

COMPARATIVE AND TREND ANALYSIS OF FINANCIAL MANAGEMENT PRACTICES IN SOUTHEAST ASIA HIGHER EDUCATION INSTITUTIONS (HEIs)

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ABSTRACT

This paper discusses the modernisation effort in financial management (FM) practices and income diversification strategies of higher education institutions (HEIs) in Southeast Asia. This effort and strategies attempt to enhance human, organisational and technical capacities of HEIs in Southeast Asia through systematisation and promotion of good practices. Furthermore, the modernisation effort of FM is also to promote regional integration through the creation of a network amongst financial managers pursuing modernisation in FM systems and practices. The data related to economic and social indicators, are provided by six HEIs in Southeast Asian countries (Indonesia, Thailand and Malaysia). The gathered data were scrutinised to initiate both macro and micro analyses. The six participated HEIs, filled-up a macro and micro observation template. The macro data was sourced from the World Bank database and Ministry of Higher Education. Meanwhile for the micro data, information on the financial management of a university was sourced by each participated HEI. The collected information, covering the period from 2013-2015 includes several socio-economic indicators such as GDP per capita, population and unemployment rate of a country and the HEI's specific information on financial management



approach. The data matrix is analysed and presented in graphs to illustrate the average behaviour of the collected data for all the countries and HEI. The results were compiled according to social and economic indicators as well as the HEI's approach in sourcing for its institution to constitute a diagnosis of financing mechanisms of the HEI.

Keywords: *financial management, Southeast Asia, higher education institutions*

INTRODUCTION

Higher education institutions (HEIs) are complex with the adoption of several different academic and management practices to achieve the HEIs' objectives. Even though different frameworks are applied, all institutions share a common objective which is to promote sustainability and efficiency of FM. This objective justifies financial management practices as among the most common topics in HEIs as this topic has been given considerable emphasis in nearly every HEI system around the globe. According to Holloway (2006), one of the biggest issues in HEIs is the management of the institutions, financially, as all activities from various aspects such as academics, administrations and institution are financially associated. Hence, every HEI requires a sound financial management practice to achieve its objectives. Some of the HEIs are seen struggling to sustain considering the current unfavourable economic phase and high institutions expenses, although the institutions are partly supported by the funds from the government or special funds from endowment and alumni contribution.

Acknowledging the necessity of HEIs to continuously search for an efficient financial management practice together with the less transparency in information on how the HEIs exercise their financial management practices individually, this study takes an initiative to compare and analyse the trend of six HEIs representing three Southeast Asian countries (i.e., Indonesia, Thailand and Malaysia). The six participated HEIs are Naresuan University and Kasetsart University both from Thailand, Gadjah Mada University and Sumatera Utara University both from Indonesia; and Universiti Teknologi MARA and Universiti Putra Malaysia from Malaysia. These analyses are mainly to comprehend FM practices and income diversification strategies applied in the participated HEI.

The two primary goals on the comparative and trend analyses presented in this study. Firstly is to enhance human, organisational and technical capacities of HEIs in Southeast Asia through the effective and efficient financial management practices and income diversification strategies while promoting for accountability and transparency through systematisation and the promotion of good practices. Secondly, to promote regional integration through the creation of a network amongst financial managers pursuing for modernisation of financial management systems and practices in their institutions.

LITERATURE REVIEW

Financial Management is defined as planning, organising, directing and controlling the financial activities such as procurement and utilisation of funds. Generally, the main objectives of financial management are developed based on the concern in procurement activities, allocation and control of limited resources. Due to limited resources, every institution needs to ensure optimum funds utilisation. When discussing about financial management practices with higher education institutions, lack of studies has been conducted. Most of the previous studies concerned only on the challenges in financing the HEIs particularly during financial crises (Akinkugbe, 2000; Kanaan, Al-Salamat & Hanania, 2011; Moladovan, Moldovan & Alexandra, 2012).

