

# การพัฒนารูปแบบการบริหารงานวิชาการ มหาวิทยาลัยเทคโนโลยีราชมงคลสุวรรณภูมิ

## A Development of Academic Administration Model at Rajamangala University of Technology Suvarnabhumi

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### บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาสภาพและปัญหาการบริหารงานวิชาการมหาวิทยาลัยเทคโนโลยีราชมงคลสุวรรณภูมิ และพัฒนาแบบการบริหารงานวิชาการมหาวิทยาลัยเทคโนโลยีราชมงคลสุวรรณภูมิ การวิจัยดำเนินการในลักษณะการวิจัยและพัฒนา ซึ่งมีการดำเนินการวิจัยมี ๒ ขั้นตอน ขั้นตอนที่ ๑ ศึกษาสภาพและปัญหาการบริหารงานวิชาการ เครื่องมือที่ใช้เป็นแบบสอบถามการบริหารงานวิชาการ แบ่งออกเป็น แบบสอบถามเกี่ยวกับข้อมูลทั่วไปของผู้ตอบแบบสอบถามซึ่งเป็นแบบสอบถามประเภทตรวจสอบรายการ และแบบสอบถามเกี่ยวกับสภาพและปัญหาการบริหารงานวิชาการซึ่งเป็นแบบสอบถามประเภทมาตราส่วนประมาณค่า ๕ ระดับ การเก็บข้อมูลการวิจัยมีลักษณะเชิงปริมาณและเชิงคุณภาพ ขั้นตอนที่ ๒ การพัฒนาแบบการบริหารงานวิชาการ ผู้วิจัยได้พัฒนาขึ้นจากข้อมูลการสำรวจความคิดเห็น การวิเคราะห์เอกสารและการสนทนากลุ่ม พร้อมกับเอกสารประกอบรูปแบบ และแบบประเมินรูปแบบที่ใช้แบบมาตราส่วนประมาณค่า ๕ ระดับ

ผลการวิจัย พบว่า จากการศึกษาสภาพและปัญหาที่พบจากการบริหารงานวิชาการทั้ง ๖ ด้าน ได้แก่ ด้านหลักสูตร ด้านการจัดการเรียนการสอน ด้านส่งเสริมและควบคุมงานวิชาการ ด้านการบริการวิชาการ ด้านการวัดและประเมินผล ด้านการนิเทศและพัฒนาบุคลากร ในภาพรวมอยู่ในระดับมาก มีค่าเฉลี่ยเท่ากับ ๓.๕๘ และอาจารย์ในมหาวิทยาลัยที่มีเพศ ระดับการศึกษา ประสบการณ์ในการทำงาน ต่างกัน มีความคิดเห็นเกี่ยวกับการบริหารงานวิชาการทั้ง ๖ ด้านไม่แตกต่างกัน ส่วนการพัฒนาแบบการบริหารงานวิชาการนั้นจะนำผลการศึกษาสภาพและปัญหา ตลอดจนการวิเคราะห์กระบวนการพัฒนาการบริหารงานวิชาการ โดยใช้การบริหารงานเชิงกลยุทธ์และการบริหารงานคุณภาพมาเป็นกรอบในการร่างรูปแบบการบริหารงานวิชาการซึ่งเป็นรูปแบบในเชิงความคิด (conceptual model) มีส่วนประกอบดังนี้ (๑) การบริหารงานวิชาการใน ๖ ด้าน (๒) กำกับกับการบริหารเชิงนโยบายในแต่ละด้านโดยใช้การบริหารงานเชิงกลยุทธ์ ๖ ชั้น และ (๓) การกำหนดวิธีปฏิบัติในการบริหารงานวิชาการโดยใช้การบริหารงานคุณภาพกับองค์ประกอบย่อยที่เป็นผลจากการวิจัย และผลการประเมินรูปแบบการบริหารงาน

วิชาการมหาวิทยาลัยเทคโนโลยีราชมงคลสุวรรณภูมิมีความเห็นว่าจะสามารถนำไปใช้ได้จริงมากที่สุด  
มีค่าเฉลี่ยเท่ากับ ๔.๗๖

## Abstract

The research study was to investigate academic administration problems and develop an academic administration model at Rajamangala University of Technology Suvarnabhumi. This research and development was accomplished in two phases. The problems of the academic administration was investigated in phase 1. The model of academic administration was developed in phase 2. The needs survey, document analysis and focus group discussion were collected including supplementary documents and the model assessment form with a 5-point rating scales.

