faculty of Commerce and Accountancy at this stage is that all are considered experts in the performance measurement framework, making them very familiar with the concept of the Balanced Scorecard and able to provide invaluable insight into the usage of this method. Based on results from interviews and questionnaires, the data was grouped into objective categories, which were later used to construct the model, including the strategy map of the University. This model, with the explanation, was then resubmitted to the informants

for further comments. The comments were then used to improve the use of the model.

For the third part, two hundred and fifty questionnaires were distributed to staff holding management positions at Thammasat University; these were either mailed or delivered by hand. Ninety-one were returned, giving a return rate of 36%. In this part, staff holding management positions refers to both academic and nonacademic staff holding one of these positions: Rector, Associate Rector, Assistant Rector, Dean, Associate Dean, Assistant Dean, Head of Department, Director of institutes or centres, Head of supporting unit or any other type of unit. The reason only management staff was selected is that management staff are potential users of the model and also responsible for establishing the performance measurement framework. The method used is stratified random sampling, in which the study population is grouped according to the academic-nonacademic management staff. In the case of Thammasat University, the total number of management staff (both academic and nonacademic) is 391. Out of these, 70% are academic and 30% nonacademic staff. This means there are 274 academic staff holding management positions and 117 nonacademic staff holding management positions.

**Table 1** The population and sampling for the survey at Thammasat University

Type of staff	Population		Sample		Percentage of sample to population
	Number	Percentage	Number	Percentage	
Academic	274	70%	160	64%	58%
Nonacademic	117	30%	90	36%	77%
<b>Total</b>	<b>391</b>	<b>100%</b>	<b>250</b>	<b>100%</b>	<b>64%</b>

By applying the formula for sample size with a margin of error not exceeding 5% and with a 95% level of confidence, the total sample number is 250 with 160 being academic staff and 90 being nonacademic staff. Table 1 illustrates the population and sampling of the survey.

### Application of the Balanced Scorecard at other Universities

The concept of applying the Balanced Scorecard to a university is increasingly popular among researchers. There are many studies related to this concept, including the uses of the Balanced Scorecard for university management (Stewart and Carpenter-Hubin, 2000; Lawrence and Sharma, 2002; Ruben, 1999), for academic departments (Haddad, 1999; Bailey et al., 1999; Chang and Chow, 1999), for university research (Pursglove and Simpson, 2000), for university teaching (Southern, 2002), and for internal service providers in a university (Purslove, 2002). Not only is the concept of the Balanced Scorecard widely praised among academic researchers, but it is also being increasingly applied in universities.

The survey on the uses of the Balanced Scorecard for a university obtained by submitting questionnaires to management staff in twenty-nine universities that use or are mentioned in connection with the Balanced Scorecard showed that only nine universities confirmed its use; of the remainder, two denied implementing the Balanced Scorecard, one said that the Balanced Scorecard had been used previously but was not now in use, one respondent seemed unclear as to whether the university had

implemented the Balanced Scorecard or not. Of the universities for which questionnaires were not returned, thirteen presented their Balanced Scorecard in their websites, but another three universities gave no evidence of its use in their websites.

In total there are twenty-two universities using the Balanced Scorecard. Seventeen of these universities are located in the United States, two are in the United Kingdom, two are in Australia, and one in Canada. Eleven universities apply the Balanced Scorecard only to their supporting units such as business and administration service division or campus auxiliary service. Eight universities apply the Balanced Scorecard for the whole university. Three universities apply it to the library. The list of twenty-two universities that apply the Balanced Scorecard based on responses to the questionnaires and evidence found in individual websites is presented in Table 2.

Although more universities are applying the Balanced Scorecard most, especially those in the United States, are applying it only to revenue-generating units rather than to academic functions. One possible explanation for this is that the Balanced Scorecard has been historically used primarily in commercial entities, so it is first being put to the test in commercial departments rather than academic ones. In addition, when applying the Balanced Scorecard at universities, a strategy map of the entire university is rarely defined. Most universities that apply the Balanced Scorecard for the university as a whole categorise the performance measures into the four prescribed perspectives, but

