

Navigating University Autonomy: An Agency Theory Perspective on Indonesian State Universities

Siti Fiki Ikamah^{1*}, Arief Yulianto²

¹Management, Universitas Negeri Semarang, Indonesia

²Management, Universitas Negeri Semarang, Indonesia

*Correspondence email: fiki@students.unnes.ac.id

ARTICLE INFO

Article history:

Received : 3 July 2025

Accepted : 21 July 2025

Available : 31 July 2025

Keywords:

Agency theory, higher education performance, autonomy, agency costs, governance

ABSTRACT

This study examined how agency costs influenced the performance of Indonesian state universities with different autonomy levels: PTNBH and PTNBLU. It applied agency theory to understand how financial behavior shaped institutional outcomes. Secondary data from 2020–2023 were collected, including audited financial reports and Key Performance Indicator (IKU) scores. A saturated sampling technique was used to include all PTNBH and PTNBLU under the Ministry of Education. Agency costs were measured using the Operating Expense Ratio (OER) and Asset Turnover Ratio (ATR). An independent t-test and hierarchical regression were conducted to test differences and causal effects. PTNBH showed higher OER and ATR than PTNBLU, indicating both greater spending and stronger asset use. OER negatively affected performance, while ATR had a positive effect. University status moderated these relationships, supporting agency theory and New Public Management principles. Agency costs shaped university performance, especially under different autonomy regimes. A conceptual model was proposed to illustrate how autonomy, efficiency, and governance interacted in Indonesian higher education.



By Authors

This work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).

1. INTRODUCTION

Universities in Indonesia carried the responsibility to conduct education, research, and community service as mandated by Law No. 12 of 2012 on Higher Education. In fulfilling these mandates, universities were expected to uphold the principles of accountability, transparency, operational efficiency, and non-profit orientation. To improve quality and public service outcomes,

the government introduced performance-based governance through Key Performance Indicators (IKU), which had been used since 2020 to evaluate university performance at the national level. Despite these reforms, public universities continued to face efficiency challenges, inconsistent outcomes, and governance risks, particularly regarding how they managed financial autonomy.

Agency theory provided a useful lens to understand these dynamics. Within this framework, universities acted as agents responsible for executing public mandates, while the state functioned as the principal providing resources and oversight. However, the agency relationship was vulnerable to goal misalignment, information asymmetry, and moral hazard. University officials, as agents, might act in self-interest or make decisions that deviated from public goals. These issues became increasingly visible in recent years. For example, in 2023, Indonesia Corruption Watch reported that the education sector ranked among the most corrupt in the country, while the Corruption Eradication Commission conducted sting operations involving senior university administrators. Such events underscored the urgency of stronger oversight in the governance of higher education.

Research on agency cost in universities had produced mixed findings. Mehmood (2021) found that higher agency costs in the United Kingdom's higher education system were associated with improved educational outcomes, suggesting that certain types of spending may reflect necessary investments rather than inefficiencies. On the other hand, Jensen and Meckling (1976) argued that agency costs reflected managerial inefficiencies and reduced organizational performance. In Indonesia, Sulaeman (2022) revealed that most Public Service Universities (PTNBLU) operated below the efficiency threshold between 2017 and 2019. Meanwhile, Gharsi et al. (2024) and Urbanek (2020) emphasized that autonomy could enhance performance when aligned with clear institutional strategies and effective accountability mechanisms.

Although these studies offered valuable insights, few empirical investigations had directly compared the financial behavior and performance outcomes of Indonesian public universities with different autonomy arrangements. Legal Entity Universities (PTNBH) were granted greater managerial and financial flexibility, while Public Service Universities (PTNBLU) operated under more centralized controls. These structural differences raised important questions: Did universities with greater autonomy incur higher agency costs? And how did these agency costs affect their institutional performance?

This study aimed to address these questions by examining the effect of agency cost, measured through the Operating Expense Ratio (OER) and Asset Turnover Ratio (ATR), on the performance of PTNBH and PTNBLU. It also investigated whether university autonomy moderated the relationship between cost efficiency and performance outcomes.

The novelty of this study lay in its comparative approach to analyzing institutional performance within a differentiated autonomy framework. Unlike previous research that treated universities as a single category, this study distinguished between PTNBH and PTNBLU to highlight how structural autonomy influenced agency behavior and performance. The study contributed to the refinement of agency theory in the context of higher education governance and provided empirical evidence to support policy reforms aimed at balancing university autonomy with effective oversight.

