



Strategies for Improving the Quality of Private Higher Education Institutions Using the SWOT and PESTEL Approaches

Deden Prayitno

Faculty of Information Technology, Perbanas Institute, Jakarta, Indonesia.
email: Deden@perbanas.id

Abstract: The quality of private universities in Indonesia still shows significant disparities. Some institutions have successfully improved the quality of their academic services and gained recognition thru excellent accreditation, while many others have fallen behind due to weak strategic planning and sustainable quality management. This difference poses serious challenges in achieving equitable access to quality higher education. One of the essential instruments that every university must implement is the Internal Quality Assurance System (IQAS). What is commonly known in the university environment is the Internal Quality Assurance System (SPMI), designed to maintain consistency in quality standards thru the Planning, Implementation, Evaluation, Control, and Improvement (PIECI) cycle, or also known as PPEPP . However, the implementation of SPMI often faces obstacles, ranging from non-compliance with standards and weak evaluation to minimal involvement of work units and leaders in the quality culture. This article aims to analyze the factors causing quality inequality and formulate adaptive improvement strategies thru PESTEL and SWOT analysis. The research method uses a descriptive-qualitative approach with a case study at a private university experiencing obstacles in implementing SPMI (Internal Quality Assurance System). The analysis results show that the inability to anticipate external changes and weak internal governance have led to quality stagnation, low effectiveness of self-evaluation, and limited competitiveness. This article offers a PESTEL and SWOT-based strategic framework to help private colleges build a more integrated, adaptive, and sustainable quality system to strengthen accreditation and enhance competitiveness at both national and international levels.

Keywords: SPMI, higher education, PESTEL and SWOT analysis.

Introduction

Improving the quality of higher education is an important demand in facing global competition and meeting accreditation standards (Tasdir et al., 2021). Higher education institutions are required to adapt to changes in the external environment while simultaneously optimizing their internal potential. SWOT and PESTEL analyzes provide a strategic framework for identifying supporting factors, challenges, and opportunities, allowing quality development strategies to be designed in a more targeted and sustainable manner (M. Rudyanto Arief, 2021).

In line with these needs, higher education is an important pillar for human resource development in a country. The success of higher education institutions in producing quality graduates heavily depends on the implementation of an effective system for maintaining and improving the quality of education. One of the fundamental systems is the Internal Quality Assurance System (IQAS), which is an obligation for every university to ensure the continuous quality of education (Najwa et al., 2023). Although IQAS is designed to support quality improvement, many institutions still face various constraints in its implementation, such as non-compliance with quality standards and a weak PPEPP cycle (Planning, Implementation, Evaluation, Control, and Improvement) (Sulaiman & Wibowo, 2016).

From a policy perspective, the SPMI must be developed based on national higher education standards set by the government, which include improving faculty qualifications, strengthening



governance, and actively involving various work units within the university (Abdurrahmansyah & Rismawati, 2022; Primayana, 2016). In practice, the lack of involvement from leaders and work units in cultivating quality is often a major obstacle to the success of SPMI (Sapalakkai, 2021). Research shows that if the Internal Quality Assurance System (IQAS) is not implemented in a structured and systematic manner, it can reduce the effectiveness of self-evaluation and lead to stagnation in the quality of academic services at universities (Ermansyah et al., 2022; Sanjaya & Handayani, 2021).

This research will analyze the impact of inaccurate SPMI implementation on institutional performance and provide strategic solutions using PESTEL and SWOT analysis. PESTEL analysis will evaluate external factors influencing SPMI implementation, such as changes in higher education policies, technology, and the social and economic conditions of society (Gofur et al., 2023; Komarudin & P, 2017). On the other hand, SWOT analysis will provide an overview of the institution's internal conditions, including strengths and weaknesses in quality management, as well as the opportunities and threats faced dihadapi (Abdurrahmansyah & Rismawati, 2022; Hasanah et al., 2021).

