

## **A FEASIBILITY STUDY OF GSC'S EXPANSION TO VIETNAM**

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### **ABSTRACT**

As one of the Global Business Project (GBP) 2011, the feasibility of the plan for Graduate School of Commerce (GSC) of Burapha University to expand its study center to Vietnam is examined in this paper. The results from the market feasibility study reveal that Vietnam has a strong demand for a full-time MBA program, with low level of competition and threat of substitution. In addition, the financial feasibility indicates the payback period of 7.2 years, the Net Present Value (NPV) of 1,994,220 USD, and the Internal Rate of Return (IRR) of 14.95 per cent. Therefore, Vietnam is a favorable market for GSC to take a foothold.

**Keywords:** Global Business Project (GBP), Graduate School of Commerce (GSC), Vietnam, MBA program, feasibility study

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## Introduction

International business or global business is defined as any stage of business transactions across national boundaries (King, 2009). Nowadays, markets have become truly global for many goods and services including internet markets, commodity markets, intermediate goods markets, and so on. Due to the rising competition of education services and expansion as well as the strength of an international prospect of the institution community, many institutions are looking toward internationalization.

The Global Business Project (GBP) is an exclusive graduate-level course which is offered to Master of Business Administration students and other graduate students at fourteen member universities in the United States: Columbia University, the University of Connecticut, Duke University, George Washington University, Georgia State University, Purdue University, San Diego State University, Temple University, the University of Hawaii at Manoa, the University of Maryland, the University of Miami, the University of North Carolina - Chapel Hill, the University of Pittsburgh, and the University of Wisconsin-Madison. It was designed as well as developed by an association of Centers for International Business Education and Research (CIBERs), led by the CIBER at the University of North Carolina (UNC) - Chapel Hill. The major goals of the GBP are twofold: firstly, MBAs and graduate students in related disciplines can increase their global business and language/cultural competency through guided hands-on business experience in global markets, and, secondly, the companies (called clients) assisted by the students receive valuable assistance in expanding or increasing their global positions. In 2011, the target countries included: (1) Brazil – Projects led by the Duke CIBER; (2) China – Projects led by the UNC CIBER; (3) Japan – Projects led by the Temple University CIBER; (4) Thailand – Projects led by the University of Maryland CIBER; and (5) Vietnam – Projects led by the University of Hawaii at Manoa and the University of Wisconsin-Madison CIBER.

The GBP 2011 started from September 2010 with the selection of students and clients in each country. Until the first half of March 2011, all participants,

the country leaders, GBP faculty advisors, GBP students and clients met in a Kick-off weekend in Washington DC to discuss the scope of the project, build strong teams, developed a detailed project scope of work, project timelines, and a work plan for the 10-week project (8 virtual weeks and 2 weeks in-country). During this time, all GBP students worked with their own teams according to the projects received from the clients. Finally, from March 13 to May 27, project teams worked in-country doing research and preparing for the final presentation of the findings to the clients.

Recognizing the importance of internationalization, Graduate School of Commerce (GSC), Burapha University, decided to participate as one of the clients in the CIBER Global Business Project 2011. The project assigned to the team is a feasibility study of GSC's plan to expand its study center to Vietnam. The study will help GSC to have a better understanding about the potential market in Vietnam for higher education, especially in the field of business administration, and to make a right investment decision.

## Review of literature

### Background of Graduate School of Commerce (GSC), Burapha University

Graduate School of Commerce (GSC), Burapha University is a famous graduate business school in Thailand. At present, the Graduate School of Commerce has expanded into many regions to serve the needs of both public and private sectors. There are altogether 6 campuses: 1) Bangsaen Campus (Main Office) at the Graduate School of Commerce Building, Burapha University, Chonburi Province; 2) Bangkok Campus, at the United Center Building, Silom Rd.; 3) Rayong Campus, at the Star Plaza; 4) Saraburi Campus, at Saraburi Wittayakom School; 5) Mae Hong Son Campus, at Mae Hong Son Regional Revenue Office; and 6) Nonthaburi Campus, at Office of the Government Service Commission, Seminar Center Building, Tiwanonta Rd. In 2009, it had 25 faculties and 46 academic support staff (Graduate School of Commerce Burapha University, Annual Report, 2009).

GSC is now offering 9 MBA programs and PhD programs in Organization Development, Human Capability Management, and Public Management. The philosophy of GSC is 'An aim to produce graduates with academic knowledge and business professional business competency, disciplines, moral, ethical and social responsibilities'.

The vision of GSC is 'The Graduate School of Commerce is the leader of continual learning innovation development in order to foster the sustainable strength for the business sector, communities, and societies'.

The missions of GSC are as follows:

1. To promote and develop curriculums, instruction, and to cooperate with the public and private sectors.
2. To give consultation and to develop academic services, research, and business models in order to continually respond to the demands of the business sector and communities.
3. To develop graduates capable of facing the current changes in technology and globalization trends with the maintenance of business ethics and morality.

4. To promote activities in return to communities and societies, and to preserve Thai arts and culture. GSC has built strong networks with many institutes in Thailand such as The Government Public Relations (PRD), The Federal of Thai Industries, Thailand Innovative Administration Consultancy Institute, and The Institute of Internal Auditors of Thailand (IIA). It also has networks with many international institutes such as Montpellier Business School and Group Sup de Co Montpellier, France; Northwood University, USA; University of Maryland, USA; University of South Australia, Australia; Chungnum National University, Korea; Sangsawan University, Laos; Savannakhet University, Laos; and Yunnan University, China.

Under the current highly competitive higher education market, many countries have turned to knowledge-based growth to switch from labor-intensive sectors to new and emerging economic activities that have the need for higher skills and intellectual capital. Therefore, many universities are trying to offer quality programs, faculties, and many facilities to attract

potential students. Networks with many international universities provide an opportunity for a university to attain prestige over other universities, thus more students will likely apply.

### **Higher education in Vietnam**

Vietnam is one of the ten member countries in Southeast Asia. It is divided into 3 regions: North, Central, and South. It is bordered by China, Cambodia, Laos, the Gulf of Tonkin, the Gulf of Thailand, and the South China Sea. The capital city of Vietnam is Ha Noi, and other prominent cities are Ho Chi Minh, Hai phong, and Can Tho. Over the past decades, GDP growth rates of Vietnam have been increasing continuously compared to its South-East Asian neighbors. With its entry into World Trade Organization (WTO) is projected to have further changes in its economic structure. This will help Vietnam to become more competitive on the global market. This means there will be high demand for skilled workforce for many multi-national corporations. Especially, the service sector, in the field of information technology, tourism, harbor management, finance and banking, has great potential to be a new engine of growth for Vietnam. According to the estimation of ministry, 10,000 to 15,000 skilled laborers are annually needed for the country to be trained in these fields. Nevertheless, with the current training capacity, there is only 40-60% of the demand that can be met. Therefore, there is an urgent need to improve higher education participation rates in Vietnam with the infrastructural capacity to support it. However, the Vietnamese government has recognized that the current system is unable to meet this demand, and this lack of qualified human resources is the critical factor that limits future development and economic growth of the country.

