

## Conference Paper

# Financial Sustainability: Towards Full Costing Methods in Private Islamic Higher Education

Murdiyah Hayati, Sri Hidayati, and Cut Erika and Ela Patriana

State Islamic University (UIN) Syarif Hidayatullah; University of Padjadjaran

## Abstract

The study aims to analyze the trend of development movements of financial allocation and the main problem in financial management for the development of full costing method in Private Islamic University (PTAIS) in Indonesia. This research was conducted in 6 (six) PTAIS spread in three provinces, namely, East Java, South Sulawesi and West Sulawesi by conducting survey method, FGD and in-depth interviews. Data were analyzed using descriptive statistical analysis. Based on the result in the field, the research team concludes that the financing management model in PTAIS is still done traditionally and impressed what is closer to managing activity-based cost. Interventions of the Foundation to the management of PTAIS become a major obstacle in the implementation of full costing system.

Received: 25 February 2018

Accepted: 26 May 2018

Published: 26 June 2018

Publishing services provided by  
Knowledge E

**Keywords:** full costing method, PTAIS, activity-based cost

© Murdiyah Hayati et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICIFEB Conference Committee.

## 1. Background

The system of higher education in Indonesia consists of two main sub-systems, namely, higher education sub-systems under the management of the Ministry of Research, Technology and Higher Education and higher education sub-system, and under the management of the Ministry of Religious Affairs (MORA). The number of PTAI under the MORA, State Islamic University (PTAIN) is about 17.3 percent and Private Islamic University (PTAIS) is about 82.7 percent. Higher education has a close relationship with economic progress because it can give birth to qualified human resources who have the knowledge and skills as well as master the technology.

Issues concerning the financing of higher education in Indonesia, particularly PTAIS, are characterized by a number of general directions of transformation that have taken place over the past few years. When analyzing such an exclusively cognitive aspect, the underlying question that arises is what is an effective educational and effective

## OPEN ACCESS

law recommendation as well as research and development especially in the financial field of PTAIS?

Funding aspect in PTAIS Indonesia is mostly allocated for education and teaching, but it is also allocated for research and development of strategic scientific works managed by research and devotion center. Looking at financing methods in the management of PTAIS has not used the full costing method. The average PTAIS in Indonesia is still using conventional methods. The full costing method helps in building trust between the government, donor agencies and universities. On the other hand, the existence of internal and external barriers to full costing implementation is unquestionable. The most common external obstacles are 'Lack of autonomy, legal barriers, the government has no willingness to change, is not interested in knowing the costs incurred and the prices of services and therefore they are reluctant to provide financial support but also technical and human resources for full costing implementation'. From the various obstacles that exist, it is important to raise PTAIS awareness about the benefits of this method. Effective communication between government and college is the key to the success of this method.

The sustainability of higher education finance is very important for the future of Islamic higher education in Indonesia. Only colleges are aware of the full operational costs of the activities and projects. PTAIS itself can assess whether they are able to operate on a sustainable financial basis. Financial sustainability comprises all aspects of the college mission to address all the relevant aspects of this issue individually in the project and subsequent activities. This method significantly reveals the importance of college autonomy in its various forms in achieving financial sustainability. Stronger universities with greater autonomy and accountability than state universities will be better able to play a role in responding to the demands of society in the achievement of PTAIS Indonesia that can compete globally with PTS-PTS in Indonesia as well as abroad.

The main objective of this research is to raise awareness of the issue of full costing method on a wider scale within the Private Islamic Higher Education group in Indonesia.

## 2. Literature Review

The literature review here will critically center on: (a) Education Under the Laws and Regulations; (b) Colleges, Institutes, Universities at PTAIS; (c) Financing Education of Private Islamic Higher Education; (d) Full Costing Method.

## 2.1. Education under the laws and regulations

UU 20 of Year 2003 on National Education System (UU Sisdiknas), Article 1, paragraph 1, states that education is a conscious and planned effort to create an atmosphere of learning and learning process so that learners are actively developing their potential to have spiritual strength, self-control, personality, intelligence, noble character and skills needed by him, society, nation and state. Under the National Education System Law, it is stated that higher education is the level of education after secondary education that includes diploma, undergraduate, master, specialist and doctoral programs organized by universities.

