



HYBRID FINANCING STRATEGIES FOR FINANCIAL INDEPENDENCE IN INDONESIAN PUBLIC UNIVERSITIES: A LITERATURE REVIEW

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Abstract

The transformation of higher education financing has become an important issue in modern university management. Public universities face increasing challenges due to rising operational costs and limited public funding. This study aims to analyze financing strategies that can be developed by public universities to enhance financial autonomy. The research employs a literature review approach by examining studies related to university funding, revenue diversification, and university–industry collaboration. The results indicate that financing strategies include revenue diversification, entrepreneurial university development, asset optimization, and strengthening university–industry collaboration. The literature synthesis further reveals that universities with diversified funding structures, stronger institutional governance, and broader industry collaboration tend to demonstrate greater financial resilience and managerial flexibility. The integration of these strategies leads to a hybrid financing model that supports the financial sustainability and financial independence of universities. This study contributes by proposing an integrative hybrid financing model for public universities.

Keywords: Financial Independence, Higher Education Financing, Revenue Diversification, Entrepreneurial University, Endowment Funds, University-Industry Collaboration, Public Universities, Indonesia

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INTRODUCTION

مقدمة

Over the past few decades, higher education systems across countries have undergone profound transformations, particularly in institutional financing. Universities are no longer able to rely solely on government funding; instead, they are increasingly compelled to diversify their revenue streams to ensure both operational continuity and academic sustainability. This shift is primarily driven by escalating higher education costs alongside the limited fiscal capacity of governments to adequately support the sector. (Jaafar et al., 2023)

The transformation of higher education financing is inseparable from broader changes in university governance, which emphasize enhanced institutional autonomy and flexibility in financial management. Increased autonomy enables universities to respond more strategically and adaptively to the rapidly changing global higher education landscape, particularly in designing innovative financing mechanisms (Estermann et al., 2011)

A prominent strategy discussed in the literature is revenue diversification. By expanding funding sources beyond government allocations, universities can reduce financial vulnerability and improve institutional resilience. Empirical studies indicate that institutions with more diversified income portfolios demonstrate greater financial stability compared to those heavily dependent on public subsidies (Nik Ahmad et al., 2019), (Jaafar et al., 2023). However, diversification alone is insufficient without strategic alignment and effective governance.

In addition to revenue diversification, universities are increasingly required to adopt more innovative and sustainable financing approaches. In this context, the development of the entrepreneurial university model has emerged as a key strategy for strengthening universities' financial capacity. Higher education institutions are no longer limited to their traditional roles in teaching and research, but are also expected to generate economic value through innovation, the commercialization of research outputs, and strengthened collaboration with the industrial sector (Hayati et al., 2026).

Furthermore, in developing countries, the establishment of endowment funds has gained attention as a long-term financing strategy. Endowment funds provide a sustainable financial base that can support research, scholarships, and infrastructure development. Nevertheless, their effectiveness depends heavily on professional governance, transparency, and sustained stakeholder trust (Munadi, 2017), (Nurul Adilah Hasbullah & Asmak Ab Rahman, 2021).

In Indonesia, higher education financing challenges are becoming more complex due to increasing demands for quality assurance and limited government budget allocations. Public universities operate under different financial management frameworks—namely government work units, Public Service Agencies (BLU), and Legal Entity State Universities (PTN-BH)—which reflect varying degrees of financial autonomy and managerial flexibility (Rudhianto et al., 2022). This structural diversity creates both opportunities and disparities in financial capacity across institutions.

Despite the growing body of literature on higher education financing, there remains a need for a more integrative perspective that connects various financing strategies within a coherent framework, particularly in the Indonesian context. Therefore, this study aims to analyze and synthesize financing strategies for public universities in addressing the challenges of financial independence. This study is expected to contribute to the conceptual development of higher education financing models and provide practical implications for policy formulation in Indonesia.

METHOD

منهج

This study employs a qualitative approach using a literature review method to examine hybrid financing strategies in higher education. Rather than involving direct manipulation of variables or human subjects, the study focuses on systematically analyzing and synthesizing existing scholarly works related to university financing. The research adopts a descriptive-analytical design aimed at interpreting patterns, concepts, and strategic frameworks derived from previous studies on higher education financing and financial independence.