2. LITERATURE REVIEW

Agency theory served as a foundational framework in analyzing delegation and control within organizational governance. Jensen and Meckling (1976) introduced the theory by illustrating how conflicts of interest emerged when principals delegated authority to agents. According to Eisenhardt (1989), agency relationships were susceptible to inefficiencies due to agents' inherent self-interest, bounded rationality, and aversion to risk. These characteristics often resulted in agency costs, which referred to expenditures used to monitor, align, and incentivize agents to act in the interest of principals.

The application of agency theory expanded into the field of higher education as universities adopted more autonomous and decentralized governance models. Kivistö and Zalyevska (2015) explained that the principal-agent dynamic in non-profit universities involved complex accountability mechanisms. The state, acting as principal, delegated authority to universities while attempting to retain oversight through funding policies, performance indicators, and regulatory frameworks. Kivistö (2008) noted that information asymmetry between government and universities created obstacles to effective oversight, particularly when universities prioritized institutional reputation or revenue over public mandates.

Several studies proposed financial ratios as proxies for agency cost measurement. Ang et al. (2000) and Singh and Davidson (2003) introduced the Operating Expense Ratio (OER) and Asset Turnover Ratio (ATR) to evaluate efficiency and resource utilization. Mehmood (2021) examined these proxies

in UK universities and reported that higher operational spending was associated with improved academic quality when expenditures were linked to core educational functions. Martono et al. (2023), by contrast, concluded that elevated agency costs often reflected weak incentive alignment and increased institutional inefficiency.

Evidence from Indonesian public universities revealed similar challenges. Sulaeman (2022) assessed the financial efficiency of Public Service Universities (PTNBLU) and found that most institutions failed to reach optimal efficiency levels. The implementation of Key Performance Indicators (IKU) since 2020 represented a policy initiative to monitor educational outcomes. Despite this, empirical analysis on the financial behavior of universities remained limited.

The concept of university autonomy had been highlighted as a critical factor in institutional performance. Urbanek (2020) observed that Polish universities with broader autonomy demonstrated improved leadership and responsiveness to change. Gharsi et al. (2024) argued that autonomy encouraged institutional strategy development, innovation, and long-term goal setting. The positive impact of autonomy, however, depended on the existence of adequate internal control and accountability mechanisms. Without proper oversight, autonomy could intensify agency problems due to increased discretion and reduced transparency.

Previous studies exhibited two main limitations. First, most research focused on higher education institutions in developed countries, with less attention given to contexts in Southeast Asia or the Global South. Second, few studies conducted comparative analysis between Legal Entity Universities (PTNBH) and Public Service Universities (PTNBLU), which operate under different financial and managerial frameworks in Indonesia.

This study aimed to address those limitations by analyzing the relationship between agency costs and institutional performance in PTNBH and PTNBLU. The theoretical framework relied on agency theory, supported by financial ratios as operational proxies. The analysis focused on whether autonomy status influenced the magnitude and impact of agency costs. The findings were expected to provide conceptual contributions to the governance literature and practical insights for policy refinement in Indonesian higher education.

3. METHODS

This study aimed to examine the relationship between agency costs and the performance of Indonesian state universities by focusing on two institutional types: Legal Entity Universities (PTNBH) and Public Service Agency Universities (PTNBLU). The main variables in this study included agency costs as the independent variable and university performance as the dependent variable. Agency costs were operationalized using two financial proxies, namely the Operating Expense Ratio (OER) and Asset Turnover Ratio (ATR). Institutional status (PTNBH vs. PTNBLU) functioned as a moderating variable.

The population of this study consisted of all public universities under the Ministry of Education, Culture, Research, and Technology in Indonesia. The sample included all PTNBH and PTNBLU institutions with complete financial and performance data for the period 2020 to 2023. A saturated sampling technique was used to ensure that all eligible institutions were represented in the dataset. Data were collected from two primary sources. Institutional performance data were obtained from the official government portal for higher education performance monitoring, specifically from the Indikator Kinerja Utama (IKU). Financial data were derived from audited financial statements published on each university's official website. The total number of valid observations after data cleaning amounted to 110, consisting of data from 21 PTNBH and 30 PTNBLU institutions over a four-year period.