Opportunities for higher education in Vietnam are limited since the system can only accommodate a fraction of those seeking admission. In 2009, 376 universities in Vietnam had places for only 400,000 out of the 1.2 million candidates, or 33.3%, of those who sat for university entrance exams. Another problem is that, although the number of university students has increased as doubled since 1990, the number of teachers has remained unchanged. The

number of teachers for higher education can serve the demand only 60%. Moreover, faculty qualifications are generally low. Currently, there is only 13.86% of Vietnamese university professors hold doctoral degrees. More than that, quality control issue has been raised. Currently there is still no system to keep checking on the quality of the rapidly increasingly number of educational programs and institutions being set up to support the rising demand for higher education.

Vietnam has been confronted with the dilemma of an increasing demand for education balanced against a limited supply because of scarce resources (Institute of international education, Vietnam, May, 2004). Moreover, pressure to upgrade and adjust the quality of teacher training, teaching, and curricula to produce graduates with skills qualified in the evolving labor market are also increasing. The satisfaction of these demands and the careful allocation of resources will be crucial to well-being and future development of the country.

The competition in higher education market in Vietnam is increasing since in-country delivered programs with overseas qualifications have become more popular (Vietnam Market Introduction, April, 2011). An Australian institution, Royal Melbourne Institute of technology (RMIT), has campuses in both Hanoi and Ho Chi Minh City and there are many programs jointly coordinate by local and overseas institutions. France, the Netherlands and Belgium, which are competitors who offer courses delivered in English, are also attractive. There are also some Asian countries (Japan and Korea) which are short distance away, cultures are more compatible and cost efficient, are potentially strong competitors. With similar competitive advantages, Singapore, Malaysia and China are gradually more becoming popular, especially for trans-national education (TNE) programs.

Vietnam's main demand derives from those seeking for higher education. The full range of pathway programs attract many of the Vietnamese students that boarding schools, further education colleges, schools and universities in all competitor countries can offer. Nearly all undergraduates are those who

progress from pathway programs. The one-year Master's course has been attracting interest among Vietnamese students. Splitting degrees in the postgraduate sector implies a real market opportunity, especially in collaboration with a high reputation Vietnamese institution. The greatest demands are business, management and finance fields. Tourism, IT, sciences, especially engineering, are second popular. The trend of these demands seems to continue these days.

### **Previous research on higher education**

Yang (2003) analyzes the nature of globalization and how it is affecting higher education. Firstly, it reviews the nature of globalization, and then studies the international impact on higher education development. The article implies that globalization is predominantly economic, and indicates that global exchanges in the economic, cultural and educational domains continue to be unequal. Simultaneously, education is increasingly treated as a business. By exposing the negative aspect of globalization and its effects on universities, the article is written with the expectation to counter the uncritical acceptance of globalization as a positive force for higher education and society as a whole. In order to exist and prosper in a rapidly changing world, most university leaders believe that they should be tied to the market place as well as based on customer-focused. The market-driven fundamentals of globalization cause the globalization of higher education. Therefore, it generates more challenges than opportunities. The obvious challenges consist of quality control, information management, its fitness for local societies, as well as costs and benefits.

Enders (2004) examines the impacts of internationalization on higher education as well as recent developments and challenges to governance theory. It attempts to contribute from a certain perspective on governance studies to the current discussion on the challenges of internationalization, or globalization, to bring up for higher education policy analysis. The development of governance theory towards a multi-level and multi-actor approach, and its strengths as well as weaknesses for higher education is discussed. Moreover, studies in

an internationalizing environment are also addressed. The study addresses that the increasing number of competitors among higher education institutions together with the competitive challenges is leading universities that wish to compete, or to find new niches in the emerging international market, to build up more adaptable and flexible methods of organizing and managing academic work. The European integration has challenged Vietnamese conceptual and empirical tools for higher education studies to integrate the international dimension into frameworks which concentrate on the single nation state and domestic policies.

Chalapati (2007) argue the impact of economic globalization on Thai higher education and society. It explains that Thailand's severe economic crisis during 1997 and 1998 has brought education restructuring at all levels. Since the crisis, Thailand has been addressing the development and creativity of human potential, which enhance the capability of communities, societies and the country. The paper also explains that the education system of Thailand is being blended away from nation-building objectives towards 'human capital' creation. Education is rather seen as a sort of economic investment. Some common learning behaviors of Thai students and other Asian students implied characteristics of collectivist societies and high power distance societies as introduced by Hofstede (1980). A unique value relating to education in Asian culture is that the need of education is to gain prestige and to access a higher status. Consequently, universities are competing for this niche in the market. Nevertheless, non-Thai students seem to provide more critical and practical ideas of how they would be educated and how institutions could assist them to achieve more proper learning than Thai students.

Mazzarol (1998) study about the critical success factors for international education marketing. Also, it addresses some issues that education institutions who are aiming to succeed in international markets must undertake a range of activities designed to attract prospective students from around the world. Developing a competitive advantage for international education suppliers through marketing strategies is

a complicated issue since education is considered as a unique product that is both highly intangible and has characteristics, which usually creates problems for marketing.

Vallely and Wilkinson (2008) provide analysis of the crisis in Vietnamese higher education by analyzing the extent of the crisis and its root causes. It also explained how the Vietnamese government, the Vietnamese people, and the international community are responding to the situation. Therefore, the importance of institutional innovation as a necessary component of an effective reform platform is then addressed. The need for Institutional Innovation is critical. Extensive governance reforms are the major keys to improving Vietnamese higher education. Vietnam must build a new institution of higher learning that form the outset incorporates good governance to attach into its institutional structure because reforming academic institutions is a long term process. This new institution can be a model for other universities to learn from and emulate, as well as being a source of healthy and creative competition.

## Research methods

This research employs both qualitative and quantitative methods for a feasibility study of GSC's expansion to Vietnam. The qualitative method was employed in gathering and analyzing secondary data of the GBP Project for studying the feasibility in marketing related to Vietnam higher education market conditions. For quantitative methods, data related to the market demand in Vietnam were derived from an internet survey and e-mail survey in the Vietnam market. Moreover, an in-depth interview was conducted for gathering data in verbal form in order to study financial feasibility.