Table 2 A list of universities that currently apply the Balanced Scorecard

University	Country	Unit that implements the Balanced Scorecard
1. University of California at San Diego	US	Business Affairs
2. University of California at Davis	US	Division of Administration
3. University of California at Berkeley	US	Business and Administration Services Division
4. University of California at Los Angeles	US	Administrative Information System, Business Administration Service
5. University of California at Irvine	US	Division of Business and Administration Services
6. University of California at Santa Cruz	US	Business and Administration Service
7. University of California at San Francisco	US	Campus Auxiliary Services
8. California State University at Northridge	US	Administration and Finance
9. California State University at San Marcos	US	Finance and Administrative Service
10. California State University at San Bernardino	US	Administration and Finance
11. Florida International University	US	Entire university
12. University of Louisville	US	Entire university
13. University of Vermont	US	Entire university
14. University of Akron	US	Entire university
15. University of Virginia	US	Library
16. Fort Heys State University	US	Entire university
17. University of Florida	US	Library
18. University of Edinburgh	UK	Entire university
19. Glasgow Caledonian University	UK	Entire university
20. Deakin University	Australia	Library
21. Bond University	Australia	Entire university
22. Carleton University	Canada	Finance and Administration

fail to provide a causal linkage to strategic objectives of those measures. There was also no evidence that a university's stakeholders are involved in the process of building the Balanced Scorecard. This study therefore seeks to balance these shortcomings by constructing a strategy map of Thammasat University based on opinions on strategic objectives obtained from university stakeholders.

### Building the Balanced Scorecard for Thammasat University

The results of the interviews of the University's stakeholders and questionnaires distributed to academic staff reveal possible measures for each perspective of the Balanced Scorecard. These include all measures proposed by interviewees and all measures that pass the level of 50% based on the opinions of respondents to the questionnaires. The selected measures for each perspective are presented in Table 3.

There are twenty-eight measures included in the Balanced Scorecard: eight in the financial perspective, eight in the customer perspective, nine in the internal business process perspective, and three in the learning and growth perspective. Out of these, seven were proposed by both interviewees and questionnaire respondents. These are:

- Operating expense per full time equivalent students (in the financial perspective)
- Percentage of graduates employed within one year (in the customer perspective)
- Number of publications per full time lecturer (in the customer perspective)

- External research grants per full time lecturer (in the customer perspective)
- Staff-student ratio (in the internal business process perspective)
- Student opinions of lecturer teaching efficiency (in the internal business process perspective)
- Number of computers per full time student equivalent (in the internal business process perspective)

Based on these results, measures are then grouped according to their objectives. In the customer perspective, there are three objectives: quality of graduates, quality of research, and quality of academic service to the community. In the internal process perspective, measures are again categorised into three objectives: quality of learning support, quality of academic staff, and quality of the learning process. Measures in learning and growth perspective are grouped into quality of the quality assurance system, quality of planning, and quality of staff development. In final area, financial perspective, the measures are grouped into cost focus, revenue focus, and training and development focus. The measures in the four perspectives of the Balanced Scorecard are summarised in Table 4.

The strategic objective of each of these measures also dictates a cause-and-effect relationship, and these are illustrated in the University's strategy map shown in Figure 1. These measures consist of performance drivers and outcomes. They are derived directly from stakeholders' opinion, so implementation is likely to be successful as the stakeholders are involved from

Table 3 Measures selected for each perspective of the Balanced Scorecard (continued)

Measures	Result from interview: Included in the Balanced Scorecard?	Result from questionnaire	
		Included in the Balanced Scorecard?	% of respondents
<b>Customer Perspective</b>			
Percentage of graduates gaining employment within one year	Yes	Yes	69.2%
Percentage of graduates going for further study within one year	No	Yes	69.2%
Percentage of graduates receiving first-class honours	Yes	No	N/A
Percentage of graduates completing within the normal time period	Yes	No	N/A
Number of activities/projects for academic service to the community	Yes	No	N/A
Number of publications per full time lecturer	Yes	Yes	66.7%
Internal research grants per full time lecturer	No	Yes	59.0%
External research grants per full time lecturer	Yes	Yes	59.0%
<b>Internal Business Process Perspective</b>			
Staff-student ratio	Yes	Yes	56.4%
Percentage of lecturers with doctoral degree or equivalent	Yes	No	N/A
Student opinions on lecturer's teaching efficiency	Yes	Yes	59.0%
Number of computers per full time student equivalent	Yes	Yes	64.1%
Number of hours for library and computer service	Yes	No	N/A
Number of computer network connections	Yes	No	N/A
Number of student activities/projects per total students	No	Yes	64.1%
Percentage of lecturers who hold an academic position	No	Yes	61.5%
Number of national and international awards related to the learning process	No	Yes	56.4%



