CHAPTER 4

Data Analysis and Result

The objectives of this study were to examine the current condition and the needs in the research management assessment, to generate as well as to monitor the quality of the research management assessment model, and to examine the implementation result of research management assessment model for private universities. In this study, the researcher conducted with Research and Development and presented the results of data as shown in the research methodology into 4 parts as follows.

- Part 1 Result of examining the current condition and the needs in the research management assessment for private universities
- Part 2 Result of examining the factors, indicators and criteria relating to the research management for private universities
- Part 3 Result of generating and monitoring the quality of the research management assessment model for private universities
- Part 4 Result of examining the implementation of research management assessment model for private universities

Part 1 Result of examining the current condition and the needs in the research management assessment for private universities

1.1 Result of examining concepts, theories, and other documents related the factors of both research management and assessment model

From the research synthesis, there were 19 significant factors of the research management in higher education institutions of Thailand related both private and public higher education institutions including employing the national research management system as a consideration. The research concluded that factors of research management could comprised of 10 factors: 1) policy and research plan 2) structure and research organization management 3) research budgets 4) research personnel 5) research materials and facilities 6) production and controlling quality of research 7) follow-up

and assessment 8) research publishing, publicizing and application 9) research network 10) systems and supporting protocols such as motivation etc.

Besides, the researcher synthesized a lot of researches related factors of assessment model from Sirichai Kanjanawasee (2 004) together with Sathianpak Mookdee (2011). Also, the researcher concluded that factor of assessment model could comprise of 7 factors: 1) purposes of evaluation, 2) subjects of assessment, 3) assessor, 4) assessment method, 5) indicators of assessment, 6) criteria of assessment, and 7) giving feedback.

1.2 Result of examining the current condition and the needs in the research management assessment for private universities

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Examining the current condition and the needs in the research management assessment for private universities which was the study of these assessment model factors: 1) purpose of assessment 2) subjects of assessment 3) assessor 4) assessment method 5) indicators of assessment 6) assessment criteria and 7) giving feedback. Besides, the study of the research management factors contained 1) policy and research plan 2) structure and research organization management 3) research budgets 4) research personnel 5) research materials and facilities 6) production and controlling quality of research 7) follow-up and assessment8) research publishing, publicizing and application 9) research network 10) systems and supporting protocols such as motivation etc. Thus, the researcher in this study would present the result into 2 parts as follows.

Part 1 General Information

General Information of the respondents included sex, highest education, working position, working experience, experiences related to research management. It is shown in Table 4.1 below.

Table 4.1 Number and percentage of sample group classified by their general information

	General Information	Number	Percentage
Sex			
M	ale	16	40.0
Fe	emale	24	60.0
		40	100.0
Highe	est Education and Education		
Ba	achelor degree/ Undergraduate	5	12.5
M	aster degree/ Graduate	22	55.0
Do	octorate degree/ Postgraduate	13	32.5
	10 Community	40	100.0
Work	cing Position		5
1.	Policy Level	8 90	20.0
	1.1 Vice-Rector for Academic	(3)	(7.5)
	Affairs of Research	1 / 30	//
	1.2 Director of Research Division	(5)	(12.5)
2.	Practitioner Level: researchers	18	45.0
3.	Coordinator Level: personnel in Research	14	35.0
	division		
	ลิมสิทธิ์แหงจิทยงล์	40	100.0
Expe	riences related to Research Management		111111111111111111111111111111111111111
Use	d to Copyright by Chiang A	Mai ₂₆ nivo	65.0
Nev	er All rights ro	e s 14 r \	6 35.0
	_	40	100.0

From Table 4.1, it can be seen that most of respondents are female and are at 60 percent and most of the highest education, Master degree or Graduate is at 55 percent and Doctorate degree/ Postgraduate and Bachelor degree/ Undergraduate are 32.5 and 12.5 respectively.

In respect of working position, Practitioner Level are most at 45 percent. The Coordinator Level are at 35 percent and Policy Level are at 20 percent which could be comprised of Vice-Rector for Academic Affairs of Research with 7.5 percent and Director of Research Division at 12.5 percent respectively.

For the respect of experiences related to research management, people who have already had an experience are at 65 percent and who have never had one are at 35 percent respectively.

Part 2 The current condition and the needs in the research management assessment together with the test of difference between the current condition and the needs in the research management for private universities

The current condition and the needs in the research management assessment would to study the following factors of assessment model: 1) policy and research plan 2) structure and research organization management 3) research budgets 4) research personnel 5) research materials and facilities 6) production and controlling quality of research 7) follow-up and assessment 8) research publishing, publicizing and application 9) research network 10) systems and supporting protocols such as motivation etc. as shown in Table 4.2- Table 4.8

Table 4.2 Mean and the standard deviation of current condition and the needs in the research management for private universities in the sample group classified by the purpose of assessment (n = 40)

Purpose	Current Condition of Assessment			Mai			
of Assessment	$\overline{\overline{\mathbf{x}}}$	S.D.	Interpre- tation	X	S.D.	Interpre- tation	t
1. Setting purpose in	3.38	1.02	Moderate	4.37	0.75	High	6.004**
assessment of policy and							
research plan							
2. Setting purpose in	3.15	1.04	Moderate	4.24	0.85	High	5.794**
assessment of structure and	-						
research organization							
management							

Table 4.2 (continued)

	Cı	ırrent C	ondition		Need	ls	t
Purpose		of Assess	sment	(of Assess	ment	
of Assessment	$\overline{\overline{\mathbf{x}}}$	S.D.	Interpre- tation	$\overline{\mathbf{x}}$	S.D.	Interpre- tation	τ
3. Setting purpose in	3.54	1.10	High	4.47	0.80	High	5.281**
assessment of research							
budgets							
4. Setting purpose in	3.28	0.86	Moderate	4.32	0.84	High	7.149**
assessment of research personnel		9/18	HEINE	7 .			
5. Setting purpose in	3.03	0.84	Moderate	4.18	0.87	High	7.552**
assessment of research materials and facilities		<		>	.93	3	
6. Setting purpose in	3.67	0.96	High	4.47	0.69	High	5.270**
assessment of production	/ ~	(3)			_ \	. \	
and controlling quality of research		9) -		
7. Setting purpose in	3.74	0.88	High	4.50	0.65	High	4.783**
assessment of follow-up and evaluation			MA	1	15	5	
8. Setting purpose in	3.38	0.99	High	4.47	0.65	High	6.337**
assessment of research	1	11-		TR	\ //		
publishing and application		AT	UNIV	Cir			
9. Setting purpose in	2.90	1.10	Moderate	4.26	0.76	High	7.968**
assessment of research network	ຣິ້ນາ	หาร์	วิทยา	ลัย		่อใหม	J
10. Setting purpose in assessment of systems and	3.08	0.98	Moderate	4.18	0.83	High	5.980**
supporting protocols	riş	gh	ts r	e s	e r	ved	

^{**} p < .01

From Table 4.2, it reveals that the sample group agreed that purposes in assessment relating to the current condition were on the "moderate" to "high" level or in average from 2.90 to 3.74. Also, all respects of the needs of purposes of assessment are in the "high" level which are from 4.18 to 4.50.

To compare the difference the current condition and the needs in purposes of assessment, it found out that the current condition of assessment and the needs of assessment are significantly different at .01 in every respect. Thus, it can be concluded that the needs in purposes of assessment in every factor of research management are significant.

Table 4.3 Mean and the standard deviation of the current condition and the needs in the research management assessment for private universities of the sample group classified by the subjects of assessment (n = 40)

Comment Condition

	Cu	rrent Co	ondition				
Subjects	\bigcirc	of Assess	sment	0	f Assessn	nent	t
of Assessment	$\overline{\mathbf{X}}$	S.D.	Interpre- tation	X	S.D.	Interpre- tation	ι
Setting purpose in	3.33	0.93	Moderate	4.26	0.69	High	5.929**
assessment subject of		13	= 10 L		10	305	
policy and research plan		8	I SY		13	355	
2. Setting purpose in	3.18	1.05	Moderate	4.21	0.84	High	6.249**
assessment subject of			IY A	1	/ >	ŏ //	
structure and research			11/11	10	12		
organization management	1-		1396		A	//	
3. Setting purpose in	3.41	0.97	Moderate	4.37	0.71	High	5.704**
assessment subject of		TAI	TINITY	EK			
research budgets			ONT				
4. Setting purpose in	3.10	0.91	Moderate	4.37	0.63	High	7.364**
assessment subject of	S 111	หาร์	ายกา	ลัยเ		อโหม	
research personnel	.0	1					
5. Setting purpose in	3.03	0.93	Moderate	4.32	0.77	High	7.420**
assessment subject of	r i s	z h	ts r	e s	e r	v e d	
research materials and							
facilities							
6. Setting purpose in	3.31	0.89	Moderate	4.34	0.78	High	6.012**
assessment subject of							
production and controlling							
quality of research							
7. Setting purpose in	3.46	0.82	Moderate	4.47	0.60	High	6.629**
assessment subject of							
follow-up and evaluation							

Table 4.3 (continued)

C-shireda	Current Condition of Assessment						
Subjects of Assessment			Interpre-	$\overline{\mathbf{x}}$	Interpre- tation	t	
8. Setting purpose in assessment subject of research publishing and application	3.46	0.82	Moderate	4.47	0.60	High	7.240**
9. Setting purpose in assessment subject of research network	2.87	1.10	Moderate	4.13	0.81	High	5.706**
10. Setting purpose in assessment subject of systems and supporting protocols	3.00	1.00	Moderate	4.08	0.88	High	5.278**

** p < .01

From Table 4.3, it can be found out that the sample group agreed that the current condition involving subjects of assessment are on the "moderate" in every item which are from 2.87 to 3.46. Besides, every respect of the needs of subjects of assessment are in the "high" level which is from 4.08 to 4.47.

For the test of difference between the current condition and the needs in subject of assessment, it reveals that the current condition of assessment and the needs of assessment are significantly different at .01 in every respect. So, it can be concluded that the needs in subjects of assessment were in every factor of research management.

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Table 4.4 Mean and the standard deviation of the current condition and the needs in the research management for private universities of the sample group classified by the assessors (n = 40)

	Cu	rrent C	ondition		S		
Aggaggan		of Assess	sment	(of Assess	ment	t
Assessor	X	S.D.	Interpre- tation	X	S.D.	Interpre- tation	ι
Setting the assessor of policy and research plan	3.13	1.06	Moderate	4.13	0.80	High	5.676**
2. Setting the assessor of structure and research organization management	2.82	0.94	Moderate	4.18	0.72	High	7.328**
3. Setting the assessor of research budgets	3.13	1.03	Moderate	4.31	0.73	High	6.865**
4. Setting the assessor of research personnel	3.08	1.01	Moderate	4.26	0.72	High	6.438**
5. Setting the assessor of research materials and facilities	2.85	0.90	Moderate	4.05	0.79	High	6.966**
6. Setting the assessor of production and controlling quality of research	3.36	1.01	Moderate	4.28	0.69	High	6.062**
7. Setting the assessor of follow-up and assessment	3.36	0.87	Moderate	4.36	0.74	High	7.029**
8. Setting the assessor of research publishing and application	3.10	1.17	Moderate	4.33	0.62	High	6.393**
9. Setting the assessor of	2.72	1.10	Moderate	4.26	0.75	High	7.666**
research network 10. Setting the assessor of systems and supporting protocols	2.95	1.05	Moderate	4.15	0.84	High	6.180**

^{**} p < .01

From Table 4.4, it reveals that the sample group agreed that the current condition relating to the assessor is on the "moderate" in every item which is from 2.72 to 3.36. Also, the needs of assessor are in the "high" level which is from 4.05 to 4.36 in every respect.

For the test of difference between the current condition and the needs in subject of assessment, it reveals that the current condition of assessment and the needs of assessment are significantly different at .01 in every respect. So, it can be concluded that the needs in the respect of assessor appear in every factor of research management.

Table 4.5 Mean and the standard deviation of the current condition and the needs in the research management for private universities of the sample group classified by the assessment method (n = 40)

	Cu	rrent Co	ondition		Need	ls		
Assessment Method	ob	of Assess	sment	20	f Assess	ment	t	
Assessment Method	$\overline{\overline{\mathbf{X}}}$	S.D.	Interpre- tation	$\overline{\mathbf{x}}$	S.D.	Interpre- tation	ι	
1. Setting Assessment	3.08	1.07	Moderate	4.13	0.94	High	5.649**	
Method in policy and	14	(ju	LILLIAN	1	- \			
research plan		(3				202		
2. Setting Assessment	2.95	0.99	Moderate	4.18	0.90	High	7.381**	
Method in structure and	\))				
research organization	\		NX	/ /		2		
management			MA	16	/ 5			
3. Setting Assessment	3.43	1.01	Moderate	4.38	0.70	High	5.797**	
Method in research	C,		Coto	- 6				
budgets		TAT	TINITY	ERP				
4. Setting Assessment	3.25	0.90	Moderate	4.33	0.69	High	7.417**	
Method in research	e*							
personnel	និរាព	หาร์	าทยา	ลัยเ		กใหม		
5. Setting Assessment	2.83	0.96	Moderate	4.18	0.71	High	8.527**	
Method in research	nt	by	Chiang	Mai	Uni	iversity		
materials and facilities	rio	h ·	ts r	0 6	e r	ved		
6. Setting Assessment	3.40	1.03	Moderate	4.33	0.62	High	5.460**	
Method in production and								
controlling quality of								
research								
7. Setting Assessment	3.43	0.93	Moderate	4.35	0.74	High	6.195**	
Method in follow-up and								
assessment								

Table 4.5 (continued)

	Current Condition				Needs			
Assessment Method	(of Assess	ment		t			
Assessment Method	X	S.D.	Interpre- tation	X	S.D.	Interpre- tation	•	
8. Setting Assessment	3.13	1.04	Moderate	4.45	0.60	High	7.204**	
Method in research								
publishing and application								
9. Setting Assessment	2.63	0.87	Moderate	4.13	0.83	High	8.379**	
Method in research network	0	9/18	1818	7 9				
10. Setting Assessment	2.93	1.00	Moderate	4.13	0.88	High	6.676**	
Method in systems and supporting protocols				2	3	3		

^{**} p < .01

From Table 4.5, it shows that the sample group agreed that the current condition relating to the assessment method was on the "moderate" in every item which was from 2.63 to 3.43. Also, the needs of assessment method were in the "high" level which was from 4.13 to 4.45 in every respect.

For the test of difference between the current condition and the needs in assessment method, it shows that the current condition and the needs of assessment are significantly different at .01 in every respect. Thus, it can be concluded that the needs in the respect of assessment method appear in every factor of research management.



Table 4.6 Mean and the standard deviation of the current condition and the needs in the research management for private universities of the sample group classified by the indicator of assessment (n = 40)

Indicator	Cu	rrent Co	ondition		Need	S	
of Assessment		of Assess	sment	(of Assess	ment	t
of Assessment	$\overline{\overline{\mathbf{x}}}$	S.D.	Interpre-	$\overline{\mathbf{x}}$	S.D.	Interpre-	ι
			tation			tation	
1. Setting indicator of	3.55	0.90	High	4.30	0.65	High	5.649**
assessment in policy and							
research plan		019	18186				
2. Setting indicator of	3.20	0.91	Moderate	4.15	0.70	High	5.940**
assessment in structure	VA.		0,00	1	4		
and research organization	8 /	<	三侧三	> /	7	1 /	
management	٠/ _		一点		15	95	
3. Setting indicator of	3.58	0.98	High	4.30	0.65	High	5.064**
assessment in research budgets		(3)			1	306	
4. Setting indicator of	3.23	0.97	Moderate	4.28	0.64	High	7.343**
assessment in research	\		TO V			.00	
personnel	\		NX	//		Z	
5. Setting indicator of	3.08	1.00	Moderate	4.20	0.72	High	6.993**
assessment in research	7.		11 11	1	1	' //	
materials and facilities	Pa.		Coboo C	2			
6. Setting indicator of	3.50	1.06	Moderate	4.40	0.63	High	5.264**
assessment in production			UNIA				
and controlling quality of							
research	อ็บแ	408	meio	o eu		ภในป	
7. Setting indicator of	3.40	1.01	Moderate	4.40	0.59	High	5.954**
assessment in follow-up	nt [©]	by	Chiang	Mai	Uni	versity	
and assessment		- 6	4 0 1	0.0	0 11	v 0 d	
8. Setting indicator of	3.43	1.15	Moderate	4.45	0.50	High	5.670**
assessment in research						8	
publishing and application							
9. Setting indicator of	2.88	1.07	Moderate	4.23	0.73	High	7.371**
assessment in research network						6	
10. Setting indicator of	3.03	1.03	Moderate	4.20	0.69	High	6.714**
assessment in systems and	2.02	1.00	1.10 201410	20	0.07		0.,11
supporting protocols							
** n < 01							

^{**} p < .01

From Table 4.6, it shows that the sample group agreed that the current condition regarding to the indicator of assessment was from the level of "moderate" to "high" in every item which are from 2.88 to 3.58. Also, the needs of indicator of assessment are in the "many" level which is from 4.15 to 4.45 in every respect.

For the test of difference between the current condition and the needs in indicator of assessment, it shows that the current condition and the needs of assessment are significantly different at .01 in every respect. To conclude, it can be seen that the needs in the respect of indicator of assessment appear in every factor of research management.

Table 4.7 Mean and the standard deviation of current condition and the needs in the research management for private universities in the sample group classified by assessment criteria (n = 40)

		rrent Co	ondition sment		Need of Assess		
Assessment Criteria	$\overline{\overline{\mathbf{x}}}$	S.D.	Interpre- tation	$\overline{\overline{\mathbf{x}}}$	S.D.	Interpre- tation	t
1. Setting assessment	3.31	0.95	Moderate	4.23	0.74	High	6.868**
criteria in policy and	1		133		A		
research plan	C,		Cooker	- 6			
2. Setting assessment	3.15	0.99	Moderate	4.15	0.84	High	6.087**
criteria in structure and			ONIV				
research organization	67						
management	និរាព	หาร์	ริทยา	ลัยเ		กใหม	
3. Setting assessment	3.72	1.02	High	4.54	0.55	Highest	5.997**
criteria in research	ht	by	Chiang	Mai	Uni	iversity	
budgets	ris	7 h	ts r	e s	e r	ved	
4. Setting assessment criteria	3.36	0.93	Moderate	4.36	0.63	High	7.550**
in research personnel							
5. Setting assessment	3.18	0.97	Moderate	4.33	0.58	High	7.723**
criteria in research							
materials and facilities							
6. Setting assessment	3.44	1.02	Moderate	4.41	0.59	High	6.169**
criteria in production and							
controlling quality of							
research							

Table 4.7 (continued)

	Current Condition of Assessment						
Assessment Criteria					. t		
Assessment Criteria	X	S.D.	Interpre- tation	X	S.D.	Interpre- tation	·
7. Setting assessment	3.31	0.89	Moderate	4.38	0.59	High	7.242**
criteria in follow-up and							
assessment							
8. Setting assessment	3.36	1.06	Moderate	4.44	0.55	High	6.837**
criteria in research publishing, publicizing and application	o's	918	18146	7 2	5		
9. Setting assessment	2.95	1.02	Moderate	4.26	0.68	High	7.563**
criteria in research network	? /		ラ智を		1 3	3	
10. Setting assessment	3.00	1.08	Moderate	4.23	0.71	High	0.552
criteria in systems and supporting protocols		(X					

^{**} p < .01

From Table 4.7, it shows that the sample group agreed that the current condition relating to the assessment criteria was on the "moderate" to "high" level in every item which are from 2.95 to 3.72. Also, the needs of assessment criteria are in the "high" to "highest" level which are from 4.15 to 4.54 in every respect.

For the test of difference between the current condition and the needs in assessment criteria, it shows that the current condition and the needs of assessment are significantly different at .01 in every respect except item 10) setting assessment criteria in systems and supporting protocols. Thus, it can be concluded that the needs in the respect of assessment criteria appear in every factor of research management but in respect of systems and supporting protocols.