The research employed a causal-comparative design with a quantitative approach. The first analytical stage involved descriptive statistics to compare the average values of OER, ATR, and IKU scores across the two institutional types. Data normality and variance homogeneity tests were conducted using the Kolmogorov-Smirnov and Levene tests to determine the appropriate statistical method for group comparisons. An independent sample t-test was applied to test differences in agency cost between PTNBH and PTNBLU.

A hierarchical regression analysis was used to examine the effect of agency cost on university performance. The first regression model included OER and ATR as predictors. The second model added institutional status as a moderating variable to test its influence on the relationship between agency cost and performance. The regression equations estimated the degree to which operational efficiency and asset utilization contributed to performance outcomes. Hypotheses related to differences in agency cost and its impact on performance were tested implicitly through statistical significance in both models.

The analysis provided empirical evidence regarding the association between financial efficiency and institutional performance within different university governance frameworks. This approach allowed for a more nuanced understanding of how autonomy influenced cost structures and performance dynamics in public universities.

4. RESULTS AND DISCUSSION

PTNBH institutions consistently achieved higher Key Performance Indicator (IKU) scores than PTNBLU. The score disparity reflected the impact of structural autonomy on university performance. This result supported Al Gharsi et al. (2024), who stated that institutional autonomy strengthened strategy development and increased academic productivity. The performance advantage of PTNBH confirmed the significance of self-governance in enhancing responsiveness to external and internal demands.

Table 1 Descriptive statistics

	Y		X1		X2			
	PTNBLU	PTNBH		PTNBLU	PTNBH		PTNBLU	PTNBH
Mean	55,92	65,92	Mean	0,72	0,90	Mean	0,19	0,52
Std Error	1,74	1,60	Std Error	0,04	0,02	Std Error	0,02	0,02
Median	58	69,11	Median	0,85	0,93	Median	0,15	0,52
Std Dev	13,59	11,20	Std Dev	0,32	0,11	Std Dev	0,14	0,13
Count	61	49	Count	61	49,00	Count	61	49
Largest	78	80	Largest	1,13	1,09	Largest	0,70	0,74
Smallest	29	40	Smallest	0,02	0,66	Smallest	0,00	0,23

Source : secondary data processed, 2025

Operating Expense Ratio (OER) values were higher in PTNBH, indicating greater spending flexibility. According to Jensen and Meckling (1976), elevated operational expenses represented agency costs that emerged from delegated authority, especially when monitoring mechanisms were weak. This finding aligned with their argument that increased autonomy introduced inefficiencies when managerial interests deviated from those of the principal. Mehmood (2021), however, offered a more optimistic interpretation by arguing that high operating costs in universities could reflect deliberate investments in improving service quality, infrastructure, and student outcomes.

Asset Turnover Ratio (ATR) values were also higher in PTNBH, signaling more efficient use of assets. Ang et al. (2000) noted that asset turnover served as an inverse indicator of agency cost. Higher ATR implied more effective asset management and alignment with organizational goals. The finding indicated that despite increased operational costs, PTNBH institutions managed to

optimize asset productivity. This efficiency partially offset the risk of agency costs by generating performance value from resource utilization.

Inferential analysis confirmed significant differences in both OER and ATR between PTNBH and PTNBLU. The t-statistics and one-tailed p-values indicated that PTNBH incurred significantly higher agency costs and achieved better asset efficiency. These findings validated the hypothesis that governance structure influenced agency cost behavior and performance outcomes.

Table 2 t-Test: Two-Sample Assuming Unequal Variances

	X1 PTNBLU	X1 PTNBH	X2_PTNBLU	X2_PTNBH
Mean	0,72	0,90	0,19	0,52
Variance	0,10	0,01	0,02	0,02
Observations	61	49	61	49
Hypothesized Mean Difference	0		0	
df	77		107	
t Stat	-4,172362		-12,714801	
P(T<=t) one-tail	0,000039		0,000000	
t Critical one-tail	1,664885		1,659219	
P(T<=t) two-tail	0,000078		0,000000	
t Critical two-tail	1,991254		1,982383	

Source : Secondary data processed, 2025

Regression analysis revealed that OER had a significant negative effect on performance. This result supported the argument made by Singh and Davidson (2003), who concluded that unmanaged expenses could erode organizational performance by increasing agency costs. ATR, on the other hand, had a significant positive effect on performance, confirming the efficiency-enhancing role of resource optimization. These findings aligned with Sulaeman (2022), who observed that Indonesian PTNBLU institutions often struggled with efficiency, which affected their overall performance metrics.

