



Financial Management Practices in the European and Southeast Asia Higher Education Institutions (HEIs). Are the HEIs in Parallel Lines?

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Abstract

This article discusses the initiatives in advancing financial management (FM) and income diversification practices of higher education institutions (HEIs) in Southeast Asia through the experiences of the European HEIs. The initiatives, geared up through the ERASMUS+ European funding programme, aim particularly at three major dimensions; to enhance human, organizational and technical capacities of HEIs to increase efficiency in FM, to further promote income diversification, accountability and transparency leveraging on the systematization of good practice as well as to promote regional integration through the creation of networks amongst financial managers and staffs of the HEIs. The data, emphasizing on models and sources of financing for HEIs, are gathered from HEIs of 3 European countries (Austria, Germany and Spain) as well as 3 Southeast Asian countries (Indonesia, Malaysia and Thailand). The data are mainly subjected to the disclosure on publishable internal data with regards to the FM of the universities. The data, spanning in the period from 2013 to 2015, includes several socio-economic variables such as GDP per capita and population of a country. The data were analyzed and presented in graphs and tables to derive and contemplate the average behavior on FM of all the countries. The main finding on the comparative analysis (micro) reveals that all countries are funded by private and public sources, regardless of the proportion on the allocation.

Key words

Financial Management Practices, Higher Education Institutions, European, Southeast Asia

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1. Introduction

A sound financial management (FM) should provide sustainability to an institution; offer channels for investment based on the exploitation of opportunity; be transparent to promote accountability and good practices; and ensure that an institution would be able to allocate resources efficiently in efforts of achieving its strategic objectives. The complexity of Higher Education Institutions (HEIs), with the adoption of several different academic and management practices, have been a major concern among academicians and practitioners leading them to search for the most suitable model and framework to be applied. Despite different applied frameworks, all HEIs would intersect at the same destination that is to promote sustainability and efficiency of the HEIs' FM (Taylor, 2013). This explains the continuous search of sound FM practices in HEIs as the enhancement of human, organizational and technical capacities in HEIs are very much relied upon the efficiency of FM practices.

In spite of the significances of efficient FM practices in any HEI, most of the HEIs are of the view that it is not possible to confirm that there is a right way to manage the HEIs'; financially, because of the

difference in system and institutions' policies. As postulated by Holloway (2006), a major issue of all HEIs is on the financial management because all activities from various aspects and stages (academic, administration and institution) are financially related. Thus, the real challenge of an HEI is to effectively circulate funds and to generate return on the amount. The challenge is said to be severe during the cycle of the unexpected hike in HEI's expenses and when the resources are relatively limited. In an effort to acknowledge the importance of every HEI around the globe to search for an efficient FM practice while promoting for transparency in the FM practices, this project "Advancing University Financial Management Practices in Southeast Asia" or "ADVANSE" funded by the ERASMUS+ European funding programme is initiated.

The ADVANSE's overall objective is to promote the advancement of FM practices and income diversification strategies of HEIs in Southeast Asia (SEA), with a parallel view to sustainably strengthen the Higher Education systems and maximize the social return on investment in HEIs. Further, this ADVANSE project comes with three specific objectives, i) to enhance human, organizational and technical capacities of Southeast Asia countries HEIs to increase FM efficiency and income diversification; ii) to promote accountability and transparency leveraging on the systematization of good practice; and iii) to promote regional integration through creating a network amongst financial managers and staffs of the HEIs pursuing modernization of FM systems and practices. The project's goals are in line with one of the regional priorities in Asia that is to seek continuous collaboration and synergies with financial managers and staffs of HEIs through the created networks.

To discuss the initiatives in advancing FM and income diversification practices of HEIs in Southeast Asia through the experiences of the European HEIs as well as through the current practices of the HEIs in Southeast Asia, this article presents the comparative and trend analysis for the six HEIs to represent three Southeast Asian countries (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; as well as Universiti Teknologi MARA and Universiti Putra Malaysia both from Malaysia. Meanwhile, three European countries (Austria, Germany and Spain) are taken up as sample for the FM practices from the European countries. In particular, Austria is represented by the FH Joanneum University, University of Saarland (Germany) and University of Alicante (Spain).