## Sample

The samples for the research were divided into two groups. One sample group was Vietnamese students at the undergraduate level. This group was reached by conducting an internet survey with convenience sampling. The other group was required for the in-depth interview. The sample was selected by a purposive sampling method which was a

non-probability sampling as this research aims to study the feasibility for GSC to expand to Vietnam, so the data would directly concern the GSC. Therefore, the Dean of the GSC was the sample for the research because he was able to provide relevant data for conducting the financial feasibility.

#### Data collection

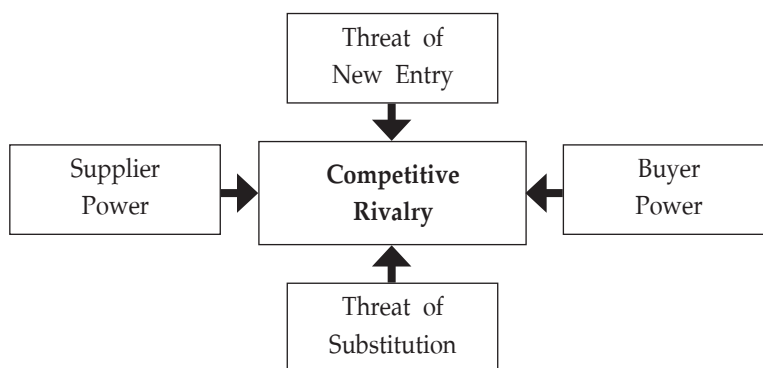
The data from the GBP Project were used as secondary data to study the feasibility in marketing regarding the Vietnam higher education market. The primary data in quantitative terms were collected from the two sample survey methods. The first method was online survey through internet and e-mail surveys with close-end questions in order to understand whether Vietnamese students are interested to apply in a Thai university opening in Vietnam, while the second method is an in-depth interview with the Dean of GSC. However, the voice recorder was used as the supporting tool for the interview with the

written notes of the researcher during the interview. The interview questions were open-ended questions which allowed the respondent to freely express his ideas, perspectives and other relevant information concerning the expansion of the GSC to Vietnam. The data received from the interview were then used for studying the financial feasibility.

#### Data analysis

The secondary data from the GBP project was used to analyze the Vietnam higher education market conditions by Five Forces Model in order to study the market feasibility. One of the most widely known frameworks for industry analysis is Porter's Five Forces Analysis which was employed in the study of Vietnam's higher education market conditions in this research.

The elements of Porter's Five Forces Model are competitive rivalry, threat of substitution, supplier power within the industry, buyer power within the industry, and threat of new entry (see Figure 1).



**Figure 1:** Porter's five forces model

The primary data were collected from an internet survey conducted by an online survey tool named SurveyMonkey and a social network named Facebook, and an e-mail survey with a close-end question to Vietnamese students. Thus, there are two alternatives; 'Yes' and 'No', provided for the respondents to respond. The question is 'If there was a Thai university offering a full-time English Master of Business Administration (MBA) program, would you be interested in applying to this university?'

Another primary financial data was collected from the in-depth interview with the Dean of the GSC

which was analyzed and used for studying the financial feasibility. Both secondary and primary data collected were analyzed by inferential statistics to obtain the payback period, Net Present Value (NPV), and Internal Rate of Return (IRR) and compared if the result complied with the hypothesis. In addition, the results from these studies and analysis were summarized to achieve the objectives of the research.

#### Results

In this paper, the first step is to use Porter's Five Forces Model to analyze Vietnam's higher education



market, the results are as follows:

### **Porter's Five Forces Analysis**

#### **1. Competitive rivalry within the industry**

According to the secondary data found in the GBP Project, Vietnam lacks of recognized quality university as no Vietnamese institution appears in any of the widely recognized tables of leading Asian universities.

In 2005, the Vietnamese government attached a higher priority to education reform. They adopted the policy statement Resolution 14 on the "comprehensive renovation of higher education" by 2020 as Vietnam is calling for governance reforms. Moreover, the government recently has announced a proposal to establish a series of new institutions with international partners and proposed a willingness to obligate funds borrowed from multilateral lenders, such as the World Bank.

The establishment of foreign education programs is a sector that is growing within Vietnam that is run either entirely by foreign universities or through cooperation between a foreign and Vietnamese institution. This sector received a large support in the Decree No.06/ 2000/ ND-CP, dated March 6, 2000, which provided incentives for foreign investment in several aspects, including education and training, such as the incentive of taxation.

The new Royal Melbourne Institute of Technology (RMIT), International University of Vietnam represents the first and the only 100 per cent foreign invested international university in Vietnam. RMIT University is one of Australia's longest-established educational institutions. It is a global university of technology with its center in the city of Melbourne, Australia. It is considered one of the most successful providers of international education in Australia. Moreover, RMIT is a member of the Global U8 Consortium or GU8 (an educational consortium of eight leading universities located in coastal, maritime and seaport cities in Australia, China, France, Israel, South Korea, UK and USA), with a campus in Vietnam and it also has significant teaching partnerships in Hong Kong, China, Malaysia and Singapore, with a strong educational presence in the Asia-Pacific Region. Simultaneously, a number of foreign institutions

have also entered into joint programs with Vietnamese institutions, many of which involve a study abroad component.

Currently, however, there are a relatively small number of universities in Vietnam offer higher education degrees, especially, a full-time MBA program. Therefore, the intensity of competitive rivalry is still at a low level. Accordingly, it is a great opportunity for the Graduate School of Commerce, Burapha University to successfully expand to Vietnam.

#### **2. Threat of substitution**

The demand for higher skills has been increasing significantly as a result of a combination of inter-industry employment changes, capital accumulation and some evidence which is consistent with skill-biased technical change. Higher education, generally, has been held as a respected position in Vietnamese society. From the outset of its independence as a nation, higher education has been, and continues to be, a major preoccupation of government and a highly valued and respected activity in Vietnamese society.

Because the situation provides challenges for Vietnamese higher education in the universities and the quality is closely related to economic prosperity. Therefore, with this relationship, it is worrying that Vietnam's universities are the worst in the region. Consequently, employment opportunities for tertiary graduates now exist in most sectors. Higher education graduates are also implied to positively contribute to firm productivity. This indication provides a strong justification for promoting expansion and improvement of higher education in the country. Therefore, the change in higher education in Vietnam is essential. It can be concluded that there is low threat of substitutions.

