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Multi-Agency Accreditation in Higher Education of Indonesia as a Case Study of the Faculty of Engineering at Universitas Sebelas Maret

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ABSTRACT

BACKGROUND & CONTEXT

In Indonesian higher education, accreditation is crucial for ensuring quality. It is difficult to maintain uniform standards in the appearance of multiple organizations and the transition to Outcome-Based Education (OBE). Multi-agency accreditation has emerged as a strategy to address these demands.

PURPOSE

This study seeks to identify the primary opportunities and difficulties arising from the implementation of multi-agency accreditation.

METHODOLOGY

A qualitative descriptive design was bolstered by a survey. Open-ended and Likert-scale questions were answered by fifteen respondents. Descriptive statistics were used to summarize quantitative data, and thematic analysis was used to find patterns pertaining to opportunities and challenges in multi-agency accreditation in qualitative responses.

OUTCOMES

The findings show that multi-agency accreditation increases administrative workload and coordination requirements, it also promotes curriculum improvement, fortifies quality culture, and improves visibility internationally. The Plan-Do-Check-Act (PDCA) cycle and OBE principles are integrated to help standardize accreditation requirements.

CONCLUSIONS

Multi-agency accreditation can shift from an administrative burden to a driver of continuous improvement when supported by OBE and PDCA. Harmonizing standards and policies is essential to reduce redundancy and strengthen institutional quality.

KEYWORDS

Accreditation, Engineering Education, Institutional Development, Outcome-Based Education, Quality Assurance.

Introduction

Higher education quality improvement and quality assurance are significantly supported by accreditation. In order to ensure academic and professional standards and quality in educational provision for public accountability, it serves as a validation mechanism for the institutions or study programs (CHEA, 2021; Jafarov, 2024). In engineering education, where quality, industry alignment, and international recognition are crucial, the trend toward multi-agency accreditation has accelerated globally in recent decades (Indonesian Accreditation Board for Engineering Education (IABEE), 2023; Rao, 2020).

According to data from the Ministry of Higher Education, Science, and Technology, there are over 4,000 higher education institutions in Indonesia, making it challenging to ensure that all of them meet to the same quality standards. Many institutions have achieved "Good" accreditation status, as illustrated in Figure 1, but a significant portion still hold "Not Accredited" status, meaning that their accreditation is either ambiguous or has not been formally accredited. Excellent, Very Good, Good, and Not Accredited are the four categories into which accreditation in Indonesia is categorized.

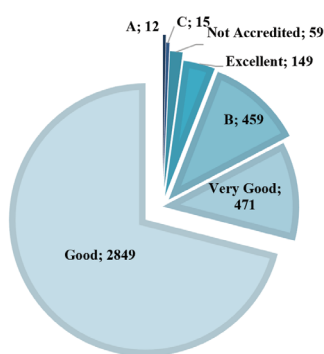


Figure 1: Comparison of Higher Education Institutions Based on Accreditation Type (Kemdiktisaintek, 2025)

Modern quality assurance (QA) models have experienced a significant shift with the adoption of outcome-based education (OBE) in higher education. With the assistance of international frameworks like the Washington Accord, OBE refocuses the emphasis from traditional education models, which primarily concentrate on teaching inputs (such as curriculum content or teaching hours) to what students can know, do, and demonstrate after completing a program (Spady, 1994) (Qadir et al., 2020). Quality assurance guarantees that graduates' education will meet industry and societal demands (Tuhin & Al Islam, 2025). Because of IABEE's requirements, which require the explicit formulation and assessment of learning outcomes, OBE adoption in engineering education in Indonesia has been significantly accelerated. To meet national and international standards, many higher education institutions have started incorporating OBE principles into their internal quality assurance system, course planning, and curriculum design.