2. Literature review

One of the key challenges faced by any HEI around the globe is to obtain sufficient monetary resources. The financial issue has escalated at the HEIs when the HEIs jointly experience extensive difficulties in obtaining funding opportunities as well as financing options due to the budgetary cut and economic recession (Moldovan *et al.*, 2012). This leaves HEIs with no other option than to search for a creative practice for managing the financial activities of the institutions which include the procurement and disbursement of funds, budgeting, risk assessment and any other related financing activities.

Financial management is viewed as the process of planning, organizing, controlling and monitoring monetary resources with an objective to achieve institutional vision and missions. Due to the limited financial resources, any HEI should ensure optimum funds utilization. A proper management of an institution's sources will provide quality service to ensure efficient growth and development of the institution (Nakayawa, 2013). Based on the past academic literature on the financing aspect of the HEIs, the scant attentions are found in which the scopes are limited only at the challenges of financing the HEIs on the specific view towards the financial crisis, financial constraints and education quality (Akinkugbe, 2000; Kanaan *et al.*, 2011; Moldovan *et al.*, 2012). The emphasis on the comparison and comprehension of the financial management practices in Southeast Asian and European universities given by academicians are almost next to inexistence.

Akinkugbe (2000) viewed that financial resources in HEI were traditionally sourced by the government and local communities (e.g., endowment and alumni). Apart of the sources, non-governmental organizations, private companies and corporations as well as money in-kind were also other alternative channels available for HEIs to raise funds. The study claimed that support from both to government or non-governmental entities are vital to ensure that FM system is at its best practice. Meanwhile, Kannan *et al.* (2011) suggested that every HEI should be able to effectively manage and allocate their funds contributed

from various parties for sustainability of the HEIs' system. This includes a strategy of the HEIs to promote the culture of charitable endowments or waqf and the innovative financing model that taps from private savings and strong alumni connection.

From the view of management accounting framework, Mah'd & Buckland (2009) claimed that the budgeting process also must be considered to ensure the sustainability of HEIs especially for private education institutions. Meanwhile Kanaan *et al.* (2011) in another study that examines pattern of consumption on HEIs system shown that a high amount of spending is significant in increasing number of students. Thus, helps the HEIs for sustainability. In another instance, El-Sheikh *et al.* (2012) suggested that the efficiency of FM practices in public HEIs require the competitiveness element and comparative practice with private HEIs. The study shows that the element encourages the universities' management team to apply best practices when it comes to managing the HEI, financially. The rationale of comparing between public and private HEIs is due to the dependency of private HEIs on the tuition fees as their main source of income as lower percentage of financing are funded by the government. As such, private HEIs are supposed to be in a better position for a sustainable FM practice for public HEIs to refer to.

Meanwhile, Moldovan *et al.* (2012) which presents the European (EU) experience in managing financial resources of HEI system found that on average the EU countries spent about 5 percent of the GDP (for public HEIs) and 0.7 percent (for private HEIs) on education system (2004-2008). The study also shown that human capital development and innovations are other issues related to financial management practices for HEIs in EU countries. Specifically, good financial literacy, high human skill and innovation on the existing system will reflect to the efficiency of FM practices. To summarize, considering limited financial resources, all HEIs should expect an endless journey in finding for the most suitable FM practice as it is clearly an element of sustainability for HEIs.

3. Methodology of research

This project employs the exploratory methodology (Ryan *et al.*, 2002) as its ultimate objective is to explore and derive trends on funding practices being applied by the HEIs in its sample. In specific, to achieve its objective, this project uses a quantitative research questions designed by the project's coordinator to collect the targeted information. The targeted information covers data on economic and social indicators from all the HEIs of ADVANSE. The collected data were used to create both macro and micro analysis, which will give a wider picture of the countries as well as average pattern on FM practice of all HEIs that take part in this project. Each university representing its own country filled a macro analysis format with data from their own region. In terms of the sources of data, this project depends on the following complemented sources of data:

- i. The data and statistics unit, Ministry of Higher Education (MoHE). Data collected from this source are publishable information on HEIs' characteristics in individual region which includes the total spending amount on HEIs.
- ii. The bursar office of all HEIs in ADVANSE. The attention is skewed to information on the model, sources and uses of financing of all HEIs.
- iii. Other reliable alternative resources such as the World Bank database. The data includes total population and GDP of all countries.

