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INVESTMENT POLICIES MODELS IN THE STATE UNIVERSITIES WITH AUTONOMOUS LEGAL ENTITIES: EVIDENCE FROM INDONESIA

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Abstract

Research on hybrid organizations has gained interest from many scholars. This is due to the combined characteristics of private- and public-sector organizations, embedded in a single entity; thus, it carries distinctive challenges for the researchers. State universities with autonomous legal entities are educational institutions in Indonesia that are obliged to provide world-class education services for the public. In fulfilling the mission, the university management needs support, such as finance and regulation, from the government. However, the government limits the flexibility of the university management in generating profit. For instance, the tuition fee rate, which is one the university's primary revenue sources, must be submitted to the government's guideline. In other words, the university management does not have the flexibility to determine the tuition cost rate. Consequently, the university management must seek for other revenue streams, i.e., optimizing the use of endowment funds for investment, to achieve the university's objective. Also, the university management must explore strategies that can deliver maximum return for its investment while at the same time minimizing the risk. Therefore, This study explores to identify the investment policy model in hybrid organizations especially higher education institutions. A qualitative approach through documents review was conducted in this study. The findings reveal that an ideal portfolio investment model should consider factors, such as attitude to risk, the number of funds invested, income received during the period for investment, and the restrictions derived from the regulations. Therefore, the decision-makers, i.e., The ministry of higher education should consider issuing regulations that allow flexibility for the state university with autonomous legal entities in making investment decisions. Other than that, the management must develop investment policy models that can provide maximum return, but with moderate risks to support the financial needs of the university.

Keywords
Investment policies models, state universities, autonomous legal entities, hybrid, document review

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Introduction

Formerly, state universities in Indonesia have been relying on government's funds in supporting their academics and operational activities. However, since the Law Number 12 on Higher Education (2012) was issued, the government has encouraged state universities to transform their status from being 100 percent funded by the government to state universities that own autonomous legal entities, known as PTNBH, in obtaining the funds. Consequently, the PTNBH management is required not only to manage the academic activities by becoming a world-class university, but they are also given the independence to seek for funds to finance their educational operational activities. Even though the management of PTNBH have the authority to find their own funds, the government has given restrictions on certain policies that must be obeyed. For instance, the management of PTNBH is not allowed to charge costly tuition fees to the students. This is due to the fact that PTNBH are still owned by the government; thus, the policies issued by the management of PTNBH can be perceived as the act of the government.

There are 16 PTNBH in Indonesia by July 2022. However, the researchers were only able to obtain six PTNBH that have published their financial statements on their website. The table 1 below shows that the average ratio between the cost for financing educational operational activities and the revenues earned is 85,36 percent in 2020. The percentage implies that only two PTNBH, such as Institut Pertanian Bogor (IPB) and Universitas Diponegoro (Undip), whose revenues are exceeding the expenses. Whereas the other four PTNBH, such as Universitas Gadjah Mada UGM), Universitas Indonesia (UI), Universitas Airlangga (Unair), and Universitas Pendidikan Indonesia (UPI), need to struggle in finding other sources of revenue that can cover the educational operational activities in their university.

Table 1: Ratio of the cost for financing educational activities compared to the revenues earned in Year 2020

IPB	UGM	UI	Unair	Undip	UPI
114,52%	64,07%	44,05%	77,65%	145,95%	65,95%

Source: The IPB, UGM, UI, Unair, Undip, and UPI website

The management of PTNBH is aware of the challenge in meeting this obligation. However, the restrictions in determining the educational fees have burdened their action in seeking revenues. On one hand, these PTNBH must comply with the government's regulations by providing affordable educational fees for the students, which this characteristic is commonly associated with public-sector organizations. On the other hand, they must ensure that their revenues are over their educational operational expenses. These conflicting purposes and inconsistent activities, which often denote hybrid organizations, lead to potential conflict in meeting these goals (Battilana & Lee, 2014; Doherty et al., 2014). Such organizations tend to focus their strategies and operations on fulfilling one mission over the other (Ebrahim et al., 2014).

Despite the restrictions, the management of PTNBH is allowed to generate additional funds from its endowment funds (Atalar, 2021). An endowment is defined as a collection of assets and investments to generate money for supporting the university's educational and research objectives (Hansmann, 1990). Institutions that own endowment funds include hospitals, museums, schools, libraries, and universities (Moore, 2017). Similar to non-profit private- and public-sector organizations, PTNBH build and maintain endowments to add other revenues, i.e., tuition fees and university business center, in supporting present expenses and to ensure their long-term financial security. According to Baum & Lee (2019), endowments also provide a source of annual revenue, which then allow universities to spend more each year than would otherwise be the case, given tuition and other sources of revenue.