Table 4.8 Mean and the standard deviation of current condition and the needs in the research management for private universities in the sample group classified by giving feedback of assessment (n = 40)

	Cu	rrent C	ondition		Need	ls	
Giving Feedback		of Assess	sment	(of Assess	ment	4
of Assessment	${\overline{X}}$	S.D.	Interpre-	$\overline{\mathbf{x}}$	S.D.	Interpre-	t
	11	S.D.	tation	11	S.D.	tation	
1. Giving Feedback of	3.00	1.09	Moderate	4.16	0.68	High	6.948**
Assessment of policy and							
research plan		0/19	18186	5			
2. Giving Feedback of	2.79	1.02	Moderate	4.16	0.68	High	7.839**
Assessment of structure	U.A.		000		40		
and research organization	3 /	<	三侧三	> /	1.2	1	
management	٠/ ٫		易一		1 5	25	
3. Giving Feedback of	3.24	1.00	Moderate	4.34	0.63	High	6.761**
Assessment of research		(3				202	
budgets		9	200		1	漢句	
4. Giving Feedback of	3.05	1.16	Moderate	4.34	0.53	High	6.992**
Assessment of research	\		NX	/ /		8	
personnel	. \		11/1	16	15	7//	
5. Giving Feedback of	2.84	1.08	Moderate	4.26	0.64	High	8.295**
Assessment of research	C		Color	C			
materials and facilities		TAI	TTATTY	FR			
6. Giving Feedback of	3.16	0.95	Moderate	4.39	0.59	High	8.089**
Assessment of production							
and controlling quality of	ຂີ່ນແ	หาก็	กยา	ลัยเ		อไหบ	
research		1115	/110 1			OHIN	
7. Giving Feedback of	3.16	0.97	Moderate	4.34	0.63	High	7.231**
Assessment of follow-up	ric	z h	ter	0 0	e r	Ved	
and assessment		5 11	. 5	0 3	0 1	v C U	
8. Giving Feedback of	3.11	1.06	Moderate	4.39	0.55	High	7.143**
Assessment of research							
publishing, publicizing and							
application							
9. Giving Feedback of	2.63	1.08	Moderate	4.24	0.59	High	8.110**
Assessment of research							
network							
application 9. Giving Feedback of Assessment of research	2.63	1.08	Moderate	4.24	0.59	High	8.110**

Table 4.8 (continued)

	Current Condition of Assessment		Needs of Assessment				
Giving Feedback						4	
of Assessment	X	S.D.	Interpre- tation	X	S.D.	Interpre- tation	ι
10. Giving Feedback of	2.74	0.98	Moderate	4.32	0.66	High	9.217**
Assessment of systems and supporting protocols							

p < .01

From Table 4.8, it shows that the sample group agreed that the current condition regarding to giving feedback of assessment is from the level of "moderate" in every item which is from 2.63 to 3.24. Also, the needs of giving feedback of assessment are in the "high" level which is from 4.16 to 4.39 in every respect.

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For the test of difference between the current condition and the needs in giving feedback of assessment, it shows that the current condition and the needs of assessment are significantly different at .01 in every respect. To summarize, it can be seen that the needs in regard of giving feedback of assessment appear in every factor of research management.

Part 2 Result of examining the factors, indicators and criteria relating to the research management for private universities

For examining the factors, indicators and criteria relating to the research management for private universities, the research in this study divided the research into these following four small steps.

2.1 Analyzing and synthesizing the documents and researches involving the factors and indicators of research management in order to be an expert's interviewing framework regarding to research management for other universities.

The result of interviewing can be concluded as follows.

<u>Indicator 1</u> Policy and research plan comprise 7 indicators as follows.

1.1) The policy and research plan corresponding with the policy and national research strategies

- 1.2) The policy and research plan responding to both in and outsource
- 1.3) Setting policy and research plan which is clear and practicable
- 1.4) Setting policy and research plan from participation among interested persons
- 1.5) Creating the research plan according to the cycle of PDCA
- 1.6) A research plan promoting and supporting the university visions
- 1.7) A working plan corresponding with the research of the universities

<u>Indicator 2</u> Structure and research organization management consist of 7 indicators as follows.

- 2.1) A structure of the organization which includes a sector taking charge of the research directly such as office of research etc.
- 2.2) A clear structure of research organization management in aspect of person responsible
- 2.3) A structure containing a system and protocol of research management accordant with a purpose of university research
- 2.4) A structure corresponding with the context of the mission and responsibility involving researches
 - 2.5) A flexibles structure and an organization research management
- 2.6) A structure and an organization research management with clear job descriptions
- 2.7) A structure having a system and a protocol promoting and supporting researches

<u>Indicator 3</u> Research budgets include 9 indicators as follows.

- 3.1) Systems and protocols relating to statement of support doing researches provided
 - 3.2) A suitable and sufficient budget allocation of a university research
- 3.3) A budget allocation for being as a research subsidy and other research activities such as training sessions etc.
- 3.4) Percentage of teachers/ personnel who gain the scholarship for internal and external universities

- 3.5) A number of budget for researches and parties in the institutes for teachers/personnel of permanent contract
- 3.6) A subsidy allocation for supporting the researches to various faculties with appropriateness, and entirety.
- 3.7) The issue of materials of a budget involving a research each chance with convenience, rapidity and timeliness
- 3.8) The issue of materials of a budget subsidy with a handbook or the instructions of step of issue of materials
 - 3.9) Budget subsidy of research corresponding with the research plans

<u>Indicator 4</u> Research personnel consist of 10 indicators as follows.

- 4.1) Personnel involving a research in a policy level need to have visions and abilities of research management.
- 4.2) Personnel involving a research in a policy level are the characteristic of a flexible person who work flexibly.
- 4.3) Personnel in a division of research in a policy level are knowledgeable and skillful in doing research.
 - 4.4) Personnel in a division of research are friendly.
- 4.5) Personnel in a division of research work in a full time for providing service potentially.
- 4.6) A division of research contains the experts of supervision regarding the researches to support and guide for the researchers efficiently.
 - 4.7) A number of personnel in a division of research are suitable for work.
- 4.8) Personnel involving a research need to be discipline and have morals relating doing a research well.
- 4.9) Percentage of personnel involving a research have knowledge of doing researches in order to facilitate the research production.
- 4.10) A protocol and personnel development plan involving research includes the short-term, middle-term and long- term period.

- <u>Indicator 5</u> Research materials and facilities comprise 7 indicators as follows.
- 5.1) Sufficiency and modernity of the equipment, instruments or durable articles and laboratory
 - 5.2) Systems include supervisors and research clinic for assisting researchers
- 5.3) Modern and efficient materials, equipment and laboratory to facilitate doing researches
- 5.4) Various packages to facilitate doing researches such as data analysis programs etc.
- 5.5) Information technology system for researches to easily log in and be convenient for searching
 - 5.6) Internal and external resources in university
- 5.7) Percentage of expenses of the information technology system, computer and other instruments for researches
- <u>Indicator 6</u> Production and controlling quality of research include 6 indicators as follows.
- 6.1) Distinct and practicable systems and protocols regarding the production and quality controls of the researches
- 6.2) Consideration of research proposal from the experts and specialists in each field
- 6.3) Progress report of research projects provided in each period until the end of the project in order to control the quality as a plan
- 6.4) A number of researches done and its quality control in each period of the procedure
- 6.5) Quality controls of researches by the expert's assessment in each field for the accuracy of the research methodology
 - 6.6) Announcement about the production and the research quality control
- <u>Indicator 7</u> Follow-up and assessment consist of 8 indicators as follows.
- 7.1) A system and protocol in reporting in order to follow up and assess the progress of research project
 - 7.2) A friendly atmosphere of follow up and assessment
 - 7.3) A follow- up and assessment of research management as due- date plan

- 7.4) Percentage of researches planned
- 7.5) A follow- up and assessment with acceptable criteria
- 7.6) Acceptable and sufficient assessment from specialists in specific fields
- 7.7) Participation in assessment from interested people in researches to get the most of advantages of researches
- 7.8) Giving opportunities to adjust the research results after the assessment from the assessors

<u>Indicator 8</u> Research publishing, publicizing and application include 8 indicators as follows.

- 8.1) Budget allocation for publishing and publicizing both domestic and foreign researches
 - 8.2) Systems and protocols of publicizing and driving researches to utilization
- 8.3) Percentage of researches and journals published, publicized and utilized to professors in the local, national and international level
- 8.4) Promoting knowledge sharing of research result to the development community and society around universities
 - 8.5) Supporting a patent registration or intellectual property protection
 - 8.6) Supporting researches in a field of commercial interests
 - 8.7) Supporting the journal writing skill for publishing and publicizing
- 8.8) Arranging an academic conference for publishing and publicizing researches
- 8.9) Publishing international standard research journals for publishing and publicizing researches

<u>Indicator 9</u> Research network comprises 8 indicators as follows.

- 9.1) Systems and protocols cooperating with other networks for research cooperation from both the public and private sectors
 - 9.2) Sharing the resources and cooperating with other research institutes
 - 9.3) A number of research networks from both public and private sectors
 - 9.4) Promoting the research cooperation as an interdisciplinary network

- 9.5) Sharing research information among the network in both domestic and foreign institutes
 - 9.6) Supporting doing researches with other domestic and foreign institutes
 - 9.7) Arranging academic conference with other institutes continuously
- 9.8) Supporting the training program and visit program among the research network
- <u>Indicator 10</u> Systems and supporting protocols such as motivation etc. consist of 7 indicators as follows.
- 10.1) Giving opportunities for young researchers in order to earn more scholarships
- 10.2) Appropriate allocation of load regarding the research influencing on research facilitation
 - 10.3) Special rewarding for good quality of research as a prominent one
 - 10.4) Selecting prominent researchers for annual best awards
- 10.5) Integrating the research with meritorious working assessment with acceptable standard criteria
 - 10.6) Supporting the researchers in working progress and getting promotion
- 10.7) Rule and regulation adjustment being as an obstacle of research flexibility and facilitation

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2.2 Result of analysis of the IOC value from the experts to develop the indicators of research management for the second round

The researcher analyzed data from the first interviewing to find out the value of IOC which must be 0.8 or above and to assure that the indicators gained are corresponding with the indicators of research management from the experts. The results of the IOC value were concluded in Table 4.9 – Table 4.18

Table 4.9 Result of index value of the research management factor in aspect of policy and research plan

Factor of research management	Indicator	IOC	Interpretation
1. policy and	1.1 The policy and research plan corresponding with the policy and national research strategies	1.00	Pass
research plan	1.2 The policy and research plan responding to both internal and external budget resources	1.00	Pass
	1.3 Setting policy and research plan which is clear and practicable	1.00	Pass
	1.4 Setting policy and research plan from participation among interested persons	0.71	Fail
	1.5 Creating the research plan according to the cycle of PDCA	1.00	Pass
	1.6 A research plan promoting and supporting the university visions	1.00	Pass
	1.7 A working plan corresponding with the research of the universities	0.86	Pass
	Additional Issues - Research plans can continuously drive the young researcher's development		1

From Table 4.9, Result of index value of the research management factor in aspect of policy and research plan, it found out that indicator 1.1 to 1.7 were "Pass." However, indicator 1.4 "Setting policy and research plan from participation among interested persons" was "Fail."

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 Table 4.10
 Result of index value of the research management factor in aspect of structure and research organization management

Factor of research management	Indicator	ЮС	Interpretation
2. structure and	2.1 A structure of the organization which includes a sector taking charge of the research directly such as	1.00	Pass
research organization	office of research etc.		
management	2.2 A clear structure of research organization management in aspect of person responsible	1.00	Pass
	2.3 A structure containing a system and protocol of research management accordant with a purpose of	1.00	Pass
	university research		
	2.4 A structure corresponding with the context of the mission and responsibility involving researches	1.00	Pass
	2.5 A flexibles structure and an organization research management	0.86	Pass
	2.6 A structure and an organization research management with clear job descriptions	1.00	Pass
	2.7 A structure having a system and a protocol promoting and supporting researches	1.00	Pass
	Additional Issues - None		

From Table 4 . 1 0 , Result of index value of the research management factor in aspect of structure and research organization management, it found out that indicator 2.1 to 2.7 were "Pass."

 Table 4.11
 Result of index value of the research management factor in aspect of research budgets

Factor of research management	Indicator	ЮС	Interpretation
3. research budgets	3.1 Systems and protocols relating to statement of support doing researches provided	1.00	Pass
	3.2 A suitable and sufficient budget allocation of a university research	0.86	Pass
	3.3 A budget allocation for being as a research subsidy and other research activities such as training sessions etc.	0.86	Pass
	3.4 Percentage of teachers/ personnel who gain the scholarship for internal and external universities	1.00	Pass
	3.5 A number of budget for researches and parties in the institutes for teachers/ personnel of permanent contract	0.86	Pass
	3.6 A subsidy allocation for supporting the researches to various faculties with appropriateness, and entirety.	0.71	Fail
	3.7 The issue of materials of a budget involving a research each chance with convenience, rapidity and timeliness	0.86	Pass
	3.8 The issue of materials of a budget subsidy with a handbook or the instructions of step of issue of materials	0.86	Pass
	3.9) Budget subsidy of research corresponding with the research plans	1.00	Pass
	Additional Issues- None		

From Table 4.11 Result of index value of the research management factor in aspect of research budgets supporting and promoting researches, it reveals that indicator 3.1 - 3.9 were "Pass." Except indicator 3.6 which involves personnel in a division of research working in a full time for providing service potentially was "Fail."

 Table 4.12
 Result of index value of the research management factor in aspect of research personnel

Factor of research management	Indicator	ЮС	Interpretation
4. research personnel	4.1 Personnel involving a research in a policy level need to have visions and abilities of research	1.00	Pass
	management.		
	4.2 Personnel involving a research in a policy level are the characteristic of a flexible person who work	0.57	Fail
	flexibly.		
	4.3 Personnel in a division of research in a policy level are knowledgeable and skillful in doing research.	1.00	Pass
	4.4 Personnel in a division of research are friendly.	0.86	Pass
	4.5 Personnel in a division of research work in a full time for providing service potentially.	0.71	Fail
	4.6 A division of research contains the experts of supervision regarding the researches to support and guide	0.86	Pass
	for the researchers efficiently.		
	4.7 A number of personnel in a division of research are suitable for work.	0.86	Pass
	4.8 Personnel involving a research need to be discipline and have morals relating doing a research well.	1.00	Pass
	4.9 Percentage of personnel involving a research have knowledge of doing researches in order to facilitate	0.86	Pass
	the research production.		
	4.10 A protocol and personnel development plan involving research includes the short-term, middle-term	1.00	Pass
	and long- term period.		
	Additional Issues – None		

From Table 4.12 Result of index value of the research management factor in aspect of research personnel, it reveals that indicator 4.1 - 4.10 were "Pass." Except indicator 4.2 which involves the personnel involving a research in a policy level are the characteristic of a flexible person who work flexibly and indicator 4.5 regarding "Personnel in a division of research work in a full time for providing service potentially" were "Fail."

Table 4.13 Result of index value of the research management factor in aspect of research materials and facilities

Factor of research management	Indicator	IOC	Interpretation
5. research materials	5.1 Sufficiency and modernity of the equipment, instruments or durable articles and laboratory	0.86	Pass
and facilities	5.2 Systems include supervisors and research clinic for assisting researchers	1.00	Pass
	5.3 Modern and efficient materials, equipment and laboratory to facilitate doing researches	1.00	Pass
	5.4 Various packages to facilitate doing researches such as data analysis programs etc.	1.00	Pass
	5.5 Information technology system for researches to easily log in and be convenient for searching	1.00	Pass
	5.6 Internal and external resources in university	0.71	Fail
	5.7 Percentage of expenses of the information technology system, computer and other instruments for researches	0.71	Fail
	Additional Issues – None		

From Table 4.13 Result of index value of the research management factor in aspect of research materials and facilities, it reveals that indicator 5.1 - 5.7 were "Pass." Except indicator 5.6 "Internal and external resources in university" and indicator 5.7 "Percentage of expenses of the information technology system, computer and other instruments for researches" were "Fail."

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Table 4.14 Result of index value of the research management factor in aspect of production and controlling quality of research

Factor of research management	Indicator	ЮС	Interpretation
6. production and	6.1 Distinct and practicable systems and protocols regarding the production and quality controls of the	1.00	Pass
controlling quality of	researches		
research	6.2 Consideration of research proposal from the experts and specialists in each field	1.00	Pass
	6.3 Progress report of research projects provided in each period until the end of the project in order to control the quality as a plan	1.00	Pass
	6.4 A number of researches done and its quality control in each period of the procedure	1.00	Pass
	6.5 Quality controls of researches by the expert's assessment in each field for the accuracy of the research methodology	0.86	Pass
	6.6 Announcement about the production and the research quality control	0.86	Pass
	Additional Issues – None		

From Table 4.14 Result of index value of the research management factor in aspect of production and controlling quality of research, it found out that indicator 6.1- 6.6 were "Pass."

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Table 4.15 Result of index value of the research management factor in aspect of follow-up and evaluation

Factor of research management	Indicator	IOC	Interpretation
7. follow-up and	7.1 A system and protocol in reporting in order to follow up and assess the progress of research project	1.00	Pass
evaluation	7.2 A friendly atmosphere of follow - up and assessment	0.86	Pass
	7.3 A follow- up and assessment of research management as due- date plan	1.00	Pass
	7.4 Percentage of researches planned	1.00	Pass
	7.5 A follow- up and assessment with acceptable criteria	1.00	Pass
	7.6 Acceptable and sufficient assessment from specialists in specific fields	1.00	Pass
	7.7 Participation in assessment from interested people in researches to get the most of advantages of researches	1.00	Pass
	7.8 Giving opportunities to adjust the research results after the assessment from the assessors	1.00	Pass
	Additional Issues – None		

From Table 4.15 Result of index value of the research management factor in aspect of follow-up and evaluation, it shows that that indicator 7.1- 7.8 were "Pass."

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 Table 4.16
 Result of index value of the research management factor in aspect of research publishing, publicizing and application

Factor of research management	Indicator	IOC	Interpretation
8. research	8.1 Budget allocation for publishing and publicizing both domestic and foreign researches	1.00	Pass
publishing,	8.2 Systems and protocols of publicizing and driving researches to utilization	1.00	Pass
publicizing and application	8.3 Percentage of researches and journals published, publicized and utilized to professors in the local, national and international level	1.00	Pass
	8.4 Promoting knowledge sharing of research result to the development community and society around universities	1.00	Pass
	8.5 Supporting a patent registration or intellectual property protection	1.00	Pass
	8.6 Supporting researches in a field of commercial interests	1.00	Pass
	8.7 Supporting the journal writing skill for publishing and publicizing	1.00	Pass
	8.8 Arranging an academic conference for publishing and publicizing researches	1.00	Pass
	8.9 Publishing international standard research journals for publishing and publicizing researches	1.00	Pass
	Additional Issues – None		

From Table 4.16 research publishing, publicizing and application, it reveals that indicator 8.1 to 8.9 were "Pass."

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 Table 4.17
 Result of index value of the research management factor in aspect of research network

Factor of research management	Indicator	ЮС	Interpretation
9. research network	9.1 Systems and protocols cooperating with other networks for research cooperation from both the public and private sectors	1.00	Pass
	9.2 Sharing the resources and cooperating with other research institutes	1.00	Pass
	9.3 A number of research networks from both public and private sectors	1.00	Pass
	9.4 Promoting the research cooperation as an interdisciplinary network	1.00	Pass
	9.5 Sharing research information among the network in both domestic and foreign institutes	1.00	Pass
	9.6 Supporting doing researches with other domestic and foreign institutes	1.00	Pass
	9.7 Arranging academic conference with other institutes continuously	1.00	Pass
	9.8 Supporting the training program and visit program among the research network	1.00	Pass
	Additional Issues – None		

From Table 4.17 Result of index value of the research management factor in aspect of research network, it shows that indicator 9.1-9.8 were "Pass."