The research instruments used were the academic administration questionnaire, which was a component of the personal information and the academic administration problems. Data collection was used both quantitatively and qualitatively.

The result revealed that the six problem areas of academic administration were found namely in curriculum, learning and teaching, promotion and control of academics, academic services, measurement and evaluation, supervision and personnel development, were high ( $\bar{X}=3.58$ ), and the lecturers' opinions on the six problem areas of academic administration did not differ in relation to gender, level of education, or work experience. The result of study and analysis of the process of academic administration were developed with the model of strategy and quality management towards the conceptual model, which consisted of (1) the six areas of academic administration (2) the six steps of policy control in strategy administration and (3) designing the academic administration process by quality management. Lastly, the assessment of the academic administration of Rajamangala University of Technology Suvarnabhumi model was the most agreed on which can be implemented ( $\bar{X}=4.76$ ).

**คำสำคัญ:** รูปแบบการบริหารงานวิชาการ/มหาวิทยาลัยเทคโนโลยีราชมงคลสุวรรณภูมิ

**Keywords:** MODEL OF ACADEMIC ADMINISTRATION / RAJAMANGALA UNIVERSITY OF TECHNOLOGY SUVARNABHUMI

## Introduction

Development that reaches the stated goals is dependent on qualified personnel, most of whom are well educated. A good education is defined as a combination of various elements, one of the most significant of which is an effective academic management system, which builds and enhances the abilities and personal characteristics of learners. Academic management is very important to education and educational institutes, especially higher education institutes which need to serve a wider range of academic purposes. Academic standards and the quality of academic work in higher education can be determined by curriculum, teaching and studying management, academic measurement and evaluation, academic services and personnel development (Preyaporn Wonganuroj, 1992: 17-18). Similarly, Uthai Boonpresert (1997: 82) considered academic work as the center of an educational institute's achievement and all other work as support. Therefore, to develop educational quality, an institute must be student-centered and focus on learners' learning.

Rajamangala University of Technology Suvarnabhumi is a public higher education institute consisting of 4 campuses: Phra Nakhon Si Ayutthaya Hanta Campus, Phra

Nakhon Si Ayutthaya Wasukri Campus, Nonthaburi Campus, and Supanburi Campus. Each campus awards diplomas, certificates and bachelor's degrees in engineering, architecture, industrial education, agriculture, science, liberal arts, and business administration, and graduate degrees in business administration.

Higher education standards for internal quality audit assessment, the Higher Education Commission office, Jun 27 2008 assessed the university administration in term of input process and outcome. The input of university are not able to be standardized as follow the three standard indicators that is 1) The ratio of lecturers and students. 2) The percentage of full-time lecturers (provide also ratio Ph.D : Masters : Bachelors degree. 3) The percentage of academic titles (provide also Prof. : Assos.Prof. : Asst.Prof.) In addition, for the percentage of lecturers for academic services providing to society should be improved. In term of the four nonstandardized indicators of outcome that is 1) The percentage of the objective achievement follow as the annual operation plan. 2) The percentage of the Bachelor's degree graduates who can secure jobs and who can get the standard salary. 3) The percentage of the production of research and creative works domestically and

internationally 4) The percentage of the successful level of academic or professional work in domestically and internationally. (Office of Quality Assurance 2008: 8-27). And the second external quality audit assessment, the Office of National Education Standards and Quality Assessment should come up to strengthening the academic which take place the lecturers' trust and acceptance. Furthermore, the number of academic and professional service activities projects responding to strengthening the society, including developing Rajamangala University of Technology Suvarnabhumi as the academic and professional service resources in country and international (Office of National Education Standards and Quality Assessment. 2007: 15-42). Additionally, the result was shown that the 2,200 students received the GPA. Below 2.00 from the all of students 10,084 students (22.01%). (Office of Academic Promotion and Registration 2008: 8-27).