From the analysis conducted, the results show that the inadequate implementation of SPMI leads to low efficiency in evaluation and reporting, which in turn negatively impacts the institution's accreditation and competitiveness at the national and international levels (Gustini & Mauliy, 2019). Therefore, it is important for institutions to build quality systems that can adapt to external challenges and strengthen internal governance, with an integrated approach that is situational and considers the strengths of each institution (Febriyanti & Irawan, 2020). As a result, this study helps to create a practical and strategic framework for the successful use of SPMI, which enhances education quality and boosts the institution's competitiveness and accrediting standing. In order to achieve the goal and mission of higher education in Indonesia, a sustained quality culture in the university setting must be established, and this requires the consistent use of SPMI (Enes et al., 2024).

Method

In this study, a descriptive-qualitative approach was adopted to analyze the implementation of the Internal Quality Assurance System (IQAS) using the PPEPP cycle (Planning, Implementation, Evaluation, Control, and Improvement) as well as PESTEL and SWOT analyzes. This method was chosen because it provides flexibility in collecting in-depth data on the direct experiences of implementing SPMI at the universities that are the subject of the research. Data Collection The data collection process was carried out thru several qualitative and analytical methods, including: Interviews: Involving stakeholders, including the rector, heads of study programs, and administrative staff. The interviews aimed to gather diverse perspectives on the implementation of the Internal Quality Assurance System (IQAS), the challenges faced, and the effectiveness of the PPEPP cycle applied (Najwa et al., 2023; Sulaiman & Wibowo, 2016). Observation: Directly observe the quality assurance process taking place at the institution. Thru observation, researchers can assess how the implementation of each stage of PPEPP is carried out in daily practice. This observation provides concrete data regarding the involvement of work units



and leaders, as well as compliance with established standards (Primayana, 2016). Documentation Study: Examining relevant documents, including self-evaluation reports, quality improvement plans, and internal quality audit (IQA) results. This documentation serves as an important basis for understanding the extent to which the institution has implemented SPMI in accordance with the guidelines set by the Ministry of Education and Culture (Abdurrahmansyah & Rismawati, 2022).

PESTEL Analysis PESTEL analysis (Political, Economic, Social, Technological, Environmental, and Legal) is applied to evaluate external factors that could potentially affect the implementation of SPMI. This analysis process includes: Political: Identifying relevant higher education policies and the stability of government policies that influence education, particularly SPMI. Economic: Analyzing economic conditions that impact education funding and the institution's ability to invest in educational infrastructure and human resources (Sapalakkai, 2021). Social: Observing societal expectations regarding education quality and community involvement in higher education, which can influence the institution's reputation. Technological: Assessing technological advancements that can support or hinder the implementation of SPMI, including the use of e-learning platforms and new quality management tools. Environmental: Considering the environmental impact that may arise from educational activities and the need to implement sustainable practices in education delivery. Legal: Identifying legal regulations and policies that affect the implementation of higher education and SPMI. After analyzing these factors, the results are used to provide strategic recommendations for improving the implementation of SPMI at the institution in question (Ermansyah et al., 2022).

Data Analysis The collected data was then analyzed using a qualitative analysis approach. This process includes: Coding and Categorization: Data from interview results, observations, and document studies are organized and grouped into specific categories according to the PPEPP stages and the results of the PESTEL analysis. This method helps in identifying patterns and themes emerging from the available data (Gofur et al., 2023; Sanjaya & Handayani, 2021). Triangulation: To enhance the validity of the research findings, the triangulation technique was used, which involves combining various data sources (interviews, observations, and documents) to compare and confirm existing findings. Thru triangulation, researchers can gain a more holistic understanding of the implementation of the Internal Quality Assurance System (IQAS) in universities (Hasanah et al., 2021; Komarudin & P, 2017). SWOT Analysis: Additionally, SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) was used as a tool to evaluate the internal and external factors influencing the implementation of the IQAS. This approach helps in formulating appropriate strategies for institutions to improve their quality assurance performance (Febriyanti & Irawan, 2020; Gustini & Mauliy, 2019). The method applied in this study aims to provide a comprehensive overview of the effectiveness of the implemented SPMI. It is hoped that the results of this research can provide practical suggestions for higher education institutions to optimize the implementation of SPMI and cultivate sustainable quality education.