#### **3. Supplier power within the industry**

Suppliers in this case refer to university lecturers. Today, the number of university lecturers has been slowly increasing. As a result, universities, especially newly established ones, have a serious lack of lecturers. Even though, there are few universities offering higher education degrees in Vietnam, qualified lecturers are limited. Especially, programs that are taught in English, which is increasingly

becoming favorable, it is somewhat difficult to find such skilled lecturers in Vietnam. Therefore, existing qualified lecturers have some power to negotiate for higher teaching rate from universities. Thus, it is concluded that there is moderate supplier power in the higher education industry in Vietnam.

#### 4. Buyer power within the industry

Although the Vietnamese government has set up the policy to support the higher education sector, there are not so many higher education programs offering in Vietnam, especially, in the field of business. This limits options for Vietnamese students to study in accordance with their interests in their own country. Moreover, people in Vietnam have relatively low ability to pay for higher education. Consequently, the buyer power within higher

education industry in Vietnam is considered at a moderate level.

#### 5. Threat of new entry

As the Vietnamese government tries to support the higher education sector by providing incentives for foreign investment in education and training, healthcare and scientific research, it can attract foreign investors to invest in Vietnam. Furthermore, recently, there are few higher education programs available in Vietnam. Therefore, with a high demand for higher education, it is attractive for many foreign investors to invest in Vietnam. As a result, it can be concluded that there is a high level of threat of new entry.

A summary of degrees of each force in Porter's five forces model on Vietnam higher education market conditions is shown in Table 1.

**Table 1** A summary of Porter's five forces analysis on Vietnam higher education market conditions.

Forces	Degree
Competitive Rivalry within the Industry	low
Threat of Substitution	low
Supplier Power within the Industry	moderate
Buyer Power within the Industry	moderate
Threat of New Entry	high

In sum, the Porter's five forces analysis shows that Vietnam higher education is very attractive with low level of rivalry. However, the threat of new entry is also high and it is the key risk for GSC's consideration.

#### Results from online surveys

Market demand is derived from internet and e-mail surveys. There are two methods of internet survey in this research; through an online survey tools named SurveyMonkey and through an online social network named Facebook, and an e-mail survey with a close-end question to Vietnamese students as follow:

'If there is a Thai university offering an English full-time Master of Business Administration (MBA) program, will you be interested in applying for this university?'

The respondents from SurveyMonkey and the e-mail survey were Vietnamese students who have

Bachelor's Degree in Vietnam. They are recognized by one of the researcher's classmates. In addition, Facebook, as one of the online social networks, respondents are those who are Vietnam members of the webpage 'Thai social network in Vietnam'. One of the common disadvantages of the internet and e-mail surveys is a low response rate. The surveys were collected during a three-week period. However, the total responses were low with 32 respondents.

From Table 2, there were 26 respondents (81.20 per cent) who were interested in applying to a Thai university offering a full-time English MBA program, whereas, there were only 6 respondents (18.80 per cent) who were not interested in the program. Therefore, there was some demand for a full-time English MBA program offered by a Thai university in Vietnam.



**Table 2** Results from online surveys

If there was a Thai university offering a full-time English Master of Business Administration (MBA) program, would you be interested in applying for this university?	Number of Respondents	Percentage
Yes	26	81.20%
No	6	18.80%
Total	32	100.00%

**Financial feasibility**

The data for conducting financial feasibility analysis is mainly obtained from an in-depth interview with the Dean of GSC. The key assumptions used for analysis are as follows:

1. Initial investment is 1,000,000 baht with 100% equity.
2. The required rate of return is 10% per year.
3. The number of courses offered for full-time MBA program is 10 courses (30 credits) with an independent study (6 credits).
4. The tuition is 290,000 baht. The block courses (modules) will be offered. Students will be required to complete an independent study in Thailand.
5. The net working capital is 20% of revenues.
6. The estimated number of GSC lecturers is 10 for this program. The teaching rate is 2,000 baht/

hour. The rate for a lecturer supervising a group of students (not more than 13 students) to undertake independent studies is 30,000 baht.

7. The rental expense is estimated at 1,500 baht/m<sup>2</sup>/month.

8. The traveling expenses (7-day round trip) are 13,000 baht and the living expenses are 1,500 baht/night for a lecturer.

9. The salary for hiring a staff to be in the Vietnam office is 20,000 baht/month.

10. The tax rate of 10% in Vietnam is applied for this project. There is no tax in Thailand for public universities.

11. The currency used is 1 USD = 29.93 Baht and 1 Baht = 687.78 VND.

12. The projection of number of students over the next 10 years is shown in Table 3.

**Table 3** Projection of number of students over the next 10 years

Item	Year 1-3	Year 4-6	Year 7-10
Number of Students	12	24	36

Under the above assumptions, the cash flow projection is shown in Table 4.



The results from Table 4 show that the payback period of the project is 7.2 years, with the Net Present Value (NPV) of 1,994,200 USD and Internal Rate of Return (IRR) of 14.95 per cent per year. Therefore, the plan of GSC to expand its study center to Vietnam is financially feasible.

## Conclusions

This paper examines the feasibility of GSC to offer an English full-time MBA program in Vietnam under the Global Business Project (GBP). The five forces analysis reveals that the competition in higher education in Vietnam is still low and there is a strong demand for higher education in the field of business administration. The results from online surveys also show that the Vietnamese students have positive attitudes toward the programs offered by Thai universities. In addition, the results from financial analysis indicate that it is feasible for GSC to expand its study center to Vietnam. The project has a payback period of 7.2 years, the Net Present Value (NPV) of 1,994,200 USD, and Internal Rate of Return (IRR) of 14.95 per cent per year.

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## **THE PUBLIC SECTORS' PROMOTION TO THE CREATION OF INNOVATIVE PRODUCTS AND SERVICES**

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### **ABSTRACT**

The article entitled "the Public Sectors' Promotion to the Creation of Innovative Products and Services" had objectives to study and promote the creation of innovative products and services in Thailand by reviewing the literature concerning concepts and theories involved in innovation/ innovative organizations and the promotion of the creation of innovative products and services of public sectors in Thailand consisting of the cabinet, Ministry of Science and Technology, Advisory Committee to Develop an Innovative System of Thailand, Small and Medium Enterprise Promotion Office, and the Securities and Exchange Commission. The data were also collected from abroad such as South Korea, Singapore and European Union. It was found that there were stages of public sector's policies to promote the creation of innovative products and services. The first stage included 1) the support for the expenses in doing research and developing the country's innovation and 2) the reform of the incentive system, regulations and the laws that impeded the implementation and exploitation of research and innovation. The second stage was to support the researchers by promoting the quality of the teaching and integrating science, technology, engineering and mathematics. The country focused on training which aimed to develop mentors for entrepreneurs and to give support for further research for the commercial interests. The government had policy for marketing support by giving the opportunity for research and innovation that had never been released to enter the commercial market without competing with foreign products. The government was First buyer and promoted business excellence to the international standards. To the reform of laws and regulations, the government provided tax incentives in order to support researches and development in private sectors. Moreover, the government had policies to buy innovation on the list with the special procurement method. This enabled SMEs to develop innovation of business model by developing the entrepreneurs' network, mutual vision, co-location, mutual use of instrument, including follow-up of technological development.