However, the idea of endowment funds, specifically in the university, is relatively new in Indonesia. Based on the financial statements published in the year 2020, the endowment funds for six PTNBH in Indonesia are still below expectation (see Table 2). The endowment funds from these six PTNBH if compared to big universities in the world are not close enough.

Table 2: PTNBH's Endowment Fund (in US$)

No.	PTN BH	2020
1	**IPB**	20.347.245
2	**UGM**	10.016.694
3	**UNAIR**	6.677.796
4	**UI**	4.108.514
5	**UPI**	992.664
6	**ITS**	411.942

For instance, Harvard University had a $4.2 billion endowment fund in 1988, increased to $34.7 in 2007 and became $41 billion in 2019 (Atalar, 2021). It means that the average growth for the endowment fund is 7.7 percent per year. Big universities with large endowment funds tend to take larger risks in investment, such as by buying an entire company or hiring professionals to manage the endowment funds (Weisbord et al., 2008). In contrast, universities that own small endowment funds can only afford to buy shares of public companies, or may only invest in a low-risk investment (Atalar, 2021). Consequently, the return on investment may not be as high as those invested in a risky investment.

As the demand for providing high-quality academic services and a world-class university increased, the management of PTNBH is challenged to seek funds that can finance the educational operational activities. It includes increasing the return of endowment funds investing activities. However, the hybrid status embedded in the PTNBH limits the management in making investment decisions. Consequently, the management of PTNBH is only able to invest the endowment funds conservatively by choosing a none-to-low risk investment. Therefore, this paper is seeking for various investment policy models that fit with the hybrid status of PTNBH.

Literature Review

Portfolio Management

The investment decision in universities in general is aiming for sustaining the purchasing power of their assets, increasing the ability to grow the assets for the long run, and ensuring the liquidity of the assets when they are needed. To meet these demands, universities have tried to minimize the risk to gain a higher return compared to the expense. According to Markowitz (1959), this can be done by generating an asset portofolio with the lowest risk and expecting a higher return.

In managing the assets, investors need to make a policy as a standard in selecting which assets provide higher return. The decision to invest commonly considers factors, namely the objectives of investment, the philosophy of investment, the assets allocation, assets comparison, execution, monitoring, evaluation, and feedback (Gyorgy & Malliaris, 2012). Assets allocation is a fundamental element in creating an optimum return of investment. The notion of asset allocation was introduced by Markowitz (1952; 1959) and developed by Constantinides and Malliaris (1995). The concept started with distributing a group of assets based on their weight and found that the risk of investment can be reduced significantly. According to Bekkers et al., (2009), there is a significant impact to the performance of the portfolio when assets are allocated to different asset groups.

Scholars have agreed that allocating assets is one of the most important strategies that determine the return of investment. Brinson et al., (1986) argue that 93.6 percent of performance variance can be explained by the decision of allocating assets. The finding implies that asset allocation is much more important than choosing the right time for investing and the security in investment decisions. Therefore, it can be concluded that allocating assets to the appropriate asset group can affect the performance returns of the investment.

However, making investment decisions may depend on the characteristics of the organization. For instance, in private-sector organizations, choosing where the company should place their investment depends on the decision of the managers. As long as the objective is to maximize the shareholders value, the managers are given the authority to make their own decision. In contrast, the managers in public-sector organizations are burdened with a strong bureaucratic culture. Consequently, making critical and risky decisions may require plenty of meetings and consultations with the main shareholders, i.e., the government.

PTNBH are mixing a conflicting purpose where the management is required to fund their educational operational activities while at the same time is restricted to set the tuition fees for the students. The distinct characteristics mentioned above indicate that PTNBH are hybrid organizations where it is defined as a setting where two or more distinct elements are combined (Denis et al., 2015). These elements are different and found to be separated form each other (Miller et al., 2008), but can be mixed in either organization’s action, procedures, and skill (Grossi et al., 2019; Miller et al., 2008) or its mission, value, and organizational forms (Christensen & Lægreid, 2011).

Endowment Fund

In general, university’s revenues are generated from tuition fees, research grants and contracts, royalties and patents, subsidies from the government and in some cases endowment income. Although the source of revenues vary, many universities make significant attention to generating additional funds from their endowment funds (Atalar, 2021). Endowment is defined as a collection of assets and investments to generate money for supporting the university’s educational and research objectives (Hansmann, 1990). Institutions that own endowment funds include hospitals, museums, schools, libraries and universities (Moore, 2017).