Result and Discussion

Based on the identification of these various factors, a combined strategy was developed that links the SWOT dimensions into four main strategy categories: S–O (Strengths–Opportunities), S–T (Strengths–Threats), W–O (Weaknesses–Opportunities), and W–T (Weaknesses–Threats).

Table 1. SWOT Matrix in the Implementation of SPMI at Private Higher Education Institutions

OT SW	Opportunities (O) Determine external opportunity factors.	Threats (T) Determine external threats
	S–O Strategy	S–T Strategy
Strengths (S) Identify internal strengths	Create strategies that leverage strengths to seize opportunities. Example: Utilizing the excellence of qualified human resources to establish international collaborations in strengthening quality assurance.	Create strategies that use strengths to overcome threats. Example: Taking advantage of a solid quality information system to respond to changes in national accreditation regulations.
Weaknesses (W) Identify internal weaknesses	W–O Strategy Create strategies that minimize weaknesses by leveraging opportunities. Example: Improving quality management capacity through training and development of human resources supported by institutional strengthening grants.	W–T Strategy Create strategies that minimize weaknesses and avoid threats. Example: Developing quality assurance guidelines to reduce dependency on certain individuals and avoid the risk of stagnation.

Here is a table identifying the strengths, weaknesses, opportunities, and threats (SWOT factors) regarding the implementation strategy of the Internal Quality Assurance System (IQAS) in private universities.

Table 2. Identification of Strengths, Weaknesses, Opportunities, and Threats in the Implementation of SPMI at Private Higher Education Institutions

Internal Factors	Strengths	Weaknesses
Institutional Governance	a. Leadership commitment to strengthen quality culture. b. Availability of Internal Quality Assurance Unit (IQA Unit).	a. Not all lecturers and staff fully understand IQA implementation. b. Lack of integration between IQA implementation and higher education information systems.
Lecturers & Staff Human Resources	a. Lecturers with qualified academic credentials. b. Certified administrative staff.	a. Limited capacity for advanced IQA training. b. Internal quality auditors are still limited in number.
Information System	a. Availability of an information system that supports academic and non-academic activities.	a. Not all units have fully implemented IQA. b. Limited utilization of the



Quality Documentation	b. Utilization of digital technology for monitoring.	information system for continuous improvement.
	a. Availability of IQA documents (manuals, standards, forms). b. SOPs are available in several work units.	a. Inconsistency in documentation updates. b. Lack of socialization of quality documents to all academic community members.
External Factors	Opportunity	Threat
Government Policy	a. Support from government regulations for higher education quality assurance (e.g., ministerial regulations on IQA and accreditation based on outcomes). b. Support from the <i>Merdeka Belajar – Kampus Merdeka</i> (MBKM) program.	a. Rapid and complex regulatory changes. b. Limited understanding of newly issued regulations.
Educational Technology	a. Development of digital platforms to support IQA accessible to both internal and external users. b. Collaboration opportunities across institutions through digital platforms.	a. Digital literacy gaps between lecturers and staff. b. Dependence on certain vendors for digital platforms.
Stakeholder Needs	a. Increasing demand from students for transparency in services. b. Demand from stakeholders for certified academic and administrative services.	a. Mismatch between stakeholder expectations and campus capacity in quality assurance. b. Student demands for rapid service responses that are not yet fully supported.

Table 3. Integration of SWOT and PESTEL Analysis in the Implementation Strategy of SPMI in Private Universities

Aspek SWOT	Faktor SWOT	Faktor PESTEL Terkait	Keterkaitan Strategis
Strengths	S1: The presence of an active and structured Quality Assurance Unit (QAU)	P1: Regulatory support for the Internal Quality Assurance System (IQAS) thru the Ministry of Education, Culture, Research, and Technology Regulation No. 53 of 2023.	Strengthening the systematic implementation of the PPEPP in accordance with national higher education quality standards.
	S2: High-quality and participatory qualifications of senior lecturers in quality activities.	S1: Societal demands for the quality of graduates and educational services.	Increasing public trust and meeting outcome-based accreditation indicators.
	S3: SPMI documents are already available (manuals, SOPs, standards, forms).	L1: Outcome-based accreditation regulations (BAN-PT and LAM).	Facilitating the accreditation process and external audits thru complete and standardized quality documents.