From internal quality audit assessment of the Higher Education Commission Office, the second external audit assessment in the Office of National Education Standards and Quality Assessment and the numbers of students who got GPA. Below 2.00 can be identified of the operation plan in line with the academic administration. Also, the study outcomes was illustrated on the education qualities towards the academic

works from the institutes. Rung Kaewdang (1998: 21) cited that the effectiveness of academic administration by the administrator's performance highly for the students. All of these would take place the education quality development in order to achievement. Utai Boonprasert (1997: 25) said that academic work is the most important for the institute.

To shed light on the problems affecting institutes of higher education and to help them achieve their academic goals, the researcher is motivated to study existing conditions and problems facing academic administrators and to develop a model for more effective academic administration.

## **Objectives**

2.1 To investigate the conditions and problems of academic administration at Rajamangala University of Technology Suvarnabhumi.

2.2 To develop an academic administration model for Rajamangala University of Technology Suvarnabhumi.

## **Research Methodology**

The design for an academic administration model at Rajamangala University of Technology Suvarnabhumi was developed as follows:

## 1. Population and sampling

This study was divided into 2 phases.

1.1 Phase one examined the conditions and problems concerning academic administration at Rajamangala University of Technology Suvarnabhumi.

1.1.1 Population: The population in the first phase consisted of a group of 54 administrators: president, vice presidents, deans, and deputy deans, director of academic promotion and registration, director of the research institute, heads of department and 489 lecturers from every faculty.

1.1.2 Samples: The samples were 48 administrators who were selected by a purposive sampling method and 214 lecturers from every faculty selected by using the sample size Table of Krejcie & Morgan.

1.2 Phase two was to develop a model for academic administration at Rajamangala University of Technology Suvarnabhumi by focus group discussion technique.

1.2.1 Population: The population consisted of experts in the field of academic administration.

1.2.2 Samples: The samples were 12 experts in academic administration who were selected by purposive sampling to

evaluate the academic administration model.

## 2. Research instruments

In order to develop an academic administration model for Rajamangala University of Technology Suvarnabhumi, the researcher designed a tool. The design comprised these two steps:

**Step 1:** Study conditions and problems concerning academic administration, using a questionnaire that consisted of two parts:

Part 1. General information of respondents. (check list)

Part 2. Problems concerning academic administration. (5-level rating scales)

**Step 2:** Develop an academic administration model. The tool used in this step consisted of two parts as described below:

Part 1: An academic administration model that has been compiled on the basis of the theories developed for use in management in response actual practices, namely: curricula, learning and teaching management, promotion and control of academics, academic services, measurement and evaluation, supervision and personnel development;

Part 2: Evaluation of the academic administration model for Rajamangala University of Technology Suvarnabhumi using a 5-level rating scale.

### 3. Data collection

3.1 The data on problems concerning academic administration at Rajamangala University of Technology Suvarnabhumi was obtained by means of a questionnaire distributed to and collected from 48 administrators and 214 lecturers.

3.2 The development of an academic administration model was done by:

3.2.1 Inviting experts to a focus group discussion. Permission letters were sent from the Faculty of Technical Education at King Mongkut's Institute of Technology Ladkrabang.

3.2.2 Conducting a focus group discussion on March 29<sup>th</sup>, 2012, from 10:00 am to 12:00 noon at the Rinna Ubon Conference Room, 1<sup>st</sup> Floor, the President Building, Rajamangala University of Technology Thanyaburi. The ten experts who participated in the meeting gave their opinions on the academic administration

model, and these opinions were evaluated.