The project utilizes data gathered from three Southeast Asian countries (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; as well as Universiti Teknologi MARA and Universiti Putra Malaysia both from Malaysia. Meanwhile, three European countries (Austria, Germany and Spain) are taken up as sample for the FM practices from the European countries. In particular, Austria is represented by the FH Joanneum University, University of Saarland (Germany) and University of Alicante (Spain).

The collected information covers the period from 2013 to 2015 and includes various socio- economic indicators such as gross domestic products per capita and population. For each of the macroeconomic indicators, this project includes a matrix of data for the countries during the analyzed years and graphs illustrating the average behavior of the FM practices in all HEIs.

4. Empirical results and discussions

The results and discussion in this article are presented by the comparative and trend analysis which are further divided into macro level analysis and micro level analysis. The findings on macro level analysis which includes total population and total spending on the HEIs in percentage of GDP per capita of every countries are to provide insight on the overall basic pattern of all countries in the sample. Meanwhile, from the perspective of micro level analysis, it is to contemplate the average behavior on FM of all the countries. In specific, major attentions are to the financing source and funds utilization of all HEIs.

i. Macro Level Analysis

Table 1 presents data of the population spanning from 2013 to 2015 for all Southeast Asia and Europe countries in the sample. The trend shows that Indonesia has the biggest population of more than 250 million people and Malaysia has the lowest figure in Asian countries with only 30 million. Meanwhile, Germany (Austria) ranks the highest (lowest) for population in the European countries.

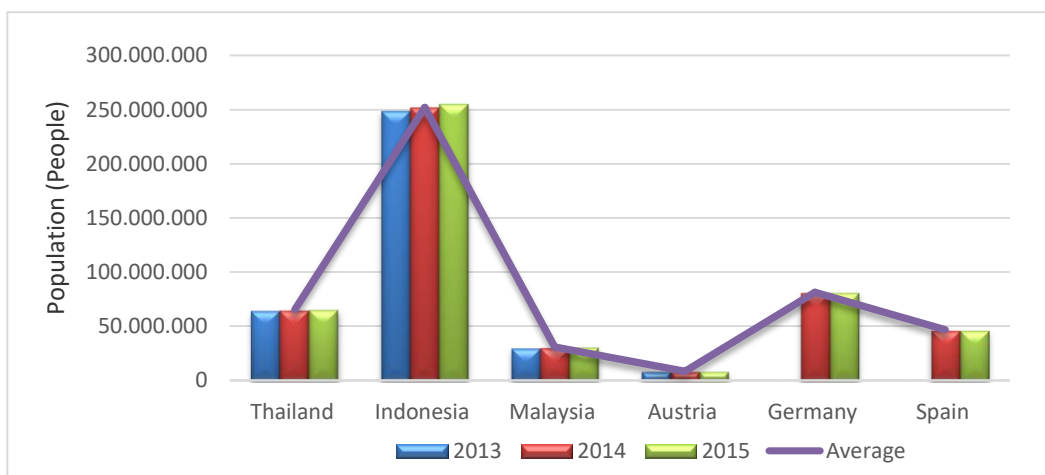


Figure 1. Population

In terms of Gross Domestic Products (GDP) per capital, as shown in Figure 2, Asian countries report a lower average GDP per capita than the European ones. Germany gets the leading place in Europe while Malaysia is forerunner in the Asian countries. The GDP for Asia and Europe ranges from USD 3,500 to USD 10,600 and from USD 28,900 to USD 45,000; respectively. Covering the period from 2013 to 2015, Malaysia (Indonesia) reports the highest (lowest) average spending on higher education in the percentage of GDP among Asian countries. Meanwhile, Austria (Germany) is the country that invests the highest (lowest) share of the GDP in higher education as displayed in Figure 3. It needs to be considered that the average expenditures on education in Asia are much higher than in Europe.

