

# Chapter

# 3

## ปัจจัยที่มีผลต่อขีดความสามารถ และผลการดำเนินการ ของสถาบันการศึกษาอุดมศึกษาของรัฐในประเทศไทย

### Factors Affecting the Capacity and Performance of Public Higher Education Institutions in Thailand

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## บทคัดย่อ



การศึกษานี้มีวัตถุประสงค์ 2 ประการคือ 1) เพื่อสำรวจระดับขีดความสามารถและผลการดำเนินการของสถาบันการศึกษาอุดมศึกษาของรัฐในประเทศไทย และ 2) เพื่อตรวจสอบปัจจัยที่มีความสัมพันธ์กับขีดความสามารถและผลการดำเนินการของสถาบันการศึกษาอุดมศึกษาของรัฐในประเทศไทย หน่วยที่ใช้ในการวิเคราะห์เป็นสถาบันการศึกษาในประเทศไทย 4 ประเภทคือ มหาวิทยาลัยในกำกับของรัฐ มหาวิทยาลัยของรัฐ มหาวิทยาลัยราชภัฏ และมหาวิทยาลัยราชชมงคล การสุ่มตัวอย่างเป็นแบบการสุ่มแบบหลายชั้นจากประชากรมหาวิทยาลัย 78 แห่ง ได้กลุ่มตัวอย่าง 63 แห่ง คิดเป็นร้อยละ 95 ของกลุ่มตัวอย่าง แบบสอบถามเป็นแบบ likert-scale 5 ระดับ ความเชื่อมั่นการรวบรวมข้อมูลอยู่ที่ ระดับ .993

สถิติที่ใช้ในการวิเคราะห์ประกอบด้วย Descriptive Analysis, ANOVA, Correlation และ Regression ผลที่ได้พบว่า ขีดความสามารถและผลการดำเนินการของสถาบันการศึกษาอุดมศึกษาของรัฐในประเทศไทยอยู่ที่ระดับสูง ชนิดและกลุ่มของมหาวิทยาลัยไม่มีผลต่อขีดความสามารถและผลการดำเนินการ ปัจจัยที่มีความสัมพันธ์เชิงบวกจากระดับสูงสุดถึงต่ำสุด 3 ปัจจัยคือ ทรัพยากรทางการเงิน ความร่วมมือ และความรู้และการเรียนรู้ แสดงเป็นสมการได้ว่า  $y = 0.336x_1 + 0.273x_2 + 0.248x_3$ . สะท้อนให้เห็นว่า ทรัพยากรทางการเงิน ความร่วมมือ และความรู้และการเรียนรู้เป็นจุดแข็งที่สำคัญที่สุดของขีดความสามารถและผลการดำเนินการของสถาบันการศึกษาอุดมศึกษาของรัฐในประเทศไทย แต่ภาวะผู้นำและทรัพยากรมนุษย์เป็นจุดอ่อนที่สำคัญ ยิ่งไปกว่านั้น ขนาดและภาวะผู้นำเป็นปัจจัยเชิงบวกที่มีผลโดยอ้อมต่อทรัพยากรการเงิน ความร่วมมือ ความรู้และการเรียนรู้

**คำสำคัญ:** ขีดความสามารถ/ ผลการดำเนินการ/ และสถาบันการศึกษา  
อุดมศึกษาของรัฐ

## Abstract



The purposes of this study were two folds: 1) to explore the capacity and the performance levels of public higher education institutions in Thailand, and 2) to investigate the determinate of the capacity and performance level. The unit of analysis was public higher education institutions in Thailand which were categorized into 4 types: autonomous universities, public universities, Rajabhat universities, and Rajamangala universities. The sample was selected by multi-stage random sampling from the population of 78 universities. The sample of 63 universities accounted for 95% of the total sample. A 5-point likert-scale questionnaire with the overall reliability of .993 was used to collect the data.