### 4. Data analysis and statistics

4.1 General analysis using frequencies and percentages.

4.2 Analysis of the opinions of respondents using statistics, mean and standard deviation (Best, 1983: 179-187) as follows:

4.50 - 5.00 = agree at the highest level

3.50 - 4.49 = agree at a high level

2.50 - 3.49 = agree at a medium level

1.50 - 2.49 = agree at a low level

1.00 - 1.49 = agree at the lowest level

4.3 Test of the hypothesis using One-way Analysis of Variance

## Research Results

1. Research results of academic administration problems at Rajamangala University of Technology Suvarnabhumi

**Table 1:** General problems regarding each aspect of academic administration

Content	Academic administration problems		
	$\bar{X}$	S.D.	Mean
1. Curriculum	3.66	0.83	High
2. Learning and teaching	3.72	0.93	High
3.Promotion and control of academic	3.59	0.95	High
4.Academic services	3.64	0.97	High
5. Measurement and evaluation	3.17	0.91	Medium
6. Supervision and personnel development	3.71	0.97	High
<b>Average score</b>	<b>3.58</b>	<b>0.94</b>	<b>High</b>

As Table 1 shows, the average score for academic administration at Rajamangala University of Technology Suvarnabhumi was high, and the mean value was 3.58. From highest to lowest, the problems were ranked as follows: teaching and learning

( $\bar{X} = 3.72$ ); supervision and staff development ( $\bar{X} = 3.71$ ); curricula ( $\bar{X} = 3.66$ ); academic services ( $\bar{X} = 3.64$ ); promotion and control of academics ( $\bar{X} = 3.59$ ), and measurement and evaluation ( $\bar{X} = 3.17$ ).

**Table 2:** Opinions of lecturers classified by gender on the problems of academic administration.

Dependent Variable	gender	N	Mean	Std. Deviation	Std. Error Mean	Levene's Test for Equality of Variance	
						F	Sig.
Overview of Academic Administration problems	male	109	3.1149	.31040	.02973	.048	.828
	female	138	3.1150	.31248	.02660		

As shown in Table 2, the opinion of lecturers on the problems of academic

administration classified by gender were not significantly different ( $p=0.05$ ).

**Table 3:** The opinions of lecturers classified by level of education on the problems of academic administration

Dependent Variable	(I) education	(J) education	Mean Difference (I-J)	Std. Error	Sig.
Overview of academic Administration problem	Bachelor's degree	Master's degree	.02153	.11962	.984
		Doctorate degree	-.12721	.15031	.699
	Master's degree	Bachelor's degree	-.02153	.11962	.984
		Doctorate degree	-.14874	.09895	.325
	Doctorate degree	Bachelor's degree	.12721	.15031	.699
		Master's degree	.14874	.09895	.325

As seen in Table 3, the opinions of lecturers about the problems of academic administration classified by levels of education were not different, at a 0.05 level of significance.

**Table 4:** The opinions of lecturers classified by years of experience on the problems of academic administration.

Dependent Variable	(I) experience	(J) experience	Mean Difference (I-J)	Std. Error	Sig.
Overview of Academic Administration problems	under 5 years	6-10 years	.23411	.11242	.365
		11-15 years	.12277	.10578	.853
		16-20 years	.28125	.10861	.156
		More than 20 years	.21148	.10647	.416
	6-10 years	under 5 years	-.23411	.11242	.365
		11-15 years	-.11134	.07832	.732
		16-20 years	.04714	.08210	.988
		More than 20 years	-.02264	.07925	.999
	11-15 years	under 5 years	-.12277	.10578	.853
		6-10 years	.11134	.07832	.732
		16-20 years	.15848	.07274	.317
		More than 20 years	.08871	.06950	.803
	16-20 years	under 5 years	-.28125	.10861	.156
		6-10 years	-.04714	.08210	.988
		11-15 years	-.15848	.07274	.317
		More than 20 years	-.06977	.07374	.925
	More than 20 years	under 5 years	-.21148	.10647	.416
		6-10 years	.02264	.07925	.999
		11-15 years	-.08871	.06950	.803
		16-20 years	.06977	.07374	.925

As shown in Table 4, the opinions of lecturers classified by years of experience on the problems of academic administration classified by working experience were not different, at a .05 level of significance.