	S4: Academic technology support and campus information systems.	T1: Availability of a digital platform for quality reporting and evaluation.	Supporting the real-time and efficient digitalization of the PPEPP cycle.
Weaknesses	W1: The low level of quality literacy among educational personnel.	S2: Changes in student characteristics demand quality services.	There needs to be improved SPMI training and comprehensive quality socialization for the entire academic community.
	W2: Lack of quality data integration between work units.	T2: Digital capacity disparities and infrastructure limitations.	We need an integrated digital quality system that can be accessed across units stably.
	W3: Monitoring and evaluation of PPEPP has not been conducted regularly and systematically.	E1: Limited operational budget of PTS.	Quality financing strategies need to be strengthened thru grants and collaboration with external parties.
Opportunities	W4: The role of leadership is not yet optimal in quality control.	P2: The Campus Impact Policy demands accountability for the three pillars of higher education.	Improving quality leadership thru active involvement of management in internal quality control.
	O1: Availability of competitive funding support from the Ministry of Education, Culture, Research, and Technology.	E2: Opportunities for collaboration with industry and external partners.	Making SPMI a strategic instrument in the preparation of quality-based cooperation work programs.
	O2: The Merdeka Campus policy opens up space for tridharma collaboration.	P1: Permendikbudristek No. 53/2023 supports flexibility in quality implementation.	Integrating collaboration and service indicators into the quality standards and evaluation system.
	O3: Development of digital technology platforms for quality systems.	T1: Availability of e-SPMI and online reporting system.	Promoting the efficiency of PPEPP implementation thru automated and transparent reporting technology.
Threats	O4: Sustainability issues and SDGs have become a national agenda.	EN1: Increased environmental awareness on college campuses worldwide.	Developing quality standards based on a green campus and sustainable education.
	T1: Rapid and complex policy and regulatory changes.	L1: Dynamics of the accreditation system and legal standards for higher education.	A flexible quality system is needed that is ready to face revisions in accreditation policies and regulations.
	T2: Continuously declining funding limitations in small/medium private higher education institutions.	E1: Financial capacity disparities between institutions.	Prioritization strategies are needed in implementing the SPMI that are appropriate for financial capacity.
	T3: Digital literacy gap between lecturers and staff.	T2: Technology dependence with low human resource capabilities.	A roadmap for improving digital competence is needed in the implementation of a digital quality system.
	T4: Internal resistance to quality culture..	S1: Unpreparedness of the work culture to face quality transparency	A strategy for cultural change in quality thru a continuous socialization and coaching approach is needed.



Overall, the integration of SWOT and PESTEL provides a comprehensive and contextual strategic overview. Private universities not only need to adapt to external environmental pressures but also must optimize their internal potential as the main capital for implementing the Internal Quality Assurance System (IQAS). With this approach, the IQAS can be implemented not just as an administrative obligation, but as a strategic system that drives the sustainable improvement of higher education quality.

Table 5. Implementation Strategies for the Internal Quality Assurance System (IQAS) in PTS using the SWOT and PESTEL Analysis Approach