Table 4.18 Result of index value of the research management factor in aspect of systems and supporting protocols such as motivation etc.

Factor of research management	Indicator	ЮС	Interpretation
10. systems and	10.1 Giving opportunities for young researchers in order to earn more scholarships	1.00	Pass
supporting protocols	10.2 Appropriate allocation of load regarding the research influencing on research facilitation	0.86	Pass
such as motivation	10.3 Special rewarding for good quality of research as a prominent one	0.71	Fail
etc.	10.4 Selecting prominent researchers for annual best awards	1.00	Pass
	10.5 Integrating the research with meritorious working assessment with acceptable standard criteria	0.86	Pass
	10.6 Supporting the researchers in working progress and getting promotion	0.71	Fail
	10.7 Rule and regulation adjustment being as an obstacle of research flexibility and facilitation	0.86	Pass
	Additional Issues – None		

From Table 4.18 Result of index value of the research management factor in aspect of systems and supporting protocols such as motivation etc. it found out that indicator 10.1 - 10.7 were "Pass" except indicator 10.3 saying "Special rewarding for good quality of research as a prominent one" and indicator 10.6 "Supporting the researchers in working progress and getting promotion" were "Fail."

2.3 Analysis result of the expert's conclusion involving the indicators of each research management factor

The researcher analyzed the IOC value of the data from the indicator development in the second round. In analysis, IOC valued at 0.8 or above could be used as the third round questionnaire in order to ask the expert's opinions towards the indicators of each research management factor. Besides, the criteria employed as a conclusion that each indicator of research management for private universities were Mean at 3.50, and Quartile Range less than 1.50. Thus, data analysis was concluded as in Table 4.19 to 4.28 below.

Table 4.19 Analysis result of the expert's conclusion involving the indicator of research management in aspect of policy and research plan

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
1. policy and	1.1 The policy and research plan corresponding with the policy and national research strategies	5	0	Pass
research plan	1.2 The policy and research plan responding to both internal and external budget resources	5	0	Pass
	1.3 Setting policy and research plan which is clear and practicable	5	0	Pass
	1.4 Setting policy and research plan from participation among interested persons	5	0	Pass
	1.5 Creating the research plan according to the cycle of PDCA	5	0	Pass
	1.6 A research plan promoting and supporting the university visions	5	0	Pass
	1.7 A working plan corresponding with the research of the universities	5	0	Pass
	Additional Issues - None			

From Table 4.19, Analysis result of the expert's conclusion involving the indicator of research management in aspect of policy and research plan, it found out that indicator 1.1 - 1.7 were "Pass."

Table 4.20 Analysis result of the expert's conclusion involving the indicator of research management in aspect of structure and research organization management

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
2. structure and	2.1 A structure of the organization which includes a sector taking charge of the research directly such	5	0	Pass
research	as office of research etc.			
organization	2.2 A clear structure of research organization management in aspect of person responsible	5	0	Pass
management	2.3 A structure containing a system and protocol of research management accordant with a purpose	5	0	Pass
	of university research			
	2.4 A structure corresponding with the context of the mission and responsibility involving researches	5	0	Pass
	2.5 A flexibles structure and an organization research management	5	0	Pass
	2.6 A structure and an organization research management with clear job descriptions	5	0	Pass
	2.7 A structure having a system and a protocol promoting and supporting researches	5	0	Pass
	Additional Issues - None			

From Table 4.20, Analysis result of the expert's conclusion involving the indicator of research management in aspect of structure and research organization management, it found out that indicator 2.1 - 2.7 were "Pass."

Table 4.21 Analysis result of the expert's conclusion involving the indicator of research management in aspect of research budgets

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
3. research	3.1 Systems and protocols relating to statement of support doing researches provided	5	0	Pass
budgets	3.2 A suitable and sufficient budget allocation of a university research	5	0	Pass
	3.3 A budget allocation for being as a research subsidy and other research activities such as training sessions etc.	5	0	Pass
	3.4 Percentage of teachers/ personnel who gain the scholarship for internal and external universities	5	1	Pass
	3.5 A number of budget for researches and parties in the institutes for teachers/ personnel of permanent contract	5	1	Pass
	3.6 A subsidy allocation for supporting the researches to various faculties with appropriateness, and entirety.	5	1	Pass
	3.7 The issue of materials of a budget involving a research each chance with convenience, rapidity and timeliness	5	0	Pass
	3.8 The issue of materials of a budget subsidy with a handbook or the instructions of step of issue of materials	5	0	Pass
	3.9) Budget subsidy of research corresponding with the research plans			

From Table 4.21, Analysis result of the expert's conclusion involving the indicator of research management in aspect of research budgets, it reveals that indicator 3.1- 3.8 were "Pass."

 Table 4.22
 Analysis result of the expert's conclusion involving the indicator of research management in aspect of research personnel

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
4. research	4.1 Personnel involving a research in a policy level need to have visions and abilities of research	5	0	Pass
personnel	management.			
	4.2 Personnel involving a research in a policy level are the characteristic of a flexible person who	5	1	Pass
	work flexibly.			
	4.3 Personnel in a division of research in a policy level are knowledgeable and skillful in doing	5	0	Pass
	research.			
	4.4 Personnel in a division of research are friendly.	5	0	Pass
	4.5 Personnel in a division of research work in a full time for providing service potentially.	5	1	Pass
	4.6 A division of research contains the experts of supervision regarding the researches to support and	5	0	Pass
	guide for the researchers efficiently.			
	4.7 A number of personnel in a division of research are suitable for work.	5	1	Pass
	4.8 Personnel involving a research need to be discipline and have morals relating doing a research	5	1	Pass
	well.			
	4.9 Percentage of personnel involving a research have knowledge of doing researches in order to			
	facilitate the research production.			
	4.10 A protocol and personnel development plan involving research includes the short-term, middle-			
	term and long- term period.			
	Additional Issues – None			

From Table 4.22, Analysis result of the expert's conclusion involving the indicator of research management in aspect of research personnel, it reveals that indicator 4.1- 4.8 were "Pass."

Table 4.23 Analysis result of the expert's conclusion involving the indicator of research management in aspect of research materials and facilities

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
5. research	5.1 Sufficiency and modernity of the equipment, instruments or durable articles and laboratory	5	1	Pass
materials and	5.2 Systems include supervisors and research clinic for assisting researchers	5	0	Pass
facilities	5.3 Modern and efficient materials, equipment and laboratory to facilitate doing researches	5	1	Pass
	5.4 Various packages to facilitate doing researches such as data analysis programs etc.	5	1	Pass
	5.5 Information technology system for researches to easily log in and be convenient for searching	5	1	Pass
	Additional Issues – None			

From Table 4.23, Analysis result of the expert's conclusion involving the indicator of research management in aspect of research materials and facilities, reveals that indicator 5.1- 5.5 were "Pass"

Table 4.24 Analysis result of the expert's conclusion involving the indicator of research management in aspect of production and controlling quality of research

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
6. production	6.1 Distinct and practicable systems and protocols regarding the production and quality controls of	5	0	Pass
and controlling	the researches			
quality of	6.2 Consideration of research proposal from the experts and specialists in each field	5	0	Pass
research	6.3 Progress report of research projects provided in each period until the end of the project in order to control the quality as a plan	5	0	Pass
	6.4 A number of researches done and its quality control in each period of the procedure	5	0	Pass
	6.5 Quality controls of researches by the expert's assessment in each field for the accuracy of the research methodology	5	0	Pass
	6.6 Announcement about the production and the research quality control	5	1	Pass
	Additional Issues – System and protocol to develop the research proposal or the package of research projects corresponding with policy and research plan should be integrated and responded with the needs of internal and external budget resources.			

From Table 4.24, Analysis result of the expert's conclusion involving the indicator of research management in aspect of production and controlling quality of research, it reveals that indicator 6.1- 6.6 were "Pass" and indicators were suggested to complete in this factor.

Table 4.25 Analysis result of the expert's conclusion involving the indicator of research management in aspect of Follow-up and assessment

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
7. follow-up and	7.1 A system and protocol in reporting in order to follow up and assess the progress of research	5	0	Pass
evaluation	project			
	7.2 A friendly atmosphere of follow - up and assessment	5	0	Pass
	7.3 A follow- up and assessment of research management as due- date plan	5	0	Pass
	7.4 Percentage of researches planned	5	1	Pass
	7.5 A follow- up and assessment with acceptable criteria	5	0	Pass
	7.6 Acceptable and sufficient assessment from specialists in specific fields	5	0	Pass
	7.7 Participation in assessment from interested people in researches to get the most of advantages of researches	5	0	Pass
	7.8 Giving opportunities to adjust the research results after the assessment from the assessors	5	0	Pass
	Additional Issues – None			

From 4.25, Analysis result of the expert's conclusion involving the indicator of research management in aspect of follow-up and evaluation, it shows that indicator 7.1-7.8 were "Pass."

Table 4.26 Analysis result of the expert's conclusion involving the indicator of research management in aspect of research publishing, publicizing and application

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
8. research	8.1 Budget allocation for publishing and publicizing both domestic and foreign researches	5	0	Pass
publishing,	8.2 Systems and protocols of publicizing and driving researches to utilization	5	0	Pass
publicizing and	8.3 Percentage of researches and journals published, publicized and utilized to professors in the	5	1	Pass
application	local, national and international level			
	8.4 Promoting knowledge sharing of research result to the development community and society around universities	5	0	Pass
	8.5 Supporting a patent registration or intellectual property protection	5	1	Pass
	8.6 Supporting researches in a field of commercial interests	5	1	Pass
	8.7 Supporting the journal writing skill for publishing and publicizing	5	0	Pass
	8.8 Arranging an academic conference for publishing and publicizing researches	5	0	Pass
	8.9 Publishing international standard research journals for publishing and publicizing researches	5	0	Pass
	Additional Issues – None			

From Table 4.26, Analysis result of the expert's conclusion involving the indicator of research management in aspect of research publishing, publicizing and application, it shows that indicator 8.1 - 8.9 were "Pass."

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Table 4.27 Analysis result of the expert's conclusion involving the indicator of research management in aspect of research network

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
9. research	9.1 Systems and protocols cooperating with other networks for research cooperation from both the	5	0	Pass
network	public and private sectors			
	9.2 Sharing the resources and cooperating with other research institutes	5	1	Pass
	9.3 A number of research networks from both public and private sectors	5	1	Pass
	9.4 Promoting the research cooperation as an interdisciplinary network	5	1	Pass
	9.5 Sharing research information among the network in both domestic and foreign institutes	5	1	Pass
	9.6 Supporting doing researches with other domestic and foreign institutes	5	1	Pass
	9.7 Arranging academic conference with other institutes continuously	5	0	Pass
	9.8 Supporting the training program and visit program among the research network	5	1	Pass
	Additional Issues – None			

From Table 4.27, Analysis result of the expert's conclusion involving the indicator of research management in aspect of research network, it reveals that indicator 9.1 - 9.8 were "Pass."

Table 4.28 Analysis result of the expert's conclusion involving the indicator of research management in aspect of systems and supporting protocols such as motivation etc.

Factor of research management	Indicator	Mean	Quartile Range	Interpretation
10. systems and	10.1 Giving opportunities for young researchers in order to earn more scholarships	5	0	Pass
supporting	10.2 Appropriate allocation of load regarding the research influencing on research facilitation	5	0	Pass
protocols such	10.3 Selecting prominent researchers for annual best awards	5	0	Pass
as motivation	10.4 Integrating the research with meritorious working assessment with acceptable standard criteria	5	0	Pass
etc.	10.5 Rule and regulation adjustment being as an obstacle of research flexibility and facilitation	5	0	Pass
	Additional Issues – None			

From Table 4.28: Analysis result of the expert's conclusion involving the indicator of research management in aspect of systems and supporting protocols such as motivation etc., it found out that indicator 10.1 - 10.5 were "Pass."

2.4 Result of the propriety of criteria regard to the research management

The researcher analyzed and synthesized the documents involving the indicators and criteria of the research management assessment for 72 indicators in 10 factors. Then, the propriety of criteria was assessed by the experts regarding the research management. In conclusion, the criteria were the value of Mean above 3.50 and Quartile Range with less than 1.50. The result of the propriety of criteria assessed by the experts regarding the research management were shown in Table 4.29 to Table 4.38 below.

Table 4.29 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of policy and research plan

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
1.1 The policy and	The	The	The	The	The	5	1	Pass
research plan	performance is	performance is	performance is	performance is	performance is			
corresponding with the	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
policy and national	level.	level.	"moderate"	level.	level.			
research strategies			level.					
1.2 The policy and	The	The	The	The	The	5	1	Pass
research plan responding	performance is	performance is	performance is	performance is	performance is			
to both internal and	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
external budget resources	level.	level.	"moderate"	level.	level.			
			level.					

Table 4.29 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
1.3 Setting policy and	The	The	The	The	The	5	1	Pass
research plan which is	performance is	performance is	performance is	performance is	performance is			
clear and practicable	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
	level.	level.	"moderate"	level.	level.			
			level.					
1.4 Setting policy and	The	The	The	The	The	5	0.5	Pass
research plan from	performance is	performance is	performance is	performance is	performance is			
participation among	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
interested persons	level.	level.	"moderate"	level.	level.			
			level.					
1.5 Creating the research	The	The	The	The	The	5	1	Pass
plan according to the	performance is	performance is	performance is	performance is	performance is			
cycle of PDCA	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
	level.	level.	"moderate"	level.	level.			
			level.					
1.6 A research plan	The	The	The	The	The	5	0.5	Pass
promoting and	performance is	performance is	performance is	performance is	performance is			
supporting the university	in the "least"	in the "low"	in the "moderate"	in the "high"	in the "highest"			
visions	level.	level.	level.	level.	level.			

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Table 4.29(continued)

Indicator	Criteria						Quartile	Interpretation
1114144401	1	2	3	4	5	Mean	Range	F
1.7 A research plan	There is a policy	There is a	There is a	There is an	There is an	5	0.5	Pass
corresponding with the	or research	regulation or	budget	activity or	evaluation of			
research of the	plans can push	announcement	allocations to	project to push	activity or			
universities	for the	regarding the	promoting and	for the	project to push			
	development of	promoting and	supporting of	development of	for the			
	young	supporting of	budget for	young	development of			
	researchers.	budget for	young	researchers	young			
		young	researchers.	continuously.	researchers'			
		researchers.			goals.			

From Table 4.29, Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of policy and research plan, it reveals that indicator 1.1 - 1.7 were "Pass" and it can be concluded that the criteria involving the policy and research plan are appropriate in every indicator

Table 4.30 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of structure and research organization management

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Mican	Range	interpretation
2.1 A structure of the	There is a	There is	There is	There is	There is an	5	0.5	Pass
organization which	determination of	determination of	determination of	determination of	evaluation of			
includes a sector taking	the structure of	feature, skill and	role of the	workgroup or	structure of the			
charge of the research	the organization	ability in each	structure of the	nature of	organization of			
directly such as office of	directly taking	position of the	organization of	activity in the	the research in			
research etc.	charge of the	structure of the	the research.	structure of the	order to			
	research.	organization.		organization of	complete the			
				the research.	mission.			
2.2 A clear structure of	There is a clear	There is an	There is a clear	There is a	There is an	5	1	Pass
research organization	determination of	appointment of	determination of	determination of	evaluation of			
management in aspect of	a structure of	committee of	role and duty to	project or	structure of			
a person being	research	management in	structure of	activity to the	research			
responsible	organization	the research of	research	research of the	organization			
	management in	the university.	organization	university.	management in a			
	specifying the		management in		person responsible			
	position of a		a person		to restructuring			
	person		responsible.		operating			
	responsible.				properly.			

Table 4.30 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
2.3 A structure	Purposes of	Purposes of	Purposes of	Purposes of	Purposes of	4	1	Pass
containing a system and	university	university	university	university	university			
protocol of research	research can	research can	research can	research can	research can			
management accordant	reach the	reach the	reach the	reach the	reach the			
with a purpose of	achievement at	achievement at	achievement at	achievement at	achievement at			
university research	20% form the	40% form the	60% form the	80% form the	100% form the			
	number of	number of	number of	number of	number of			
	researches per	researches per	researches per	researches per	researches per			
	the number of	the number of	the number of	the number of	the number of			
	advisers	advisers	advisers	advisers	advisers			
2.4 A structure	The	The	The	The	The	4	0.5	Pass
corresponding with the	performance is	performance is	performance is	performance is	performance is			
context of the mission	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
and responsibility	level.	level.	"moderate"	level.	level.			
involving researches			level.					
2.5 A flexibles structure	The	The	The	The	The	4	1	Pass
and an organization	performance is	performance is	performance is in	performance is	performance is			
research management	in the "least"	in the "low"	the "moderate"	in the "high"	in the "highest"			
	level.	level.	level.	level.	level.			

Table 4.30 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
2.6 A structure and	The	The	The	The	The	4	1	Pass
an organization	performance	performance	performance	performance	performance			
research	is in the	is in the	is in the	is in the	is in the			
management with	"least" level.	"low" level.	"moderate"	"high" level.	"highest"			
clear job			level.		level.			
descriptions								
2.7 A structure	A structure	There is an	There is an	There is a	There is a	5	1	Pass
having a system and	has	announcemen	appointment	determination	determination			
a protocol promoting	determined a	t to public	of committee	of group	of teamwork			
and supporting	system and a	about the	who are in	work who are	or a person			
researches	protocol	structure	charge of	in charge of	who takes			
	which	having a	promoting	promoting	charge of the			
	promote and	system and a	and	and	activities			
	support the	protocol	supporting	supporting	under the			
	researches	promoting	researches	researches	structure of			

Table 4.30 (continued)

Indicator			Mean	Quartile	Interpretation			
Indicator	1	2	3	4	5	ivican	Range	interpretation
		and	under the	under the	an			
		supporting	structure	structure	organization			
		researches	of an	of an	research			
			organization	organization	management			
			research	research				
			management	management				

From Table 4.30, Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of structure and research organization management, it reveals that the indicator 2.1 - 2.7 were "Pass." Also, it can be concluded that the propriety of criteria involving the assessment of structure and research organization management were found in every indicator.

Table 4.31 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research budgets

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
3.1 Systems and	There is a	There is an	There is a report	There is a step	There is the	5	0.5	Pass
protocols relating to	regulation of	annual budget	of budget	of follow-up	application of			
statement of support	subsidy used to	allocation of to	utilization	and assessment	the results from			
doing researches	support and	support and	relating to	of budget	a step follow-up			
provided	promote doing	promote doing	budget	allocation in	and assessment			
	the research.	the research	allocation in	supporting the	of budget			
		correspondent	supporting and	research.	allocation in			
		with the	promoting the		supporting and			
		research plan.	research.		promoting the			
					research to			
					improve the			
					systems and			
					protocols of the			
					management.			
3.2 A suitable and	There is a	There is a	There is a	There is a report	There is a step	5	0.5	Pass
sufficient budget	strategy of	budget	budget	of budget	of follow-up			
allocation of a university	budget plan	allocation	allocation	utilization	and assessment			
research	regarding the	regarding the	regarding the	relating to	of budget			

Table 4.31 (continued)

Indicator			Criteria			Mean	Interpretation	
Indicator	1	2	3	4	5	Wican	Range	interpretation
	researches and	researches	researches	budget	allocation in			
	relating to the	evidently with	towards each	allocation about	supporting the			
	university	accountability	faculty fairly or	the internal	internal research			
	strategy.		accordant with	research				
			each quota	continuously.				
			suitably					
3.3 A budget allocation	There is a	There is a	There is a	There is a step	There is a report	5	0	Pass
for being as a research	budget plan for	budget	project or	of follow-up	of budget			
subsidy and other	being as a	allocation for	activities	and assessment	allocation in			
research activities such	research subsidy	being as a	relating a	of budget	supporting the			
as training sessions etc.	and other	research subsidy	budget plan for	allocation in	research and			
	research	and other	being as a	supporting the	activities to			
	activities such	research	research subsidy	research and	make another			
	as training	activities such	and other	other research	plan nest year.			
	sessions etc.	as training	research	activities such				
		sessions etc.	activities such	as training				
			as training	sessions etc.				
			sessions etc.					