2. The results of the development of an academic administration model for Rajamangala University of Technology Suvarnabhumi.

2.1 The academic administration model that the researcher developed can be summarized as follows:

**Part 1.** The theory of strategic management was applied to the development

of the academic administration model in order to promote continuous improvement. The operation process contained six elements: 1. targeting, 2. strategic planning, 3. operating strategies, 4. promotion control and supervision of implementation, 5. monitoring and evaluation, 6. report of the results of operation and implementation

**Part 2.** The development of the model for academic administration derived from the study of the academic administration. Then an analysis and synthesis of the six elements were conducted, and quality management of academic administration operations was applied as follows:

#### Element 1. Teaching and Learning

Sub-element 1.1 Educational materials service

Sub-element 1.2 Conditions and problems of teaching and learning

Sub-element 1.3 Management service for learning and teaching

Sub-element 1.4 Class planning and scheduling

Sub-element 1.5 Strive for cooperation with enterprises

Sub-element 1.6 Classroom management

#### Element 2. Curriculum

Sub-element 2.1 Explanation and understanding of the curriculum

Sub-element 2.2 Needs of students

Sub-element 2.3 Establishment of the academic board committee at the department level

Sub-element 2.4 Establishment of a committee to develop the curriculum

Sub-element 2.5 Evaluation of the curriculum

#### Element 3. Promotion and control of academics

Sub-element 3.1 Funding for education to the lecturer

Sub-element 3.2 Budget support for research

- Sub-element 3.3 Monitoring and evaluation of educational quality
- Sub-element 3.4 Progress report and problems in development work
- Sub-element 3.4 Support for lecturers to produce teaching documents

Element 4. Academic services

- Sub-element 4.1 Academic activities or exhibitions
- Sub-element 4.2 Extra-curricular activities
- Sub-element 4.3 Evaluation results to improve academic services
- Sub-element 4.4 Service knowledge, data and information
- Sub-element 4.5 Management of Information System

Element 5. Measurement and evaluation

- Sub-element 5.1 Measurement and evaluation with standardized tests
- Sub-element 5.2 Improvement of teaching and learning on basis of evaluation results
- Sub-element 5.3 Using the same test items and evaluation criteria for the same subjects

Element 6. Supervision and personnel development

- Sub-element 6.1 Establishment of a unit responsible for supervision and personnel development
- Sub-element 6.2 Development of teaching skills
- Sub-element 6.3 Information System for supervision and personnel development
- Sub-element 6.4 Exploitation of the results of supervision and personnel development
- Sub-element 6.5 Supervision of teaching and learning
- Sub-element 6.6 Establishment of policy, goals and mission

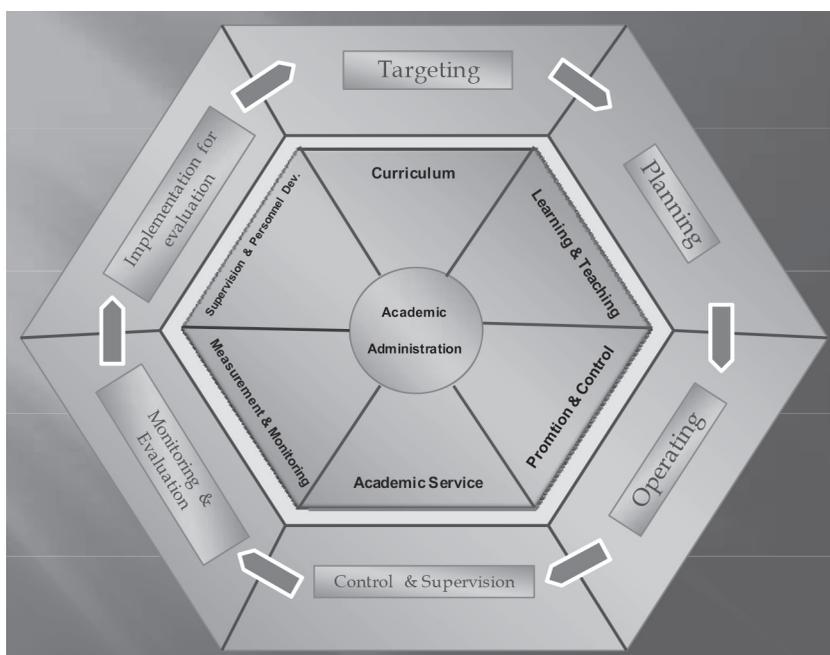
3.2 Evaluating the academic administration model of Rajamangala University of Technology Suvarnabhumi by means of a focus group discussion