Types of Strategies Combination of Factors		Implementation Strategy for the Internal Quality Assurance System (IQAS) in Private Higher Education Institutions (PTS)
SO Strategy (Strengths– Opportunities)	S1, S2, S4 + O1, O2, O3	<ul style="list-style-type: none"> • Maximize the role of the Quality Assurance Unit (QAU) to utilize the quality strengthening grant program from the Ministry of Education, Culture, Research, and Technology. • Use the campus information system to support the digitalization of the e-SPMI-based SPMI reporting. • Integrate the indicators of the three pillars of higher education collaboration into quality documents as a response to the Kampus Merdeka and Kampus Berdampak policies.
WO Strategy (Weaknesses– Opportunities)	W1, W2, W4 + O2, O3	<ul style="list-style-type: none"> • Conduct regular SPMI training for lecturers and educational staff to improve quality literacy. • Encourage leaders to actively participate in the PPEPP cycle thru a performance-based quality incentive mechanism. • Develop an easy-to-use and integrated digital platform-based quality system across units. • Leverage the strength of faculty human resources and complete SPMI documents to address rapid changes in accreditation regulations.
ST Strategy (Strengths–Threats)	S2, S3 + T1, T2, T4	<ul style="list-style-type: none"> • Implement outcome-based internal quality audits as a form of preparedness for external policy dynamics. • Make quality culture an institutional strategic value to reduce internal resistance to the quality assurance system. • Develop a roadmap for improving human resource capacity in quality literacy and digital technology to reduce external dependence.
WT Strategy (Weaknesses– Threats)	W1, W3, W4 + T1, T3	<ul style="list-style-type: none"> • Strengthen the monitoring and evaluation of PPEPP thru internal auditor training and the development of simple and measurable evaluation instruments. • Build a culture of quality thru a socio-cultural approach, not just an administrative one, to reduce internal resistance.



Conclusion

Based on the analysis results, the implementation of the Internal Quality Assurance System (IQAS) in private universities is influenced by complex external factors as mapped thru the PESTEL approach. The political aspect shows strong regulatory support, especially thru the Minister of Education, Culture, Research, and Technology Regulation Number 53 of 2023, which emphasizes the obligation to implement IQAS in a structured manner thru the PPEPP cycle. Economic and technological aspects also offer significant opportunities in the form of potential grant funding, digital infrastructure support, and the integration of technology-based quality management systems. Meanwhile, social, environmental, and legal aspects highlight the demands for service transparency, institutional sustainability, and compliance with accreditation systems and legal protection in the delivery of higher education.

Internally, the SWOT analysis identified several strategic strengths possessed by some private higher education institutions (PTS), such as the existence of a Quality Assurance Unit (UPM), readily available quality documents, and support from human resources and academic information systems. However, weaknesses were also found, particularly in terms of low quality literacy among educational staff, suboptimal monitoring of PPEPP, and weak involvement of leaders in quality supervision. On the other hand, opportunities are wide open thru the Kampus Merdeka and Kampus Berdampak policies, increased access to external collaborations, and the trends of digital and sustainable education. The main threats come from rapid regulatory changes, funding limitations, technological gaps, and resistance to a culture of quality.

Thus, the integrative SWOT and PESTEL approach is able to provide a strategic foundation for formulating policies and implementation actions for the Internal Quality Assurance System (IQAS) that are not only normative but also responsive to the challenges of the times. Private universities that are able to consistently implement this strategy will be better prepared to face regulatory dynamics, increase institutional competitiveness, and realize a sustainable quality culture. This research also shows that the success of SPMI is not only determined by structural factors, but also by the institution's ability to intelligently and collaboratively read and respond to the strategic environment.

References

- Abdurrahmansyah, A., & Rismawati, I. (2022). Peningkatan Kualitas Perguruan Tinggi Melalui Sistem Penjamin Mutu Dengan Pendekatan Total Quality Managemen. *Jurnal Perspektif*, 6(2), 154. <https://doi.org/10.15575/jp.v6i2.177>
- Enes, U. O. R., Kusen, K., & Wanto, D. (2024). Implementasi Sistem Penjaminan Mutu Internal Dalam Meningkatkan Mutu Pendidikan Di MIN 1 Rejang Lebong. *Adaara Jurnal Manajemen Pendidikan Islam*, 14(1), 1–14. <https://doi.org/10.30863/ajmpi.v14i1.4974>
- Ermansyah, R., Wahira, & Mus, S. (2022). Pengelolaan Sistem Penjaminan Mutu Internal (Spmi) Pada Sma Negeri 2 Sinjai Di Kabupaten Sinjai. *Tadbir Jurnal Manajemen Pendidikan Islam*, 10(2), 160–173. <https://doi.org/10.30603/tjmpi.v10i2.2810>