The education system in Indonesia has two coaching mechanisms, public higher education institutions or higher education institutions are under the guidance of the Ministry of Research, Technology and Higher Education, while religious universities are under the guidance of the MORA. Definition of Higher Education Religion is State University or Private University in MORA or faculty/department/religious study program at Public Higher Education. Furthermore, State College of Religious Affairs called PTAN is a religious college organized by the MORA or other institutions/agencies established by the Minister. Private Higher Education or PTAS is a religious college organized by a private body and/or religious institution in the form of a legal entity or non-profit.

## 2.2. Colleges, institutes, universities at PTAS

High School is a religious college that organizes academic and/or professional education programs within the scope of religious knowledge. The Institute is a religious college that organizes academic and/or professional education programs in a group of religious science disciplines. The University is a religious college that conducts academic and/or professional education programs in a number of disciplines of religious science and general sciences in accordance with the laws and regulations.

## 2.3. Financing education of private Islamic higher education

Hansen and Mowen (2003: 34) state that: Cost is the cash or cash equivalent value of goods and services that is expected to bring a current or future benefit to the organization.

While Mulyadi (2015: 8) states that cost is the sacrifice of economic resources, measured in units of money, which have occurred or are likely to occur to achieve certain

goals. According of the definition, there are four main elements in cost, namely, (1) Cost is the sacrifice of economic resources, (2) Measured in units of money, (3) What has happened or is likely to happen, and (4) The sacrifice is to obtain current and/or future benefits.

The cost of education is the monetary value of the educational resources needed to provide education. The definition can be developed into a cost that must be taken into account in financing the activities organized by Private Islamic Higher Education related to *Tri Darma* of Higher Education. If educational activities are seen as services to students, then education as a production process that produces successful graduates can be determined by the number of applicants and input components in an educational system. Therefore, it is necessary to manage the financing in order to have a higher economic value than the input value. In this case, is the quality of the graduates of Islamic Higher Education, so it can compete in the world of work.

Types of educational financing in Higher Education can be divided into investment costs, personal costs and operational costs. The education unit costs include the cost of providing facilities and infrastructure, human resource development and fixed working capital. Personal costs include the cost of education that must be spent by students to be able to follow the learning process regularly and continuously. While the operational costs of educational units include:

1. The salary/honorarium of educators and education personnel as well as any allowances attached to salaries,
2. Disposable educational materials or equipment and
3. Indirect operational cost of education in the form of power, water, telecommunication services, maintenance of facilities and infrastructure, overtime, transportation, consumption, taxes, insurance and so forth.

Studies on finance and financial management in universities have been done a lot. The first study to report on the development of management systems in the financial sector in the public sector, especially in Higher Education, was conducted in the UK in the 1990s, assuming that the more accurate the identification of financing, the more manageable it is.

One interesting study to review is a study conducted by Maasen (2000) on financing models at European Universities. Maasen compared financing models at European universities using criteria such as financing characteristics, institutional budgets, funding mechanisms, college revenues from other sources, issues not directly related to funding.

The other study was conducted by Sanyal and Johnston (2011) who undertook studies in developing countries about private involvement in university financing that became an international trend. This study sees that the inability of the state to finance the development of universities leads to strong private involvement both profit-oriented and non-profit in university financing. This is supported by the results of research of Oketch (2003) that says that colleges significantly require the help of funding sources from other stakeholders. For universities accustomed to obtaining funding from the state, this is certainly a challenge, since they are not used to attracting other stakeholders (such as the private sector) to help fund their institutions.

In Indonesia, the main source of private university financing continues to come from students, then from government subsidies. While funding from private parties is still very limited and do not sustain, the involvement of the private sector becomes significant in the development of private universities. The Oketch (2003) study of the market model of financing of higher education in Kenya found that the success of private colleges was due to strong private-sector support.

There has been no serious study on the model of financing and financial management and financing in universities in Indonesia. Serious research on the financing of the education sector has only been done in madrasah conducted by the Education Sector Analytical and Capacity Building Partnership (ACDP) in 2012.

