# The Role of Endowment Funds in Supporting The Financial Sustainability of Higher Education

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**Abstract.** Financial sustainability is a strategic issue for higher education institutions, especially amidst limited government funding and dependence on tuition fees. Endowment funds are an important alternative to create long-term funding sources. This study aims to examine the role of endowment funds in supporting the financial sustainability of higher education institutions in Indonesia by studying endowment practices in global higher education institutions. The method used is a literature study of scientific journals on endowment management of these higher education institutions. The results of the study indicate that the success of endowment fund management is supported by professional governance, investment diversification, sustainable distribution policies, and a culture of philanthropy. Based on the results of the study, the recommended strategies for Indonesia include strengthening the legal framework, leveraging institutional capabilities, developing investment management capacity, and increasing philanthropic literacy among academics, alumni, and the public. The implementation of this strategy can encourage the development of endowment funds as an instrument of long-term financial sustainability for higher education institutions in Indonesia.

**Keywords:** Endowment, Financial Sustainability, Higher Education, Philanthropy, Investment Management

## 1 Introduction

Higher education institutions in Indonesia face various financial challenges that affect operational sustainability, educational quality, and institutional competitiveness. Dependence on funding sources to meet institutional needs, state universities (PTN) still depend on the government budget (APBN/APBD) through the operational assistance fund (BOPTN) and competitive grants such as the education fund management institution (LPDP), and implement the tuition fee (UKT) system which must be paid by students as education costs [1]. The limited state budget means that the allocation for higher education is often insufficient to meet the needs of institutional development [2]. Likewise, private universities (PTS) that depend on students as their main source of income are vulnerable to fluctuations in the number of students.

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Research funding from both internal universities, the government and especially industry collaboration is still low, so universities have difficulty in generating income from intellectual property rights and research downstream, consulting projects and philanthropic culture in the form of donations (individuals, alumni, corporations). When compared to universities in the US or Europe, universities in Indonesia are still less able to optimize alternative income [3].

Financial constraints have the potential to reduce the quality of higher education. Operational costs and investment in facilities and infrastructure, quality lecturers to meet higher education quality standards, and digitalization (e-learning, IT systems, cybersecurity) certainly need to be balanced with the overall funding sources.

Endowment, or perpetual fund, is a pool of professionally managed assets, where generally only the investment returns are used to support the university's operations, while the principal is retained. This model has proven successful at leading world universities (such as Harvard, Yale, and Stanford) and has been developed in several Indonesian universities, although the contribution to the budget is still small compared to global universities [4]. The advantage of endowment funds lies in their ability to provide long-term financial stability in supporting academic missions, as well as reducing dependence on conventional funding sources.

Based on the background that has been described, the objectives of this study are as follows: 1) To analyze the contribution of endowment funds to financial stability, 2) To identify challenges and strategies for effective endowment management for universities.

## 2. Methods

This research uses a qualitative approach that is conceptually interpretive through observation, documentation and literature studies, which are presented in the form of verbal words containing a general description of the research object.

## 3. Results And Discussion

An endowment fund is a collection of financial or non-financial assets managed by an institution, especially a university, with the aim of generating sustainable income to support operations, development, and strategic programs. This fund is permanent, where only investment returns (income fund) are used for operations, while the principal fund is maintained or grows through reinvestment [5,6].

Principal fund is the core of the endowment fund that may not be reduced or used for operational expenses, is permanent capital and its value must be maintained through policy. The source of principal funds can come from donations (grants from alumni, corporations, or philanthropists), proceeds from divestment of institutional assets (example: sale of university property), accumulation of financial surplus that is deliberately allocated as an endowment.

Income fund is the result of investment management from the principal fund, such as stock dividends, profit sharing from bonds or deposits, capital gains from mutual funds or property, rental income from university assets. This fund is used for

operational costs (scholarships, research, salaries of lecturers and academic support staff), infrastructure development (laboratories, libraries), and strategic programs (strengthening the international reputation) of universities. The amount of income fund withdrawals usually follows the spending rate policy to maintain stability [7].