Akinkugbe (2000) described financial resources in higher education institutions as depending on the traditional sources for instance from the government allocation and local communities (e.g., endowment and alumni). Apart of the traditional sources, non-governmental organisations, private enterprises and corporations as well as foreign aid are also sources of additional funds available to the educational system. The study concluded that to ensure the system of financial management in its best practice, each party either from government or non-governmental organisation need to give their support. Meanwhile, the other study by Kannan *et al.* (2011) mentioned that for sustainability of higher education institution system, institutions must be able to effectively manage and allocate their funds contributed from various parties. This includes how the institutions promote the culture of charitable endowments or *waqf* as well as the introduction of innovative

financial mechanisms to tap for private savings, strong connection with university alumni and others.

Mah'd and Buckland (2009) explained based on a management accounting framework, in financial management practices in HEIs, the budgeting process also is one of the key elements to ensure the sustainability of HEIs especially for private education institutions. Meanwhile in another study, relying on a political economy framework, Kanaan *et al.* (2011) presented a critical analysis on patterns of consumption on HEIs system revealed that more spending provided for sustainability of higher education system is significant in increasing number of students.

Besides that, El-Sheikh, Mah'd, Nassar and Al-Khadash (2012), pointed out that the effectiveness and efficiency of financial management practices require the element of competitiveness between private higher education institutions. The study, initiated in Jordan, found that the competitiveness element should encourage the researchers as well as the universities' management team to apply best practices when it comes to financing and management of the higher education institutions. The rationale of comparing with private higher education institutions is due to its dependency on the tuition fees as its main source of income as less funds are provided by the government. As such, private higher education institutions need a sustainable and sound financial management practices for public HEIs to refer to. Certainly, the effective of budget system applied in private HEIs would help public HEIs to increase the effectiveness and efficiency in optimising limited resources.

In addition, Moladovan *et al.* (2012) which presents the European (EU) experiences in managing financial resources of HEI system found that on average the EU countries spent about five percent of the GDP (for public HEIs) and 0.7 percent (for private HEIs) on education system (2004-2008). The study also found that human capital development and innovations are other issues related to financial management practices for HEI in EU countries. Specifically, a good knowledge and high skill of the human will reflect the efficiency and effectiveness in managing financial resources. It is not only skilled human capital; the innovation on the existing system of financial management practices also will have an impact on the financial management efficiency.

Based on the literature discussed above, a good financial management practice is one element for the sustainability of HEIs. Considering limited resources, every institution really need to search for the sound practice to manage its resources. This is not just totally depending on the government subsidies and funds, HEIs also need to generate their own income.

METHODOLOGY

This study analyses several data gathered from six universities represent three countries; Thailand is represented by Kasetsart University and Naresuan University, Indonesia (Gadjah Mada University and Sumatera Utara University) and Malaysia (Universiti Teknologi MARA and Universiti Putra Malaysia). In total, there are six HEIs participated in the study, sharing their experience on financial and institutional management practices of their university. The collected information, specifically on the macro level, covers the period from 2013 to 2015 and includes various socio-economic indicators, such as GDP per capita, population and unemployment rate. For each of the macroeconomic indicators, the study includes a matrix of data for the countries during the analysed years and a graph illustrating the average behaviour of the variables for all the countries. The results were compiled according to social and economic indicators and the HEI's approach in sourcing for its institution to constitute a diagnosis of the financing mechanisms of the HEIs.

FINDINGS

The empirical analysis in this study was conducted through descriptive statistics. Based on data gathered from the six universities, comparative and trend analysis were divided into two findings' dimensions which are macro and micro.

Macro Analysis

The findings for macro analysis are divided into several dimensions such as analysis on population, gross domestic product (GDP), total spending for higher education system and number of public and private

higher education institutions in the participated SEA countries. Figure 1 shows the data of the population among the three countries from 2013 to 2015. The trend shows that Indonesia has the biggest population as compared to Thailand and Malaysia.