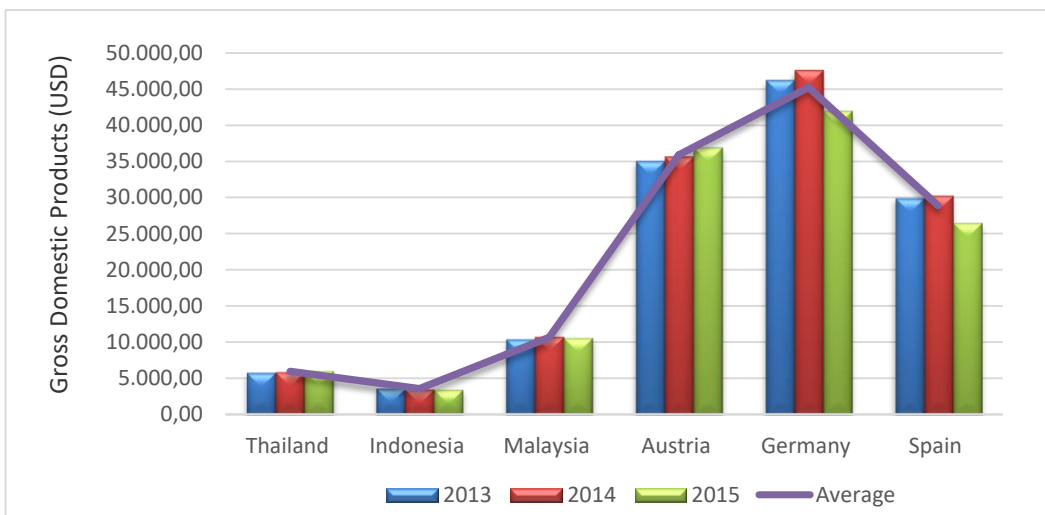


Figure 2. Gross Domestic Product (GDP)

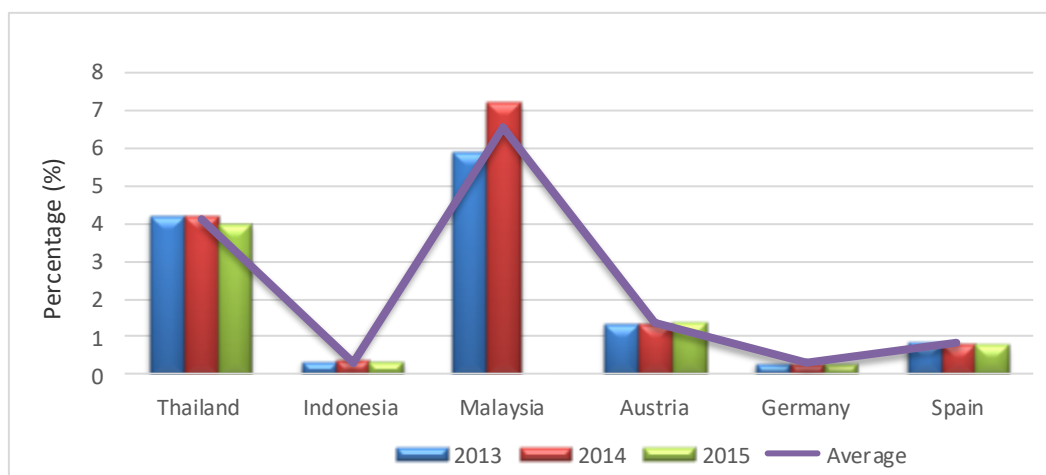


Figure 3. Total Spending on Higher Education in % of GDP

The collected data on the total number of HEIs shows that there is no specific trend in both Asian and European countries as displayed in Table 1. However, Indonesia in Asia and Germany in Europe can be viewed as having a very high number of higher education institutions with a total of 3231 institutions (Indonesia) and 467 institutions (Germany).

Table 1. Total Number of Higher Education Institutions

Year	2013	2014	2015	Average
Asia				
Thailand	168	168	171	169
Indonesia	3189	3280	3223	3231
Malaysia	88	90	93	90
Europe				
Austria	55	55	55	55
Germany	467	467	467	467
Spain	83	83	83	83

When examining the number of public and private HEIs in Asia and Europe, it can be postulated that the main type of HEIs in Europe is public while the biggest type of Asian HEIs is private (except Thailand where more than half of the institutions are also public). Referring to Table 2, Indonesia is shown to be the outlier in regards to the total number of private HEIs as the country has almost 97 percent of private HEIs which is 50 percent higher than the total amount reported for Thailand. This high number possibly influences tuition fees for private HEIs in Indonesia due to competition.