The separation of these funds is important to maintain sustainability, where the principal fund ensures long-term stability, while the income fund provides funding flexibility. From an accountability perspective, this facilitates financial audits and reporting, as well as compliance in meeting donation or regulatory requirements.

The endowment concept is rooted in the principle of financial sustainability, where universities do not only rely on conventional funding sources (such as the state budget, tuition fees, or grants), but also have a reserve of funds that continues to grow through professional investment management. Comparison of endowment management models in Indonesian and global universities:

**Table. 1** Comparison of Endowment Management Models between Indonesian and Overseas Universities

| Aspects | Indonesia (Examples: UI, UGM, ITB) | Overseas (Examples: Harvard, Stanford, Oxford) |
|---|---|---|
| **Source of funds** [2,7] | • Dominant from the government (APBN) and limited donations (alumni/corporations).<br>• Endowment value is relatively small (Rp1-2 trillion for the largest PTN) | • Large donations from alumni, philanthropists, and corporations (e.g. Harvard endowment $53.2 billion/2023).<br>• Commercial research income and royalties. |
| **Regulation** [8,6] | • One of them is regulated by 68/PMK.03/2020. | • Flexible, following local trust fund laws (US/UK).<br>• No investment instrument restrictions (can allocate >50% to stocks/alternatives). |
| **Management [**4,9] | • Under a university or foundation (example: UI Endowment Fund).<br>• Small investment team, often dependent on external managers. | • Specialized institution (e.g. Harvard Management Company).<br>• Professional team with capital market experts. |
| **Investment Strategy** [10, 11] | • Conservative (dominated by deposits/SBN).<br>• Low returns (~5-7% per year) | • Aggressive (stocks, private equity, real estate).<br>• High returns (~8-12% per year). |
| **Spending Policy** [7, 6] | • Income funds are used for short-term projects (scholarships, infrastructure)<br>• No standard rules for withdrawals | • Spending rate from the average value of the endowment over the last 3 years.<br>• Principal funds are protected from inflation. |
| **Transparency** [12, 13] | • Limited reporting, minimal public access. | • Detailed annual financial statements (e.g. Harvard |

| Aspects | Indonesia (Examples: UI, UGM, ITB) | Overseas (Examples: Harvard, Stanford, Oxford) |
|---|---|---|
| | • Audit by internal/Audit Agency | published investment portfolio).<br>• Independent external audit. |

Source: Author's Work

Comparison of Indonesian and foreign higher education endowments shows significant disparities in scale, strategy, and impact. Overseas, endowments are 10-100x larger thanks to established philanthropic cultures and long histories (such as Yale, which was founded in 1718), while Indonesia still relies on the state budget and sporadic donations. Investment strategies are also different: US/European universities tend to be aggressive with stock and alternative allocations to pursue high returns (8-12%), while Indonesia is risk-averse due to strict regulations and limited human resources, resulting in only moderate returns (5-7%). The impact is seen in financial sustainability. Harvard relies on >30% of operating income from endowments [14], while UI only utilizes <5% [15], reflecting a gap in the utilization of endowments for institutional independence.

Endowment funds act as a source of sustainable passive income for universities through investment returns on consistent investment returns. The advantage of this passive income lies in its ability to protect institutions from economic turmoil, as long as investment management is carried out professionally with portfolio diversification. Endowments play a crucial role in supporting three key pillars of higher education through sustainable funding. First, as a source of operating funds, endowments provide a steady stream of revenue for recurring expenses such as facility maintenance, staff salaries, and academic development. Second, in the area of scholarships, endowments enable long-term educational assistance without burdening the core budget, such as Yale's scholarship program, which is 45% endowment-funded. Third, for research activities, endowments provide funding flexibility that limited funding sources such as government grants do not, enabling long-term, high-risk/high-return research.