Statistical analysis included descriptive analysis, ANOVA to analyse differences between universities, Correlation and Regression to test the hypotheses. The result showed that the capacity and the performance of public higher education institutions in Thailand were at a high level. There was no significant difference among different types and different groups of universities. Three factors pointively affecting the performance ranked from the highest to the lowest level were financial resource, collaboration, and knowledge and learning, respectively. The equation that showed the relationship was  $y = 0.336x_1 + 0.273x_2 + 0.248x_3$ . The findings reflected that financial resource, collaboration, and knowledge and learning were the most important strength of the capacity and the performance of public higher education institutions in Thailand but leadership and human resource were important weaknesses. In addition, size and leadership were positively related to capacity and

performance. Size and leadership were mediators of the financial resource, knowledge and learning, and collaboration.

**Keywords:** Capacity/ Performance/ Public Higher Education Institutions

## Introduction



Under the present bureaucratic system, most public universities have an inefficient management structure and limitation of management flexibility of the civil service work. Overall, public higher education institutions cannot thus adapt themselves in time to cope with rapid changes. It is obvious that there is no optimum utilization of resources in public universities due to uncoordinated operation and duplication of work. These constraints have made them unable to attract the best and the brightest lecturers. Accordingly, it is hard for public higher institutions to achieve academic excellence. Further, there has not yet been an effective mechanism in monitoring and evaluating the performance of public higher education institutions to see their relevance to the country's development policy and plans (Waraiporn Sangnapaboworn, 2003).

All public universities in Thailand were scheduled to be autonomous by the year 2002, but even in 2014 only some were now self-governed. Some criteria based on quality and equity have been used in allocating the government budget to such institutions. Accountability of autonomous public universities are required, and an external evaluation by the independent organization must be made every five years. Internal evaluation

is to be carried out annually by institutions themselves. The imposition of the evaluation process is hoped to improve the quality of education provided by all higher education institutions. The need for on-going professional development seems essential if the goals of the Thai curriculum reforms are to be realized. One goal of the Thai higher education reform is to cut public spending and to stimulate university-industry cooperation as a means to obtain additional university income. In response to changes in university funding, five Thai universities, i.e., Chulalongkorn University (CU), Kasetsart University (KU), King Mongkut's University of Technology Thonburi (KMUTT), Chiang Mai University (CMU), and Khon Kaen University (KKU), have created more university-industry relations. In spite of this, the financial benefits for the universities as well as the technological benefits for the cooperating companies are, both very limited (Schiller and Liefner, 2007).

An increase in basic education led to a need to expand the supply of higher education in the future. With the advance in communication technology and increasing longevity, the new generation of students who look for higher education will vary in age, needs, and places of study. To meet this new challenge, higher education institutions must be flexible in their management of resources, personnel and curricula. Higher education institutions across the country can now intake only 420,000 students, and most of those institutions are located in Bangkok and urban areas. With lack of higher education institutions in rural areas, Thailand has been facing problems related to expansion of educational opportunity. Educational provision and curricula at this level should be diverse and flexible, with participation from various segments of the society so as to meet the needs of community

people, to promote their job skills, and to improve their quality of life (Sukanya, 2001; Punthumasen and Maki, 2009).

The situation of the universities/institutes has been changed with a lot of quantity improvement in terms of programs, the number of staff, and the number of input/output students as well as research projects. But the quality of graduates, problems and constraints in running the programs still existed. The National Economic and Social Development Board (NESDB) (2004), for instance, did an in-depth study of the labor force situation among middle- and high-level personnel within the tourism industry in order to increase productivity and capability of the national competitiveness. The quantity of graduates from the educational institutions was sufficient to serve the demand of the industry. However, there were problems in terms of quality since graduates' qualifications were not up to the standards required by the employers (Manat, 2006).

There is a tendency to increase the online delivery component to the point where it becomes the sole mode of delivery, which has been scaffolded by the building of virtual university campuses and enabled by e-learning devices. South Korea, Singapore, Malaysia, Thailand, India and China can make rapid progress in e-learning. At the same time, there are also concerns about the quality, relevance, viability and sustainability of these initiatives (Hanewald, 2012).

The Thai government requires public agencies to adapt their accounting practices in line with the New Public Management (NPM) and public universities need to do so as well. The most important change concerns the financial accounting system. Computerized accrual accounting practices have been adopted by

public universities now operating in an environment of decreased government funding, coupled with the university administration taking more responsibility for financial management (Upping and Oliver, 2012). The major concern is that academic excellence for public universities cannot be sustained without more effective fiscal management and public-private partnership (Kongkiti; Suphattra; Keng-Boon Ooi and Shyu Stacy, 2012).