**Keywords:** The Public Sectors' Promotion, Innovative, Products, Services

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### Background and Significant Problems

The globalization trend under capitalist economic system and economic unions, for instance, ASEAN Economic Community or AEC has influenced several organizations to adjust themselves for survival. In consequence, every organization has to learn and to adjust their selves because only learning organization is able to survive the changed world. They have to collect, mix or create new knowledge which has never been discovered before and this knowledge will increase value of products, process or new services by focusing on reducing cost of a product or cost of service (Ralph, 2003). Many organizations in Thailand give priority to the creation of innovation. They try to create and increase their capacity for the success of their organizations in organizational innovation. It is regarded as a significant mechanism which helps force the organization to invent new products in order to expand its business or to elevate its business value.

The progress of the today world originates from technology and innovation. Companies around the world pay attention to the development of innovation and technology. When considering cost of production and of service which applies low innovation and technology, the true value of products and services, however, is knowledge and idea or people from

that product or that service. The example is the capital cost of iPhone amounts THB 6,000 but the sell price reaches to THB 20,000. iPhone products have been studied and tested in the market for long time until it came out to respond consumers' demand. This is value added from the development of technology and innovation (Kingkaew, 2014).

Presently, the promotion of government innovation in Thailand is feeble in science support factor, technological factor and innovation support factor which will be a new learning for application for value added of products and services. According to the economic rating competition by IMD and WEF, Thai science and technology still remains not well. The indicator analyzed from investment in research and development, investment in scientific and technology foundation, quantity of research and development personnel, quantity of patents and the protection of intellectual properties. All of these, they become limitation in using science and technology learning to support competition capacity of the country. Whereas related sections under researching system lack integrity of inter-working and efficient mechanism in connection building among private sector, public sector and community (Office of National Economic and Social Development Board, 2011).

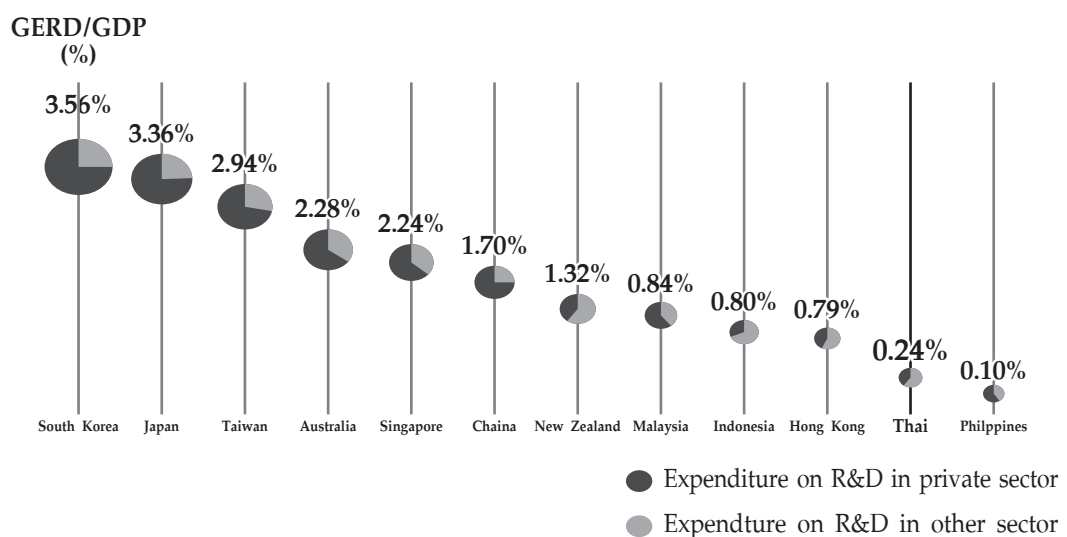
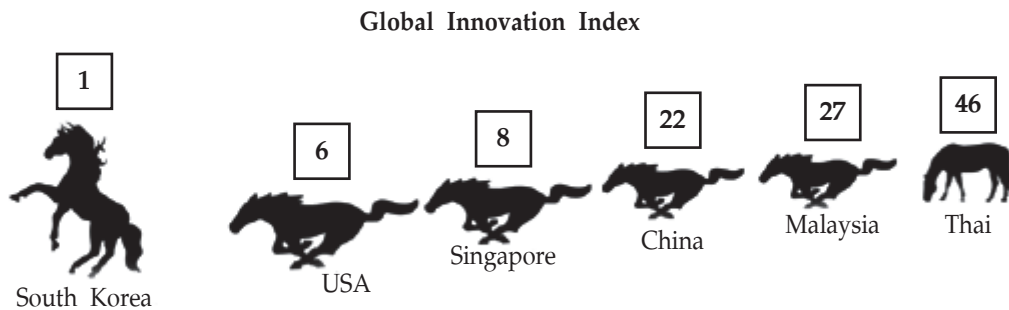


Fig 1 Gross Expenditures on R&D/GDP and Gross between Private Sector and Others of Countries in Asia-Pacific 2009 (International Institute for Management Development (IMD), 2012)



Gross Expenditures on R&D: GERD per GDP of Thailand is a little bit low or 0.24% of GDP while other countries in Asia have high GERD which are South Korea, Japan and China. Most invested in private sector more than 60% while Thailand invested in private sector just 40%. The top 5 of

Thai industries with high expenditure on R&D are petroleum, chemicals and chemicals products, machinery and electronic appliances and foods and beverages (Office of Securities and Exchange Commission, 2014).



**Fig 2** Global Innovation Index (Bloomberg the company, 2015)

According to fig 2. Global Innovation Index by Bloomberg 2015, the evaluation was considering from 6 factors which are investment in R& D, manufacture of high value added products, number of companies in high-technology group, educational level of workers, number of researchers and quantity of patent issuances. Thailand stays in 46th while South Korea is the top 1 (Bloomberg, 2015). As a result, the present world economy has stepped from the age of heavy industrial dependence to the age of creative industry depending on knowledge learning, technology and innovation. Many countries focus on building their own economy based on the knowledge learning. For Thailand, we cannot avoid this path. How much do Thai companies promote innovation creation of products and services, comparing other countries in ASEAN and the world? (Kingkaew, 2014).