Table 4.31 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
3.4 Percentage of	Not more than	21-30 percent	31-40 percent	41-50 percent	above 51	5	0.5	Pass
teachers/ personnel who	20 percent				percent			
gain the scholarship for								
internal and external								
universities								
3.5 A number of budget	Not more than	5,001-10,000	10,001-15,000	15,001-20,000	above 20,000	5	0.5	Pass
for researches and parties	5,000 baht	baht	baht	baht	baht			
in the institutes for								
teachers/ personnel of								
permanent contract								
3.6 The issue of	The	The	The	The	The	5	0.5	Pass
materials of a budget	performance is							
involving a research each	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
chance with	level.	level.	"moderate"	level.	level.			
convenience, rapidity			level.					
and timeliness								

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Table 4.31 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
3.7 The issue of	The	The	The	The	The	5	0	Pass
materials of a budget	performance is							
subsidy with a handbook	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
or the instructions of step	level.	level.	"moderate"	level.	level.			
of issue of materials			level.					
3.8 Budget subsidy of	The	The	The	The	The	5	0	Pass
research corresponding	performance is							
with the research plans	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
	level.	level.	"moderate"	level.	level.			
			level.					

From Table 4.31, Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research budgets, it reveals that the indicator 3.1 - 3.8 were "Pass." Thus, it can be concluded that the propriety of criteria involving the assessment of research budgets were found in every indicator.

 Table 4.32
 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research personnel

Indicator			Criteria			Mean	Quartile	Interpretation
indicator	1	2	3	4	5	Wican	Range	interpretation
4.1 Personnel involving a	The	The	The	The	The	5	1	Pass
research in a policy level	performance is							
need to have visions and	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
abilities of research	level.	level.	"moderate"	level.	level.			
management.			level.					
4.2 Personnel in a	The	The	The	The	The	4	1	Pass
division of research are	performance is							
knowledgeable and	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
skillful in doing research.	level.	level.	"moderate"	level.	level.			
			level.					
4.3 Personnel in a	The	The	The	The	The	5	1	Pass
division of research are	performance is							
friendly.	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
	level.	level.	"moderate"	level.	level.			
			level.					

Table 4.32 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
indicator	1	2	3	4	5	Wican	Range	interpretation
4.4 A division of	The	The	The	The	The	5	1	Pass
research contains the	performance is	performance is	performance is	performance is	performance is			
experts of supervision	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
regarding the researches	level.	level.	"moderate"	level.	level.			
to support and guide for			level.					
the researchers efficiently.								
4.5 A division of	The	The	The	The	The	5	0.5	Pass
research contains the	performance is	performance is	performance is	performance is	performance is			
experts of supervision	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
regarding the researches to	level.	level.	"moderate"	level.	level.			
support and guide for the			level.					
researchers efficiently.								
4.6 A number of	One item was	Three items	Five items were	Five items were	Nine items were	5	0.5	Pass
personnel in a division of	performed.	were performed.	performed.	performed.	performed.			
research are suitable for								
work.								

Note: Details of researcher's ethics: Performance for indicator 4.6 (Handbook of model uses of the assessment of the research management for private universities: Appendix B)

Table 4.32 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
4.7 Personnel involving a	Not more than	51-60 percent	61-70 percent	71-80 percent	above 80	5	1	Pass
research need to be	50 percent				percent			
discipline and have								
morals relating doing a								
research well.								
4.8 A protocol and	There is a	There is a	There is a	There is a	There is a	5	0.5	Pass
personnel development	determination a	budget	person who	project	process of			
plan involving research	protocol and	allocation to	takes charge of	organized for	follow-up and			
includes the short-term,	personnel	support the	accomplishing	the personnel	assessment of			
middle-term and long-	development	personnel	the project in	development	the project			
term period.	plan involving	development	pushing the	regarding the	planned			
	research	plan involving	personnel	university				
	includes the	research	development	researches.				
	short-term,	includes the	regarding the					
	middle-term and	short-term,	university					
	long- term	middle-term and	researches					
	period.	long- term	continuously.					
		period.						

From Table 4.32: Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research personnel, it shows that the indicator 4.1 - 4.8 were "Pass." Thus, it can be concluded that the propriety of criteria involving the assessment of research personnel were found in every indicator.

Table 4.33 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research materials and facilities

T. P			Criteria			3.4	Quartile	
Indicator	1	2	3	4	5	Mean	Range	Interpretation
5.1 Sufficiency and	The	The	The	The	The	5	0.5	Pass
modernity of the	performance is	performance is	performance is	performance is	performance is			
equipment, instruments	in the "least"	in the "low"	in the "moderate"	in the "high"	in the "highest"			
or durable articles and	level.	level.	level.	level.	level.			
laboratory								
5.2 Systems include	There is a plan	There is a	There are	There is an	There is a result	5	1	Pass
supervisors and research	and a target to	service to assist	research staffs	evaluation of	of the			
clinic for assisting	assist	researchers with	who are	services to assist	assessment			
researchers	researchers with	mentoring	knowledgeable	researchers with	employed to			
	mentoring	systems or	about research	mentoring	improve and			
	systems or	research clinics.	to assist	systems or	provide more			
	research clinics.		researchers with	research clinics.	effective			
			mentoring		mentoring			
			systems or		systems or			
			research clinics.		research clinics.			

Table 4.32 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
5.3 Modern and efficient	The	The	The	The	The	5	1	Pass
materials, equipment and	performance is	performance is	performance is	performance is	performance is			
laboratory to facilitate	in the "least"	in the "low"	in the "moderate"	in the "high"	in the "highest"			
doing researches	level.	level.	level.	level.	level.			
5.4 Various packages to	The	The	The	The	The	5	1	Pass
facilitate doing	performance is	performance is	performance is	performance is	performance is			
researches such as data	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
analysis programs etc.	level.	level.	"moderate"	level.	level.			
			level.					
5.5 Information	The	The	The	The	The	5	1	Pass
technology system for	performance is	performance is	performance is	performance is	performance is			
researches to easily log	in the "least"	in the "low"	in the	in the "high"	in the "highest"			
in and be convenient for	level.	level.	"moderate"	level.	level.			
searching			level.					

From Table 4.33, Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research materials and facilities, it reveals that the indicator 5.1 - 5.5 were "Pass." Hence, it can be concluded that the propriety of criteria involving the research materials and facilities were found in every indicator.

Table 4.34 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of production and controlling quality of research

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
6.1 Systems and	There is a rule,	There is a	There is an	There is a team	There is a	4	1	Pass
protocols of the project	regulation, or	researcher's	advisors for the	of people or	monitoring and			
proposal corresponding	announcement	guide for	development of	coordinators to	evaluating the			
with the policy and	regarding the	developing	the research	work on the	development of			
research plan responding	development of	research	proposal or a	development of	the research			
to the internal and	research	proposals or a	research	the research	proposal or a			
external budget resources	proposals or	research	program	proposal or a	series of			
	research	program	projects	series of	research			
	program.	corresponding	corresponding	research	projects.			
		with research	with research	projects.				
		policies and	policies and					
		plans	plans					
6.2 Distinct and	There is a rule,	There is a	There is a team	There is an	There is a	4	1	Pass
practicable systems and	regulation or	handbook	of people or	activity that	monitoring and			
protocols regarding the	announcement	outlining the	coordinators to	promote the	evaluating of the			
production and quality	regarding the	processes or	supervise the	production and	production and			
controls of the researches	production and	procedures for	production and	quality control	quality controls			

Table 4.34 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Ivican	Range	interpretation
	quality controls	producing and	quality controls	of research	of the			
	of the	controlling the	of the	results to	researches.			
	researches.	quality of	researches.	achieve the				
		research results		objectives of the				
		being clear and		research as laid				
		practical.		down.				
6.3 Consideration of	There is a rule,	There is a	There is a	There is an	There is a	5	1	Pass
research proposal from	regulation or	directory of	recruit who	activity to	monitoring and			
the experts and	announcement	experts who	have the	consider the	evaluating to			
specialists in each field	about the	have expertise	expertise and	research	consider the			
	selection of	and specialists	specialists in the	proposals from	research			
	experts with	in each field.	field to consider	expertise and	proposals from			
	expertise and		the research	specialists in the	specialists.			
	experience to		proposal.	field.				
	consider the							
	research							
	proposal.							

Table 4.34 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
6.4 Progress report of	There is a rule,	There is a	There is a team	There is an	There is an	5	1	Pass
research projects	regulation, or	researcher's	of people or	activity to report	evaluation of the			
provided in each period	announcement	handbook for	coordinators	of research	progress of the			
until the end of the	regarding report	progress report	oversees the	projects	research in order			
project in order to	of research	on research	progress report	provided in each	to manage a			
control the quality as a	projects	projects.	of research	period until the	plan.			
plan	provided in each		projects	end of the				
	period until the		provided in each	project in order				
	end of the		period until the	to control the				
	project.		end of the	quality as a				
			project in order	plan.				
			to control the					
			quality as a plan.					
6.5 A number of	There is a rule,	There is a team	There is a	There is an	There is an	5	0.5	Pass
researches done and its	regulation or	of people or	progress of the	assistance to	evaluation of			
quality control in each	announcement	coordinators to	research project	provide and	quality control			
period of the procedure	regarding the	supervise and	has been	facilitate to the	and production			
	period of the	monitor the	reported until	production of	of research			

Table 4.34 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
	research to be	quality control	the end of the	research results	results is			
	completed as	and production	project to be	to be completed	completed the			
	scheduled.	of research to	completed as	as scheduled	period of time.			
		complete the	scheduled.					
		period of time.						
6.6 Quality controls of	There is a rule,	There is a form	There is an	There is a report	There is a	5	0.5	Pass
researches by the	regulation or	to submit a list	evaluation of	of the	validation after			
expert's assessment in	announcement	of experts who	quality control	evaluation of	being assessed			
each field for the	regarding the	have expertise	and production	quality control	by the experts			
accuracy of the research	quality control	and experience	of research	and production	and adjusting			
methodology	of research	in the field to	results by highly	of research	accordance with			
	results by highly	consider the	qualified and	results by highly	their			
	qualified and	suitability.	experienced	qualified and	suggestions			
	experienced		experts.	experienced	completely.			
	experts.			experts returned				
				to the				
				researcher.				

Table 4.34 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	ivican	Range	interpretation
6.7 Announcement about	There is a rule,	There is a form	There is	There is an	There is an	5	1	Pass
the production and the	regulation, or	regarding the	publicity about	announcement	evaluation and			
research quality control	announcement	production and	the production	regarding the	results			
	regarding the	the research	and the quality	process or	employed to			
	production and	quality control.	control of the	production	improve the			
	the quality		research through	process and	quality of			
	control of the		several	quality control	research.			
	research and		channels.	of the research				
	announcement.			and the general				
				public.				

From Table 4.34 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of production and controlling quality of research, it reveals that the indicator 6.1 - 6.7 were "Pass." Consequently, it can be concluded that the propriety of criteria involving the production and controlling the quality of research were found in every indicator.

Table 4.35 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of follow-up and evaluation

Indicator			Criteria			Mean	Quartile	Interpretation
indicator	1	2	3	4	5	Wican	Range	interpretation
7.1 A system and	There is a	There is a	There is a clear	There is a	There is an	5	0	Pass
protocol to follow up and	regulation or	designated	timeline for	project or	evaluation of a			
assess the progress of	announcement	person	monitoring and	activity for	project or an			
research project	regarding the	responsible or	evaluating the	monitoring and	activity for			
	monitoring and	assigned to	progress of the	evaluating the	monitoring and			
	evaluating of the	monitor and	research project.	progress of the	evaluating the			
	progress of the	evaluate the		research project.	progress of the			
	research project.	progress of the			research project.			
		research project.						
7.2 A friendly	The	The	The	The	The	5	1	Pass
atmosphere of follow -	performance is							
up and assessment	in the "lowest"	in the "low"	in the "moderate"	in the "high"	in the "highest"			
	level.	level.	level.	level.	level.			
7.3 A follow- up and	The	The	The	The	The	5	1	Pass
assessment of research	performance is							
management as due- date	in the "lowest"	in the "low"	in the "moderate"	in the "high"	in the "highest"			
plan	level.	level.	level.	level.	level.			

Table 4.35 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
7.4 Percentage of	not more than	51-60 percent	61-70 percent	71-80 percent	above 81	5	0.5	Pass
researches planned	50 percent				percent			
7.5 A follow- up and	The	The	The	The	The	5	1	Pass
assessment with	performance is	performance is	performance is	performance is	performance is			
acceptable criteria	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
	level.	level.	"moderate" level.	level.	level.			
7.6 Acceptable and	The	The	The	The	The	5	1	Pass
sufficient assessment	performance is	performance is	performance is	performance is	performance is			
from specialists in	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
specific fields	level.	level.	"moderate" level.	level.	level.			
7.7 Participation in	The	The	The	The	The	5	1	Pass
assessment from	performance is	performance is	performance is	performance is	performance is			
interested people in	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
researches to get the	level.	level.	"moderate"	level.	level.			
most of advantages of			level.					
researches								

Table 4.35 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	ivican	Range	and promoton
7.8 Giving opportunities	The	The	The	The	The	5	0.5	Pass
to adjust the research	performance is	performance is	performance is	performance is	performance is			
results after the	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
assessment from the	level.	level.	"moderate"	level.	level.			
assessors			level.					

Table 4.35 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of follow-up and evaluation, it shows that the indicator 7.1 - 7.8 were "Pass." Accordingly, it can be concluded that the propriety of criteria involving Follow-up and assessment were found in every indicator.

Table 4.36 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research publishing, publicizing and application

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
8.1 Budget allocation for	There is a plan	There is a rule,	There is a	There is an	There is a	5	0.5	Pass
publishing and	to promote the	regulation or	budget	activity or	monitoring and			
publicizing both	publishing and	announcement	allocations for	project that	evaluating of			
domestic and foreign	publicizing both	regarding the	the promotion,	promote the	budget			
researches	domestic and	promotion,	publishing and	publishing and	allocation to			
	foreign	publishing and	publicizing both	publicizing both	promote the			
	researches.	publicizing both	domestic and	domestic and	publishing and			
		domestic and	foreign	foreign	publicizing both			
		foreign	researches.	researches.	domestic and			
		researches.			foreign			
					researches.			
8.2 Systems and	There is a plan	There is a rule,	There is a	There is a step	There is a	5	0.5	Pass
protocols of publicizing	and goal for	regulation or	budget	or process in	monitoring and			
and driving researches to	publicizing and	announcement	allocation to	creating the	evaluating a			
utilization	driving	regarding the	propel the	activity in	plan in			
	researches to	publicizing and	systems	publicizing and	publicizing and			
	utilization.	driving	protocols of	driving	driving			

Table 4.36 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
indicator	1	2	3	4	5	Ivican	Range	interpretation
		researches to	publicizing and	researches to	researches to			
		utilization.	driving	utilization	utilization.			
			researches to					
			utilization.					
8.3 Percentage of	Not more than	51-60 percent.	61-70 percent.	71-80 percent.	Above 81	5	1	Pass
researches and journals	50 percent.				percent.			
published, publicized and								
utilized to professors in								
the local, national and								
international level								
8.4 Promoting	There is a plan	There is a	There is a	There is a	The results of	5	0.5	Pass
knowledge sharing of	to promoting	budget	project/ activity	monitoring and	the evaluation			
research result to the	knowledge	allocation to	to promoting to	evaluating of	are revised to			
development community	sharing of	promoting to	sharing of	the project/	improve the			
and society around	research result	sharing of	research result	activity to	program for the			
universities	to the	research result	to the	promoting to	next time.			
	development	to the	development	sharing of				
	community and	development	community and	research result				

Table 4.36 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
	society around	community and	society around	to the				
	universities.	society around	universities.	development				
		universities.		community and				
				society around				
				universities.				
8.5 Supporting a patent	There is a plan	There is a	There is an	There is a	The results of	4	1	Pass
registration or	to supporting a	budget	award and	monitoring and	the evaluation			
intellectual property	patent	allocation to	honor are	evaluating of	are revised to			
protection	registration or	supporting a	awarded for	plans to	improve the			
	intellectual	patent	patented	supporting a	program for the			
	property	registration or	research	patent	next time.			
	protection.	intellectual	programs for	registration or				
		property	intellectual	intellectual				
		protection.	property	property				
			protection.	protection.				

Table 4.36 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
indicator	1	2	3	4	5	Wican	Range	interpretation
8.6 Supporting	There is a plan	There is a	There is a rule,	There is a clear	There is a	4	1	Pass
researches in a field of	to supporting	budget	regulation, or	calculation of	monitoring and			
commercial interests	researches in a	allocations to	announcement	compensation,	evaluating to			
	field of	supporting	regarding to	which is a	supporting			
	commercial	researches in a	supporting	commercial	researches in a			
	interests.	field of	researches in a	advantage	field of			
		commercial	field of	between the	commercial			
		interests.	commercial	source of funds	interests.			
			interests.	and the owner				
				of the research.				
8.7 Supporting the	There is a plan	There is a	There is a rule,	There is a	There is a	4	1	Pass
journal writing skill for	to supporting	budget	regulation, or	project / activity	monitoring and			
publishing and	the journal	allocation to	announcement	for developing	evaluating of			
publicizing	writing skill for	supporting the	regarding	journal writing	project activities			
	publishing and	journal writing	compensation or	skill for	/ training			
	publicizing.	skill for	reward for those	publishing and	activities for			
		publishing and	who are writing	publicizing.	developing			
		publicizing	articles for		journal writing			

Table 4.36 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
			publishing and		skill for			
			publicizing.		publishing and			
					publicizing.			
8.8 Arranging an	There is a plan	There is a	The project/	There is a	The results of	5	1	Pass
academic conference for	to arranging an	budget	activity for	monitoring and	the evaluation			
publishing and	academic	allocations for	arranging an	evaluating in the	are revised to			
publicizing researches	conference for	arranging an	academic	arranging an	improve the			
	publishing and	academic	conference for	academic	program for the			
	publicizing	conference for	publishing and	conference for	next time.			
	researches.	publishing and	publicizing	publishing and				
		publicizing	researches.	publicizing				
		researches.		researches.				
8.9 Publishing	There is a plan	There is a	There is a team	There are	There is a	5	1	Pass
international standard	to publishing	budget	of people or	evaluating	control the			
research journals for	international	allocation to	editors to	works of editors	timing of			
publishing and	standard	publishing	produce an	to produce an	journals to be			
publicizing researches	research	international	international	international	continuous and			
	journals for	standard	standard	standard	international			
			research journal.	research journal.	standards.			

Table 4.36 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
	1	2	3	4	5	Wican	Range	F
	publishing and	research						
	publicizing	journals for						
	researches.	publishing and						
		publicizing						
		researches.						

From Table 4.36 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research publishing, publicizing and application, it reveals that the indicator 8.1 - 8.9 were "Pass." To sum up, the propriety of criteria involving research publishing, publicizing and application were found in every indicator.