Reforms in higher education have been implemented in many Asian countries, particularly East Asia, as globalization began to have an effect on the national policy. Globalization is mostly viewed from the economic perspective, such as international trade and commercialization of education (Bhumiratana, Sakarindr and Commins, 2012). An attempt was made to reform the Thai education system with a commitment to expand the basic education to 12 years in the year 2002. An increase in basic education has led to a need to expand the infrastructure of higher education in the future (Sukanya, 2001). Since the 1997 economic crisis, Thailand has seen some far-reaching reforms across sectors - including reforms in higher education, such as deregulation and the granting of additional autonomy (Gamon Savatsomboon, 2006). The government of Thailand spent about one quarter of its total public expenditures on education in 2009-2011 (20.3%, 22.3%, and 29.5% respectively), or 3.8 percent of GDP in 2006-2012. The Public expenditures per pupil as a percentage of GDP per capita in 2009-2011 were 21.9, 17.0, and 21.3 (World Bank, 2014). The 1999 National Education Act serves as a basis for the education reform in Thailand, including higher education.

Among key Asian trading partners, Thailand is lagging behind Singapore, Malaysia, China, Taiwan, South Korea, and Japan. This is

worrisome among the policy makers because by the end of 2015, the markets in Southeast Asia will become fully integrated, known as the Association of Southeast Asia Nations (ASEAN). The Commission on Higher Education or CHE under the Ministry of Education in Thailand initiated three main institutional reforms of public universities, which have been implemented since 2005 to strengthen the country's long-term competitiveness. The reforms concern quality assurance, university classification, and promotion of national research universities (Kongkiti et al., 2012).

Higher education is increasingly viewed as a major engine of economic development. But government tax revenues are not keeping pace with rapidly rising costs of higher education. The increasing number of students presented a major challenge for the traditional system which provides access to free or highly subsidized tertiary education (Altbach, Reisberg and Rumbley, 2009). Almost all governments are trying to identify the appropriate role of the State and the balance of public institutions and private 'institutions, all of which have competing priorities for resources within the education sector, between education and other sectors (Bray, 2000). An important priority of public policy is to ensure that higher education institutions contribute to economic growth and social progress as a whole, especially in the context of today's globalized markets and knowledge economy. It is crucial for any nation to have a good education system and strategic planning to improve learning outcomes, access to facilities, and efficient use of resources (Ahmad, Farley, and Naidoo. 2013). Dynamic competition in higher education at the national and the global levels makes it necessary to integrate educational systems at both levels into one (Marginson, 2006). So if public higher



educational institutions in Thailand, which are of many types and sizes, want to compete with other countries, they must inevitably be improved in terms of their image, worthiness and capacity.

### Research Objective



- 1) To explore the capacity and the performance levels of public higher education institutions in Thailand
- 2) To investigate the determinate of the capacity and performance level of public higher education institutions in Thailand

### Review of Related Literatures/ Concepts and theories/ Organizational theory

Organizational theory concerns culture and human emotion, rules, roles, strategies and the historical foundation of an organization. Organizational theory focuses on human, processes, structure, strategy and demography. Basic problems confronting general managers are: (1) human problems, (2) process problems in changing new ideas into good currency, (3) structural problems of managing part-whole relationships, (4) strategic problems of organizational leadership, and (5) historical foundation problems (Van De Ven and Andrew, 1986; Avolio and Gardner, 2005).

**Humans.** Organizational theory explains human behaviors and human needs by discussing culture, emotion and feeling related to their attitudes, values and beliefs. People's culture, emotions and feelings are important drives for organizational development. Culture is part of the management process which has both direct and indirect impacts on the organization (Rappaport, 1995; Leidner and Kayworth, 2006).

Attitude and culture are not only considered separately but also different methods are used to achieve the same organizational goals (Damanpour, Walker and Avellaneda, 2009; Guldenmund, 2007). Each person's attitude influences the process, the mechanism and the support of organizational management (Stein, 1995).