### Objectives

To study on the promotion of innovation creation for government products and services.

### Scope of Study

Study on the promotion of innovation creation for government products and services in 5 Thai organizations which are Thai Council of Ministers,

Ministry of Science and Technology, National Advisors of Innovation System Development Commission, the Office of SMEs Promotion (OSMEP) and the Securities and Exchange Commission, and in outside countries consisting of South Korea, Singapore and European Union.

### Ideas and Theories

#### Innovation Ideas and Theories

The meaning of “Innovation” defines to the turning of an idea into touchable material, to mix and/or to synthesize existing knowledge in order to create a worthy and important product, a process or a service. There are 2 major types of innovations which are 1) the adaptation of existing form or technology or, in other word, an improvement for the better and for more recent reformation and 2) the completely alteration of existing object or, in other word, the newness. For this type of innovations, there are many products or services which tend to replace existing technology (Richard, 2013).

Innovation is a process of idealization to produce a product and a service or to use for the benefit. This is the result of creation which is the main condition of innovation. Creative idea is ability in combining ideas to create uniqueness or in connecting ideas to make a relation and to cause benefit. With

its principle, the creative idea presents new thinking to improve quality in the organization, whereas the innovation applies this idea in operation and study on personal creative idea and on support to cause creation among members in the organization (Certo, 2009).

Hamel (2009) stated about the definition of management innovation that it is anything which can mostly adjust the ongoing management method or change existing organizational form significantly and when the change occurs, the organizational goal will progress. To say simply, the innovation management is an action to change the working method of manager and to increase the operating result of that organization.

National Innovation Agency (NIA) (2010) gave the definition of organizational innovation that it is an organization which support personnel innovation inside it. These personnel will create innovation by using various factors. Thus, the innovation organization consists of various elements and complicated process. The organization which supports internal personnel innovation, is able to compete and grow their business in a long period (Vracking, 1990, p. 95). Therefore, directors and organizational developers must understand its characteristics, its elements and innovation management so that their company will be the true innovation organization in the present day and in the future.

Regarding the creation of government innovation, Osborne & Brown (2005) said that to create the government innovation in its organizations is composed of 4 approaches as follows:

1. Rational management approach, this idea came from the view toward the system under logical thinking, regarding the organization as a designed tool with an aim to reach the specific target which is the principle of decision while the organizational structure stems from its inner behavior. The process starts from identification of operating result problem or gap of the organization and the necessary tool for this idea is the cause analysis to find the answer of gap during work which will lead to innovation process ideal.
2. Political negotiation approach, this idea is based

on natural system perspective which views the organization as a place gathering people and groups of people who have different goals and some targets differ from theirs organization. This thinking concerns on the complication of target and the importance of unofficial structure and of sub groups in the company. It tries to control organizational politic in order to create innovation; therefore, the process of this approach is composed of the identification of stake holders who influence the innovation.

3. Building block approach is an idea to cope with organizational innovation developed by Borins (2001). Its principles relate to innovation in the public service organizations that the innovation requires friendly innovation culture, support from directors, rewarding and the use of resources and capital. The innovation culture needs to gather the difference of people's thinking in order to create new idea about public services. The said principle is regarded as a group for creation of public service innovation.

4. Learning organization approach is regarded that the organization is too complicated to manage with the same old method; consequently, the innovation management must gather the perplexity of modern organization in order to adjust with the environment or called Thriving on chaos (Peters, 1988).

According to the 4 approaches in managing innovation of public services, what we need is the use of contingent approach which means there is none appropriate to do. All of the approaches provide different results depending on situation. As a result, directors must select an approach and skill which is appropriate to the each innovation.

The technology network theory of innovation (Lundvall, 1988) under title "Innovation System" provides its hypothesis as follows:

1. Organizations and institutes whose roles relate to innovation creation should connect and exchange views with each other, for example, the sender delivers institutes/organizations who advice government units to government research institutes, universities and others.
2. The more strength, the more connection continuity, the more interaction and the more discussion with external institutes, the more encouragement in

innovation data transfer, it results to an increase of opportunity of the organization or the institutes which will benefit to their innovation creation.

3. These connections comprise technical connection or marketing connecting technology and innovation data network. However, this theory gives priority to technological connection more than the others.

In consequence, this theory explains that the innovation comes from the combination of touchable capital and untouchable capital which are technological network, assisting the organizations/institutes increasing its capacity in absorbing innovation data.

To conclude, the innovation is to apply new idea in the production process or service or creating new product which may positively affect in one way or another or multi aspects in order to have advantages in the present world competition when the environment surrounding has been changed unceasingly, resulting in continuing creating innovation so that the organization will be able to respond the alteration in time.

### **Innovation Promotion Method of Thailand Government Policies**

Government policies are significant factors in promotion of innovation creation in the country. The government as the national policy planner must stimulate and encourage innovation creation which will lead the country to have strong and sustainable economic system development. For Thailand, the cabinet announced the policy number 8 about the development and promotion the use of science, technology, R&D and innovation. The government pays attention to further research and development and to create innovation into modern production and service (The Cabinet, 2014) as follows:

1. Support to raise expenses of the country's research and development to focus on the target not lower than 1% of national income and the ratio per private section is 30:70 in accordance with The National Economic and Social Development Plan. In addition, to increase the country's capacity in the competition and progress as same as neighbor countries who are underdeveloped countries, this

is also to arrange management system in science, technology, research and innovation for its unity and efficient connection with private section.

2. Urge to build the innovation society by supporting educational system which connects to science technological engineering and math, to add human resource in sufficient majors, to relate learning with working, to appoint government research personnel enable to work in private sector and to allow medium and small industries to access technology with the collaboration of government unit and educational institutes.

3. Reforming motivation system, regulations and laws which burden to the use of research, encouraging regional or provincial research and development plan in response to local demand and supporting commercial use from research and development work by promoting collaboration among university, government research units and private sector.

4. Promoting large project investment of the country for instance, railway system, electronic automobiles and water and waste management by using study research and development and Thai innovation as seen appropriate, it must apply foreign technology, equipments, materials and other goods which result from the research. The government must provide procurement policy for facility in order to have opportunity in technological development for the country. In case of needing to purchase materials, equipments or technology imported from outside countries, there should be conditions in technological instruction for self-dependence in the future.

5. Improving and arranging scientific and technological infrastructure including research and development and innovation which are the basic structure of significant wisdoms in further step of commercial use entrance in industrial sector to be ready, up-to-date and covering around the country such as the development of information technology system, analysis center, laboratory, institute and research center.