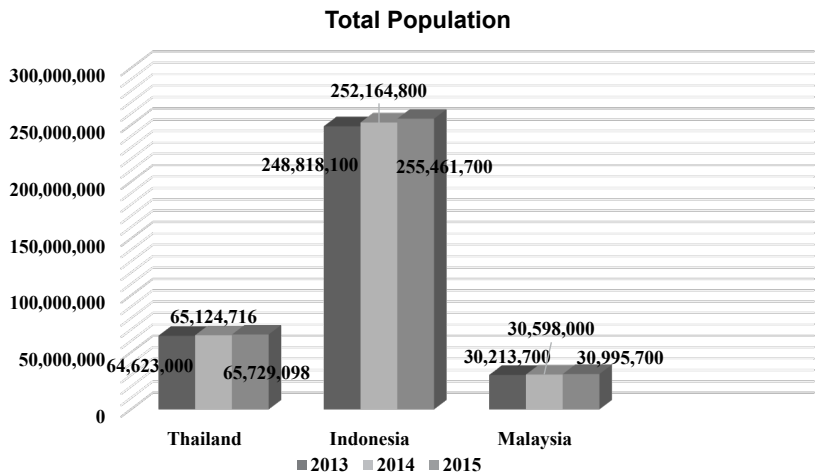


Figure 1: Population of Each Participated Country

Result for gross domestic product (GDP) of each country involved in this study shows that values of the index for Southeast Asia (Indonesia, Thailand and Malaysia) varies between 3.5 and 10.6 thousand USD. Table 1 shows that Malaysia GDP is stated at the average of 10,638.15 USD which is the highest GDP as compared to Thailand and Indonesia at average of 5,955.03 and 3,575.02 respectively.

Table 1: Gross Domestic Product (GDP)

Country / Year	2013	2014	2015	Average
Thailand	5,846.28	5,932.29	6,056.54	5,955.03
Indonesia	3,680.13	3,533.53	3,511.40	3,575.02
Malaysia	10,456.89	10,803.53	10,654.04	10,638.15

Based on the GDP stated above, this study also presents the total spending on higher education in percentage of GDP for the three Asia countries. Figure 2 exhibits that among the three selected Asia countries,

Malaysia is reported to have the highest total spending on higher education as compared to Thailand and Indonesia. In 2013, the total spending for Malaysia is 5.90 percentage as compared to Indonesia and Thailand which are around 0.35 percent and 4.20 percent, respectively. The total spending for Malaysia and Indonesia increased to 7.20 percent and 0.39 percent in 2014. However, total spending for Thailand is consistent with previous year. The graph also shows that Indonesia is the country that spends the lowest amount on higher education among the three Asian countries.

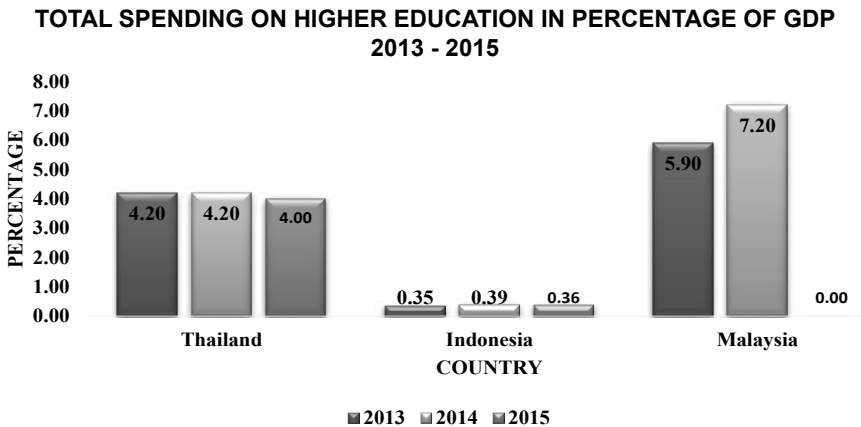


Figure 2: Total Spending on Higher Education in Percentage of GDP 2013 - 2015

Besides, the data on the number of HEIs also shows that there is no specific trend among the three selected countries. In Figure 3, Malaysia shows the lowest number of HEIs compared to Indonesia and Thailand. From 2013 to 2015, Indonesia is reported to have a high number of HEIs. In specific, in 2015, Indonesia has 3,223 institutions as compared to Thailand with only 171 institutions and Malaysia with 93 institutions. The difference could be due to the total population and size of the country itself.