- Febriyanti, D. R., & Irawan, H. (2020). Penerapan Sistem Informasi Audit Mutu Internal Berbasis Web Guna Meningkatkan Efisiensi Kerja Studi Kasus: Lembaga Penjaminan Mutu Universitas Budi Luhur. *Idealis Indonesia Journal Information System*, 3(1), 474–480. <https://doi.org/10.36080/idealis.v3i1.2147>
- Gofur, H. A., Qomusuddin, I. F., & Romlah, S. (2023). Desain Sistem Penjaminan Mutu Internal (SPMI) Perguruan Tinggi Keagamaan Islam Swasta (PTKIS). *Jurnal Syntax Imperatif Jurnal Ilmu Sosial Dan Pendidikan*, 4(5), 601–608. <https://doi.org/10.36418/syntax-imperatif.v4i5.290>
- Gustini, N., & Mauly, Y. (2019). Implementasi Sistem Penjaminan Mutu Internal Dalam Meningkatkan Mutu Pendidikan Dasar. *Jurnal Isema Islamic Educational Management*, 4(2), 229–244. <https://doi.org/10.15575/isema.v4i2.5695>
- Hasanah, E., Sukirman, S., Priyambodo, P., & Andika, I. (2021). Pelatihan Penjaminan Mutu Lulusan Menggunakan IASP 2020 Di SMA Muhammadiyah 2 Yogyakarta. *Japi (Jurnal Akses Pengabdian Indonesia)*, 6(2), 193–200. <https://doi.org/10.33366/japi.v6i2.2697>
- Komarudin, A., & P, T. H. (2017). Pembangunan Website Dan Repositori Pada Sistem Penjamin Mutu (Spm) Universitas Jenderal Achmad Yani. *Jurnal Muara Sains Teknologi Kedokteran Dan Ilmu Kesehatan*, 1(1). <https://doi.org/10.24912/jmstkik.v1i1.427>
- M. Rudyanto Arief, M. N. B. S. (2021). Perencanaan Strategis Sistem Informasi Untuk Meningkatkan Keunggulan Bersaing (Studi Kasus: Universitas XYZ). *Respati*, 16(1), 65. <https://doi.org/10.35842/jtir.v16i1.391>
- Najwa, L., Iqbal, M., & Aryani, M. (2023). Manajemen Implementasi Sistem Penjaminan Mutu Internal Di Perguruan Tinggi. *Jurnal Visionary Penelitian Dan Pengembangan Dibidang Administrasi Pendidikan*, 11(1), 72. <https://doi.org/10.33394/vis.v11i1.7391>
- Primayana, K. H. (2016). Manajemen Sumber Daya Manusia Dalam Peningkatan Mutu Pendidikan Di Perguruan Tinggi. *Jurnal Penjaminan Mutu*, 1(2), 7. <https://doi.org/10.25078/jpm.v1i2.45>
- Sanjaya, R., & Handayani, R. N. (2021). Pengembangan Sistem Informasi Penjaminan Mutu (Simantu) Lldikti Wilayah Iv. *Naratif Jurnal Nasional Riset Aplikasi Dan Teknik Informatika*, 3(01), 48–53. <https://doi.org/10.53580/naratif.v3i01.119>
- Sapalakkai, R. S. (2021). *Trik Dan Tips Meningkatkan Mutu Pendidikan Di Era Industri 4.0 Dalam Mewujudkan Perguruan Tinggi Yang Transformatif*. <https://doi.org/10.31219/osf.io/fw7xk>
- Sulaiman, A., & Wibowo, U. B. (2016). The Implementation Of Internal Quality Assurance System As An Effort To Improve Quality Of Education At Gadjah Mada University. *Jurnal Akuntabilitas Manajemen Pendidikan*, 4(1), 17–32. <http://journal.uny.ac.id/index.php/jamp>
- Tasdir, A., Heliawaty Hamrul, & Nuralamsyah Zulkarnaim. (2021). Pengembangan Sistem Informasi Pengukur Kesiapan Akreditasi Program Studi 9 Kriteria. *Journal of Applied Computer Science and Technology*, 2(2), 88–94. <https://doi.org/10.52158/jacost.v2i2.262>