Table 4.37 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research network

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Mean	Range	interpretation
9.1 Systems and	There is a policy	There is a plan	There is a	There is a joint	There is an	5	0.5	Pass
protocols cooperating	to promote	to promote	meeting to	project or	evaluation is			
with other networks for	cooperating	cooperating	exchange ideas	activity	cooperation			
research cooperation	with other	with other	with other	organized with	with other			
from both the public and	networks for	networks for	networks for	other networks	networks for			
private sectors	research	research	research	for research	research			
	cooperation	cooperation	cooperation	cooperation	cooperation			
	from both the	from both the	from both the	from both the	from both the			
	public and	public and	public and	public and	public and			
	private sectors.	private sectors.	private sectors.	private sectors.	private sectors.			
9.2 Sharing the	There is a policy	There is a plans	There is a	There is a	There is an	5	0.5	Pass
resources and	to promote	to promote	meeting to share	sharing of	assessment of			
cooperating with other	sharing the	sharing the	ideas with other	resources and	resource sharing			
research institutes	resources and	resources and	institutions and promote sharing	cooperating	and cooperating			
	cooperating	cooperating	the resources	with other	with other			
	with other	with other	and cooperating	research	research			
	research	research	with other	institutes.	institutes.			
	institutes.	institutes.	research institutes.					

Table 4.37 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
9.3 A number of research	1 network	2-3 networks	4-6 networks	7-9 networks	above 10	5	1	Pass
networks from both					networks			
public and private sectors								
9.4 Promoting the	There is a policy	There is a plan	There is a	There is a	There is an	4	1.5	Pass
research cooperation as	to promote the	to promote the	meeting	research	evaluation of the			
an interdisciplinary	research	research	between the	collaboration of	success in			
network	cooperation as	cooperation as	research	regarding	interdisciplinary			
	an	an	institutes and	interdisciplinary	research			
	interdisciplinary	interdisciplinary	the research	research	collaboration			
	network.	network.	network to	between	between			
			promote	research	research			
			interdisciplinary	networks.	networks.			
			research.					
9.5 Sharing research	The	The	The	The	The	4	1	Pass
information among the	performance is							
network in both domestic	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
and foreign institutes	level.	level.	"moderate"	level.	level.			
			level.					

Table 4.37 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
indicator	1	2	3	4	5	Wican	Range	interpretation
9.6 Supporting doing	There is a policy	There is plan to	There is a	There is a doing	There is	5	1	Pass
researches with other	to support doing	support doing	mutual	researches with	evaluation of the			
domestic and foreign	researches with	researches with	agreement for	other domestic	success research			
institutes	other domestic	other domestic	doing researches	and foreign	with doing			
	and foreign	and foreign	with other	institutes.	researches with			
	institutes.	institutes.	domestic and		other domestic			
			foreign		and foreign			
			institutes.		institutes.			
9.7 Arranging academic	There is a plan	There is a	There is a	There is an	The result of the	5	1.5	Pass
conference with other	to arranging	budget	project / activity	evaluation in the	evaluation is			
institutes continuously	academic	allocations for	for arranging	operation of the	revised to			
	conference with	arranging	academic	academic	improve the			
	other institutes	academic	conference with	conference with	program for the			
	continuously.	conference with	other institutes	other institutes	next time.			
		other institutes	continuously.	continuously.				
		continuously.						

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Table 4.37 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
indicator	1	2	3	4	5	Wican	Range	interpretation
9.8 Supporting the	There is a policy	There is a plan	There is a	There is a	There is an	5	1	Pass
training program and	to support the	to support the	mutual	workshop/	evaluation of the			
visit program among the	training/	training/	agreement to	meeting/	goals of the			
research network	conferences/	conference/	provide training/	seminar/ study	training/			
	seminars/ study	seminar/ study	meetings/	visit on research	conference/			
	visit on research	visit program	seminars/ study	in a	seminar/ study			
	in a	among the	visit on research	collaborative	visit on research			
	collaborative	research	in a	research	in a			
	research	network.	collaborative	network.	collaborative			
	network.		research		research			
			network.		network.			

From Table 4.37, analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of research network, it reveals that the indicator 9.1 - 9.8 were "Pass." To conclude, the propriety of criteria involving research network were found in every indicator.

Table 4.38 Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of systems and supporting protocols such as motivation etc.

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Mean	Range	interpretation
10.1 Giving	There is a policy	There is a plan	There is a	There is an	There is an	5	0.5	Pass
opportunities for young	to giving	and target are	budget	activity or	evaluating and			
researchers in order to	opportunities for	set for young	allocations for	training	monitoring of			
earn more scholarships	young	researchers in	young	programs to	activities or			
	researchers in	order to earn	researchers in	provide	projects to train			
	order to earn	more	order to earn	knowledge to	the knowledge to			
	more	scholarships.	more	empower young	empower young			
	scholarships.		scholarships.	researchers.	researchers.			
10.2 Appropriate	There is a policy	There is rule,	There is a team	There is a	There is an	5	0.5	Pass
allocation of load	to promote	regulation or	or a person	calculation of	evaluating			
regarding the research	appropriate	announcement	being	load regarding	allocation of			
influencing on research	allocation of	regarding the	appropriately	the research	load regarding			
facilitation	load regarding	appropriate	responsible for	influencing on	the research.			
	the research	allocation of load regarding	the allocation of	research				
	influencing on	the research	the research	facilitation.				
	research	influencing on	loads in order to					
	facilitation.	research	facilitate doing					
		facilitation.	any researches.					

Table 4.38 (continued)

Indicator		Criteria					Quartile	Interpretation
Indicator	1	2	3	4	5	Mean	Range	interpretation
10.3 Selecting	There is a policy	There is a rule,	There is a	There is a	There is an	5	0	Pass
prominent researchers	to honor the	regulation or	committee to	recruiting or	evaluation of the			
for annual best awards	prominent	announcement	recruiting or	selecting people	activities to			
	researchers for	regarding honor	selecting people	according to the	honor the			
	annual best	the prominent	according to the	rules or	prominent			
	awards.	researchers for	rules or	announcements	researchers for			
		annual best	announcements	of policy to	annual best			
		awards.	of policy to	honor the	awards.			
			honor the	prominent				
			prominent	researchers for				
			researchers for	annual best				
			annual best	awards.				
			awards.					
10.4 Integrating the	There is a policy	There is a rule,	There is a	There is an	There is an	5	0	Pass
research with meritorious	to integrating	regulation, or	committee to	assessment of	evaluation of the			
working assessment with	the research	announcement	assess the merit	merit to rule or	activities to			
acceptable standard	with meritorious	regarding	by Integrating	announcement	integrating the			
criteria	working	Integrating the	the research	regarding	research with			
	assessment	research with	with meritorious	Integrating the	meritorious			

Table 4.38 (continued)

Indicator			Criteria			Mean	Quartile	Interpretation
Indicator	1	2	3	4	5	Wican	Range	interpretation
		meritorious	working	research with	working			
		working	assessment with	meritorious	assessment.			
		assessment with	acceptable	working				
		acceptable	standard	assessment with				
		standard	criteria.	acceptable				
		criteria.		standard				
				criteria.				
10.5 Rule and regulation	The	The	The	The	The	5	0	Pass
adjustment being as an	performance is							
obstacle of research	in the "lowest"	in the "low"	in the	in the "high"	in the "highest"			
flexibility and facilitation	level.	level.	"moderate"	level.	level.			
			level.					

From Table 4.38, Analysis result to draw conclusion from the expert's opinions involving the propriety of criteria in each indicator in term of systems and supporting protocols such as motivation etc., it reveals that the indicator 10.1 - 10.5 were "Pass." Thus, it is said that the propriety of criteria involving systems and supporting protocols such as motivation etc. were found in every indicator.

Part 3 Result of generating and monitoring the quality of the research management assessment model for private universities

3.1 Results of the previous studies relating to the factor of assessment model

The researcher synthesized the previous researches relating to the factor of assessment model. Also, the concept of Sirichai Kanjanawasee (2004) and Sathianpak Mookdee (2 011) together with the researcher's, the factor of assessment model comprises with these following 7 factors: 1) purpose of assessment 2) subjects of assessment 3) assessor 4) assessment method 5) indicators of assessment 6) assessment criteria and 7) giving feedback. ามยนต

3.2 Results of generating the assessment model in research management

The assessment model in research management for private universities contains 1) purpose of assessment 2) subjects of assessment 3) assessor 4) assessment method 5) indicators of assessment 6) assessment criteria and 7) giving feedback. The details of these factors were as follows.

1. Purposes of assessment

To assess the research management in private universities

2. Subjects of assessment

Subjects of assessment are the research management in private universities can be divided into 10 factors as follows.

- 1) Policy and research plan
- 2) Structure and research organization management
- 3) Research budgets
- 4) Research personnel
- 5) Research materials and facilities
 - 6) Production and controlling quality of research
 - 7) Follow-up and assessment
 - 8) Research publishing, publicizing and application
 - 9) Research network
 - 10) Systems and supporting protocols such as motivation etc.

3. Assessor

The assessment model in research management for private universities comprises with the officials involving with the university researches which can be divided into 3 levels: 1) Policy Level which comprised of the executive level Vice-Rector for Academic Affairs, Vice-Rector for research or Director of Research Division including the research committee of universities 2) Practitioner Level with researchers and 3) Coordinator Level consisting of personnel in Research division of private universities.

4. Assessment method

Assessment method could be evaluated accordant with 10 factors and 72 indicators and employed the data as to compare with the criteria. The assessors had to examine the factors, indicators and criteria as followed in a handbook.

5. Indicators of assessment

The researcher synthesized the indicators of assessment from the principles, concepts, theories, and previous studies. 72 indicators and 10 factors were as follows.

Factor 1 Policy and research plan comprise 7 indicators as follows.

- 1.1 The policy and research plan corresponding with the policy and national research strategies
- 1.2 The policy and research plan responding to both internal and external budget resources
 - 1.3 Setting policy and research plan which is clear and practicable
 - 1.4 Creating the research plan according to the cycle of PDCA
 - 1.5 A research plan promoting and supporting the university visions
 - 1.6 A research plan corresponding with the research of the universities
- 1.7 Research plans which can continuously drive the young researcher development

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Factor 2 Structure and research organization management consist of 7 indicators as follows.

- 2.1 A structure of the organization which includes a sector taking charge of the research directly such as office of research etc.
- 2.2 A clear structure of research organization management in aspect of person responsible
- 2.3 A structure containing a system and protocol of research management accordant with a purpose of university research

- 2.4 A structure corresponding with the context of the mission and responsibility involving researches
 - 2.5 A flexibles structure and an organization research management
- 2.6 A structure and an organization research management with clear job descriptions
- 2.7 A structure having a system and a protocol promoting and supporting researches

Factor 3 Research budgets include 8 indicators as follows.

- 3.1 Systems and protocols relating to statement of support doing researches provided
 - 3.2 A suitable budget allocation of a university research
- 3.3 A budget allocation for being as a research subsidy and other research activities such as training sessions etc.
- 3.4 Percentage of teachers/ personnel who gain the scholarship for internal and external universities
- 3.5 A number of budget for researches and parties in the institutes for teachers/ personnel of permanent contract
- 3.6 The issue of materials of a budget involving a research each chance with convenience, rapidity and timeliness
- 3.7 The issue of materials of a budget subsidy with a handbook or the instructions of step of issue of materials
 - 3.8 Budget subsidy of research corresponding with the research plans

Factor 4 Research personnel consist of 8 indicators as follows.

4.1 Personnel involving a research in a policy level need to have visions and abilities of research management.

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- 4.2 Personnel in a division of research are knowledgeable and skillful in doing research.
 - 4.3 Personnel in a division of research are friendly.
- 4.4 A division of research contains the experts of supervision regarding the researches to support and guide for the researchers efficiently.

- 4.5 A number of personnel in a division of research are suitable for work.
- 4.6 Personnel involving a research need to be discipline and have morals relating doing a research well.
- 4.7 Percentage of personnel involving a research have knowledge of doing researches in order to facilitate the research production.
- 4.8 A protocol and personnel development plan involving research includes the short-term, middle-term and long- term period.

Factor 5 Research materials and facilities comprise 5 indicators as follows.

- 5.1 Sufficiency and modernity of the equipment, instruments or durable articles and laboratory
 - 5.2 Systems include supervisors and research clinic for assisting researchers
- 5.3 Modern and efficient materials, equipment and laboratory to facilitate doing researches
- 5.4 Various packages to facilitate doing researches such as data analysis programs etc.
- 5.5 Information technology system for researches to easily log in and be convenient for searching

Factor 6 Production and controlling quality of research include 7 indicators as follows.

- 6.1 systems and protocols of the project proposal corresponding with the policy and research plan responding to the internal and external budget resources
- 6.2 Distinct and practicable systems and protocols regarding the production and quality controls of the researches
- 6.3 Consideration of research proposal from the experts and specialists in each field
- 6.4 Progress report of research projects provided in each period until the end of the project in order to control the quality as a plan
- 6.5 A number of researches done and its quality control in each period of the procedure

- 6.6 Quality controls of researches by the expert's assessment in each field for the accuracy of the research methodology
 - 6.7 Announcement about the production and the research quality control

Factor 7 Follow-up and assessment consist of 8 indicators as follows.

- 7.1 A system and protocol in reporting in order to follow up and assess the progress of research project
 - 7.2 A friendly atmosphere of follow up and assessment
 - 7.3 A follow- up and assessment of research management as due- date plan
 - 7.4 Percentage of researches planned
 - 7.5 A follow- up and assessment with acceptable criteria
 - 7.6 Acceptable and sufficient assessment from specialists in specific fields
- 7.7 Participation in assessment from interested people in researches to get the most of advantages of researches
- 7.8 Giving opportunities to adjust the research results after the assessment from the assessors

Factor 8 Research publishing, publicizing and utilization include 8 indicators as follows.

- 8.1 Budget allocation for publishing and publicizing both domestic and foreign researches
- 8.2 Systems and protocols of publicizing and driving researches to
- 8.3 Percentage of researches and journals published, publicized and utilized to professors in the local, national and international level
- 8.4 Promoting knowledge sharing of research results to the development community and society around universities
- 8.5 Supporting a patent registration or intellectual property protection
 - 8.6 Supporting researches in a field of commercial interests
 - 8.7 Supporting the journal writing skill for publishing and

publicizing

- 8.8 Arranging an academic conference for publishing and publicizing researches
- 8.9 Publishing international standard research journals for publishing and publicizing researches

Factor 9 Research network comprises 8 indicators as follows.

- 9.1 Systems and protocols cooperating with other networks for research cooperation from both the public and private sectors
- 9.2 Sharing the resources and cooperating with other research institutes
 - 9.3 A number of research networks from both public and private sectors
 - 9.4 Promoting the research cooperation as an interdisciplinary

network

- 9.5 Sharing research information among the network in both domestic and foreign institutes
- 9.6 Supporting doing researches with other domestic and foreign institutes
 - 9.7 Arranging academic conference with other institutes continuously
- 9.8 Supporting the training program and visit program among the research network

Factor 10 Systems and supporting protocols such as motivation etc. consist of 7 indicators as follows.

- 10.1 Giving opportunities for young researchers in order to earn more scholarships
- 10.2 Appropriate allocation of load regarding the research influencing on research facilitation
 - 10.3 Selecting prominent researchers for annual best awards
- 10.4 Integrating the research with meritorious working assessment with acceptable standard criteria
- 10.5 Rule and regulation adjustment being as an obstacle of research flexibility and facilitation

6. Criteria of Assessment

The criteria of the assessment in research management, the indicators could be divided into two different types, a qualitative indicator and a quantitative indicator, as follows.

- 1) The criteria of the qualitative indicators could be classified into each item and the criteria were five levels which contained 1-5 scores. The evaluation would be counted a number of each item and in case that there was no need for cooperation, it would be considered as 0 score.
- 2) The criteria of the quantitative indicators, the percentage or mean were employed, and the performance level was in the "lowest" to the "highest" level. The criteria were arranged from 1 to 5 and in case that there was no need for cooperation, it would be considered as 0 score.

7. Giving feedback

Giving feedback is reporting the result of the research management assessment by the groups of assessors announced to the universities. These groups of assessors include the people involving the research system of private universities which can be divided into 3 levels: 1) Policy Level which comprised of the executive level Vice-Rector for Academic Affairs, Vice-Rector for research and Director of Research Division, 2) Practitioner Level with researchers and 3) Coordinator Level consisting of personnel in Research division in a private university

The result of assessment could be received from the assessors in 3 levels: Policy Level, Practitioner Level and Coordinator Level and shown the result of each indicator together with the whole image of result classified by 10 factors of research management.

3.3 Result of examining the quality of the model and the handbook of the research management assessment

The experts in the research management examined the quality of the model and the handbook of the research management assessment in private universities to 4 standards:

1) Utility 2) Feasibility 3) Propriety 4) Accuracy. The findings were shown in Table
4.39 to Table 4.42

Table 4.39 Analysis result of the experts' opinions toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of utility

Standard of Utility	Mean	Standard deviation	Interpretation
1. The model of the assessment is beneficial	4.67	0.58	Highest
to the overall assessment of the research			
management			
2. The assessors are skillful in assessment	4.00	0.00	High
and affect the result acceptable and reliable		6	
3. The assessment in data collection covers	4.33	0.58	High
the information from several resources		13	
4. The criteria of assessment can be	4.67	0.58	Highest
classified deliberately and clearly	1	1	5 N
5. The assessment report of the information	3.67	1.15	High
is clear and understandable.	w))	1.4	//
6. The assessment report can be	4.33	0.58	High
accomplished in a due time in order to be		/ A //	
applied subsequently.	0		
7. The assessment can be applied for the	4.67	0.58	Highest
information users for the working			
adjustment and continuous development.	000	II ST CLA	?wi
Total	4.33	0.44	High
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From Table 4.39, opinions from the experts toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of utility, it found out that propriety was in the "high" to "highest' level. Also, the average score was between 3.67 to 4.67 and was considered that the overall image of the propriety was at the "high."

Table 4.40 Analysis result of the experts' opinions toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of feasibility

Standard of Feasibility	Mean	Standard deviation	Interpretation
1. The model can be organized for real.	4.67	0.58	Highest
2. The assessment model can be	4.67	0.58	Highest
cooperated by the persons interested.			
3. The assessment model is valuable for	4.67	0.58	Highest
the resources of assessment	0	16	
Total	4.67	0.58	Highest

From Table 4.40, opinions from the experts toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of feasibility, it found out that propriety was in the "highest' level in every indicator. Also, the average score was 4.67 in every subject and was considered that the overall image of the propriety was at the "highest."



Table 4.41 Analysis result of the experts' opinions toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of propriety

Chandand of December	M	Standard	Indown = -4-4
Standard of Propriety	Mean	deviation	Interpretation
1. The assessment focuses on the	4.67	0.58	Highest
organization which services the			
subscribers thoroughly and efficiently.			
2. The agreement between and an	4.33	1.15	High
assessor and a person assessed is	0.0	1/3/	
officially set with conditions.	从二	1.531	
3. The assessment can be organized by	4.00	1.00	High
considering of the protection of a person	(4)	713	
assessed.		1	á
4. The assessment can be provide with	4.67	0.58	Highest
the friendship under the respect of the		1.4	//
honors and the equal human rights.	IAA	/ 60	//
5. The assessment report shows the	4.33	0.58	High
strengths and weakness with fairness and	ppoor co	C(1)	
completeness	MIVE	33//	
6. The assessment report can be frankly	4.67	0.58	Highest
revealed for the information users.	20100		?:
7. The assessment can be solved the	4.67	0.58	Highest
conflicts of assessment with fairness.	hiang M	lai Unive	ersity
8. The assessment can be organized with	4.67	0.58	Highest
appropriate resources and the assessment			
methods.			
Total	4.50	0.65	High

From Table 4.41, opinions from the experts toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of propriety, it found out that propriety was in the "high" to "highest" level in every indicator. Also, the average score was between 4.00-4.67 and was considered that the overall image of the propriety was at the "high."