Recently, the Thai government has its role in supporting the creation of science, technology and innovation for example, (1) finance such as tax support for the business who encourage science

based development (i.e. double deduct research and technology development expenses) by offering low-interest loan or co-invest or supporting fund to the business and educational institute for innovation research development., (2) business and educational institute for innovation research development such as technological business incubator center or intellectual properties advice, (3) infrastructure and facilities such as Thailand Science Park and Software Park Thailand, (4) research and technology such as co-research, analysis and testing service or industrial advice and (5) human resource such as personnel training, database and specialists providing (Office of National Economic and Social Development Board, 2011).

Ministry of Science and Technology (2014) defined its principal policies and measurements for promotion of science, technology and innovation development as follows: 1) Offering tax privilege to support research and development of private sector. The government has specified the limit of tax privilege so that private sector is able to ask for tax deduction, 2) policy support for the application of Thai innovation with the government market in order to reduce expensive importation and to support the innovation development for responding the rapid advance of technology.

National Advisors of Innovation System Development Commission (2015) founded working team to outline the government's demand which is able to use product of Thai innovation causing beneficial use of research, development and innovation products toward the development of Thai economic system, especially in the government units which need innovation goods and need to reduce imports as an action to encourage the country's innovation system development. Besides, there was a proposal of creating marketing innovation goods to support and encourage Thai goods of the government units as follows:

1. Having for innovation procurement policy in Thai innovation list is able to provide special method.
2. Specifying the government sections which the authority purposes to make a procurement of products or services which enlists in Thai

innovation list by allowing spending budget of products and services procurement on the list not less than 10% but not over 30%.

Regarding the mentioned procurement, the suggestions are as follows:

1. The listed innovation goods must be verified by related and credible institute to ensure their quality and security.
2. Should fix innovation procurement ceiling in the country by "special method"
3. Should categorize innovation goods and should provide roadmap in the Thai innovation development from government marketing survey, design, manufacture and verifying test before enter government procurement mechanism
4. Should identify clear demands before arranging policy proposal of creating innovation good market in the government units

The Office of SMEs Promotion (2014) said that the innovation promotions for SME business are 1) the government has its duty to support SME business and develop business model innovation to search for opportunity and value added with the promotion policy, R&D imbursement and building Science park and incubator centers as learning center and teaching knowledge. It must support the business collaboration between large business and SMEs to expand its market to regional or global market, 2) the educational institutes focus on training, managing coaching and mentoring system for entrepreneurs, support research extension for the commercial benefit, founding specialist/patent data centers and comparison system including index indicators for business group in order to compare SMEs operating results of SMEs and industry, 3) entrepreneurs focus on expand network of entrepreneurs/ co-vision, co-location, co-equipments and technological development monitor.

Office of Securities and Exchange Commission (2014) said about promotion of science-based innovation business of Thailand that it access capital fund from capital market (1) The project "Innovation and Creation shares, Proud of Thailand" of SEC coordinating with 7 public and private units to support science-based innovation business increasing

its capacity with capital market, as a tool while entrepreneurs understand benefits of founding from capital market and exchange opinions or negotiate business investment, (2) Offering privilege to venture capital business in investing science-based business by termination of capital gain and dividend for the fund and investors in the fund. (3) The public sector cooperates to arrange or co-invests in VC funds of private sector and (4) considering the possibility of intellectual properties development and invest instrument in IPRs.

## **Innovation Promotion Methods in Outside Countries**

### **South Korea**

The massive success of South Korea is very interesting. Within 20 years, its government began to perceive that if they want to continue develop the country's industry for sustainability so that their goods qualities surpass the rivals, South Korea needs to give more attention to its innovation creation. The dependence of foreign technologies is not the answer. South Korea's vision is to plan exportation strategy in appropriateness with the capacity limits of the country and the trending demand of the global market. After South Korea became the leader of electronics industry in 2013, the government selected capable industry which has some chances to grow in the global. The massive innovation development of South Korea originated from quality educational system in general education and vocational education, owing to the fact that every president pay attention to their people's education all along. Therefore, when the government started to invest in science and technology for fifty years ago, the country has possessed sufficient human resource to turn the investment into new technology in its industries. The success of South Korea is a guarantee that the development of education quality is firstly necessary to increase the country's capacity in business competition because other factors will not be wasted (Watcharaprapong, 2015).

### **Singapore**

Singapore is looking forward to enlarge SME business in the future by supporting research and development

and credit for machinery improvement in manufacture, especially manufacture of computer and of communication device and a focus on increasing production efficiency of SMEs business by pushing SMEs into organizational development process to be the proficient SMEs business.

"SPRING" Standards, Productivity and Innovation Board of Singapore encourage production and capacity in organization competition for the prosperity of Singapore's economy. SPRING has coordinated with shareholders from regions for financial enterprising aid, for management, for technology and modernity and assisting to enter the new products and services market. Furthermore, SPRING has developed and improved international standard and warranty to enhance its capacity in competitions and support trading. The 3 production promotions are as follows: (Department of Industrial Promotion, 2014).

1. Productivity and innovation are composed of the promotion of excellent business into international standard, the enhancement of capacity and worker's quality, including service quality.
2. Standards and quality – SPRING will perform its duty of corporate governance for state enterprises and industries of Singapore, to follow international standard and quality so that its goods and services enable to enter foreign market and to reserve the environment.
3. SMEs and domestic sector consists of upgrading small and medium enterprises and transforming industry in order to boost productivity and to reduce cost of production.

### **European Union**

Digital Agenda for Europe (2014) has assisted the government for its procurement of innovation goods which is Pre-Commercial Procurement of Innovation in EU. This is EU policy to offer opportunity to bring new innovation, which has not been released to the market, into the market without competing with foreign goods. The government units will be the first buyer using Risk and Benefit Sharing between buyer and suppliers to be the main reason in being excluded from 2004 Public procurement directives of WTO in order to launch GP policy



which supports innovation of the country. The Pre-commercial procurement of innovation relates to 3 phases of innovation development durations: Phase1- solution exploration, feasibility study R&D Phase2- R&D up to prototype Phase3- R&D up to 1st batch of pre-commercial

volume, validated via field tests

There are development procedures between buyer and sellers when they share their demands in response to their sharing demand during R&D while buyer, as the government, can terminate the development as seen appropriate.