The literature review process was conducted using a structured search strategy adapted from common systematic review procedures. Relevant studies were identified through academic databases and digital libraries, including Google Scholar, Scopus-indexed journals, ScienceDirect, SpringerLink, and Taylor & Francis Online. The search process was carried out between January and March 2025. Several keywords and combinations of keywords were used during the search

process, including higher education financing, hybrid financing, financial independence, revenue diversification, entrepreneurial university, endowment fund, and university–industry collaboration. The search focused primarily on studies published between 2015 and 2025 to ensure the relevance and timeliness of the literature, although several seminal studies published before 2015 were also included due to their theoretical significance.

The inclusion criteria consisted of: (1) studies directly related to higher education financing; (2) publications discussing financing strategies, financial governance, or institutional financial sustainability; (3) peer-reviewed journal articles, academic books, and policy documents; and (4) studies published in reputable national or international sources. Meanwhile, publications lacking academic rigor, opinion-based articles, duplicate studies, or studies not directly relevant to the research objectives were excluded from the analysis.

To improve the credibility of the review, the selected studies were evaluated based on their conceptual relevance, methodological clarity, publication credibility, and contribution to the discussion of university financing strategies. The review process also considered potential selection bias by comparing findings across different sources and prioritizing frequently cited and peer-reviewed publications. This approach helped ensure balanced interpretation and minimize overreliance on a single perspective.

Data analysis was conducted through three stages: identification, critical analysis, and synthesis. During the identification stage, relevant literature was selected according to predefined inclusion criteria. The critical analysis stage involved examining theoretical frameworks, methodologies, and findings of previous studies to identify strengths, limitations, and research gaps. Finally, the synthesis stage integrated insights from multiple sources to develop a conceptual understanding of hybrid financing strategies for achieving financial independence in Indonesian public universities. This process enabled the construction of a more comprehensive and contextually grounded framework for higher education financing.

RESULT | نتائج

The synthesis of previous studies indicates that higher education financing strategies are increasingly shifting toward multi-source funding mechanisms. This finding aligns with earlier studies emphasizing the importance of revenue diversification in enhancing financial sustainability and reducing dependence on government funding ((Nik Ahmad et al., 2019)(Jaafar et al., 2023). However, the reviewed literature also suggests that diversification alone is insufficient to address the growing complexity of financial independence in public universities, particularly in contexts characterized by limited institutional autonomy and uneven governance capacity.

Revenue diversification has been widely recognized as a key strategy for strengthening universities' financial resilience. Nevertheless, excessive reliance on fragmented income sources without strategic coordination may create managerial inefficiencies and unstable financial structures. In this context, the entrepreneurial university model has emerged as a complementary approach that enables universities to generate economic value through innovation, research commercialization, and strengthened collaboration with the industrial sector (Hayati et al., 2026). These findings suggest that financing strategies should not be implemented as isolated mechanisms but as interconnected components within a broader institutional framework.

The literature further reveals that the effectiveness of entrepreneurial and diversification strategies is strongly influenced by governance quality, institutional leadership, and organizational flexibility. Universities with stronger governance systems and higher managerial autonomy tend to be more capable of integrating multiple financing sources into coherent institutional strategies. This finding reflects the importance of financial governance in ensuring that financing diversification contributes not only to income generation but also to long-term institutional sustainability.

Similarly, endowment funds are increasingly recognized as long-term financing mechanisms that can support research, scholarships, and infrastructure development (Munadi, 2017). However, the literature also highlights that the success of endowment-based financing depends heavily on transparency, stakeholder trust, and professional financial management. Without adequate governance mechanisms, the sustainability of endowment funds may be difficult to maintain.

In contrast to previous studies that primarily examine financing strategies separately, this study identifies that these strategies are interrelated and mutually reinforcing. The findings indicate that financial independence is more effectively achieved through the integration of diversification strategies, entrepreneurial initiatives, governance strengthening, and external collaboration within a hybrid financing framework. To further clarify the position of this study within the existing literature, a comparison of previous studies and the current research findings is presented in Table 1.