Table 2. Percentage of Private Higher Education Institutions

Year	2013 (%)	2014 (%)	2015 (%)	Average (%)
Asia (%)				
Thailand	43	43	44	44
Indonesia	97	97	96	97
Malaysia	77	78	78	78
Europe (%)				
Austria	22	22	22	22
Germany	27	27	27	27
Spain	40	40	40	40

ii. Micro Level Analysis

The micro level analysis begins with the presentation on the funding sources of all HEIs sampled in this project. As displayed in Figure 4, University Gadjah Mada (Indonesia) shows that 69 percent of its funds are obtained through private sources. The percentage is two times bigger than that reported in European HEIs (33 percent, Saarland University from Germany). Generally, the percentage of private funding of all

HEIs in Asia is bigger than those in Europe. From the view of public funding, Universiti Teknologi MARA from Malaysia reports to have the highest percentage (95 percent). The percentage is shown to be three times bigger than that in University Gadjah Mada. The balance of 5 percent funding of Universiti Teknologi MARA obtained through private sources are mostly from its investment on fixed deposit, corporation with industry as well as from its holdings.

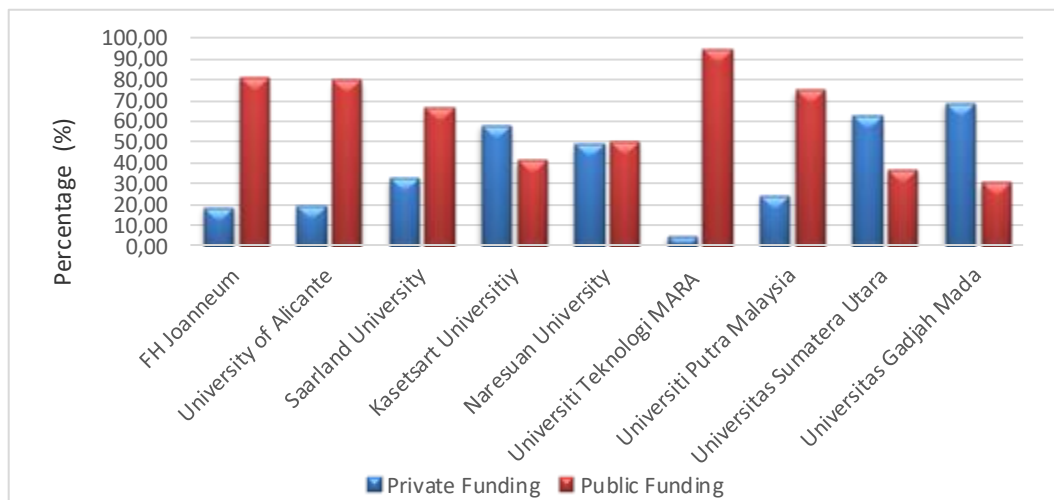


Figure 4. Type of Funding Sources of HEIs in Asia and Europe

As far as the observation by this project is concerned, European countries seem to portray more developed models in assigning state resources to HEIs. Referring to Austria as an example, all Universities of Applied Sciences are funded according to the federal norm cost model in which the funds are calculated based on the number of study places and the type of curriculum (technical versus non-technical curriculum). Meanwhile, the allocation of funds for research and development depends on the activities of each HEIs. The overall budget is agreed for the period of three years which the amount is divided into basic budget and formula-bound budget. Moreover, each HEIs receive their funds based on quality and quantity indicators (teaching, R&D, social goals). Every university has to display other revenues, the quantity of which does not decrease state allocation.

In Germany, the amount of state subsidies to the duties and the performance of HEIs should be observed. The financing models of HEIs indicate clearly not only the reception of money by HEIs but also the specific use of allocated funds. Thus, the volume of duties and the performance of universities will be measured. Similarly in Spain, universities will receive funding in return for accomplishing specific performance aims. That is, resource allocation will be done according to objectives and results.

To some extent, the model applied in assigning federal government resources in Asia particularly in Malaysia suggest similarities in which the calculation on budget allocation to public universities will be done based on the universities' performance target decided by Ministry of Education. The performance targets cover number of students, students' performance, number of Ph.D. degrees among lecturers, accredited academic programs, publications, innovation/patents, and the university's level within the world university rank. Apart from it, the allocation of federal government resources to public HEIs are also supposed to cover the gap (budget deficit) between a university's revenues and its expenses. In the case of Thailand, each of the universities will need to establish a budget for each fiscal year (1 October to 30 September) through their Divisions of Planning and propose it to Bureau of the Budget for screening and adjusting.