Personal values also influence organizational values. Some values come from moral development and satisfaction of an individual's need (Vardi and Wiener, 1996).

Bad feelings of the organization's members while that organization is facing a problem will cause fatigue among people in the organization (Zapf, 2002).

**Process.** Organizational theory describes the work process related to an organization, especially the rules and regulations. The work process influences an organization. Although the work process may cause a little problem, it affects trust and initiative. Without the work process management, cooperation and creation will be stopped, the product cost will be high, and new ideas will not be understood (Kim and Mauborgne, 1997). The work process influences the reputation and the effectiveness of the organization. It is controlled by organizations that drive the

society, public opinions, political parties and elites (Soule and Olzak, 2004). Complicated conditions in the work process can deviate the organization from success (Cheng and Van De Ven, 1996). The important traditional core criteria of being a state are ownership (e.g. legal status, etc.), organizational output and bureaucratic work process (Bozeman and Bretschneider, 1994).

**Structure.** Organizational theory explains the organizational structure by describing the role and the control of people in the organization. It explains centralization and decentralization of power. The structure influences an organization. Whether power will be centralized or decentralized depends on the organization's competition (Ingram and Clay, 2000). Structure and governance enable people to know about what, why, and how organization performs (Lynn, Heinrich and Hill, 2000). The organizational structure will be developed to be the most efficient and the most effective so as to respond to the needs of the community, individuals and families (Bryson, 1988).

**Strategies.** Organizational theory explains strategies for self-adjustment and change. The concept of the organizational environment concerns the belief that the organizational environment and the strategy affect change. For an organization to survive and grow, it must change to cope with the reality. The strategies influence an organization as it effects change. A strategy consists of structure, elements, objectives and proof of operational efficiency of the organization (Agranoff and McGuire, 1998). A strategy may be transformed from management of control power, the environment, the commitment, and the desire to gain advantage in the competition (Banerjee, 2001). Strategy

must be in line with the leader’s creation, vision and value so that he can empower the team and individuals and follow up the implementation of the organizational commitments, which will enable the organization to achieve the goal (Kogut and Kulatilaka, 2001).

**Demography.** Organizational theory explains the demographic characteristics of an organization by describing the historical foundation of the organization, which indicates the identity of organization. Public, private and non-governmental organizations differ goals and objectives. Original goals and objectives can indicate the identity of demographic characteristics of organization. Demography of organization influences organizational development. Goals and objectives as root of organizations obstructs the change. Each organization has different indentities such as education, health, industry, service, etc. Identity of organizations describe type, group, age, size, geography, culture and intimacy in the organization and will bring people close to each other and to information, thus giving rise to unity and advantage (Porter, 1998).

**Organizational performance** .....

Organizational performance can be defined as systematic and objective search for and analysis of, information relevant to the identification and solution of any problem. Many factors influence organizational performance. Attitude toward work, satisfaction with work, and resignation are attitude to trust of getting fairness in work and performance (Aryee, Budhwar, and

Chen, 2002). Measurement of organizational performance depends on the goal and type of organizations: public, private or non-governmental organizations. Organizational performance of public organizations is influenced by efficiency, effectiveness, and fairness. Organizational performance depends on personal factors, namely job satisfaction, commitment, motivation, and behavior of people in the organization (Bryson, 1988; Kim, 2005). Organizational performance can be measured by considering income, efficiency, employment, sanitary development, management capability, human resource, internal auditing, labor relations, corporate culture, organizational reputation, and examination of cost development (Carmeli and Tishler, 2004).

### Organizational Capacity



The concept of capacity includes three specific dimensions: 1) Capacity as resources, capacity is inputs into an organization’s production. Attracting resources from the environment (including human, financial, technical, knowledge resources). 2) Capacity as organizational capabilities, capacity is basic “know how” of the organization, transforms resources into organizational output, and “management capacity”. 3) Capacity as organizational outcomes, competencies: Capacity is organizational resources and capabilities are related to organizational effectiveness, potential effectiveness and positively impact organizational performance (Bryan, 2011).