Table 1. Comparison of Previous Studies and Current Research Findings

No	Author(s)	Focus of Study	Key Findings	Limitations of Previous Studies	Contribution of This Study
1	Nik Ahmad et al. [10]; Jaafar et al.	Revenue diversification	Diversification enhances financial sustainability	Focused on a single strategy without integration with other financing approaches	Demonstrates the need for integrating diversification within a broader financing framework
2	Hayati et al.	Entrepreneurial university & financing innovation	Universities generate financial value through innovation, commercialization, and collaboration	Limited empirical validation across institutional contexts	Strengthens the role of entrepreneurial capacity within integrated financing strategies
3	Munadi	Endowment fund	Provides long-term financial sustainability	Limited discussion on implementation effectiveness and management challenges	Highlights the role of transparency and management quality in endowment success
4	Rudhianto et al.	Financial governance models	Different institutional models affect financial autonomy	Does not link governance structures with integrated financing strategies	Connects governance capacity with the implementation of integrated financing approaches

DISCUSSION

مناقشة

The findings of this study confirm that higher education financing is undergoing a structural transformation, shifting from a state-dependent model toward a more diversified and adaptive system. However, unlike previous studies that primarily emphasize individual financing strategies, this study demonstrates that financial independence cannot be achieved through isolated approaches. Instead, it requires the strategic integration of multiple financing mechanisms supported by effective governance structures and institutional capacity. The comparison presented in Table 1 highlights that earlier research has predominantly focused on

specific dimensions of financing, such as revenue diversification, entrepreneurial universities, or endowment funds. While these studies provide important insights, their fragmented perspective limits their ability to explain how universities can achieve long-term financial independence through an integrated institutional framework.

Revenue diversification, for instance, has been widely recognized as a key strategy for reducing dependency on government funding. Nevertheless, the synthesis of previous studies indicates that diversification alone may create fragmented financial structures if it is not supported by institutional governance and managerial coordination. In many cases, universities with weak strategic planning mechanisms experience difficulties in aligning multiple income sources with broader institutional objectives. This finding suggests that revenue diversification should not merely focus on increasing the number of funding sources but also on strengthening institutional capacity to manage financial complexity effectively.

Similarly, the entrepreneurial university model offers significant potential for generating alternative income through innovation, commercialization, and industry collaboration. However, the literature also reveals that the effectiveness of entrepreneurial initiatives is highly dependent on contextual factors such as leadership capacity, organizational culture, governance systems, and regulatory flexibility. Universities with stronger managerial autonomy and collaborative networks tend to be more successful in implementing entrepreneurial financing strategies. Conversely, institutions operating within rigid bureaucratic systems often face structural barriers that limit innovation and external collaboration. This finding reinforces the argument that entrepreneurial transformation in universities must be supported by strong institutional governance and strategic alignment (Hayati et al., 2026).

Endowment funds, as identified in previous studies, also provide promising long-term financing mechanisms. Nevertheless, this study highlights that the sustainability of endowment-based financing is influenced not only by the availability of financial resources but also by governance quality, transparency, accountability, and stakeholder trust. Without these supporting elements, endowment funds may struggle to provide stable long-term contributions to institutional financing. This indicates that financial instruments alone are insufficient without effective governance mechanisms and professional financial management practices.

The findings further demonstrate that governance structures play a central role in determining the effectiveness of hybrid financing strategies. Universities with higher levels of institutional autonomy are generally better positioned to implement innovative financing approaches because they possess greater flexibility in resource allocation and partnership development. However, increased autonomy must be accompanied by accountability and strategic control to ensure that financial flexibility does not compromise institutional integrity or academic quality. From a governance perspective, hybrid financing should therefore be understood not simply as the coexistence of multiple funding sources, but as an integrated financial management framework requiring institutional coordination, adaptive leadership, and long-term strategic planning.