In Indonesia, although still developing, several universities such as UI have utilized endowments for superior programs. The UI Endowment Fund, for example, allocates 30% of its investment income for scholarships and 20% for research [15]. However, this utilization is still far below global universities such as Harvard which allocates 70% of its endowment income for operations and research [14].

UI is a pioneer in endowment fund management in Indonesia through the UI Endowment Fund which was officially established in 2019. Until 2023 with significant contributions from alumni donations, corporate partnerships, and investment returns from the capital market and property. UGM manages the endowment through the UGM Trust with a unique model, namely collaboration with BUMN, productive endowment programs, and investment in the agribusiness sector. Meanwhile, private universities that have managed endowments are Telkom University and BINUS University. In general, the use of the results of managing the university endowment funds is relatively the same, namely the development of campus facilities, scholarships, lecturer and student research, start-ups, and other operational costs.

Endowment development requires "tridharma" synergy between the government, campuses and society in facing the challenges of financial sustainability holistically:

**Table. 2** Challenges and Strategic Solutions for Sustainable Endowment Fund Development in Indonesian Higher Education

| Aspects | Challenges | Solutions |
|---|---|---|
| **Regulation** [8, 2] | • Investment restrictions<br>• Bureaucracy of university endowment allocation.<br>• No tax incentives for large donations | • Revise regulations to increase investment instrument choices (private equity, global mutual funds).<br>• Simplify the management process through special laws.<br>• Tax incentives for donors (example: 100% tax deduction) |
| **Culture of philanthropy** [4, 15, 16] | • Minimal alumni participation: Only 5-10% of alumni contribute (vs. 30-40% in the US).<br>• Lack of transparency in financial reports reduces donor trust.<br>• Mindset of "donation is the same as social contribution", not long-term investment | • Structured donor programs (example: payroll deduction for alumni and/or crowdfunding).<br>• Publication of audited annual financial reports.<br>• Philanthropy education as "educational investment" |
| **Investment capacity** 6, 10, 11] | • Limited human resources: Lack of investment experts within the campus.<br>• Conservative portfolio (dominated by deposits/SBN) with low returns (~5%).<br>• No special institution to manage endowments (such as Harvard Management Company). | • Endowment manager training in collaboration with OJK/industry.<br>• Portfolio diversification (global stocks, property, venture capital).<br>• Form an independent management body licensed |

Source: Author's Work

The government needs to create regulations that guide the growth of endowments, especially expanding the limits of investment instruments, and simplifying the bureaucracy of fund management, as well as fiscal incentives for educational donations following the US and Singapore models, to encourage corporate and individual contributions. The establishment of a special legal umbrella for endowments, similar to the Waqf Law, can strengthen the legitimacy of endowment fund management [2].

Universities must build a structured fundraising system, financial transparency through the publication of audited annual reports is mandatory to increase donor confidence. Educational campaigns about philanthropy as a "social investment" also

need to be intensified, involving public figures and successful alumni (CASE Asia, 2023; Nugroho, 2021). [16, 4]

Universities need to form professional investment teams or partner with professional asset managers to optimize portfolios (global stocks, corporate bonds, venture capital). Certification training for endowment management staff should be encouraged through collaboration with OJK and capital market associations. Institutions such as LPDP can act as knowledge hubs to share best practices [6, 10].

Endowment development requires collaboration with state-owned enterprises, industry, and philanthropists for matching fund programs (example: Telkom University with Telkom Indonesia holding). Hybrid models such as productive waqf (UGM Trust) or commercial research project-based endowments (MIT-style) can be adopted. The government also needs to facilitate the formation of endowment management associations for standardization and policy advocacy [15].