Three broad categories of what constitutes the concept of organizational capacity are 1) resources - inputs into an organization’s production process that result in the basic ability of an organization to do its work, 2) capabilities - ability of

organizations to absorb and mobilize resources in specific ways that produce an organizational capability, 3) competencies - organizational resources and capabilities that are related to organizational effectiveness.

Four types of capacity are 1) infrastructure - an organization's administrative and operational capacity, including its basic management systems, 2) management - ability of an organization's management to effectively utilize the infrastructural capacity and available organizational resources to achieve organizational goals, 3) knowledge and Learning - the ability for organizations to learn to "do things differently" and to embed those new policies and practices within existing organizational processes. Theoretical perspectives include adaptive capacity, absorptive capacity and practice theory on learning, 4) collaboration - ability of organizations to promote effective collaboration that will sustain efforts and support enhanced organizational performance.

**Human resource.** Human resource consists skill, knowledge, experience and human resource management. All organizations state high important of human resource. Human resource enables the company to influence the customers and organizational effectiveness. An organization where human resource creates and uses innovation will have a higher share price. Human resource management can lead to profits, such as a steep learning route, short leading time, cost-saving, and creation of new values (Mithas, Ramasubbu and Sambamurthy, 2011; Edvinsson, 1997).

**Financial resource.** Financial resource concerns liquidity, reliability, usefully financial resource data and financial management. The company's capability influences financial

resource and organizational effectiveness. Financial measurement influences organizational performance and reduces costs. Inspection of financial measurement and non-financial measurement of performance reveals that financial measurement is positively related to organizational performance (Mithas, Ramasubbu and Sambamurthy, 2011; Sterman, Repenning and Kofman, 1997).

**Information technology.** Information technology concerns reliable, useful of data and information and information technology management. Information technology capacity influences process and organizational performance. Information technology improves process and organizational operations. The capability of information management plays an important role in developing other capabilities of the company in handling customers. Process and performance are among management variables that senior leaders find necessary for developing the IT foundation and for handling IT management because process and performance play an importance role in building other capabilities to improve the company's performance (Mithas, Ramasubbu and Sambamurthy, 2011).

**Knowledge and learning.** Knowledge and learning concerns learning to change, training, education and knowledge management. Knowledge depends on education and training. Knowledge influences performance, improves human resource and enhances organizational operations. Building knowledge requires change at the foundation of the learning process (Wuchty, Jones and Uzzi, 2007). The building of human resource who combine scientific knowledge and technological knowledge is a way to support

the performance. It stimulates the better quality of knowledge and builds a new body of knowledge. Knowledge management is a mediator between strategic human resource training and innovative performance. Human resource practice is positively related to knowledge management, which has a positive effect on innovative performance (Makri, Hitt and Lane, 2010; Chen and Huang, 2009).

**Stakeholder commitment.** Stakeholder commitment is an achievement of commitment to stakeholders. Achievement of commitment influences stakeholders and performance. The company's reliable commitment strongly influences its stakeholders, slowing the replacement and threatening imitation at the same time. Commitment, business competition and performance will always be laid as the foundation of a company. Commitment is an important thing that shows competition and motivates the stakeholders. The commitment of the company with organizational committee, ethical performance, and financial performance will have a higher rank of performance than the company without them (Mcevely, Das and McCabe, 2000; Erikson, 2002; Verschoor, 1998).

**Collaboration.** Collaboration indicates the relationship of an organization with outside organizations. It is defined as cooperation, partnership, power, dependency, and process. Collaboration influences resources, costs and customers of an organization. The outcome of collaboration is cost effectiveness (D'Amour, Ferrada-Videla, San Martin Rodriguez and Beaulieu, 2005; Stokols, Hall, Taylor and Moser, 2008). Collaboration will upgrade the distribution of innovations. Collaboration with other



companies and adaptation to innovation is the creative power of the company which is efficient in doing business. True collaboration in the supply chain gives rise to advantage and greatly influences the company's performance. Complete advantage of collaboration must go through the mediation between collaboration in the supply chain and the performance of small-sized business enterprises, while partly making contributions to large-sized business enterprises (Rosswurm and Larrabee, 1999; Teece, 2007; Cao and Zhang, 2011).