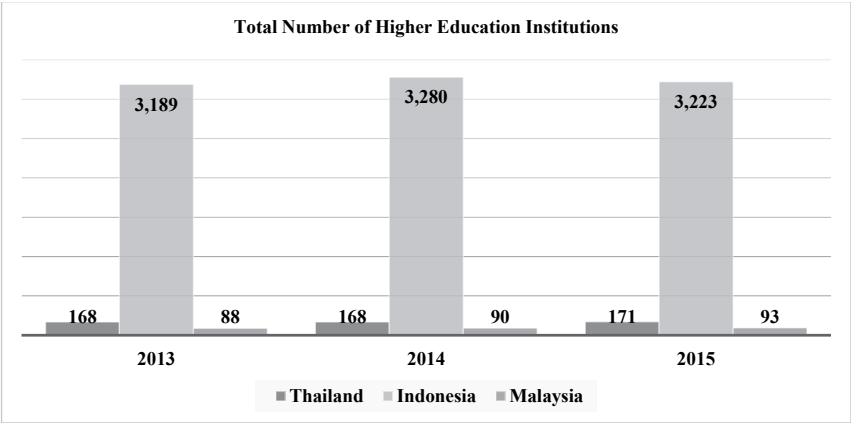


Figure 3: Total Number of Higher Education Institutions

Referring to Figure 4, though having the highest number of HEIs, Indonesia has only four percent of public higher educations compared to Thailand with 56 percent and Malaysia 22 percent in 2015. Due to that, it can be seen that HEIs system in Indonesia and Malaysia are more to private higher education because Indonesia has almost 97 percent of private HEIs that is 20 percent higher than the ones in Malaysia, which in turn can influence tuition fees for private institutions, as they have high competition.

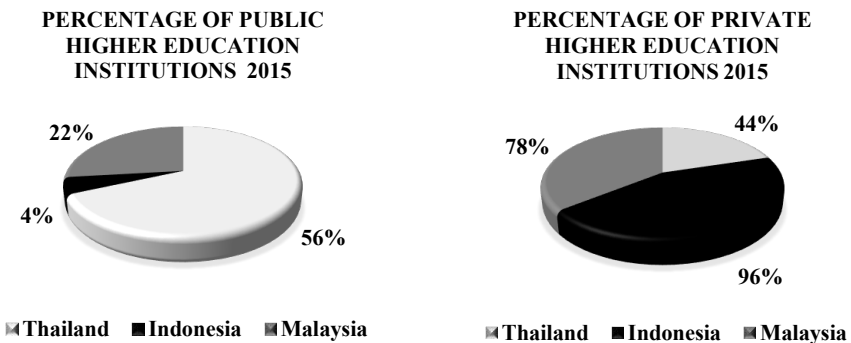


Figure 4: Percentage of Public and Private Higher Education Institutions 2015

Based on the macro analyses, the key finding at a glance shows that Indonesia has the highest population with the average of GDP of 3,575.02 USD. Due to that, they just spend for HEIs less than five percent during 2013

until 2015. The implication is that education institutions system in Indonesia focus more on private higher education institutions compared to public. This can be seen when 96 percent education institutions in Indonesia are presented based on private higher education institutions compared to public higher education institutions. Thailand with the average of population and GDP at 65,158,938 and 5,955.03 USD respectively, they spend on public higher educations at 56 percent compared to private higher education's institutions at 44 percent. This shows that Thailand focuses on the public higher education institutions rather than private. However, Malaysia scenario is totally different compared between the two Asian countries because even though average total population from 2013 to 2015 at 30,602,467 which is stated at lowest rank, Malaysia has highest average of GDP at 10,638.15 USD. This shows that Malaysia has a good economic environment compared to Thailand and Indonesia. From the perspective of total spending on higher education in percentage of GDP, average that was spent by Malaysia was at 6.55 percent only while the private HEIs become dominant compared to public HEIs.