**Table. 3** Success Indicators and Impact of University Endowment Fund Implementation

| Impact | Success Indicators | Empirical Example |
|---|---|---|
| **Endowment Income vs Total Budget Ratio** [15, 17] | • Endowment contributes >20% of total annual income.<br>• Endowment principal growth above inflation. | • Harvard (35% of revenue from endowment).<br>• UI (3% of total budget, 2023). |
| **Endowment Value Growth** [18] | • Investment return >8% per year (beating inflation).<br>• New donation growth >10% per year. | • Yale endowment grew 10.2% p.a. (2010-2023).<br>• UI endowment grew 7% p.a. (2020-2023). |
| **Contribution to "Tri Dharma"** [19, 8] | • >30% of income fund allocated for scholarships/research.<br>• Increase in number of publications and patents. | • ITB funded 50 strategic researches from endowment (2022) |
| **Reducing Dependence on Government and Students** [20, 2] | • Decrease in proportion of income from APBN/APBD (<50%).<br>• Increase in independent income (endowment + investment). | • UGM reduced dependence on APBN from 70% (2010) to 55% (2023). |
| **Long-Term Funding Stability** [13, 6] | • Consistent spending rate (4-5% per year).<br>• Emergency fund reserve ≥6 months of operations | • Stanford survived the 2008 crisis because of endowment. |

Source: Author's Work

Endowment funds play a significant role in improving the quality of education through sustainable funding for academic facilities, scholarships, and curriculum development. Universities with professionally managed endowments such as Harvard and Stanford allocate 25-40% of their endowment income to support academic operations, including the recruitment of internationally qualified lecturers and the

provision of state-of-the-art learning facilities [17]. In Indonesia, UI and UGM are starting to show a similar impact, albeit on a smaller scale - their endowments have funded the construction of research laboratories and scholarship programs for outstanding students, although their contribution to the total budget is still below 5% [15]. This sustainable funding allows universities to plan long-term academic development without depending on fluctuations in the government budget.

In the research sector, endowments provide crucial funding flexibility for long-term basic and applied research projects. Top global universities such as MIT allocate 30% of endowment income to research, including funding high-risk/high-reward research that is difficult to obtain competitive funding [11]. In Indonesia, ITB and UGM have utilized endowment funds for strategic research in renewable energy and health, although still limited to 10-15% of the total research budget [19]. The main challenges are the low allocation of endowments for research (average <20% of income funds) and limited capacity to manage research funds independently [10]. Strengthening the commercial research-based endowment model, as implemented in leading technological universities, could be a solution to increase its impact on research quality in Indonesia.

## 4. Conclusion

Endowment fund management plays a crucial role in creating financial sustainability for universities through passive income from investment results, which can be allocated for operations, scholarships, and research. At the global level, universities such as Harvard and Stanford have demonstrated an effective endowment management model with contributions reaching 30-40% of the total budget, supported by an aggressive investment strategy and a mature philanthropic culture. Meanwhile, in Indonesia, universities such as UI and UGM have begun developing endowments, although they still face challenges such as strict investment regulations, low alumni participation, and limited human resource capacity. To increase its impact, regulatory reform, strengthening transparency, and increasing investment management capacity are needed.

Endowment funds have also been shown to improve the quality of education and research through stable long-term funding. The world's top universities allocate a large portion of endowment income to recruit quality lecturers, provide modern facilities, and fund innovative research. In Indonesia, although the use of endowments for research and academics is still limited (<20% of income funds), examples from ITB and UGM show potential growth if followed by better management strategies. Solutions such as collaboration with industry, development of productive waqf, and increasing investment literacy can accelerate the contribution of endowments to financial independence and academic competitiveness of universities in Indonesia. With the right policy implementation, endowments can become a strong pillar in building sustainable and competitive higher education.

Effective endowment management can create a more independent, innovative and sustainable higher education ecosystem:

- Higher Education Institution

Increasing financial independence by reducing dependence on government budgets and tuition fees, and expanding opportunities for academic, research and facility development through sustainable funding

- Government
  It is necessary to revise regulations to provide investment flexibility and fiscal incentives to encourage endowment growth, as well as help build the capacity of fund managers through training and collaboration between the education and finance sectors.
- Stakeholder
  Encourage a culture of philanthropy and active participation in education funding through structured donations and open opportunities for strategic partnerships between universities and industry for the development of commercial research.

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