### Leadership



Scholars identify four different types of leadership - ethical leadership, servant leadership, transactional leadership and transformational leadership- and two leadership styles - democratic style, and autocratic style. Ethical leadership, involves behavior, honesty, trust in the leader, interactional fairness, and socialized charisma of the leader are considered. Servant leadership involves organizational trust, integrity, modeling, communication, competence and delegation. This type of leadership is only modestly related to motivational consequences. Transactional leadership involves contingent rewards, management-by-exception and self-esteem (Brown, Treviño and Harrison, 2005; Joseph and Winston, 2005; Podsakoff, MacKenzie and Bommer, 1996; Awamleh, Evans and Mahate, 2005).

On the other hand, transformational leadership may be autocratic and directive or democratic and participative. This type of leadership focuses not only on the value of the structural capital or its renewal and development but also on a requirement

to highlight the process of the long-term sustainability of the organization and to monitor the root growth for sustainable cash-flow generation. Transformational leadership behaviors are charisma, inspiration, individualized consideration, intellectual stimulation, and substitutes for leadership. Each behavior has unique effects on follower criterion variables. Public sector leaders should behave mainly as transformational leaders, moderately leveraging transactional relationships with their followers and heavily leveraging the importance of preserving integrity and ethics in the fulfillment of tasks (Orazi, Turrini and Valotti, 2013).

Leadership behaviors are measured on the basis of honesty and integrity, motivation, intellectual stimulation, management-by-exception, contingent reward, and individualized consideration (Trottier, Van Wart and Wang, 2008).

## Resources

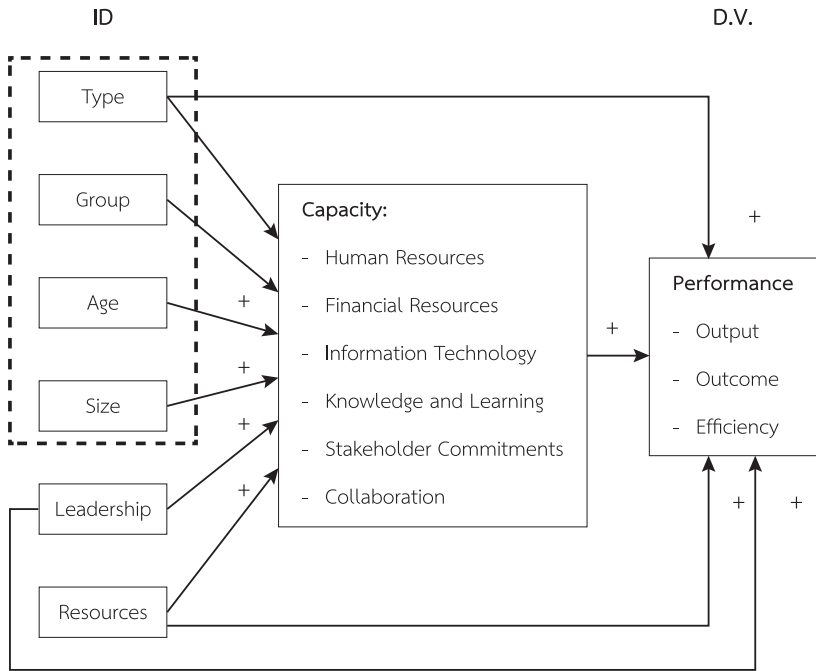


Resources include financial resource (money) and non-financial resource (man and materials). They can be characterized as both tangible and intangible (knowledge, technology et al.). Resources concern input (man, money and materials), processes (human resource, financial resource, et al.) and output (performance). Significant resources are involved resource use, processes and evaluate outcome in terms of efficiency and equity criteria (Singh, 1994).

Resources, financial status, training of the personnel, and availability of sophisticated equipment are related to the quality of performance. Among the factors that contribute to resilience

are availability of resources which substitute for redundancy of the personnel, equipment and space; pre-existing relationships that ease communication challenges as the emergency develops; and the continuation of organizational patterns of response integration and role assignments. Resource availability and use can compromise safety. Capabilities of the plant with a stronger safety reputation change after reduction of resources (Kuhn, Hartz, Gottlieb and Rimm, 1991; Kendra and Wachtendorf, 2003; Marcus and Nichols, 1999).