Private universities, however, have different types of models for assigning resources. The allocation of federal government budget to private universities in Indonesia as an example is very limited. In general, there is no direct government allocation to private universities. The government budget usually covers only a small portion of the private universities' expenses (e.g., for lecturers and administrative staff who have the status of government officers). Additionally, the federal budget always allocates research grants for private universities based on research proposal competition. Finally, the government can allocate subsidies to private universities depending on their accreditation status by the Ministry of Research and Higher

Education. In contrast to Malaysia, each university has its own business model as they are based on self-reliance.

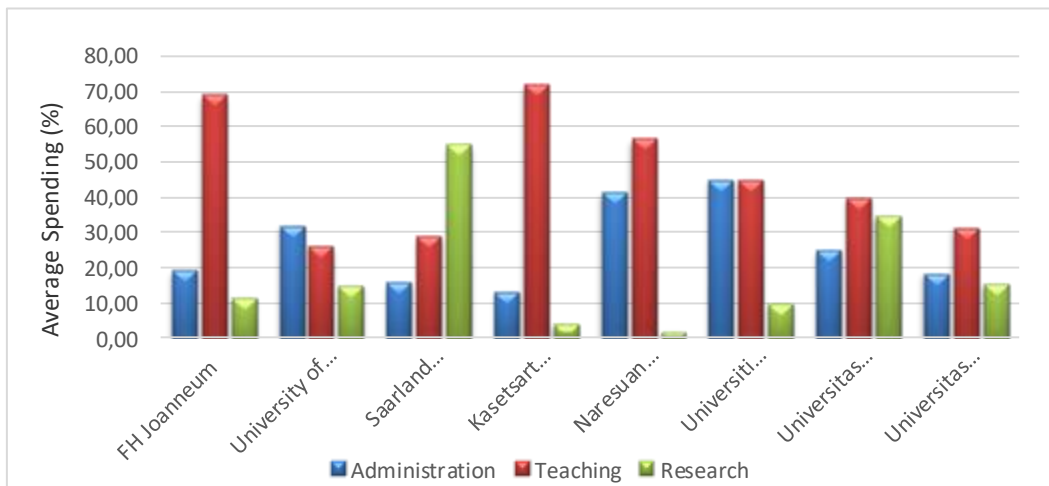


Figure 5. Spending Structure of HEIs in Asia and Europe

Going further, Austria’s private universities do not receive significant public funding, while private HEIs in Germany will usually participate in competitive funding programs. Spain receives contributions from different kind of payers, both external donors, in the face of private companies and individuals, and governmental funds and institutions.

Regardless of the type of funding sources, every HEIs in this project are reported to spend the highest amount of their financial resources on teaching expenses as shown in Figure 5. The exceptions are only to University of Alicante and Saarland University in which the spending on administration (University of Alicante) and researches (Saarland University) are of their priorities. Specifically referring to spending pattern of all HEIs on administration, Figure 5 illustrates that the percentage varies from 13.34 percent to 45 percent. Nonetheless, there are no significant differences between European HEIs and Asian HEIs. A clear difference between the HEIs are found on the average percentage of spending on research in which one of the Asian HEIs (Naresuan University) spent only 1.93 percent of its financial resources to research related activities as compared to 55 percent spending made by one European HEI (Saarland University). A conclusion on this difference is of difficult to draw as there are other HEIs in Asian region that spends quite a significant amount on research (e.g., 35%, Universitas Sumatera Utara).