## 2.4. Full costing method

Accounting System Analysis is a system that can identify and classify indirect costs in accordance with the eligibility criteria and use the cost drivers are fair and reliable in allocating indirect costs of a number of costs to various projects.

According Mulyadi (2008), in his book *Accounting System*, Full Costing method is applied in accordance with the rules of cost accounting in the calculation of a product enough to help reduce the occurrence of over costing or under costing caused by the occurrence of the distortion in charging costs. Mulyadi (2008) explained that in determining the selling price of the product two approaches can be used, namely:

1. Full Costing Method

In this method, the variables used are direct costs and indirect costs.

2. Variable Costing Method

The variable costing method uses only the element of activity cost that behaves variable and direct cost.

The term of Full Costing, direct costs and indirect costs in Higher Education describe the cost for the overall activity. One methodology widely used, adapted and applied in Higher Education is Activity-based Costing (ABC).

The European University Association (2008) in its study states that Full Costing method is the ability to identify, calculate and allocate all direct and indirect costs of all university activities including projects. Issues that often arise in understanding full costing method in several universities abroad are as follows:

### 3. Funding Source Scheme

Funding sources is a term used for national or international agencies that finance either through government intermediaries or directly. External competitive funding: Funding allocated based on proposals submitted for priority programs.

### 4. Identify financing aspects

Cost Drivers: Factors that cause changes in activity costs.

### 5. Identify direct costs in Higher Education

Definition of Direct Cost: The cost associated directly with the activity.

### 6. Identify indirect costs in Higher Education

Understanding of Indirect Cost: Financing that has been incurred for various activities, but cannot be identified and charged to any individual or overhead activities.

### 7. Legality of College Ownership

Private entities and/or religious institutions in the form of legal entities or non-profit organizations that manage Islamic Higher Education.

Some research are related to financing system, especially full costing method, done by some researchers, among others by Berry (1994). Berry tries to make full costing method with ABC approach in college. Only this research has not been able to develop a methodology for the implementation of ABC system. Another study using a full costing approach is still with ABC system performed by Goddard and Ooi (1998) that discusses ABC (full costing) methodology implemented in library services at Southampton University. The results of this study indicate that there is a substantial difference in the allocation of financing for overheads between institutions using the ABC model (full costing) with the traditional one. More recent research on funding management at universities is done by Anna Berezka (2010). This study focuses on financing for the purpose of science and research activities by using a knowledge-based-economy perspective.

Another important study is related to the sustainability of university financing conducted by the EU Association and Socrates (2008). This study sees that universities that can understand full costs in their activities and projects can justify that they can do sustainable finance/financing. The requirements for universities to do so are independence and accountability.

### 3. Research Methodology

To conduct this study, researchers use a descriptive, explorative and participatory approach. Descriptive approach will analyze the relevant data to define and describe the full costing method in PTAIS.

Explorative approach will compare, review and analyze data in order to explain the connection between funding categories, the main activities (three obligation of the university), the purpose of financing and the cost driver in connection with the full costing system at the Private Islamic University.

To acquire the data, the researchers use primary data and secondary data. Techniques of Data collection used are Interview, FGD and questionnaires. Secondary data used are financial reports, work programs, profiles and other data related to PTAIS.

The scope of this study analyzes the funding pattern of the management of religious universities under the Directorate of Islamic Higher Education of MORA. The objects taken were Private Islamic Universities (PTAIS). Selection of PTAIS objects with the consideration that PTAIS can implement financing with a more flexible system in comparison with PTAIN. Based on data from [www.diktis.kemenag.go.id](http://www.diktis.kemenag.go.id), the number of PTAIS in Indonesia is as many as 272, which is composed of 25 institutes, 194 colleges and 53 universities. To get a comprehensive and representative data, the sampling technique used *purposive sampling* and *cluster sampling*. *Purposive sampling* method is used to determine the geographical area of the sample, which is considered the research team representing the East, West, South and Central Indonesia with the largest number of PTAIS and has three types of universities in the region. Afterwards, the research team used a *cluster sampling* method to take samples by groups of PTAIS: university, college and institute. Based on the aforementioned sampling technique, the obtained sample are listed in Table 1.