Table 4 Measures in each perspective of the Balanced Scorecard

Perspectives	Measures
Customer	<b>Quality of graduates</b>
	1. Percentage of graduates employed within one year
	2. Percentage of graduates going for further study within one year
	3. Percentage of graduate receiving first-class honours
	4. Percentage of graduates completing their course of study within the allotted time
	<b>Quality of research</b>
	5. Number of publications per full time lecturer
	6. Internal research grants per full time lecturer
	7. External research grants per full time lecturer
	<b>Quality of academic service to the community</b>
8. Number of activities/projects for academic service to the community	
Internal process	<b>Quality of learning support</b>
	9. Number of computers per full time student equivalent
	10. Number of hours of library and computer service
	11. Number of computer network connections
	<b>Quality of academic staff</b>
	12. Percentage of lecturers holding doctoral degree or equivalent
	13. Student opinions on lecturer teaching efficiency
	14. Percentage of lecturers holding academic positions
	<b>Quality of the learning process</b>
	15. Staff-student ratio
16. Number of student activities/projects per total students	
17. Number of national and international awards related to the learning process	
Learning and growth	<b>Quality of quality assurance (QA) system</b>
	18. Number of units passing an external quality assurance assessment
	<b>Quality of planning</b>
	19. Percentage of plans/projects that follow the University's development plan
	<b>Quality of staff development</b>
20. Number of staff-training hours	

Perspectives	Measures
Financial	<b>Cost focus</b>
	21. Operating expense per full time equivalent student
	22. Percentage of staff salary per total operating expense
	23. Percentage of management staff salary per total operating expense
	24. Percentage of staff salary per total number of graduates
	25. Percentage of central administrative expense per total operating expense
	<b>Revenue focus</b>
	26. Percentage of total income per total operating expense
	<b>Training and development focus</b>
	27. Operating expense for academic staff development per total operating expense
	28. Operating expense for teaching and learning development per total operating expense

early design stages. Although Kaplan and Norton (2001) propose that building the Balanced Scorecard should be a top-down process, this study also indicates that a bottom-up approach is also possible. A strategy map based on the perception of stakeholders also provides useful information to top management when building a new strategy or when revising an existing one.

### The Perception of the use of the Balanced Scorecard

Based on results from questionnaires distributed to management staff in Thammasat University, most are dissatisfied with the current performance measurement framework in the University. They believe that a new performance measurement framework is urgently required. The concept of the Balanced Scorecard is widely recognised among the management staff. It is generally perceived by University management staff as being of benefit to the University. This may be because Thai public universities are currently undergoing the process

of de-bureaucratisation and staff believe that this should be accompanied by a major change in management processes. These changes should include the introduction of a performance measurement system to enable a university to survive under increasing competitive pressure. Thai culture also plays a very important role here. Most Thai people have an attitude whereby an individual tries to restrain his own interest or desire in situations where there is a possibility of conflict or where there is a need to maintain a good relationship (Holmes and Tangtongtavy, 1996). One obvious example is the reluctance to evaluate an individual or unit's performance without any support from the system. Most Thai organisations, including universities, must have a system established to measure individual or unit performance. Based on the desire for a new performance measurement system that can also be used for the performance evaluation of the individual or unit, the concept of the Balanced Scorecard is therefore very welcomed by University staff.