**Table 5:** Results of evaluating the academic administration model

List	Level		Level
	$\bar{X}$	S.D	
1. Possibility of the academic administration model for Rajamangala University of Technology Suvarnabhumi	5.00	0.00	Highest
2. Appropriateness of the academic administration model for Rajamangala University of Technology Suvarnabhumi	4.60	0.51	Highest
3. Benefits of the academic administration model for Rajamangala University of Technology Suvarnabhumi	4.70	0.48	Highest
<b>Total</b>	<b>4.76</b>	<b>0.33</b>	Highest

As seen in Table 5, the participation of professionals and experts expressing opinions toward the model of academic administration for Rajamangala University of Technology Suvarnabhumi was at the highest level ( $\bar{X} = 4.76$  and S.D = 0.33).

Investigating each aspect, it was found that the feasibility of the model was at the highest level ( $\bar{X} = 5.00$ ), followed respectively by the benefits of the model ( $\bar{X} = 4.70$ ) and the appropriateness of the model ( $\bar{X} = 4.60$ ).



**Figure 1:** The Academic Administration model of Rajamangala University of Technology Suvarnabhumi

## Discussion

1. Overall, the academic administration problems of Rajamangala University of Technology Suvarnabhumi have been rated and scored at the high level. All criteria and regulations in place are those set by the Office of the Higher Education Commission, the Ministry of Education, even though this university was formerly an institute which was later upgraded to the status of a university. When each aspect was specifically examined, the problems of personnel orientation and development, teaching and studying management and course structure were rated at a medium level, and the mean value was at a high level. The reason for this is probably the promotion of the status from an institute to a university. For example, personnel orientation and development lacks a specific unit to take charge of such relevant issues as directing, coaching, developing skills and information system. This corresponds to the findings of the Office of Quality Assurance (2008: 8 – 27), indicating that the problems are caused by the excessive workload placed on lecturers: in addition to their regular teaching/research responsibilities, some of them must serve as deans, deputy deans, heads of department, heads of faculty units. Any factors such as additional teaching and studying management, external cooperation,

budget allocation, etc. can adversely affect effective and efficient teaching and studying management. In addition, this corresponds with the findings of the Office for National Education Standards and Quality Assessment, which state that the problems of course structure concern the implementation of learners' needs and the opinions of entrepreneurs or experts. These play an inadequate role in course evaluation and development, the results of which should be used to enhance learning achievements.

2. With data collected from administrative board members, lecturers and the focus group discussion for academic administration model improvement, it was found that the model was beneficial and practical for the university. As Petcharin Songprasert (2008) stated, the key to maximum performance in the management of an educational institute is teamwork.

## Recommendations

1. The university should act on the research in administration problems in other for further development.

2. The research results in administration problems can be determined as the format in such area to be more efficient.

3. This model can be a prototype for the other Rajamangala University of Technology.

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### ผู้เขียน

ผู้ช่วยศาสตราจารย์ ดร. พรเทพ สรนนท์ อาจารย์ประจำสาขาวิศวกรรมอิเล็กทรอนิกส์และโทรคมนาคม  
คณะครุศาสตร์อุตสาหกรรม มหาวิทยาลัยเทคโนโลยีราชมงคลสุวรรณภูมิ ศูนย์นนทบุรี