Respondents in this study are the policymakers of the Rector/Chairman of PTAIS, Head of Planning Bureau, Head of Finance Bureau, Head of General and the Head of Finance.

TABLE 1: Number of sample-based geographic area and the type of PTAIS.

No.	Province	Institution	High school	University	Amount
1	Java (West Java)	1	1	1	3
2	Sulawesi (South Sulawesi)	0	2	0	2
3	Sulawesi (West Sulawesi)	1	0	0	1
	<b>Total</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>6</b>

Obtained data from the results of the study were analyzed by using descriptive statistical analysis. Descriptive statistical analysis used to determine the price of the minimum score, maximum score, range, mean, median, mode, standard deviation and variance of each variable. Furthermore, calculation results are described in the frequency list for each variable which is then visualized as histogram.

Qualitative approach is done by interview technique, interview result will be analyzed to strengthen and enrich the research result.

## 4. Summary of Findings

This section presents the research findings divided into two parts; the first part will describe the characteristics of PTAIS, the second part describes the current financial management of PTAIS and management knowledge about the concept of full costing method.

### 4.1. Characteristics of Islamic higher education (PTAIS)

To illustrate the characteristics of PTAIS seen from the elements of community economic environment, size of PTAIS, owner of the property and facilities and infrastructure in Table 2.

Characteristics PTAIS determines the direction of financial management of universities. The economic environment of PTAIS communities in urban areas has higher education and income levels than PTAIS in rural areas. However, the size of PTAIS in rural areas is greater than in urban areas. This is related to the availability of land in the city area that is relatively smaller, so it has less tamping power. The results of this research survey on land ownership as a property, almost all PTAIS studied tap property in the form of land owned by the foundation. Except for IAI Darul Irsyad Polewali Mandar, in addition to using the property owned by the foundation, PTAIS

TABLE 2: Characteristics of Islamic higher education (PTAIS).

Sub Variabel	STAI AL AZHAR MENGANITI GRESIK	STAI AL GHAZALI	STAI DARUD DAKWAH WAL IRSYAD MAROS	UNIVERSITAS HASYIM ASYARI	INSTITUT AGAMA ISLAM IBRAHIMY	INSTITUT AGAMA ISLAM DDI POLMAN
<b>A. Community Economic Environment</b>						
1. Topography	Urban	Urban	Urban	Rural	Rural	Rural
2. Business Field	Trading	Marine	Agriculture	Trading	Agriculture	Trading
3. Demographics						
a. Education (%)						
< Primary School	4%	20%	1%	15%	10%	35%
Primary/Junior High School	6%	30%	40%	35%	15%	10%
Senior High School	80%	40%	53%	40%	50%	45%
University	10%	10%	6%	10%	25%	10%
b. Occupation (%)						
Public Servant	2%	20%	5%	15%	5%	70%
Employee	20%	20%	20%	20%	25%	5%
Seller	60%	30%	20%	25%	15%	15%
Labor	6%	10%	5%	15%	20%	40%
Farmer	10%	20%	45%	15%	25%	5%
Others	2%	0	5%	10%	10%	5%
c. Income / month (%)						
< IDR. 1 million	10%	20%	25%	30%	25%	25%
IDR. 1 million - IDR. 3 million	25%	50%	50%	60%	50%	60%
> IDR. 3 million	65%	30%	25%	10%	25%	15%
<b>B. Size of PTAIS</b>						
1. Number of students	512	678	815	2072	2627	1306
2. Number of Lecturers	56	23	65	165	95	99
3. Number of staff	9	10	8	54	107	45
4. Number of cooperation						
a. National	4	0	0	5	0	5
b. International	2	0	0	4	0	0
5. Number of faculties	-	-	-	8	4	4
6. Number of Prodi	3	2	3	24	10	-
7. Land and building						
8. Facilities and infrastructure						
a. Land (m2)	26,000	2,960	3,500	37,700	7,100	10,300
b. Building (m2)	8,400	2,144	1,700	11,260	6,320	7,210
C. Owner of the property	Foundation	Foundation	Foundation	Foundation	Foundation	Foundation
D. Facilities and infrastructure	Good/ Not complete	Good/ Complete	Good/ Not complete	Good/ Complete	Good/ Not complete	Good/ Complete

is also able to own property or land for its operational education activities. In terms of cooperation, PTAIS in urban areas have easier access so that they can do more cooperation both nationally and internationally.