Table 4.42 Analysis result of the experts' opinions toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of accuracy

Standard of Accuracy	Mean	Standard deviation	Interpretation
1. The assessment model is compiled in	5.00	0.00	Highest
a form of documents and with the clear			
description.			
2. The assessment is studied and analyzed	4.67	0.58	Highest
the subjects of assessment clearly.	0	10	
3. Setting the objectives and method of	4.67	0.58	Highest
assessment can be clearly identified.		13	
4. The assessment can be clearly revealed	4.67	0.58	Highest
the resources of information.	3	1	5
5. The assessment gives the information	4.67	0.58	Highest
with its real condition.	((*)	14	//
6. The assessment includes the reliable	4.67	0.58	Highest
information.	33	/A //	
7. The assessment can be collected the	4.33	0.58	High
information, analyzed and report	VIVE		
systematically.			
8. The assessment can be analyzed the	4.67	0.58	Highest
quantitative analysis and affected to the	บาล	01000	ITHU
accurate and efficient assessment.	ang M	lai Unive	ersity
9. The assessment is analyzed the	4.00	1.00	High
qualitative data with the appropriate			
methodology and affected to the accurate			
and efficient results.			
10. The assessment model is logically	4.67	0.58	Highest
provided by the person interested.			

Table 4.42 (continued)

Mean	Standard deviation	Interpretation
4.33	0.58	High
4.33	1.15	High
ยนติ		
10	8/5	
4.56	0.48	Highest
	4.33	Mean deviation 4.33 0.58 4.33 1.15

From Table 4.42, opinions from the experts toward the propriety of the model and the handbook of the research management assessment in aspect of the standard of accuracy, it found out that propriety was in the "highest' level in every indicator. Also, the average score was between 4.00 - 5.00 and was considered that the overall image of the propriety was at the "highest."



Part 4 Result of examining the implementation of research management assessment model for private universities

4.1 Result of examining the implementation of research management assessment model for private universities in University A

Result of examining the implementation of research management assessment model for private universities in University A comprised of the implementation of research management assessment model for private universities and the result of examining the implementation of research management assessment model for private universities. The data were as follows.

4.1.1 Result of examining the implementation of research management assessment model for private universities in University A

After the implementation of research management assessment model for private universities in University A, the researcher classified the responsibility in assessment into 3 levels: Policy Level which comprised of five people in the executive level Vice-Rector for Academic Affairs, Vice-Rector for research and Director of Research Division and three representatives of research committee 2) Practitioner Level with 10 researchers 3) Coordinator Level consisting of three personnel in a research division.

From the interview after the implementation of research management assessment model, the assessors in Policy Level and Practitioner Level could do the assessment in every factor and every indicator. Also, the criteria could be feasible. Thus, the assessment should be used with the handbook, and the assessors in both levels could do all factor and all indicator. Researchers in a Practitioner Level expressed that some indicators could be completed because the researcher could not tell any information such as the information relating the policy and research plan or the structure and organization management and so on. Hence, the researcher needed to arrange the meeting in order to brainstorm the researcher's ideas for selecting which indicators the research could not put in the assessment form. The result coming from the brainstorming were

- 1) Policy and research plan evaluating the indicator 1.1, 1.2, 1.3, 1.5, 1.6 and 1.7
- 2) Structure and research organization management evaluating the indicator 2.1, 2.2 and 2.7
 - 3) Research budgets evaluating the indicator 3.1, 3.6 and 3.7
 - 4) Research personnel evaluating the indicator 4.1, 4.2, 4.3, 4.6 and 4.8
- 5) Research materials and facilities evaluating the indicator 5.1, 5.2, 5.4 and 5.5
- 6) Production and controlling quality of research 7 evaluating the indicator 6.1, 6.4, 6.5 and 6.6
- 7) Follow-up and assessment evaluating the indicator 7.1, 7.2, 7.3, 7.5, 7.6 and 7.8
- 8) Research publishing, publicizing and application evaluating the indicator 8.1, 8.7, 8.8 and 8.9
 - 9) Research network evaluating the indicator 9.5 and 9.6
- 10) Systems and supporting protocols such as motivation etc. evaluating the indicator 10.1, 10.2, and 10.3

After selecting the indicators in a Practitioner Level which contains researchers, the researchers asked the assessors in those three levels did the research management assessment again, concluded the result and gave feedback to University A. The data of the research management report was shown as follows.

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Report of the research management assessment for University A

Factor 1 Policy and research plan

	Averag	ge score from	assessor	Average	Ахомодо
Indicator		in each leve	l	Score of	Average Score of all
Huitatoi	Policy	Practitioner	Coordinator	each indicator	indicator
1. The policy and	5.00	5.00	5.00	5.00	
research plan	(Highest)	(Highest)	(Highest)	(Highest)	
corresponding with the	700	20,0	5 6	2	
policy and national	9			-31	
research strategies	./_	易		1 3 1	
2. The policy and	5.00	4.50	5.00	4.86	
research plan	(Highest)	(High)	(Highest)	(Highest)	
responding to both in		The same		1 SOD	
and outsource	\		* /)	\ A	
3. Setting policy and	5.00	4.50	5.00	4.86	
research plan which is	(Highest)	(High)	(Highest)	(Highest)	
clear and practicable	C.	6000	0 60	5,//	
4. Creating the	4.67	AT TIME	5.00	4.80	
research plan	(Highest)	UN	(Highest)	(Highest)	
according to the cycle	Ca.		.,	ci 2	
of PDCA	ธิมห	าวิทย	าลยเ	ซียงโท	IJ
5. A research plan	4.33	4.00	5.00	4.43	lay.
promoting and	(High)	(High)	(Highest)	(High)	Ly
supporting the	rig	nts	res	erve	Cl
university visions					
6. A working plan	4.67	4.50	5.00	4.71	
corresponding with the	(Highest)	(High)	(Highest)	(Highest)	
research of the					
universities					

Indicator	Averaș	ge score from in each leve	Average Score of	Average Score of all	
mulcutor	Policy	Practitioner	Coordinator	each indicator	indicator
7. A research plan	4.33	3.50	4.00	4.00	
which drives the new researcher development continuously	(High)	(Moderate)	(High)	(High)	
The overall aver	age score of	f Factor 1: Po	olicy and resea	rch plan	4.77 (Highest)

Factor 2 Structure and research organization management

Indicator	Averag	ge score from in each leve	Average Score of	Average Score of all	
mucator	Policy	Practitioner	Coordinator	each indicator	indicator
1. A structure of the	4.67	4.50	5.00	4.71	
organization which	(Highest)	(High)	(Highest)	(Highest)	
includes a sector		TUN	IV		
taking charge of the	C.			-1 9	
research directly such	ธิบห	าวิทย	าลัยเ	ชียงไห	IJ
as office of research etc.	tht [©] k	y Chia	ng Mai	Universi	ty
2. Clear structure of	4.67	4.50	4.00	4.29	d
research organization	(Highest)	(High)	(High)	(High)	
management in aspect					
of person responsible					
3. A structure	3.33	-	4.50	3.80	
containing a system	(Moderate)		(High)	(High)	
and protocol of					
research management					

	Averaş	ge score from	Average	A -vous = 0	
Indicator		in each leve	el	Score of	Average Score of all
Thureator	Policy	Practitioner	Coordinator	each indicator	indicator
accordant with a					
purpose of university					
research					
4. A structure	3.67	-1010	4.50	4.00	
corresponding with the	(High)	UHELL	(High)	(High)	
context of the mission	90	500	48	2.	
and responsibility	9			.031	
involving researches	S. /	其		3	
5. A flexibles structure	3.67	MATTERIAL	3.50	3.60	
and an organization	(High)	3	(Moderate)	(High)	
research management	1	Sec. 8	92	385	
6. A structure and an	4.00	-1/5	4.50	4.20	
organization research	(High)		(High)	(High)	
management with	7.	(4)	111	2	
clear job descriptions	10	666	96	//	
7. A structure having	4.33	4.50	4.50	4.43	
a system and a	(High)	(High)	(High)	(High)	
protocol promoting					
and supporting	ริ้มเห	าวิทร	เวลัยเ	ซียงให	ni
researches	L40	Cl-:-		00011	113
The	overall avei	rage score of	Factor 2:	Universi	4.17
Structure	and researc	h organizatio	n management	erve	(High)

Factor 3 Research budgets

	Averag	ge score from	assessor	Average	A
Indicator		in each leve	Score of	Average	
Indicator	Policy	Practitioner	Coordinator	each indicator	Score of all indicator
1. Systems and	4.33	4.50	5.00	4.57	
protocols relating to	(High)	(High)	(Highest)	(Highest)	
statement of support		01010	12		
doing researches	0, 0	UMEL	10 97		
provided	100	DO.0	7 6	2.	
2. A suitable and	4.33		5.00	4.60	
sufficient budget	(High)	景	(Highest)	(Highest)	
allocation of a	12	MATTERIAL	/7	1 - 11	
university research		3	2	1306	
3. A budget allocation	4.33	Die S	4.00	4.20	
for being as a research	(High)		(High)	(High)	
subsidy and other			A	18	
research activities such	Z.	164			
as training sections	10	6	960	<- //	
etc.	M	47	TERS		
4. Percentage of	4.33	TI UN	3.50	3.40	
teachers/ personnel	(High)		(Moderate)	(Moderate)	
who gain the	និរាអ	າວິກຍ	ากลัยเ	หียงให	31
scholarship for internal	1.0		10101		
and external	int i	y Chia	ng Mai	Universi	ГУ
universities	rig	h t s	res	erve	d
5. A number of	4.33	-	3.50	4.00	
budget for researches	(High)		(Moderate)	(High)	
and parties in the					
institutes for teachers/					
personnel of					
permanent contract					

Indicator	Avera	ge score from in each leve		Average Score of	Average Score of all			
	Policy Practitioner Coordinator	each indicator	indicator					
6. A subsidy allocation	4.00	4.00	4.00	4.00				
for supporting the	(High)	(High)	(High)	(High)				
researches to various								
faculties with								
appropriateness, and	//	43181	杨					
entirety.	ap	500	7 48	2				
7. The issue of	4.00	4.00	5.00	4.29				
materials of a budget	(High)	(High)	(Highest)	(High)				
subsidy with a	12	Millimin	17	1 -11				
handbook or the		3	2	202				
instructions of step of		Se go	922	785 I				
issue of materials	\	70))					
8. Budget subsidy of	4.33	- ()	4.00	4.20				
research corresponding	(High)		(High)	(High)				
with the research plans	10	4	96	0				
The overall a	The overall average score of Factor 3: Research budgets							

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Results of the assessment

Factor 4 Research personnel

	Averag	ge score from	assessor	Average	Avanaga
Indicator		in each leve	Score of	Average Score of all	
mulcator	Policy	Practitioner	Coordinator	each indicator	indicator
1. Personnel involving	4.67	4.00	3.50	4.14	
a research in a policy	(Highest)	(High)	(Moderate)	(High)	
level need to have		01010	12		
visions and abilities of	//0, 0	VARI	10 91		
research management.	9/0	DO.0	7	2.	
2. Personnel in a	4.00	4.00	3.50	3.86	
division of research in	(High)	(High)	(Moderate)	(High)	
a policy level are	12	Minimi	/7	1 - 1	
knowledgeable and		3	2	1306	
skillful in doing research.		Strain S	9-	1385	
3. Personnel in a	4.00	4.00	4.00	4.00	
division of research	(High)	(High)	(High)	(High)	
are friendly.	Ż.	164	111	13/	
4. A division of	4.33	-6000	3.50	4.00	
research contains the	(High)	17 -	(Moderate)	(High)	
experts of supervision		IT UN	IVE		
regarding the					
researches to support	ริบห	າວິກຍ	เาลัยเ	หียภไห	11
and guide for the	001	0110	10101		
researchers efficiently.	tht k	y Chia	ng Mai	Universi	ty
5. A number of	4.00	h t-s	3.00	3.60	d
personnel in a division	(High)		(Moderate)	(High)	
of research are suitable					
for work.					
6. Personnel involving	4.33	4.00	4.00	4.14	
a research need to be	(High)	(High)	(High)	(High)	
discipline and have					
morals relating doing a					
research well.					

	Averaş	ge score from		Average	Average
Indicator	Policy	Practitioner	Coordinator	Score of each indicator	Score of all indicator
7. Percentage of	3.67	-	3.50	3.60	
personnel involving a	(High)		(Moderate)	(High)	
research have					
knowledge of doing					
researches in order to	// 0	V3181	的 。		
facilitate the research	96	-00	48	2.	
production.	9		5	.031	
8. A protocol and	4.33	3.50	3.00	3.71	
personnel development	(High)	(Moderate	(Moderate)	(High)	
plan involving research includes the			2		
short-term, middle-	\))		
term and long- term	. \	()	AL	18	
period.	7.	CA 4	1110	(3)	
The overall av	3.90 (High)				

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Factor 5 Research materials and facilities

	Averag	ge score from	Average Score of	Average	
Indicator	Policy		Coordinator	each indicator	Score of all indicator
1. Sufficiency and	3.33	3.50	3.00	3.29	
modernity of the	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
equipment,		-1010			
instruments or durable	//000	VAIEL	10 97		
articles and laboratory	96	DO.D	7	2.	
2. Systems include	3.67	4.00	3.00	3.57	
supervisors and	(High)	(High)	(Moderate)	(High)	
research clinic for	12	Miniming	17	1 - 11	
assisting researchers		3	2	2025	
3. Modern and	3.67	DE S	3.00	3.40	
efficient materials,	(High)		(Moderate)	(Moderate)	
equipment and			ACA	18	
laboratory to facilitate	Z. \	164	111		
doing researches	To !	66	960	<>//	
4. Various packages to	4.00	3.50	3.00	3.57	
facilitate doing	(High)	(Moderate)	(Moderate)	(High)	
researches such as data					
analysis programs etc.	ริแห	าวิทย	าลัยเ	หียภให	3 [
5. Information	3.67	3.50	3.00	3.43	
technology system for	(High)	(Moderate)			ГУ
researches to easily log	rig	hts	res	erve	d
in and be convenient					
for searching					
The overall average	3.40 (Moderate)				

Factor 6 Production and controlling quality of research

	Averag	ge score from	assessor	Average	A		
Indicator		in each level		in each level		Score of	Average Score of all
Huitatoi	Policy	Practitioner	Coordinator	each indicator	indicator		
1. The system and	4.33	4.00	4.00	4.14			
protocol of project	(high)	(high)	(high)	(high)			
proposal or project		01010	12				
package correspondent	//0, 0	UMEL	19 91				
with the policy and	90	500	7	2.			
research plans which	3		5	-031			
responses the needs of	• / _	景		3			
the internal and	12	MATTERIAL	17	1 - 1			
external outsources		3	2	1306			
2. Distinct and	4.67	Exis.	4.00	4.40			
practicable systems	(highest)		(high)	(high)			
and protocols			A	18			
regarding the	Ž. \	164	1110	13/			
production and quality	10	G G G	96	<>//			
controls of the	M	17	TERS				
researches		IT UN	IVE				
3. Consideration of	4.33	-	4.00	4.20			
research proposal from	(high)	าวิทย	(high)	(high)	11 [
the experts and		10110	10101		10		
specialists in each field	tht k	y Chia	ng Mai	Universi	ty		
4. Progress report of	4.33	4.00	5.00	e 4.43 e	C		
research projects	(high)	(high)	(highest)	(high)			
provided in each							
period until the end of							
the project in order to							
control the quality as a							
plan							

Indicator	Averag	Average score from assessor in each level			Average Score of all		
mucator	Policy	Practitioner	Coordinator	each indicator	indicator		
5. A control of	4.67	4.00	4.00	4.29			
researches done and its	(highest)	(high)	(high)	(high)			
quality in each period							
of the procedure		21010					
6. Quality controls of	4.33	4.00	4.00	4.14			
researches by the	(high)	(high)	(high)	(high)			
expert's assessment in	9			.031			
each field	· / _	景		3			
7. Announcement	4.00	MATTERIAL	4.50	4.20			
about the production	(high)	3	(high)	(high)			
and the research			2000	1385			
quality control	\	70	w))	14			
The	The overall average score of Factor 6:						
Product	tion and cont	trolling qualit	y of research		(High)		

Results of the assessment

Factor 7 Follow-up and assessment

Indicator	Averag	ge score from in each leve	Average Score of	Average Score of all	
Copyrig	Policy	Practitioner	Coordinator	each indicator	indicator
1. A system and	4.67	4.00	4.50	4.43	a
protocol in reporting in	(highest)	(high)	(high)	(high)	
order to follow up and					
assess the progress of					
research project					
2. A friendly	4.00	4.50	5.00	4.43	
atmosphere of follow -	(high)	(high)	(highest)	(high)	
up and assessment					

	Averag	ge score from	Average	A	
Indicator		in each leve	el	Score of	Average Score of all
Indicator	Policy	Practitioner	Coordinator	each indicator	indicator
3. A follow- up and	4.00	4.00	4.00	4.00	
assessment of research	(high)	(high)	(high)	(high)	
management as due-					
date plan		- 010			
4. Percentage of	4.33	V3151	3.50	4.00	
researches planned	(high)	500	48	(High)	
5. A follow- up and	4.67	4.00	4.00	4.23	
assessment with	(highest)	(high)	(high)	(high	
acceptable criteria	10	WHITH THE	17	1 - 2 11	
6. Acceptable and	4.33	4.00	4.00	4.14	
sufficient assessment	(high)	(high)	(high)	(high)	
from specialists in	\))		
specific fields		()	A/	18	
7. Participation in	4.33	-164	4.00	4.20	
assessment from	(high)	4	(high)	(high)	
interested people in	W	1 -	TERS	///	
researches to get the		at NN	IAC		
most of advantages of					
researches	ลิ์บห	າວິກເ	เวลัยเ	អ្នកស្បីអ	ni
8. Giving opportunities	4.67	4.00	4.50	4.43	
to adjust the research	(highest)	(high)	(high)	(high)	ty
results after the	rig	hts	res	erve	d
assessment from the					7,50,000
assessors					
The evenall access		Footox 7: E-1	10000 nm 4	1	4.30
The overall average score of Factor 7: Follow-up and assessment					

Factor 8 Research publishing, publicizing and application

	Averag	ge score from	Average	A	
Indicator		in each leve	Score of	Average Score of all	
mucator	Policy	Practitioner	Coordinator	each indicator	indicator
1. Budget allocation	4.67	4.50	4.00	4.43	
for publishing and	(highest)	(high)	(high)	(high)	
publicizing both		-01019	13		
domestic and foreign	000	VAISI	10 91		
researches	100	DO.0	7	2.	
2. Systems and	4.00		3.50	3.80	
protocols of	(high)	一点	(Moderate)	(high)	
publicizing and	12	Minimi	/7	1 - 1	
driving researches to		3	2	1000	
utilization		Sign Sign	3	785	
3. Percentage of	3.67	-1/2	3.50	3.60	
researches and	(high)		(Moderate)	(high)	
journals published,	Z. \	164	111	15/	
publicized and utilized	10	6000	960	<>//	
to professors in the	M	47	TERS		
local, national and		M UN	IVI		
international level					
4. Promoting	4.33	าวิทย	3.00	3.80	11
knowledge sharing of	(high)	CL	(Moderate)	(high)	
research result to the	int i	y Chia	ng Mai	Universi	ĽΥ
development	rig	h t s	res	erve	C
community and					
society around					
universities					
5. Supporting a patent	3.33	-	3.00	3.20	
registration or	(Moderate)		(Moderate)	(Moderate)	
intellectual property					
protection					

Indicator	Average score from assessor in each level			Average Score of	Average Score of all
	Policy	Practitioner	Coordinator	each indicator	indicator
6. Supporting	3.00	-	3.50	3.20	
researches in a field of	(Moderate		(Moderate)	(Moderate)	
commercial interests)				
7. Supporting the	4.33	-1010	4.50	4.29	
journal writing skill	(high)	USIELL	(high)	(high)	
for publishing and	90	500	48	2.	
publicizing	3		5	.031	
8. Arranging an	4.00	4.00	4.50	4.14	
academic conference	(high)	(high)	(high)	(high)	
for publishing and		3	2	20%	
publicizing researches		ST. ST	93	1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
9. Publishing	4.33	4.00	4.00	4.20	
international standard	(high)	(high)	(high)	(high)	
research journals for	7.	REA	111	(F)	
publishing and	10	66	96	<hr/>	
publicizing researches	M	17	TERS	7//	
The overall average score of Factor 8:					3.87
Research publishing, publicizing and application					(High)

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Results of the assessment

Factor 9 Research network

	Averag	Average score from assessor			Avonogo
Indicator	in each level			Score of	Average Score of all
mulcator	Policy	Practitioner	Coordinator	each indicator	indicator
1. Systems and	4.00	-	3.50	3.80	
protocols cooperating	(High)		(Moderate)	(High)	
with other networks		21010			
for research	0, 0	VAIEL	10 91		
cooperation from both	90	B 0.0	7	2.	
the public and private	3		5	-031	
sectors	. /	一点		13	
2. Sharing the	4.00	MATERIA	3.00	3.60	
resources and	(High)	3	(Moderate)	(High)	
cooperating with other		SZ S	3	785	
research institutes	\		w))	141	
3. A number of	4.00	-\/	3.50	3.80	
research networks	(High)	164	(Moderate)	(High)	
from both public and	10	6000	969	<>//	
private sectors	M	47	TERS		
4. Promoting the	3.67	A UN	3.00	3.40	
research cooperation	(High)		(Moderate)	(Moderate)	
as an interdisciplinary	เริ่มห	าวิทย	าลัยเ	รียอไห	11
network	L4C L	Chia	11-1	Limitrovoi	for a
5. Sharing research	3.67	3.50	3.00	3.43	Ly
information among the	(High)	(Moderate)	(Moderate)	(Moderate)	C
network in both					
domestic and foreign					
institutes					
6. Supporting doing	3.00	3.00	3.00	3.00	
researches with other	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
domestic or foreign					
institutes					

Indicator	Average score from assessor in each level Policy Practitioner Coordinator		Average Score of each indicator	Average Score of all indicator	
7. Arranging academic	4.00	-	3.50	3.80	
conference with other	(High)		(Moderate)	(High)	
institutes continuously					
8. Supporting the	4.00	-1010	3.00	3.60	
training program and	(High)	USIELL	(Moderate)	(High)	
visit program among	96	200	48	2.	
the research network	9		5	.031	
The overall average score of Factor 9: Research network				3.55 (High)	

Factor 10 Systems and supporting protocols such as motivation etc.