The idea of endowment model refers back to Keynes (Chambers & Dimson, 2015), where its intention is to keep the assets today to be spent in the future. The use of endowment funds may vary in countries and universities. For instance, universities in the United States choose to invest their endowment funds in equities and hedge the funds to increase their returns (Brown et al., 2014).

Based on the objectives, endowment funds consist of term endowment, restricted endowment, unrestricted endowment and quasi endowment. Term endowment specifies the time horizon where the donors expect that universities can meet the expectations of the donors within the designated time. Restricted endowment states that the endowment fund principals are not allowed to be used in financing the organizations' activities. However, the managers are allowed to use the return of the investment to finance a specific objective based on the demand of the donors. On the other hand, unrestricted endowment gives freedom for the managers in using the funds for any purposes. Quasi endowment is different from the other types of endowment. Quasi endowment does not limit the use of the principal funds permanently as long as they are approved by the board of trustees. Therefore, quasi endowment is argued to fit best with organizations that have multiple characteristics, i.e., PTNBH.

Data and Methods

This research adopts a qualitative method, where the researchers review and analyze documents that are relevant to the case under study. Documents contain text (words) and images that have been recorded without researchers' intervention. They are provided either in the website or in papers where the researchers are able to have access in possessing these documents. In this study, the documents are regulations concerning endowment funds and the financial statements of PTNBH. These documents are obtained from the website. Thus, the researchers were only able to make an analysis based on the data provided in the website.

Document analysis is a systematic procedure for reviewing or evaluating documents—both printed and electronic (computer-based and Internet-transmitted) material. Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Corbin & Strauss, 2008). Documents contain text (words) and images that have been recorded without a researcher's intervention. For the purposes of this discussion, other mute or trace evidence, such as cultural artifacts, is not included. Atkinson and Coffey (2011) refer to documents as 'social facts', which are produced, shared, and used in socially organized ways.

As a research method, document analysis is particularly applicable to qualitative case studies—intensive studies producing rich descriptions of a single phenomenon, event, organization, or program (Stake, 1995; Yin, 2014). Furthermore, as Merriam (2009) pointed out, 'Documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem'. Whereas document analysis has served mostly as a complement to other research methods, it has also been used as a stand-alone method. Indeed, there are some specialized forms of qualitative research that rely solely on the analysis of documents. documents provide supplementary research data. Information and insights derived from documents can be valuable additions to a knowledge base.

Discussion

PTNBH are state universities created and owned by the government. They hold a public legal entity embedded in their characteristics, which grant them autonomy. Their independent status is regulated in the government law number 8 (2020) concerning the financial form and mechanism for state universities with autonomous legal entities. This law states that PTNBH has the right to receive funds from the state budget as well as from other sources. It implies that the management of PTNBH are allowed to explore other revenues than expecting subsidies from the government.

The board of trustees in Universitas Pendidikan Indonesia (UPI) define an endowment fund as assets owned and controlled by the university, obtained from the net assets and donations from government subsidies, individuals, donors national and international (UPI Board of Trustee Number 1, 2017). This implies that an endowment fund is not only limited to money, saving account or checking account, but also in the form of assets that are owned and controlled by the PTNBH.

Commonly, endowment funds are invested in various investment instruments that can give profit. As investment assets, the return of investing endowment funds depends on the investment policy that is chosen. The investment policy defines the reasons why investors invest their funds and identifies the investment objectives, the level of risk tolerance, the challenges in forming an ideal portfolio investment, and how the investment program is managed and monitored. In investing the endowment funds the standards used by PTNBH tend to be similar from one another. Prudence, transparency, accountability, professional, effective and efficient are the basic procedures for the management of PTNBH in investing the endowment funds.

The ultimate goal of managing endowment funds is basically to earn a profit to finance the educational operational activities of PTNBH. According to the Rector of ITB‘s decree (No. 257/PER/i1.A/H/2014, 2014), the objective of investing an endowment fund for Institut Teknologi Bandung (ITB) is to preserve the initial capital of the endowment fund and at the same time earning a maximum return. Similar to ITB, the goal in managing endowment fund for Institut Teknologi Sepuluh November (ITS) is to increase the maximum return and the initial investment so that the endowment funds can grow and sustain for a long term (ITS Rektor decree No. 20, 2018). When compared to the two PTNBH mentioned earlier, namely ITB and ITS, the goal for managing endowment fund in Unversitas Gadjah Mada (UGM) according to the UGM Board of Trustee decree (number 4, 2020) is to ensure the sustainability in developing and supporting the missions of UGM.

Another factor that needs to be considered when deciding to invest is the risk preference. Risk preference is the allowable risk an investor willing to accept. There is a strong relationship between risk and return on investement (Guo & Whitelaw, 2006). Ghysels et al. (2005) and Guo and Whitelaw (2006) found that there is a trade off between risk and return. Consequently, investors demand a higher return when they decide to accept a higher risk. The risk level is technically determined by the investment strategy of the investors as a response to diversify the assets portfolio (Gottschlich & Forst, 2014).