Table 4 Hierarchical Regression Analysis Test Result

Description	Model 1	Model 2
N-Obs	110	110
β_0 Intercept	64,18 *	88,99 *
β_1 (OER)	-10,82 *	-15,78 *
β_2 (ATR)	14,41 *	-17,08 *
β_3 (Status)		-18,55 *
R Square	0,07	0,253
F	4,055 *	11,998 *

*sig : 0,05

Source : Data Processed 2025

Institutional status served as a moderating factor. The inclusion of PTNBH vs. PTNBLU status in the regression model increased the explained variance from 7% to 25.3%, indicating a substantial influence of structural governance. Gujarati (2009) explained that when regression lines are parallel but intercepts differ, group identity shifts baseline performance without changing the relationship between predictors and outcomes. This pattern appeared in the results, where PTNBH maintained a higher performance baseline but shared similar slope directions with PTNBLU in relation to OER and ATR.

These findings emphasized the dual nature of autonomy. On one side, PTNBH institutions demonstrated stronger strategic outcomes and asset use, as noted by Gharsi et al. (2024) and Urbanek (2020). On the other, they incurred higher agency costs, which demanded stronger oversight to ensure spending produced measurable value. In contrast, PTNBLU showed lower cost variability but underperformed on key outcomes. The distinction highlighted by Kivistö (2008) remained relevant: decentralization allowed for innovation but required embedded accountability to mitigate risks associated with discretion.

The results provided empirical support for agency theory in higher education governance. Autonomy and performance were not linearly related. Structural conditions, financial practices, and incentive systems determined whether autonomy would generate public value or institutional inefficiency. The findings also echoed New Public Management principles (Pollitt & Bouckaert, 2011), which emphasized that public sector institutions should be assessed based on outcomes rather than procedural adherence. The regression results confirmed that resource allocation mattered only when linked to performance impacts.

5. CONCLUSION

This study concluded that agency costs influenced the performance of Indonesian state universities and varied depending on their governance structure. Universities with greater autonomy demonstrated stronger performance outcomes but also incurred higher operational costs, which reflected both the opportunities and risks embedded in decentralized management. The findings confirmed that while autonomy supported more strategic asset utilization, it also increased the complexity of financial oversight, reinforcing the principal-agent conflict described in agency theory. Institutional status played a moderating role by shaping how financial behavior translated into educational outcomes. These findings addressed the research questions concerning the variation of agency costs and their impact

on performance, and fulfilled the study's objective of examining efficiency within differentiated autonomy regimes. The research contributed to the theoretical development of agency theory in the public sector and offered practical implications for policymakers to design accountability mechanisms tailored to institutional governance levels in higher education.

6. REFERENCES

- Ahmad, A. R., Farley, A., & Naidoo, M. (2012). The study of government-university relationship in Malaysian Higher Education System. *International Education Studies*, 5(5), 25-34. <https://doi.org/10.5539/ies.v5n5p25>
- Al Gharsi, A. Y., Ali Belhaj, F., & Nirmala, R. (2024). Academic autonomy as driving change: Investigating its effect on strategy development and university performance. *Heliyon*, 10(8), e29536. <https://doi.org/10.1016/j.heliyon.2024.e29536>
- Ang, J. S., Cole, R. A., & Lin, J. W. (2000). Agency costs and ownership structure. *Journal of Finance*, 55(1), 81-106. <https://doi.org/10.1111/0022-1082.00201>
- Australian Government Department of Families, Housing, Community Services and Indigenous Affairs. (2008). The road home: A national approach to reducing homelessness. Retrieved from <http://www.fahcsia.gov.au/sa/housing/progserv/homelessness/whitepaper/Documents/default.htm>
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *The Academy of Management Review*, 14(1), 57-74. <https://www.jstor.org/stable/258191>
- Fama, E. F., & Jensen, M. C. (1983). Foundations of organizational strategy. *Journal of Law and Economics*, 26, 327-349. <https://papers.ssrn.com/abstract=94034>
- Gerashchenko, D. (2022). Academic leadership and university performance: Do Russian universities improve when they are led by top researchers? *Higher Education*, 83(5), 1103-1123. <https://doi.org/10.1007/s10734-021-00732-5>
- Hartarska, V., & Mersland, R. (2012). Which governance mechanisms promote efficiency in reaching poor clients? Evidence from rated microfinance