# Conceptual Framework

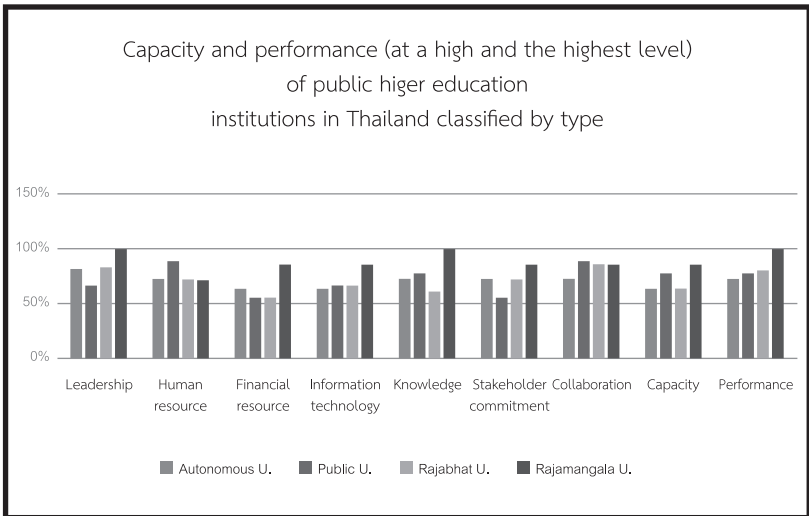


**Note:** ..... Affected each one  
: \_\_\_\_\_ Affected all

Research Method



The quantitative method



## Research Result



**Figure 1** Level of Capacity and Performance (at a High Level and the Highest Level) of Public Higher Education Institutions in Thailand Classified by Type

### Coefficients of the Capacity and the Performance of Public Higher Education Institutions in Thailand

Variables	B	Std. Error	Beta	Sig.
Age	-0.012	0.064	-0.018	0.852
Size	0.008	0.105	0.009	0.936
Resources	0.003	0.071	0.004	0.963
Leadership	0.167	0.097	0.220	0.09
Human resource	-0.112	0.128	-0.110	0.384
Financial resource	0.225	0.095	0.336	0.021*
Information technology	-0.006	0.098	-0.007	0.954
Knowledge and learning	0.209	0.103	0.248	0.049*
Stakeholder commitment	-0.009	0.102	-0.011	0.932
Collaboration	0.250	0.122	0.273	0.047*

Dependent Variable: performance

\* Significant at the 0.05 level

Table shows that financial resource, knowledge and learning, and collaboration all affected performance. The factor that positively affected output, outcome, and efficiency most was financial resource (Beta=0.336), followed by collaboration (Beta=0.273), and knowledge and learning (Beta=0.248).

## Discussion and Research Suggestion ●●●●●●●●●●

### Conclusions

The capacity and performance of public higher education institutions in Thailand were found to be at a high level. When the individual variables were considered, leadership, human resource, financial resource, information technology, knowledge and learning, stakeholder commitment, collaboration, and performance were found to be at a high level.

It was recommended that public higher education institutions in Thailand increase their size in line with the direction of national development and become international universities. The leaders needed to possess leadership skills and to be willingly accepted by the university stakerholders. The human resource needed to be treated fairly through a fair process. The financial resource should be able to accommodate financial strategic management. As for knowledge and learning, they should have a clear personnel development plan through the willingly accepted process. With regard to stakeholder commitments, a participatory process in providing services and in operation should be willingly accepted by the stakeholders. For good services and fairness.

There should be collaboration in rendering outstanding and reliable services with stakeholders participating in the operation. The performance - output, outcome and efficiency- should be upgraded to the highest level possible. The output quantity should follow the plan. Access to public universities in Thailand should be made easy. The output should have quality and should respond to the national development and meet the international standard. The work steps should be cut short as much as possible. The personnel should be trained to focus continuously on increase of capacity and reduction of operational costs. The national development plan should have a clear direction in terms of people's qualifications and number to serve as the manpower of the country. Public higher education institutions in Thailand should have the direction in building knowledge and in becoming international.





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