#### 4.2. The concept of full costing method

The activities of universities in Tri dharma (teaching, research and community service) are activities that must be implemented. To meet these needs, the college is desperately needed in the form of large funds. The pattern of financial financing in PTAIS, often the financing model used is often unclear. The findings of this study found that the management of financing is still very traditional, closer to the direction of activity-based cost management but done as is. Based on interviews, the pattern of financial management is influenced by the purpose of the establishment of PTAIS which is generally for social goals and religious propagation purposes to disseminate religious teachings to the community. Similarly, in East Java, the foundations of higher

education are more rooted in the tradition of pesantren. Tradition of pesantren management is usually more on non-professional family management that is directed to the concept of a mature business. In the end, educational institutions managed for these social and religious goals do not take into account the more mature profit and development. But more manageable as it is. The aforementioned PTAIS model is generally not autonomous as well as there is a strong intervention from the foundation or organization that becomes an affiliate of the college.

The findings of the study showed that all respondents (PTAIS) did not know or even heard of the full costing method. However, when the researcher asked about full costing indicators such as direct cost, indirect cost, accountability and financial management autonomy, almost all of them said they had heard it.

TABLE 3: Components are included in the calculation of financing activities.

Indicators Full Costing	STAI Al-Azhar Menganti Gresik		STAI Al-Ghazali		STAI DDI Maros		Universitas Hasyim Asy'ari		IAI Ibrahimy		IAI DDI Polman Mandar	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Direct cost	✓		✓		✓		✓		✓		✓	
Indirect cost (Biaya tidak langsung)	✓		✓		✓			✓		✓	✓	
Akuntabilitas		✓	✓		✓		✓		✓		✓	
Otonomi pengelolaan keuangan		✓		✓	✓			✓	✓			✓

Based on the six PTAIS studied, the average does not include all the variable components in the calculation of financing activities. The most difficult to do is related to the autonomy of financial management. This is understandable given that all of the PTAIS studied were established under the name of the foundation. So, the foundation's intervention on the financing of PTAIS is quite pronounced.

Meanwhile, PTAIS's financial management structure remains largely centered on the Rectorate. Based on the data obtained from the respondents, it is seen that five PTAIS are STAI Al Azhar Menganti Gresik, STAI Al Ghazali, STAI Darud Dakwah Wal Irsyad Maros, Islan Religious Institute DDI Polman and Hasyim Asyari University financial management still centered in Rectorate, only the Institute of Religion of Islam Ibrahimy's financial management is distributed to the Faculties. It is exposed in Table 4.

The next indicator is the component-cost driver, which is the factors that cause changes in activity costs. The researcher classifies the cost-driver component from

TABLE 4: Governing structure of PTAIS.

No.	Name of PTAIS	Centralized (Rektorat)	Faculty
1	STAI AL AZHAR MENGANTI GRESIK	v	
2	STAI AL GHAZALI	v	
3	STAI DARUD DAKWAH WAL IRSYAD MAROS	v	
4	INSTITUT AGAMA ISLAM IBRAHIMY		v
5	INSTITUT AGAMA ISLAM DDI POLMAN	v	
6	UNIVERSITAS HASYIM ASYARI	v	

the sample into several categories, namely, education, facilities and infrastructure, research, human resources development and community service. Based on the findings, all cost drivers in PTAIS on the cost component of education implementation, while for research cost is the smallest cost component.

Based on the aforementioned findings, in general, the research findings show that the management of private Islamic universities (PTAIS) is still activity-based, not much to consider direct cost and accountability. Whereas, developed countries like Europe have started thinking and moving on models of financial management more sustainably, known as full costing system. Of the variables required in the full costing system model, PTAIS still seems to be far in that direction. Almost all indicators in full costing are not met in PTAIS financial management.