Indicator	Averag	ge score from in each leve	Average Score of Score of al	Average Score of all	
	Policy	Practitioner	Coordinator	each indicator	indicator
1. Giving opportunities	4.67	4.50	5.00	4.71	
for young researchers	(Highest)	(High)	(Highest)	(Highest)	i.U
in order to earn more scholarships	ht [©] k	y Chia	ng Mai	Universi	ty
2. Appropriate	4.00	4.00	4.50	4.14	a
allocation of load	(High)	(High)	(High)	(High)	
regarding the research					
influencing on					
research facilitations					
3. Selecting prominent	4.67	4.50	5.00	4.71	
researchers in annual	(Highest)	(High)	(Highest)	(Highest)	
best awards					

	Average score from assessor			Average	Average
Indicator	in each level			Score of	Score of all
	Policy	Practitioner	Coordinator	each indicator	indicator
4. Integrating the	4.00	-	4.50	4.20	
research with	(High)		(High)	(High)	
meritorious working					
assessment with		-1010			
acceptable standard	100	USIEL	10 9		
criteria	96	500	78	2.	
5. Rule and regulation	4.00		4.50	4.20	
adjustment being as an	(High)	黨	(High)	(High)	
obstacle of research	10	Minimum	17	1 - 11	
flexibility and		3	2	202	
facilitation	1	Sec. 3	3000	135	
The overall average score of Factor 10:					4.44
Systems and supporting protocols such as motivation etc.				(High)	



Result of the self-assessment considering to the factor of $\label{eq:considering} \textbf{University}~\mathbf{A}$

Factor of research management	Average	Performance
ractor of research management	Score	Level
1. policy and research plan	4.77	Highest
2. structure and research organization management	4.17	High
3. research budgets	4.18	High
4. research personnel	3.90	High
5. research materials and facilities	3.40	Moderate
6. production and controlling quality of research	4.31	High
7. follow-up and assessment	4.30	High
8. research publishing, publicizing and application	3.87	High
9. research network	3.55	High
10. systems and supporting protocols such as	4.44	High
motivation etc.	18	

The criteria interpretation of the research management for private universities was as follows

Scoring Average	Meaning of the Performance Level
4.51-5.00	Opinions that the factor of the performance was in the "highest" level
3.51-4.50	Opinions that the factor of the performance was in the "high" level
2.51-3.50	Opinions that the factor of the performance was in the "moderate" level
1.51-2.50	Opinions that the factor of the performance was in the "low" level
1.00-1.50	Opinions that the factor of the performance was in the "lowest" level

4.1.2 Result of the model assessment use of the research management for University A

For the result of the model assessment of the research management, two aspects related, the aspect of the task assessment theory and the assessment standard of University A were shown in Table 4.43 to 4.44

Table 4.43 Result of the model assessment of the research management for University A in aspect of the task assessment theory

Quality of the Assessment	Lists ALL 186	Mean	Standard deviation	Interpretation
1. Subjects of	1.1 The model is truly assessed	4.18	1.13	High
Assessment	corresponding with the needs in assessment.			\
	1.2 The model assessment responds the needs of the officers relating to	4.29	0.77	High
1	the research management.			
1	1.3 The model has the subjects of	4.29	0.77	High
	assessment determined from the	10		
	participation of people relating the		2//	
	research management in the private	GRS		
	universities.	1.		
	Total	4.25	0.68	High
2. Assessment	2.1 The method of assessment in the	4.29	0.77	High
method	model can respond the purpose of	aoı	DOOL	LIN
Co	the assessment	Mai	Univer	sity
Δ	2.2 The model with the method of	4.00	0.71	High
2 %	assessment can be evaluated the		C 1 V	C G
	subject of assessment correctly and			
	appropriately.			
	2.3 The model with the method of	4.18	0.53	High
	assessment corresponds with the			
	context of research management in			
	universities.			

Table 4.43 (continued)

Quality of the Assessment	Lists	Mean	Standard deviation	Interpretation
	2.4 The assessment model is	4.00	0.79	High
	understandable and acceptable for			
	the people involving the research			
	management in a university.			
	Total	4.12	0.58	High
3. Results of assessment	3.1 The model of the assessment is beneficial to people involving.	4.06	0.66	High
	3.2 The assessment model helps to get the results fair for to the subject in assessment	4.00	0.61	High
	3.3 The assessment model affects the result of the assessment by using the logical and acceptable criteria.	4.06	0.83	High
	3.4 The assessment model brings the reliable results which can be revealed to the value of the subjects.	4.00	0.71	High
	Total	4.03	0.61	High

From Table 4.43, result of the model assessment of the research management for University A in aspect of the task assessment theory, the quality of the assessment regarding the subjects of assessment, it reveals that the propriety was found in the "high" level in every subject. Also, the overall image was at the "high."

When considering the assessment quality regarding the assessment method, it found out that the propriety was found in the "high" level in every subject and the overall image was at the "high."

Besides, when considering the assessment quality regarding the results of assessment, it found out that the propriety was found in the "high" level in every subject and the overall image was also at the "high."

Table 4.44Result of the model assessment of the research management forUniversity A in aspect of the standard of assessment

Quality of the	Lists	Mean	Standard	Interpretation
Assessment	Lists	Mean	deviation	interpretation
1. Utility	1.1 The model of the assessment	4.59	0.62	Highest
	is beneficial to the overall			
	assessment of the research			
	management.			
	1.2 The assessment in data	4.12	1.11	High
	collection covers the information	2/2		
	from several resources.		331	
	1.3 The criteria of assessment	4.00	0.87	High
	can be classified deliberately and	7	131	\
	clearly.		1202	
	1.4 The assessment report of the	4.00	0.71	High
	information is clear and))	14	
	understandable.	1	18	
	1.5 The assessment can be	4.06	0.75	High
	applied for the information users	2	> ///	
	for the working adjustment and	EK		
	continuous development.			
83	Total	4.15	0.65	High
2. Feasibility	2.1 The model can be organized	4.12	0.78	High
Co	for real condition.	Mai	Univer	sity
A	2.2 The assessment model can	4.41	0.62	e (High
	be cooperated by the persons			
	interested.			
	2.3 The assessment model is	4.24	0.66	High
	valuable for the resources of			
	assessment.			
	Total	4.25	0.57	High

Table 4.44 (continued)

Quality of the	Lists	Mean	Standard	Internuctation
Assessment	Lists	Mean	deviation	Interpretation
3. Propriety	3.1 The assessment can be	4.59	0.51	Highest
	provide with the friendship under			
	the respect of the honors and the			
	equal human rights.			
	3.2 The assessment report shows	4.12	1.05	High
	the strengths and weakness to be			
	an adjustment and development.	2/2		
	3.3 The assessment report can be	4.35	0.70	High
	frankly revealed for the		3	l.
	information users.	7	131	\
	3.4 The model includes the fair	4.24	0.75	High
	and clear assessment.		1335	
	3.5 The assessment model is	4.12	0.60	High
	valuable for the resources of	1	189	
	assessment.		1	
	Total	4.28	0.56	High
4. Accuracy	4.1 The assessment model is	4.24	0.90	High
	compiled in a form of documents			
81	and with the clear description.	Sell	Sers?	1/11
ac	4.2 The objectives and method of	4.35	0.79	High
Co	assessment model is clearly	Mai	Univer	sity
A	identified.	e s	erv	e d
	4.3 The assessment gives the	4.06	0.83	High
	factual information.			
	4.4 The assessment report is clear	4.00	0.87	High
	and can reflects the finding out of			
	the assessment fairly.			
L			l .	I

Table 4.44 (continued)

Quality of the	Lists	Mean	Standard	Interpretation
Assessment	Lists	Mican	deviation	interpretation
	4.5 The assessment model can be	4.12	0.86	High
	periodically repeatedly to be a			
	completeness of the assessment.			
	4.6 The assessment is analyzed	4.00	0.79	High
	the qualitative data with the			
	appropriate methodology and			
	affected to the accurate and	2/2		
	efficient results.	-	301	
	Total	4.13	0.70	High

From Table 4 . 4 4, result of the model assessment uses of the research management from the assessors in University A in aspect of the assessment standard regarding the utility, it reveals that the propriety was found in the "high" to "highest" level in every subject. Also, the overall image was at the "high."

When considering the assessment quality regarding the standard of feasibility, it found out that the propriety was found in the "high" level in every subject and the overall image was at the "high."

Addition, when considering the assessment quality regarding the standard of propriety, it found out that the propriety was found in the "high" to "highest" level in every subject and the overall image was at the "high."

Also, when considering the assessment quality regarding the standard of accuracy, the level of propriety was found at the "high" in every subject and the overall image was at the "high."

4.2 Result of examining the implementation of research management assessment model for private universities in University B

Result of examining the implementation of research management assessment model for private universities in University B comprised of the result of implementation of research management assessment model for private universities and the result of examining the implementation of research management assessment model for private universities. The data were as follows.

4 . 2. 1 Result of examining the implementation of research management assessment model for private universities in University B

According to the implementation of research management assessment model for University B, the person being responsible in assessment were classified into 3 levels: 1) Policy Level which comprised of one person: Vice-Rector for Academic Affairs, 2) Practitioner Level with one researcher and 3) Coordinator Level consisting of one person in a research division.

From the interview after the implementation of research management assessment model, the assessors in Policy Level and Practitioner Level could do the assessment in every factor and every indicator. Also, the criteria could be feasible. Thus, the assessment should be used with the handbook, and the assessors in both levels could do all factor and all indicator.

Researchers in a Policy Level suggested that the research management assessment could be assessed by three groups: researchers, institutes and communities in order that these three groups could complete the research management assessment.

For the assessors in Coordinator Level suggested that

- 1) Indicator 2.3, a structure containing a system and protocol of research management accordant with a purpose of university research, the criteria should be adjusted because the criteria starting with 20% of purposes of university research was determined. In other words, in some universities, the purposes can be reached less than 20%. Thus, the criteria should be adjusted with less than 20% as well.
- 2) Indicator 8 . 4 , promoting knowledge sharing of research result to the development community and society around universities, the phrase "around universities" should be cut off since there might be the community and society

development in some universities. However, the community and society needed to be developed was not in the university area.

- 3) Indicator 8 . 9 , publishing international standard research journals for publishing and publicizing researches, due to the main library in University B being responsible in publishing the research journal, the indicator of the assessment could be evaluated. Also, the group of assessors should be informed.
- 4) Indicator 9.6, supporting doing researches with other domestic and foreign institutes, the word "and" was suggested to be changed to "or" because the Far Eastern University cooperate with doing researches with other institutes especially in a country. If the word "and" is changed to "or," this indicator can be done.
- 5) Indicator 10.5, rule and regulation adjustment being as an obstacle of research flexibility and facilitation, it was suggested that there is no need to be adjusted in some years if the rules and regulations are still useful. In that case, the report should inform the result that there is no evaluation in this indicator and give the reason why there is no reason for assessment.

Besides, the researchers in a Practitioner Level expressed that some indicators could be completed and the propriety was found in some indicators owing to the lack of information regarding the policy and research plan or the structure and organization management and so on.

The researchers had the assessors in three levels do the research management assessment, conclude the result of the assessment and give feedback to report the assessment to University B. The reports of results were:

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Report of the research management assessment for University B

Factor 1 Policy and research plan

	Avera	Average score from assessor Average		Average	A
Indicator		in each level		Score of	Average Score of all
Indicator	Policy	Practitioner	Coordinator	each indicator	indicator
1. The policy and	5.00	5.00	5.00	5.00	
research plan	(Highest)	(Highest)	(Highest)	(Highest)	
corresponding with the	ab	20	40		
policy and national	2.	Dille	2	31	
research strategies	3. /		- /	3	
2. The policy and	5.00	4.00	5.00	4.67	
research plan responding	(Highest)	(High)	(Highest)	(Highest)	
to both in and outsource		- F	A	296	
3. Setting policy and	5.00	4.00	5.00	4.67	
research plan which is	(Highest)	High)	(Highest)	(Highest)	
clear and practicable		()		6	
4. Creating the research	5.00		5.00	5.00	
plan according to the	(Highest)	13	(Highest)	(Highest)	
cycle of PDCA	C'A	000	1051		
5. A research plan	5.00	4.00	5.00	4.67	
promoting and	(Highest)	(High)	(Highest)	(Highest)	
supporting the university	6	0	U 6		11
visions	SUN	าวทย	าลยเช		IJ
6. A working plan	4.00	4.00	4.00	4.00	fee z
corresponding with the	(High)	(High)	(Highest)	(High)	Ly
research of the	rig	hts	rese	erve	d
universities					
7. Research plans can	3.00	3.00	3.00	3.00	
continuously drive the	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
young researcher's					
development.					
The overall average score of Factor 1: Policy and research plan					
The overall average score of Factor 1: Foncy and research plan					

Factor 2 Structure and research organization management

	Avera	ige score from a	Average	Average	
Indicator		in each level	Score of	Score of all	
indicator	Policy	Practitioner	Coordinator	each indicator	indicator
1. A structure of the	5.00	5.00	5.00	5.00	
organization which	(Highest)	(Highest)	(Highest)	(Highest)	
includes a sector taking					
charge of the research		0916131	8		
directly such as office of	//000	1917 N	91		
research etc.	90	200	762		
2. Clear structure of	4.00	4.00	4.00	4.00	
research organization	(High)	(High)	(High)	(High)	
management in aspect of	15	(9)		1311	
person responsible		373		11	
3. A structure containing	3.00	7 = W	4.00	3.50	
a system and protocol of	(Moderate)	THE	(High)	(Moderate)	
research management	\	Y.	¥ /]	14	
accordant with a purpose			7/6/	6 /	
of university research	7.			17/	
4. A structure	4.00	Color	4.00	4.00	
corresponding with the	(High)	1 -	(High)	(High)	
context of the mission		at ANI	ACI		
and responsibility					
involving researches	ď		V 5	??.	
5. A flexibles structure	3.00	Buck	3.00	3.00	
and an organization	(Moderate)	v Chiar	(Moderate)	(Moderate)	hv
research management) III	y Ciliai	8 141011	DINITEISI	- 7
6. A structure and an	4.00	n t.s	4.00	4.00	Cl
organization research	(High)		(High)	(High)	
management with clear					
job descriptions					
7. A structure having a	3.00	3.00	3.00	3.00	
system and a protocol	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
promoting and					
supporting researches					
The everell everes as asset	o of Footow 2.	Structure and	narah araanisati	managamant	3.79
The overall average score of Factor 2: Structure and research organization management					

Factor 3 Research budgets

	Avera	ge score from	Average		
Indicator		in each level		Score of	Average Score of all
indicator	Policy	Practitioner	Coordinator	each indicator	indicator
Systems and protocols	4.00	4.00	4.00	4.00	
relating to statement of	(High)	(High)	(High)	(High)	
support doing researches					
provided		021819	6		
2. A suitable and sufficient	3.00	10011	3.00	3.00	
budget allocation of a	(Moderate)	DOD	(Moderate)	(Moderate)	
university research	9		5/	31/1	
3. A suitable and	4.00	其	3.00	3.50	
sufficient budget	(High)	(الرابييليلين)	(Moderate)	(Moderate)	
allocation of a university		3/100	\	300	
research		a m	12.	-5:3	
4. Percentage of	3.00	KIF	3.00	3.00	
teachers/ personnel who	(Moderate)	N	(Moderate)	(Moderate)	
gain the scholarship for	1 /	11/	7/6/	9/	
internal and external	ZI.			5 //	
universities	TO.	Cobook	6	~ //	
5. A number of budget	3.00	17	3.00	3.00	
for researches and parties	(Moderate)	TI UNI	(Moderate)	(Moderate)	
in the institutes for					
teachers/ personnel of	ຂົ້າເພ	ດລິກຍ	าลัยเช	เลาใน	ni
permanent contract	onn	13110	Idolt	10011	N)
6. A subsidy allocation	4.00	4.00	4.00	4.00	ty
for supporting the	(High)	(High)	(High)	(High)	d
researches to various	1 8	11 1.5	1 6 3 6		U
faculties with					
appropriateness, and					
entirety.					
7. The issue of materials	4.00	3.00	4.00	3.67	
of a budget subsidy with	(High)	(Moderate)	(High)	(High)	
a handbook or the					
instructions of step of					
issue of materials					
	l	I	1		

Indicator	Average score from assessor in each level			Average Score of	Average Score of all
	Policy	Practitioner	Coordinator	each indicator	indicator
8. Budget subsidy of	4.00	-	4.00	4.00	
research corresponding with the research plans	(High)		(High)	(High)	
The overall	4.18 (High)				

Results of the assessment

Factor 4 Research personnel

	Average score from assessor in each level			Average Score of	Average	
Indicator	Policy	Practitioner	Coordinator	each indicator	Score of all indicator	
1. Personnel involving a	3.00	3.00	3.00	3.00		
research in a policy level	(Moderate)	(Moderate)	(Moderate)	(Moderate)		
need to have visions and		114	110/	2/		
abilities of research	4	113	16	4 //		
management.	CA	600	PST			
2. Personnel in a division	3.00	3.00	3.00	3.00		
of research in a policy	(Moderate)	(Moderate)	(Moderate)	(Moderate)		
level are knowledgeable	6	0	· ·			
and skillful in doing	SUN	าวทย	าลยเช	ยอให	i)	
research.	ht© h	v Chiar	o Mai I	Inivorci	loc.	
3. Personnel in a division	4.00	4.00	4.00	4.00	L.Y	
of research are friendly.	(High)	(High)	(High)	(High)	d	
4. A division of research	3.00	-	3.00	3.00		
contains the experts of	(Moderate)		(Moderate)	(Moderate)		
supervision regarding the						
researches to support and						
guide for the researchers						
efficiently.						