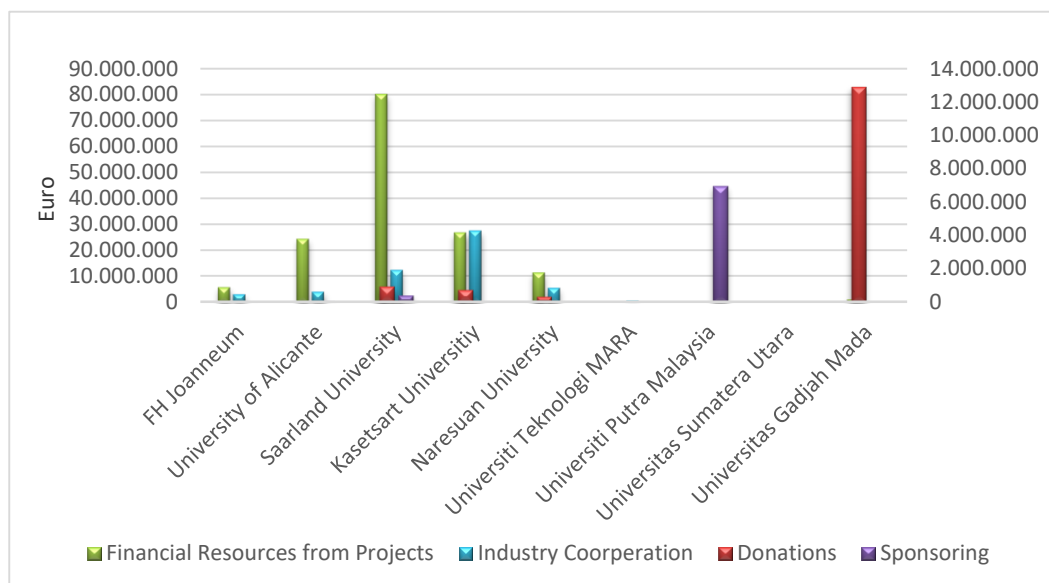


Figure 6. Annual Budgetary Structure of HEIs in Asia and Europe

Figure 6 shows the average annual budgetary structure of HEIs in Asia and Europe from 2013 to 2015 in which it is segregated into four main structures; financial resources from universities' projects, industry cooperation, donations and sponsoring. Most of the HEIs are budgeted to receive donation of not more than Euro 1 million annually with an exception to University Gadjah Mada (Euro 12.90 million). Unlike, University of Saarland heavily depends on the university's projects as its financial resources apart of its public funding. Sponsoring is a rather small in all the universities' budgets except for Universiti Putra Malaysia. Meanwhile, Kasetsart University is budgeted to gain revenues of almost Euro 30 million from industry cooperation marking it as the university's ultimate annual source of revenues as compared to other options.

5. Conclusions

The observed differences in financing management practices of HEIs in the sample of this project implies favorable opportunities to other universities. The difference for example on the universities of Thailand in which the universities are given a privilege to structure their tuition fee. Indirectly, it suggests that the universities are more likely to be relied on the fee as a part of their income than support from the government. Apart of it, the commercialization of research; innovation and patented products, particularly initiated under the Public Private Partnership (PPP), are also source of funding for the universities. In the other instance, public universities in Indonesia are now opened their window not only as pure academic entities but jointly as business entities. The establishment of the business entity is seen consistent to the agenda of the Indonesian higher education reform that is to further promote entrepreneurial commitment and skills amongst staffs in HEIs. Besides, HEIs in Indonesia are also urged to develop and extend collaboration with foreign institutions on teaching and research as well as to establish international and/or double degree programs.

Furthermore, the income diversification strategies implemented by universities in Malaysia aim not only to benefit the university but equally to other parties such as the staffs and students. In specific, the funding sources of the HEIs include the opportunities on space, facilities and equipment rental, revision on the international students' fee, the sale of research products and outputs, organization and management of workshops and conferences, consultation services, research grants from industries or agencies within and outside Malaysia as well as the establishment of endowment funds.

Over in the European experience, internal cost allocations practiced in Austrian HEIs can be seen as an opportunity to overcome some short-comings of the full cost model applied at universities of applied sciences for federal and regional funds. Besides, the reintroduction of tuition fees and the promotion of a better cooperation with industries are also expected to lead to some improvements. The establishment of higher efficiency in administration would result in cost savings. Nevertheless, one of the opportunities for Austrian HEIs would be on the development of more industry or privately financed courses (postgraduate programs). Dancing on the same rhythm, Spain and Germany also offer favorable opportunities on their FM practices for other universities to adapt. Those are on; the efficiency in the overall management of universities, implementation of an output-oriented culture, establishment of quality and sustainable programs as well as adequate and suitable positioning of new technologies in education.

Together with opportunities that arise with the development of FM in HEIs, there are threats that must be taken into account. For instance, in Indonesia as well as in other countries, threats to FM of public HEIs could appear if the implementation of the FM is not in line to the government regulations due to a lack of control system. Another threat will be on the academic and research quality as the university might concentrate more on finding grants rather than on increasing quality in work.

Furthermore, for Universities of Applied Sciences (i.e. in Austria), one of the threats can be on missing basic financing for R&D activities. In specific, universities are obliged to conduct R&D by law with less financing received to support for these activities which will result in poor performance in this area. Other threats for the entire FM system can be cuts in federal and provincial budget as well as an unclear situation on the structure of tuition fees.

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