Risk preference for investing endowment funds is stated in the the regulations of endowment funds of each PTNBH. Based on the documents review, only ITB that sets their risk preference aggresively. Whereas the other PTNBH choose to take a lower risk preference to minimize the risk.

According to modern portfolio theory (Markowitz, 1952), investors tend to build a portfolio that can give the highest return and at the same time minimize the risk. Moore (2017) said that there is a strong relationship between the performance of endowment funds and allocation strategy. The aim of asset allocation is to make a balance between the risk and return of the asset portfolio based on the financial objectives, risk tolerance and investment time horizon. For instance, Institut Teknologi Bandung (ITB) has clearly stated its policy on endowment fund's policy by allocating 25 per cent on the money market, 45 percent on bonds, 20 percent on stocks and 5 per cent on buildings. Based on their policy, 70 percent of its investment portfolio are low-risk investment, such as in the money market and bonds.

Institut Pertanian Bogor (IPB) allocates their endowment funds to checking accounts, bonds, stocks and capital markets and assets-based investments to the affiliated parties, such as investment in subsidiaries and public-private partnership in controlling the assets and entities according to the Indonesian Accounting Standard Number 12 (IPB Audited Report, 2020). While the policy of Universitas Pendidikan Indonesia (UPI) in investing the endowment funds only in saving accounts and assets-based investment.

Even though the three PTNBH discussed above has similarity in investing their endowment funds, the investment policy in Institut Teknologi Sepuluh November (ITS) is more flexible. The management of ITS is allowed to invest the funds to any form of investment as long as it does not violate the regulation. The flexibility gives a bigger opportunity for the management to seek for investment that can give a higher return.

In investing the endowment funds, the management of Institut Pertanian Bogor (IPB), Universitas Pendidikan Indonesia (UPI), and Institut Teknologi Sepuluh November (ITS) are allowed to invest the funds directly. However, direct investment may be risky. Therefore, direct investments are often limited to investing in subsidiaries, public-private partnership, and assets-based investment. Investment to subsidiaries allows PTNBH to have full and direct control in operating the business. The control is expected to minimize the risk of investment to these subsidiaries. The management of UPI also choose to invest the endowment funds in assets-based investment to reduce the risk. This is because assets-based investment has tangible assets as collateral when the investment does not increase as expected.

Although all PTNBH set the policies that allow endowment funds to be invested on the stock market and direct investment with certain restrictions, in fact, based on the financial reports provided, the investment decision tend to be in a low-risk investment, i.e., saving accounts. This decision implies that the management of PTNBH tend to consider a safety and sustain endowment funds in the long run.

Conclusion

The findings show that the amount of endowment funds in PTNBH requires additional consideration. The policy for the majority of PTNBH in Indonesia has explicitly stated the level of risk tolerance for investing the endowment funds. The low tolerance of risk for the investment policy prevents the management of PTNBH acquiring a higher return for their investment. Investors' risk preferences are the fundamental for asset allocation policies that construct a portfolio. Investors who have low risk preferences tend to invest their funds in investments that have low risk and it applies the same for investors who prefer investing their money in a high-risk portfolio due to their high preference characteristics. The decision to allocate these assets is the main factor that can affect the performance (Brinson et al., 1986).

However, the management of Institut Teknologi Bandung (ITB), as one of the PTNBH in Indonesia, has set a higher level of risk tolerance for their investment funds compared to the rest of PTNBH. Consequently, the management of ITB was able to earn a higher return for their endowment fund.

Therefore, the researchers suggest that management of PTNBH needs to set the allowable risk as a standard in investing their endowment funds. This is because the level of risk tolerance that the management of PTNBH accepts determines the return of investment. There will always be a trade off between risks and returns (Ghysels et al., 2005; Guo & Whitelaw, 2006). Therefore, the higher the tolerance for the risk is, the higher the opportunity for the management of PTNBH gaining a higher return of investment.

This research acknowledges the limitations that can be improved for further research. First, the analysis using documents review has prevented the researchers from gaining a comprehensive understanding on the case under study. Interviews with the management of PTNBH and government officials that are related to the PTNBH may capture a broad and deep information on the issues of endowment funds. Second, the limited information of the yearly performance of endowment funds in all 16 PTNBH made it difficult for the researchers in making a critical analysis on the case being examined. Despite the limitations, this paper has given a practical contribution and a clear picture on the issue of endowment funds of PTNBH in Indonesia.

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