Taken together, these findings point to the emergence of a hybrid financing model that integrates revenue diversification, entrepreneurial initiatives, endowment development, governance strengthening, and external collaboration into a cohesive institutional system. This model represents a shift from fragmented financing approaches toward a more holistic and adaptive framework. The hybrid financing model not only enhances financial resilience but also

enables universities to balance their academic mission with financial independence and long-term institutional sustainability.

In the Indonesian context, the implementation of such a model requires significant institutional transformation. Universities must strengthen governance systems, improve managerial capacity, and develop strategic partnerships with external stakeholders, particularly industry and philanthropic sectors. In addition, disparities in institutional autonomy among Indonesian public universities may influence the effectiveness of financing strategies across institutions. Universities with greater financial flexibility are more likely to implement hybrid financing successfully, whereas institutions with limited autonomy may face greater structural constraints. Therefore, this study emphasizes that the key challenge in higher education financing is not merely identifying alternative funding sources but ensuring their effective integration within a coherent institutional governance framework.

Despite these contributions, this study also acknowledges several limitations. The findings are derived from secondary data and previous literature, which vary in methodological approaches, institutional contexts, and geographical settings. Such heterogeneity may limit the generalizability of the proposed framework across all higher education institutions. In addition, although this study employed a structured literature review approach, potential selection bias may still exist due to differences in database accessibility and publication availability. Future research is therefore encouraged to employ empirical approaches, such as comparative case studies or quantitative institutional analysis, to further validate and refine the proposed hybrid financing framework.

Based on the findings discussed above, the conceptual model of hybrid financing strategies for financial independence in public universities can be illustrated as follows:

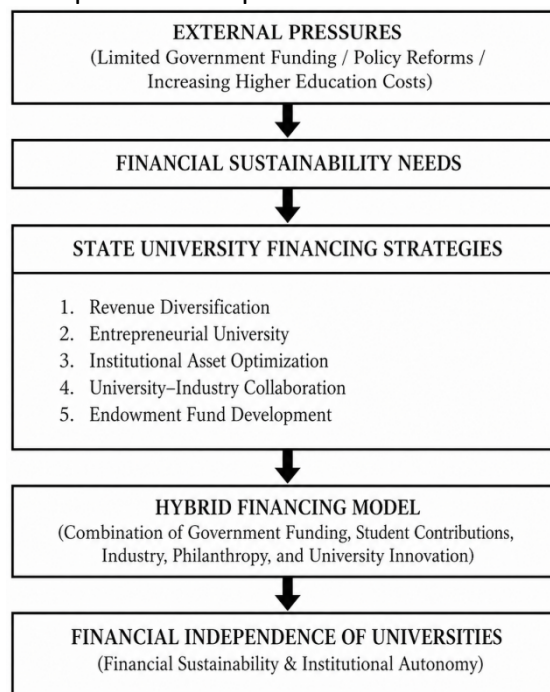


Figure 1. The Conceptual Model of Higher Education Financing Strategies

CONCLUSSION | خاتمة

This study concludes that higher education financing is undergoing a fundamental transformation from a state-dependent model toward a more diversified, adaptive, and

strategically integrated system. The findings demonstrate that no single financing strategy is sufficient to address the complexity of financial independence in public universities. Instead, universities require an integrated approach that combines revenue diversification, entrepreneurial development, endowment-based financing, governance strengthening, and strategic external collaboration within a coherent institutional framework.

This study highlights the emergence of a hybrid financing model as a more resilient and context-sensitive framework for managing institutional finances. The findings further indicate that the effectiveness of hybrid financing strategies is strongly influenced by governance quality, managerial capacity, institutional autonomy, and organizational readiness. Therefore, financial independence should not merely be understood as the availability of alternative funding sources, but as the institutional ability to strategically integrate and manage multiple financing mechanisms in a sustainable manner.

In the Indonesian context, achieving financial independence requires not only structural reforms but also broader institutional transformation. Strengthening governance systems, enhancing managerial and financial management capacity, and expanding collaboration with industry and external stakeholders are essential to ensuring sustainable implementation. Accordingly, hybrid financing strategies provide a more adaptive pathway for Indonesian public universities to balance academic missions, institutional accountability, and long-term financial independence in an increasingly competitive higher education environment.

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