- institutions. *European Financial Management*, 18(2), 218-239.
<https://doi.org/10.1111/j.1468-036X.2009.00524.x>
- Hayat, K., Yaqub, K., Aslam, M. A., & Shabbir, M. S. (2022). Impact of societal and economic development on academic performance: A literature review. *IRASD Journal of Economics*, 4(1), 22-32.
<https://doi.org/10.52131/joe.2022.0401.0064>
- Huong, G. N. T., Thai, H. M., & Binh, D. T. (2023). Agency theory in university governance and the role of internal audit: From the private sector perspectives to the case of Vietnamese public higher education institutions. In *Proceedings of the 3rd International Conference on Education, Science and Technology* (pp. 594-607).
https://doi.org/10.2991/978-94-6463-076-3_46
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. <http://hupress.harvard.edu/catalog/JENTHF.html>
- Kim, B., & Lee, I. (2003). Agency problems and performance of Korean companies during the Asian financial crisis: Chaebol vs. non-chaebol firms. *Pacific-Basin Finance Journal*, 11(3), 327-348.
[https://doi.org/10.1016/S0927-538X\(03\)00027-1](https://doi.org/10.1016/S0927-538X(03)00027-1)
- Kivistö, J., & Zalyevska, I. (2015). Agency theory as a framework for higher education governance. Retrieved from
https://www.researchgate.net/publication/282151432_Agency_Theory_as_a_Framework_for_Higher_Education_Governance
- Liu, W., & Yan, W. (2019). The internal governance model in Chinese universities: An international comparative analysis. *Journal of Applied Research in Higher Education*, 11(3), 428-438.
<https://doi.org/10.1108/JARHE-09-2018-0200>
- Martono, S., Yulianto, A., & Wijaya, A. P. (2023). The agency cost of concentrated institutional ownership: Evidence from Indonesia. *Montenegrin Journal of Economics*, 19(3), 201-212.
<https://doi.org/10.14254/1800-5845/2023.19-3.16>
- Mehmood, M. (2021). Agency costs and performance of UK universities. *Public Organization Review*, 21(2), 187-204. <https://doi.org/10.1007/s11115-020-00483-4>

- Mendikbud RI. (2021). Kepmendikbud RI Nomor 3/M/2021. Retrieved from https://jdih.kemdikbud.go.id/detail_peraturan?main=2282
- Presiden Republik Indonesia. (2012). UU Nomor 12 Tahun 2012. Retrieved from <https://peraturan.bpk.go.id/Details/39063/uu-no-12-tahun-2012>
- Raghavan, M. A., Silvapulle, P. B., & Athanasopoulos, G. B. (2012). Structural VAR models for Malaysian monetary policy analysis during the pre-and-post 1997 Asian crisis period. *Applied Economics*, 44(29), 3841–3856. <https://doi.org/10.1080/00036846.2011.581360>
- Richardson, S. (2006). Over-investment of free cash flow. *Review of Accounting Studies*, 11(2–3), 159–189. <https://doi.org/10.1007/s11142-006-9012-1>
- Raza, S. B., Sheikh, S. M., & Rahman, S. U. (2024). The mediating role of agency cost between corporate governance and financial performance: Evidence from Pakistan Stock Exchange. *IRASD Journal of Economics*, 6(1), 144–163. <https://doi.org/10.52131/joe.2024.0601.0199>
- Singh, M., & Davidson, W. N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance*, 27(5), 793–816. [https://doi.org/10.1016/S0378-4266\(01\)00260-6](https://doi.org/10.1016/S0378-4266(01)00260-6)
- Sulaeman, A. S., & Sulaeman, A. S. (2022). Efisiensi dan produktifitas kinerja perguruan tinggi badan layanan umum Indonesia. <https://itrev.kemenkeu.go.id/index.php/ITRev/article/view/479/208>
- Urbanek, P. (2020). Reform of the higher education system in Poland from the perspective of agency theory. *European Journal of Higher Education*, 10(2), 130–146. <https://doi.org/10.1080/21568235.2018.1560344>