## 5. Conclusion

Based on field findings and analysis, the research team concludes that the financing management model at PTAIS is still implemented traditionally and as it is closer to managing activity-based cost. They still have not thought about mature planning yet. This is more influenced by the culture and history of the establishment of PTAIS itself. The history of the establishment of PTAIS is more due to religious and humanitarian social interests. Therefore, the interests of humanity and spreading of Islamic teachings (*dakwah*) are higher in degree than the methods of professional management. PTAIS recruits more students from the poor, which in terms of finance will be more subsidized by the campus than to help finance the campus. Almost all PTAIS that have been studied use property in the form of land and buildings owned by the foundation. The foundation's intervention caused PTAIS to be a long way away to model the higher education full costing model financing management.

Therefore, the researcher proposes that PTAIS can be sustainable in education financing; PTAIS must improve their financial management in a more professional manner by making mature financial planning without any intervention from the sheltering foundation. Researcher recommends that PTAIS should begin studying the full costing method to be applied in each PTAIS.

## References

- [1] Anna Berezka, *Financing of the Scientific and Research Activity of A University in the Perspective of the Changeable Criteria of A Knowledge Based Economy and Internastional Aspect*, Economic and Sociology, Vol. 3 No. 2, 2010.
- [2] Berry, R. H.), *Management Accounting in Universities*, CIMA London. (1994)
- [3] Badan Penelitian dan Pengembangan, Departemen Pendidikan Nasional.
- [4] European University, *Financially Sustainable Universities: Towards Full Costing In European Universities*, European University Association (UEA) and Socrates, 2008.
- [5] Ghozali, Abbas, dkk, 2004 *Pembiayaan Pendidikan Dasar dan Menengah*, Jakarta:
- [6] Ghozali, Abbas, Hayati, Murdiyah, *Madrasah Education Financing*, The Education Sector Analytical and capacity Development Patnership (ACDP-003), 2012.
- [7] Goddard, A., Ooi, K. (1998), *Activity-Based Costing and Central Overhead Cost Allocation in Universities: A Case Study*, Public Money & Management, July-September, CIPFA
- [8] Hansen & Mowen, "Management Accounting", 2003:34.
- [9] Jogiyanto, *Metodologi Penelitian Bisnis*, Edisi Pertama. BPFE, Yogyakarta, 2010
- [10] KMA RI Nomer: 394 tahun 2003 tentang Pedoman Pendirian Perguruan Tinggi Agama Menteri Agama RI pasal 1.
- [11] Mulyadi, *Akuntansi Biaya*, Universitas Gajah Mada, Cetakan ketiga belas, Agustus 2015
- [12] Maassen, Peter. Dr., *Models of Financing Higher Education in Europe*, Center for Higher Education Policy Studies (CHEPS) University of Twente, 2000.
- [13] Mulyadi, *Sistem Akuntansi*, Edisi Tiga, Cetakan Ketiga.. Salemba Empat, Jakarta, 2008
- [14] Nanang Fattah. (2004). *Ekonomi dan Pembiayaan Pendidikan*. Bandung: PT. Rosdakarya.
- [15] Onuoha, Luke N., *Financing Higher Education in Nigeria: The Role of Internally Generated Revenues and How University Managements Can Maximize the Sources*, Canadian Social Science, Vol. 9, No. 1, 2013, pp. 9-14.

- [16] Oketch, Moses O, *Market Model of Financing Higher Education in Sub-Saharan Africa: Examples from Kenya*, Higher Education Policy 116.31 (Sep 2003): 313
- [17] Peraturan Pemerintah Republik Indonesia nomor 4 Tahun 2014 Tentang Penyelenggaraan Pendidikan Tinggi Dan Pengelolaan Perguruan Tinggi
- [18] Sekaran, Uma, *Research Methods for Business*, Edisi 4. Salemba Empat, Jakarta, 2006.
- [19] Undang-undang nomer 20 Tahun 2003 tentang Sistem Pendidikan Nasional (UU Sisdiknas) pasal 19 ayat 1.
- [20] [www.diktis.kemenag.go.id](http://www.diktis.kemenag.go.id)
- [21] [www.bsnp-indonesia.org/id](http://www.bsnp-indonesia.org/id)