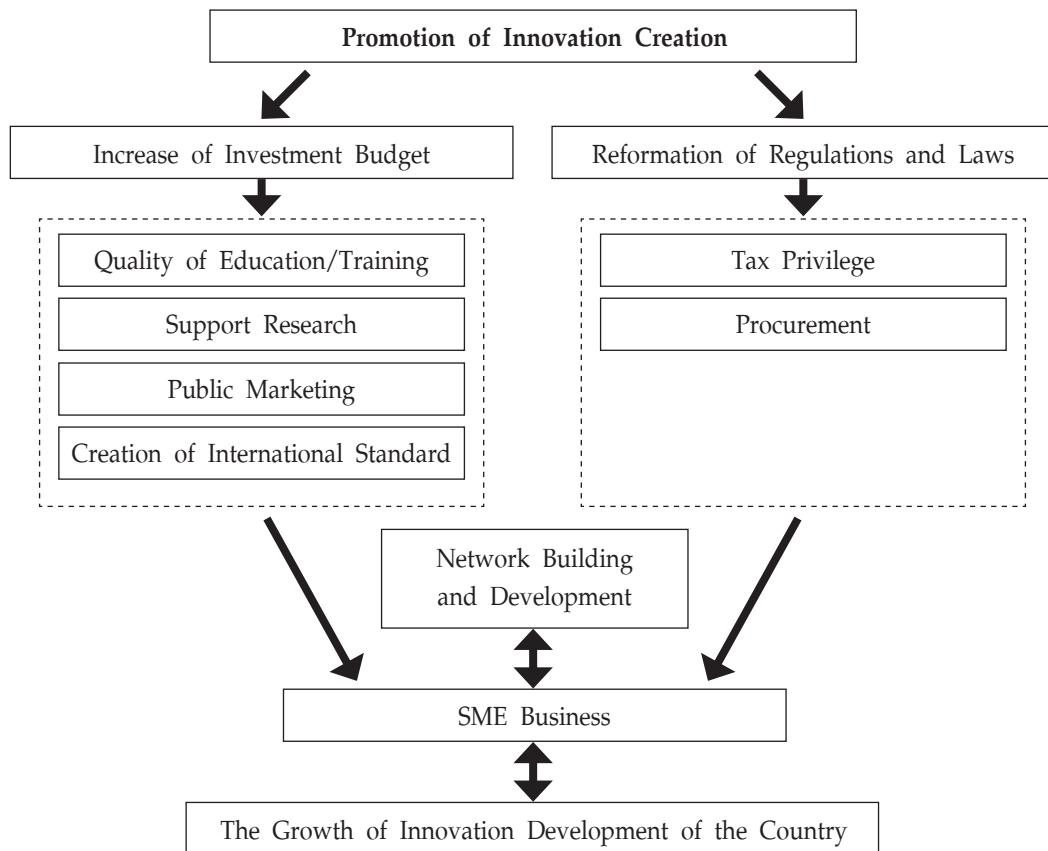
## Conclusion

**Table 1** Conclusion of Innovation Promotion Method of Thailand and Outside Countries

	The Cabinet	Ministry of Science and Technology	National Advisors of Innovation System Development Commission	The Office of SMEs Promotion	The Securities and Exchange Commission	South Korea	Singapore	European Union	Number	Rank
1. Support in increasing expenses for innovation R&D of the country	P	P	P	P	P	P	P	P	8	1
2. Urge to create innovation society by supporting educational system which connects science technological engineering and math. There is coaching and mentoring system for entrepreneurs and supporting to develop research for commercial benefit.	P	P	P	P		P	P	P	7	2
3. Reform motivation system, regulations and laws which burden to the improve of innovation R&D or the benefit	P	P	P	P	P	P	P	P	8	1
4. Support large investment of the country	P				P				2	6
5. Offer tax privilege to encourage R&D in private sector	P	P	P	P	P	P	P	P	8	1
6. Promote policy in using Thai innovation with the government market, offer research which has not been presented an opportunity entering the commercial market without competing with foreign goods when the government is the first buyer	P	P	P			P	P	P	6	3
7. The policy of innovation procurement which is enlisted can use privilege method	P	P	P						3	5
8. Encourage SMEs business enable to develop their own innovation business model	P	P	P	P	P	P	P	P	8	1
9. Develop network of entrepreneur/co-vision, co-location, co-equipment and technological development monitoring	P			P	P	P	P	P	6	3
10. Encourage the excellency of business to the international standard	P		P			P	P	P	5	4

Conclusion of the role to promote the creation of significant innovation goods and service production of the organization or the country that is successful in doing the action as in fig 3.





**Fig 3** The Promotion of Innovation Creation of Thailand

According to fig 3, the promotion of innovation creation for government products and services has its principal policies leading to other activity promotions which are 1) Support the increase of the country's innovation R&D expenses and 2) Reform motivation system, regulations and laws which burden to the development of using R&D or the benefit. When the principal policies have been proceeded, it will come to the second step which is to support researching, to urge innovation society building by promoting educational system which connects scientific technological engineering and math. Moreover, they focus on training, arranging coaching and monitoring system for entrepreneurs, supporting the development of researching for commercial benefits. The policy support on the use of Thai innovation with the government market is offer the research which has never been presented an opportunity path to release in the market without competing with foreign goods when the government becomes the first buyer

and promotes business excellency to step into the international standard. In terms of reformation of regulations and laws, it is to provide tax privilege to support R&D in private sector. The policy of innovation procurement which was enlisted is able to use special method by developing network of entrepreneurs/ co-vision, co-location, co-equipment and technological development monitoring. Every related section, both public and private sectors, must collaborate to design support plan and to promote more creation of innovation products and services in business sector as the basis of business and industrial sectors of Thailand in entering the global competition

### Discussion

The significant characteristic in the promotion of innovation creation in the countries which stay in high ranks of Global Innovation Index is the business investment in R&D. The business sector's role will

be more than the role of public sector in this investment. Whereas in the developed countries such as South Korea, Singapore and European Union, only Samsung company, it spent its investment in &D for over USD 10,000 or 20% of the country's R&D investment. This conforms to Borins (2001) who stated that the successful innovation must receive support from directors, from rewarding and from resource and capital to create new idea.

To push SME business growing sustainably, it requires the innovation, due to the fact that the innovation has been accepted as a major factor to sustain the completion business, boosting capacity in competition and reducing cost of production. However, to create an innovation, the organization is unable to perform the action solely. It requires firm network to cause participation and opportunity in sharing resources, for instance, cooperating to use resources which are tools or equipments and information data and knowledge, exchanging ideas, knowledge and accumulated innovation to each other so that the innovation gain ability and efficiency to operate their business. With conformity with Lundvall (1998), he explained that organizations and institutes who have the role in creating innovation should connect to each other and should exchange data. The more they collaborate, the more innovation data transferring which will be advantageous to create organizational innovation having connection in technique or technology, marketing and innovation data.

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