Indicator	Average score from assessor in each level			Average Score of	Average Score of all
	Policy	Practitioner	Coordinator	each indicator	indicator
5. A number of personnel	2.00	-	2.00	2.00	
in a division of research	(Low)		(Low)	(Low)	
are suitable for work.					
6. Personnel involving a	4.00	4.00	4.00	4.00	
research need to be	(High)	(High)	(High)	(High)	
discipline and have	//0, 9	VARIN	19 9		
morals relating doing a	90	500	482		
research well.	9		5	31/	
7. Percentage of	3.00	一道	3.00	3.00	
personnel involving a	(Moderate)	(9)	(Moderate)	(Moderate)	
research have knowledge		3/75		1	
of doing researches in		J = 10	the same of the sa	5	
order to facilitate the	1	THE		305	
research production.	\	Y.	w / /	12	
8. A protocol and	2.00	2.00	2.00	2.00	
personnel development	(Low)	(Low)	(Low)	(Low)	
plan involving research	10	Color	6	7//	
includes the short-term,	GM	17	TERS		
middle-term and long-		II UNI	VE		
term period.					
The overall a	average score	of Factor 4: Re	search personne	รียงให	3.00 (Moderate)

Factor 5 Research materials and facilities

Indicator	Average score from assessor in each level			Average Score of	Average Score of all
indicator	Policy	Practitioner	Coordinator	each indicator	indicator
1. Sufficiency and	3.00	3.00	3.00	3.00	
modernity of the	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
equipment, instruments					
or durable articles and		0916131	3		
laboratory	000	100 mi	91		
2. Systems include	2.00	2.00	2.00	2.00	
supervisors and research	(Low)	(Low)	(Low)	(Low)	
clinic for assisting	. /	人		3	
researchers	10	WILLIAM STATE	17	1 - 1	
3. Modern and efficient	3.00	3/20	3.00	3.00	
materials, equipment and	(Moderate)	3 113	(Moderate)	(Moderate)	
laboratory to facilitate	\	THE	V)	100	
doing researches		N		121	
4. Various packages to	3.00	3.00	3.00	3.00	
facilitate doing	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
researches such as data	C.	60000	6	~ //	
analysis programs etc.	1/1/	17 7777	VERS		
5. Information	3.00	3.00	3.00	3.00	
technology system for	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
researches to easily log	ลิ้าเห	กลิทย	กลัยเเรี	รู้ยางให	ni
in and be convenient for	Onli	13110	Idoll	10011	N.
searching	tht [©] b	y Chiar	ig Mai I	Jniversi	ty
The overall averag	2.80 (Moderate)				

Factor 6 Production and controlling quality of research

	Avera	Average score from assessor			
Indicator		in each level		Score of	Average Score of all
Indicator	Policy	Practitioner	Coordinator	each indicator	indicator
1. The system and	4.00	4.00	4.00	4.00	
protocol of the	(High)	(High)	(High)	(High)	
development of the					
project or project		1919191	8		
package correspondent	// 000	100 mi	91		
with the policy and the	72/10	ROD	762		
research plan which	9		5/	31/	
response the needs from	· /	景		5	
both internal and external	15	(9)		131	
outsource.		3/30			
2. Distinct and	4.00	3 10	4.00	4.00	
practicable systems and	(High)	THE	(High)	(High)	
protocols regarding the		N	¥ /	121	
production and quality	1 /	11/	7/6/	9/	
controls of the researches	Zi.			1 //	
3. Consideration of	4.00	Color	4.00	4.00	
research proposal from	(High)	17	(High)	(High)	
the experts and		M UNI	V		
specialists in each field					
4. Progress report of	3.00	3.00	3.00	3.00	11
research projects	(Moderate)	(Moderate)	(Moderate)	(Moderate)	NJ
provided in each period	tht [©] b	y Chiar	ig Mai I	Jniversi	ty
until the end of the	rio	hte	F 0 6 6	N W O	á
project in order to	1 1 8	11 L 5	1 6 3 6	IVC	U
control the quality as a					
plan					
5. A number of	4.00	4.00	4.00	4.00	
researches done and its	(High)	(High)	(High)	(High)	
quality control in each					
period of the procedure					

Indicator	Avera	Average score from assessor in each level			Average Score of all
=======================================	Policy	Practitioner	Coordinator	each indicator	indicator
6. Quality controls of	4.00	4.00	4.00	4.00	
researches by the	(High)	(High)	(High)	(High)	
expert's assessment in					
each field for the					
accuracy of the research		010101	2		
methodology	0, 9	VAIRIN	19 91		
7. Announcement about	3.00	500	3.00	3.00	
the production and the	(Moderate)		(Moderate)	(Moderate)	
research quality control	2. /	置		63	
The overall average scor	3.71 (High)				

Results of the assessment

Factor 7 Follow-up and assessment

Indicator	Avera	Average score from assessor in each level		Average Score of	Average Score of all
mututo	Policy	Practitioner	Coordinator	each indicator	indicator
1. A system and protocol	4.00	4.00	4.00	4.00	
in reporting in order to	(High)	(High)	(High)	(High)	11
follow up and assess the	SUN	าวทย	าลยแ	BOOLH	i)
progress of research project	ht [©] b	y Chiar	ig Mai l	Jniversi	ty
2. A friendly atmosphere	4.00	4.00	5.00	4.33	C
of follow - up and	(High)	(High)	(Highest)	(High)	
assessment					
3. A follow- up and	4.00	4.00	4.00	4.00	
assessment of research	(High)	(High)	(High)	(High)	
management as due- date					
plan					
4. Percentage of	3.00	-	3.00	3.00	
researches planned	(Moderate)		(Moderate)	(Moderate)	

Indicator	Avera	ge score from in each level		Average Score of	Average Score of all
2244	Policy	Practitioner	Coordinator	each indicator	indicator
5. A follow- up and	4.00	4.00	4.00	4.00	
assessment with	(High)	(High)	(High)	(High)	
acceptable criteria					
6. Acceptable and	4.00	4.00	4.00	4.00	
sufficient assessment	(High)	(High)	(High)	(High)	
from specialists in	0, 9	VAIRIN	10 91		
specific fields	90	500	7 62		
7. Participation in	3.00		3.00	3.00	
assessment from	(Moderate)	量	(Moderate)	(Moderate)	
interested people in	15	(9)		1311	
researches to get the		3		1 1	
most of advantages of		7 = W	St.	-582	
researches	1	The		200	
8. Giving opportunities	3.00	3.00	3.00	3.00	
to adjust the research	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
results after the	Z,			37//	
assessment from the	10	6000	6	7//	
assessors	M	11	TERSI		
The overall average score of Factor 7: Follow-up and assessment					

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Factor 8 Research publishing, publicizing and application

	Avera	ge score from	assessor	Average	
Indicator		in each level		Score of	Average Score of all
indicator	Policy	Practitioner	Coordinator	each indicator	indicator
1. Budget allocation for	3.00	3.00	3.00	3.00	
publishing and	(Moderate)	(Moderate)	(Moderate)	(Moderate)	
publicizing both					
domestic and foreign		0918191	8		
researches	1000	100 m	21.		
2. Systems and protocols	3.00	E-0.0	3.00	3.00	
of publicizing and	(Moderate)		(Moderate)	(Moderate)	
driving researches to	. /	人		3	
utilization	10	MILLIAM	17	1 -11	
3. Percentage of	3.00	3/23	3.00	3.00	
researches and journals	(Moderate)	3 13	(Moderate)	(Moderate)	
published, publicized and	\	THE	V)	1 200	
utilized to professors in		N		121	
the local, national and	1	M	1/6/	9	
international level	ZI.	115		1	
4. Promoting knowledge	2.00	Color	2.00	2.00	
sharing of research result	(Low)	AT TINT	(Low)	(Low)	
to the development		UNI			
community and society					
around universities	ลิแห	าวิทย	าลัยเลิ	รียเกไห	11
5. Supporting a patent	2.00	10110	2.00	2.00	20
registration or	(Low)	y Chiar	(Low)	(Low)	ty
intellectual property	rio	hts	rese	rve	d
protection	9	11 6 5	1 0 3 1		O
6. Supporting researches	2.00	-	2.00	2.00	
in a field of commercial	(Low)		(Low)	(Low)	
interests					
7. Supporting the journal	3.00	-	3.00	3.00	
writing skill for	(Moderate)		(Moderate)	(Moderate)	
publishing and					
publicizing					

	Average score from assessor in each level			Average Score of	Average
Indicator	Policy	Practitioner	Coordinator	each indicator	Score of all indicator
8. Arranging an	4.00	4.00	4.00	4.00	
academic conference for	(High)	(High)	(High)	(High)	
publishing and					
publicizing researches					
9. Publishing	5.00	5.00	5.00	5.00	
international standard	(Highest)	(Highest)	(Highest)	(Highest)	
research journals for	9/0	200	482		
publishing and	9		- 13	21/	
publicizing researches	3. /	置		3	
Th	3.00				
Researc	ch publishing,	publicizing and	application	30%	(Moderate)

Results of the assessment

Factor 9 Research network

Indicator	Avera	ge score from a		Average Score of	Average Score of all
	Policy	Practitioner	Coordinator	each indicator	indicator
1. Systems and protocols	3.00		3.00	3.00	
cooperating with other	(Moderate)	0	(Moderate)	(Moderate)	11
networks for research	SUN	าวทย	าลยเช	ยอให	IJ
cooperation from both	eht [©] b	v Chiar	g Mai l	Jniversi	tv
the public and private sectors	rig	hts	rese	erve	d
2. Sharing the resources	2.00	-	2.00	2.00	
and cooperating with	(Low)		(Low)	(Low)	
other research institutes					
3. A number of research	1.00	-	1.00	1.00	
networks from both	(Lowest)		(Lowest)	(Lowest)	
public and private sectors					

Indicator	Average score from assessor in each level			Average Score of	Average Score of all
	Policy	Practitioner	Coordinator	each indicator	indicator
4. Promoting the	2.00	-	2.00	2.00	
research cooperation as	(Low)		(Low)	(Low)	
an interdisciplinary					
network					
5. Sharing research	2.00	2.00	2.00	2.00	
information among the	(Low)	(Low)	(Low)	(Low)	
network in both domestic	90	500	762		
and foreign institutes	9		5	21/	
6. Supporting doing	2.00	2.00	2.00	2.00	
researches with other	(Low)	(Low)	(Low)	(Low)	
domestic and foreign		3/73		1	
institutes		7 = W	J.	-502	
7. Arranging academic	3.00	THE	3.00	3.00	
conference with other	(Moderate)	M	(Moderate)	(Moderate)	
institutes continuously	1	11/	7/6/	9	
8. Supporting the	3.00	115	3.00	3.00	
training program and	(Moderate)	Colode	(Moderate)	(Moderate)	
visit program among the	M	17-	TERSI		
research network		M UNI	VI		
The overall	2.25 (Low)				

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Factor 10 Systems and supporting protocols such as motivation etc.

Indicator	Average score from assessor in each level			Average Score of	Average Score of all		
inucator	Policy	Policy Practitioner Coordinator		each indicator	indicator		
1. Giving opportunities	4.00	4.00	4.00	4.00			
for young researchers in	(High)	(High)	(High)	(High)			
order to earn more							
scholarships		0918191	8				
2. Appropriate allocation	3.00	3.00	3.00	3.00			
of load regarding the	(Moderate)	(Moderate)	(Moderate)	(Moderate)			
research influencing on	9		> / ·	31/1			
research facilitations	. /	人	/	5			
3. Selecting prominent	4.00	4.00	4.00	4.00			
researchers in annual	(High)	(High)	(High)	(High)			
best awards	1	3 113	12	1-243-11			
4. Integrating the	2.00	KIT	2.00	2.00			
research with meritorious	(High)	N	(High)	(High)			
working assessment with	1 /	11/		9			
acceptable standard	8.			1			
criteria	C.	(Pp poso		- //			
5. Rule and regulation	3.00	AT TINT	3.00	3.00			
adjustment being as an	(Moderate)	TI UNI	(Moderate)	(Moderate)			
obstacle of research							
flexibility and facilitation	ลิแห	าวิทย	าลัยเลี	เลาไห	11		
The overall average score of Factor 10: 3.20							
Systems and supporting protocols such as motivation etc. (Moderate)							
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Result of the self-assessment considering to the factor of University B

Easter of research management	Average	Performance
Factor of research management	Score	Level
1. policy and research plan	4.43	High
2. structure and research organization management	3.79	High
3. research budgets	4.18	High
4. research personnel	3.00	Moderate
5. research materials and facilities	2.80	Moderate
6. production and controlling quality of research	3.71	High
7. follow-up and assessment	3.67	High
8. research publishing, publicizing and application	3.00	Moderate
9. research network	2.25	Low
10. systems and supporting protocols such as	3.20	Moderate
motivation etc.	1	(1) (1)

The criteria interpretation of the research management for private universities was as follows

Average Score	Meaning of the Performance Level
4.51-5.00	Opinions that the factor of the performance was in the "highest" level
3.51-4.50	Opinions that the factor of the performance was in the "high" level
2.51-3.50	Opinions that the factor of the performance was in the "moderate" level
1.51-2.50	Opinions that the factor of the performance was in the "low" level
1.00-1.50	Opinions that the factor of the performance was in the "lowest" level

4.2.2 Result of the model assessment use of the research management for University B

Result of the model assessment of the research management comprising two aspects related, the aspect of the task assessment theory and the assessment standard of University B were shown in Table 4.45 to 4.46

Table 4.45 Result of the model assessment use of the research management for University B the aspect of the task assessment theory

Quality of the Assessment	Lists 21216	Mean	Standard deviation	Interpretation
1. Subjects of	1.1 The model is truly assessed	4.67	0.58	Highest
Assessment	corresponding with the needs in		3	
	assessment.	1	131	\
	1.2 The model assessment responds	4.33	0.58	High
	the needs of the officers relating to		-5:3	
	the research management.	1)	1 300	//
1	1.3 The model has the subjects of	4.33	0.58	High
	assessment determined from the	16	1911	
	participation of people relating the		A //	
	research management in the private	-05	>//	
	universities.	EK		
	Total	4.44	0.51	High
2. Assessment	2.1 The method of assessment in	4.00	1.00	High
method	the model can respond the purpose		Dagi	ทม
Co	of the assessment	Mai	Univer	sity
Δ	2.2 The model with the method of	4.33	0.58	High
/ 1	assessment can be evaluated the	0 3	CIV	C
	subject of assessment correctly and			
	appropriately.			
	2.3 The model with the method of	4.00	0.00	High
	assessment corresponds with the			
	context of research management in			
	universities.			

Table 4.45 (continued)

Quality of the Assessment	Lists	Mean	Standard deviation	Interpretatio n
	2.4 The assessment model is	4.33	0.58	High
	understandable and acceptable for			
	the people involving the research			
	management in a university.			
	Total	4.17	0.38	High
3. Results of assessment	3.1 The model of the assessment is beneficial to people involving.	4.33	0.58	High
	3.2 The assessment model helps to get the results fair for to the subject in assessment	4.00	1.00	High
	3.3 The assessment model affects the result of the assessment by using the logical and acceptable criteria.	4.67	0.58	Highest
	3.4 The assessment model brings the reliable results which can be revealed to the value of the subjects.	4.33	0.58	High
	Total	4.33	0.52	High

From table 4 . 4 5, in aspect of the task assessment theory, the quality of the assessment regarding the subjects of assessment, it reveals that the propriety was found in the "high" level in every subject except 1.1. The assessment model contained the subjects responding to the real needs. The propriety was found in the "highest" level and the overall image was at the "highest."

When considering the assessment quality regarding the assessment method, it found out that the propriety was found in the "high" level in every subject and the overall image was at the "high."

Also, when considering the assessment quality regarding the results of assessment, it found out that the propriety was found in the "high" level in every subject except the indicator 3. 3. Thus, this assessment model with the reasonable and acceptable result. The propriety was found in the "highest" level and the overall image was also at the "highest."

 Table 4.46
 Result of the model assessment use of the research management from the assessors in University B in aspect of the assessment standard

Quality of the	Lists	Mean	Standard	Interpretation
Assessment	Lists	Mean	deviation	interpretation
1. Utility	1.1 The model of the assessment is	4.67	0.58	Highest
	beneficial to the overall assessment			
	of the research management			
	1.2 The assessment model in data	4.67	0.58	Highest
	collection covers the information			
	from several resources	1 91		
	1.3 The criteria of assessment	4.33	0.58	High
	model can be classified deliberately	> \	-031	
	and clearly			
	1.4 The assessment report of the	4.33	0.58	High
	information is clear and		1306	1
	understandable.		785	//
1	1.5 The assessment model can be	4.33	1.15	High
	applied for the information users	1	18	
	for the working adjustment and	()		
	continuous development.	0		
	Total	4.47	0.61	High
2. Feasibility	2.1 The model can be organized for	4.33	0.58	High
	real condition.		. 0	
ରି ଶ	2.2 The assessment model focuses	4.00	1.00	High
6.0	on the organization which services	A A = 1	Linkson	-14
Co	the subscribers thoroughly and	Mai	Univer	SITY
A	efficiently.	e s	erv	e d
	2.3 The assessment model is	4.00	0.00	High
	valuable for the resources of			
	assessment			
	Total	4.11	0.51	High

Table 4.46 (continued)

Quality of the	Lists	Mean	Standard	Interpretation
Assessment	Lists	Mean	deviation	interpretation
3. Propriety	3.1 The assessment can be provide	4.33	0.58	High
	with the friendship under the			
	respect of the honors and the equal			
	human rights.			
	3.2 The assessment report shows	4.67	0.58	Highest
	the strengths and weakness with			
	fairness and completeness	7 91		
	3.3 The assessment report can be	4.33	0.58	High
	frankly revealed for the information	> \	.031/	
	users.		13	
	3.4 The assessment can be solved	4.33	0.58	High
	the conflicts of assessment with		1006	\\
	fairness.		党 党	//
	3.5 The assessment can be	4.33	0.58	High
1	organized with appropriate resources	1	18	/
	and the assessment methods.	()	(5 //	
	Total	4.40	0.53	High
4. Accuracy	4.1 The assessment model is	4.00	1.00	High
	compiled in a form of documents	1		
	and with the clear description.			
ลิส	4.2 Setting the objectives and	4.67	0.58	Highest
010	method of assessment can be			1115
Co	clearly identified.	Mai	Univer	sity
A	4.3 The assessment gives the	4.67	0.58	Highest
	information with its real condition.			
	4.4 The assessment report is clear	4.33	0.58	High
	and can reflects the finding out of			
	the assessment fairly.			
	4.5 The assessment model can be	4.67	0.58	Highest
	periodically repeatedly to be a			
	completeness of the assessment.			

Table 4.46 (continued)

Quality of the Assessment	Lists	Mean	Standard deviation	Interpretation
	4.6 The assessment is analyzed the qualitative and quantitative data to get the accurate and efficient results of assessment.	4.67	0.58	Highest
	Total	4.50	0.60	High

From Table 4 . 4 6 , result of the model assessment uses of the research management from the assessors in University B in aspect of the assessment standard regarding the utility, it reveals that the propriety was found in the "high" to "highest" level in every subject. Also, the overall image was at the "highest."

When considering the assessment quality regarding the standard of feasibility, it found out that the propriety was found in the "high" level in every subject and the overall image was at the "high."

Addition, when considering the assessment quality regarding the standard of propriety, it found out that the propriety was found in the "high" to "highest" level in every subject and the overall image was at the "high."

Also, when considering the assessment quality regarding the standard of accuracy, the level of propriety was found at the "high" to "highest" in every subject and the overall image was at the "high."

When considering the assessment quality regarding the results of assessment, it found out that the propriety was found in the "high" level in every subject except the indicator 3.3 Thus, this assessment model with the reasonable and acceptable result. The propriety was found in the "highest" level and the overall image was also at the "highest."