Micro Analysis

From the perspective of micro analysis, it is to understand institutional capacity, human, technical and current practices in financial management among selected HEIs in Southeast Asia. Thailand is represented by Kasetsart University and Naresuan University, Indonesia by Gadjah Mada University and Sumatera Utara University and Malaysia by Universiti Teknologi MARA and Universiti Putra Malaysia. First micro analysis in this study is regarding the financing resources. This study found that the financing resources for each university depends either from private or public funds. From the view of private funding, Gadjah Mada University shows the highest percentage of private funding with 69 percent compared to other universities. Meanwhile, Universiti Teknologi MARA is financed with 95 percent public funds which is the highest percentage in the partnership. However, at the same time the university also raises its funds from other mechanisms such as from Trust Funds, UiTM Holdings and Investment (Fixed Deposit) (Universiti Teknologi MARA) and Asset Leasing (Gadjah Mada University). Regardless of financial resources and mechanism, each university need to manage their financial wisely for university's sustainability. This is because,

the selected HEIs in this study need financial resources for three main activities which are teaching and learning, administration and research. As shown in Figure 5, the spending on teaching and learning becomes the major spending for all universities as compared to the spending on research and administration. However, there is no concrete conclusion on the average percentage of spending to teaching and learning can be drawn as data for UiTM is not made available for comparison.

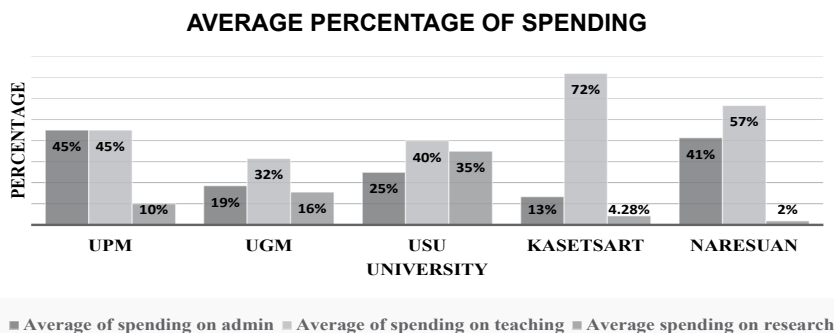


Figure 5: Average Percentage of Spending

For university sustainability, it does not just totally depend on where the HEIs get the financial resources but also include the connection with industries and alumni. Among the selected universities in this study, Universiti Putra Malaysia has the largest number of industrial partners (581) as compared to other universities. This implies that, Universiti Putra Malaysia has a good reputation in terms of industry linkages.

FURTHER RESULTS AND DISCUSSION

Referring to the descriptive statistics presented in previous section, it indicates that Asian countries included in this study have their own and unique model in assigning state resources to HEIs. Various methods and models are applied to produce a sound financial management practices output. For example, in Thailand, each of the universities will need to establish a budget for each fiscal year (1 Oct to 30 Sep) through their Divisions of Planning and propose it to the Bureau of the Budget for screening and adjusting. Representatives from universities may be summoned to defend the proposed budget by the Cabinet.

The main consent in financial management practices is how the university manages their limited financial resources. Allocation of federal government budget to public universities is supposed to cover the gap (budget deficit) between a university's revenues and its expenses. However, the calculation of budget allocation is done based on universities' performance target decided by the Minister of Education and Research. Performance targets cover the number of students, awards of students' performance, number of Ph.D. degrees among lecturers, accredited study programmes, publications, innovation/patents, and the university's level within the world university rank.