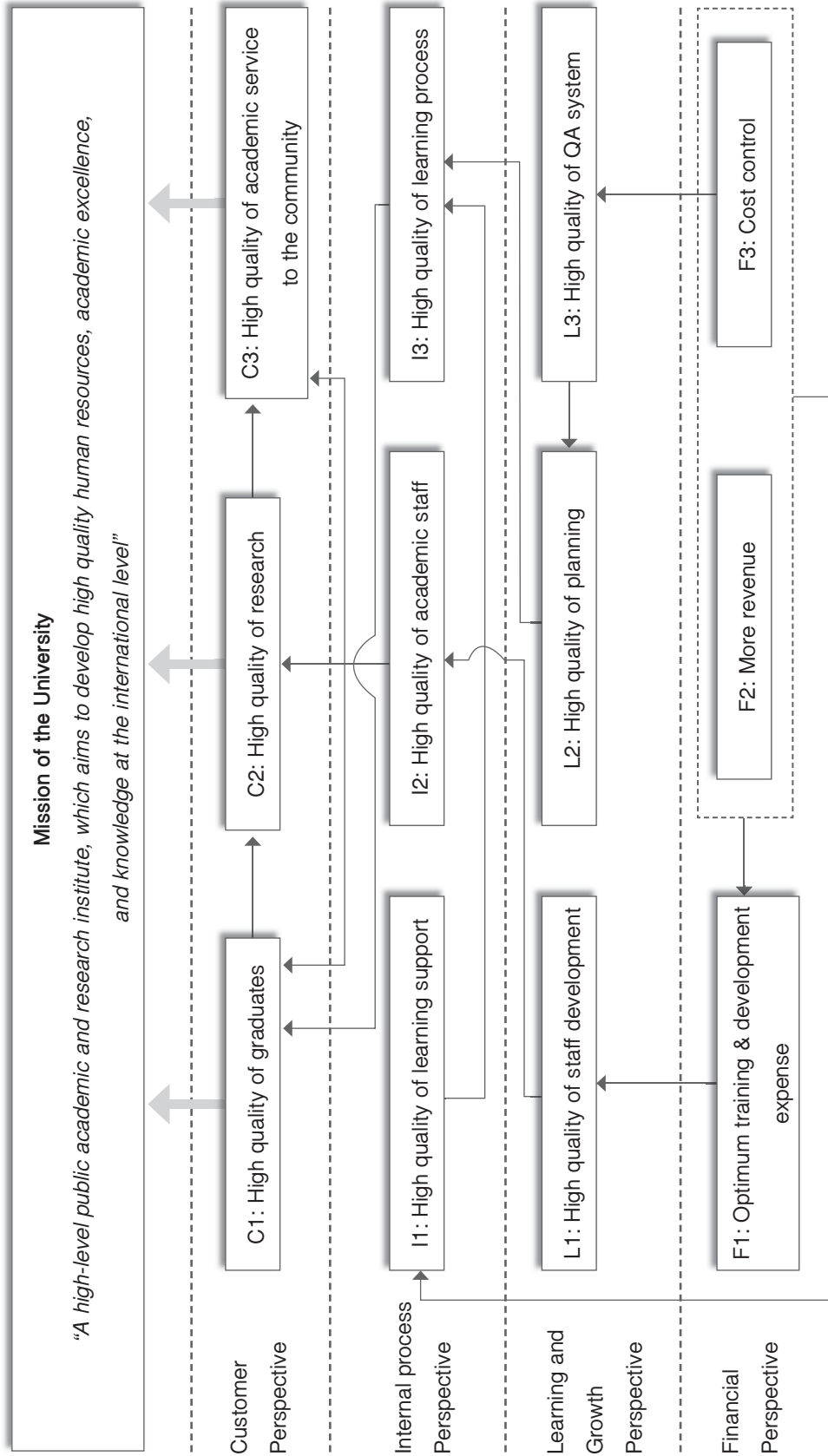


Figure 1: Strategy map of Thammasat University

The results of the survey of management staff are summarised in Table 5.

### Conclusion

This paper has attempted to present the possibility of applying the concept of the Balanced Scorecard as a management tool within the case study university in Thailand, Thammasat University. The paper explores the use of the Balanced Scorecard in other universities and finds that, although universities are increasingly applying the

Balanced Scorecard, there is no evidence that strategy maps based on university’s stakeholders ‘perceptions’ are created. This study therefore builds the Balanced Scorecard and strategy map of the University based on input from the University’s stakeholders. This paper provides a guideline for developing a Balanced Scorecard that will help translate and implement strategies of a university for the benefit of all stakeholders. It is hoped that this study will provide useful information for developing the university sector in the future.

**Table 5 The perception of the uses of the Balanced Scorecard**

Topic	Questionnaire Results
Satisfaction with the existing performance measurement framework	<ul style="list-style-type: none"> <li>■ Very satisfied — 2.2%</li> <li>■ Satisfied — 16.5%</li> <li>■ Neutral — 31.9%</li> <li>■ Unsatisfied — 36.3%</li> <li>■ Very unsatisfied — 9.9%</li> </ul>
Urgency of new performance measurement framework	<ul style="list-style-type: none"> <li>■ Very urgent — 22%</li> <li>■ Urgent — 42.9%</li> <li>■ Neutral — 19.8%</li> <li>■ Not urgent — 9.9%</li> <li>■ Not urgent at all — 1.1%</li> </ul>
Awareness and knowledge of the concept of the Balanced Scorecard	<ul style="list-style-type: none"> <li>■ 66% have heard the term ‘Balanced Scorecard’.</li> <li>■ 9.9% know it very well.</li> <li>■ 44% know only part of it.</li> <li>■ 12.1% do not know what it is.</li> </ul>
Should the Balanced Scorecard be implemented within the University?	<ul style="list-style-type: none"> <li>■ 49.5% agree</li> <li>■ 35.2% neither agree nor disagree</li> <li>■ 8.8% disagree</li> </ul>

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