Private universities, however, have different models for assigning resources. The allocation of federal government budget to private universities in Indonesia is very limited. In general, there is no direct allocation of government budget to private universities. The government budget usually only covers a small part of the private universities' employees (lecturers and administrative staff) with the status of government officers. Additionally, the federal budget always allocates research grants for private universities based on research proposal competition. Additionally, the government can allocate subsidies to private universities depending on their accreditation status by the Ministry of Research and Higher Education. In Malaysia, however, each university has its own business model as they are based on self-reliance.

The higher education system needs to adjust with the current scenario. This is important to get a better system. As evidence in Thailand, a reform of a higher education system was introduced that resulted in an increase of efficiency in administration, improvement of the educational standard, more creativity and innovation, which in turn led to flexibility in an uncertain environment, and later to the establishment of university governance. While in Indonesia there were no significant changes or reforms in the higher education systems over the last ten to 15 years. However, in 2014 the new President restructured two ministries: the Minister of Education and Culture became responsible for the basic and middle level of education and culture, and the Minister of Research and Higher Education is responsible for higher level education and research. This policy has increased the proportion of budget allocated to human resource development (lecturers and administrative staff) and research in higher education.

Additionally, from the years of 2013-2016, the government has given more autonomy for academic and administrative affairs for the 11 most prominent public universities. It is likely that in the coming years this policy will also apply to other public universities. Finally, during the last three years the government has acquired some private universities as public universities through the Ministry of Research and Higher Education. These changes encouraged universities to seek funding besides government sources through cooperation in teaching, research and community services. Public universities are also encouraged to develop cooperation with private companies and industry in research and development programmes. This led universities to strive towards improving the quality of teaching, research and community service.

Furthermore, Malaysia introduced some changes like PSPTN, which is an abbreviation used for *Pelan Strategik Pengajian Tinggi Negara* or National Higher Education Strategic Plan (NHESP). PSPTN was created with the aim to produce human capital that supports the endeavours of the National Mission in order to improve knowledge, capability and innovation, as well as inspire first-class mentality. PSPTN encompasses four phases:

1. Phase 1 (2007 - 2010): Laying the Foundation
2. Phase 2 (2011 - 2015): Strengthening and Enhancement
3. Phase 3 (2016 - 2020): Excellence
4. Phase 4 (Beyond 2020): Glory and Sustainability

There are four institutional pillars that are emphasized in the PSPTN: Governance, academic leadership, learning and teaching, and research and development. All HEIs need to execute certain initiatives for all CAP (Community Action Plan) that have been identified to be implemented at institutional level. Nevertheless, targets set for each HEI are closely related to factors like the maturity of the university, availability of resources and the capability of its human capability, infrastructure and etc. The finished reform is supposed to increase the visibility of Malaysia Higher Education (e.g. QS Ranking and number of international student's enrolment).

CONCLUSION

The identified differences in financing system and practices of higher education imply favourable opportunities in every university. The universities in Thailand have their own authorities to collect tuition fee and study related fees than financial support from the government. Commercialisation of research, innovation and patented products, particularly done under the Public Private Partnership (PPP), are also responsible for the financial support of universities.

Indonesian public universities, on the other hand, especially the Public University Legal Entity, now have opportunities to develop business units, to build up entrepreneurship, to speed up the agenda of higher education management reform, to develop and extend collaboration with foreign institution in joint teaching and research activities, and to develop international joint and/or double degree programmes. Furthermore, the Malaysian strategies implemented by universities for revenue generation include different types of opportunities, both for university staff and students: international student's fee, rental of space, facilities and equipment, sale of research products, organising of seminars, workshops and conferences, consultancy services, grants from industries/agencies within and outside Malaysia and establishment of endowment funds.

Together with opportunities that arise with the developing of financial systems of universities, there are threats that must be taken into account. For instance, in Indonesia as well as in other countries threats to the financing system of public universities can appear when the implementation of financial management contradicts government regulations due to lack of control system. Another threat might be the university management concentrating more on finding grants rather than on raising academic and research quality of the university's work.

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