Some Indonesian universities have implemented multi-agency accreditation to improve their competitiveness in response to the country's quality assurance issues and the transition to OBE. As an illustration of their dedication to both domestic and international standards, Universitas Indonesia's civil engineering program has received accreditation from AUN-QA, IABEE, and BAN-PT (Universitas Indonesia, 2013), while Universitas Sebelas Maret's (UNS) Faculty of Engineering is pursuing accreditations from LAM Teknik, BAN-PT, and IABEE.

In 2018, UNS also received AUN-QA certification for Civil Engineering and Mechanical Engineering programs. Although AUN-QA is not an accreditation body but a regional quality assurance framework focusing on PDCA cycle, it has been widely used to evaluate internal QA systems. However, since 2020, following the Directorate General of Higher Education's exclusion of AUN-QA from their list of recognized international accreditors, activation of AUN-

QA in UNS is discontinued. On the other hand, institutions like Universitas Indonesia and Universitas Hasanuddin remains to benefit from AUN-QA. At Universitas Hasanuddin, AUN-QA were used to open the international classes starting in 2018, showing AUN-QA's relevance in suportin internal quality development and academic internationalization.

Few studies have been conducted regarding the opportunities and difficulties of implementing multi-agency accreditation in an institution, despite the fact that it is becoming more and more common. Such approaches to addressing the issues are still not well studied. This study uses the Faculty of Engineering at Universitas Sebelas Maret as a case study to assess the opportunities and difficulties of implementing multi-agency accreditation. It also looks into ways to deal with such forms of issues.

Literature Review

Global Perspective on Accreditation

A widely accepted external quality review procedure that guarantees accountability and ongoing development in higher education is accreditation. According to the Council for Higher Education Accreditation (2021), it is a thorough assessment of programs and institutions for the purpose of improving and ensuring their quality. Accreditation is used primarily for quality improvement and assurance in many nations (Jafarov, 2024).

The National Accreditation Board for Higher Education (BAN-PT) oversees higher education accreditation in Indonesia and decides which study programs and institutions are eligible. (BAN-PT, 2022). In order to ensure quality and promote ongoing improvement for public accountability, graduates are expected to receive education that meet at least the minimal quality standards.

Beyond Indonesia, several international accreditation frameworks offer broader perspective. ABET, based in United States but globally recognized, emphasize outcome based-education, continuous improvement, and stakeholder involvement, requiring evidence based self-assessment of student outcomes, curriculum, faculty, and resources (Ali, 2023). In Europe, ENAEE/EUR-ACE offers comparable engineering education standards and mutual recognition across the European Higher Education Area, also relying on outcome-oriented approaches. In the mean time, in Southeast Asia, AUN-QA promotes European-inspired models to the ASEAN context, combining program and institutional evaluations with an emphasis on regional needs and capacity building (Hung, 2023).

These different frameworks show that while accreditation systems may vary in scope and focus, they share same orientation on accountability, learning outcomes, and continuous improvement. A study conducted by Qadir et al. (2020) states that OBE-oriented accreditation forms have develop into a dominant paradigm worldwide, with continuous improvement incorporated in the evaluation criteria. Simultaneously, global studies show that accreditation frequently involves substantial administrative burdens and bureaucratic complexities, especially when different systems combine (Duarte et al, 2023) These various frameworks also showcase the growing expectation for higher education institutions, including those in Indonesia, to align with multiple accrediting bodies at both national and international levels.

Accreditation in Indonesia

A higher education institution that applies for accreditation from multiple accrediting agencies is considered to be engaging in multi-agency accreditation (Wilkerson, 2017). Higher education institutions embrace this practice in order to gain international recognition and greater public accountability by not only meeting national standards but also professional standards and, in the case of higher opportunity, international standards. Multi-agency accreditation is thought to be adopted by these institutions in order to prepare their graduates for more valuable and higher mobility.

At Universitas Sebelas Maret, the Faculty of Engineering simultaneously engages with BAN-PT (national compliance), LAM Teknik (professional standards), and IABEE (international outcome-based recognition) as shown in Figure 2. While this strategy makes the institutional credibility stronger, it also creates overlapping requirements, administrative burdens, and coordination challenges.

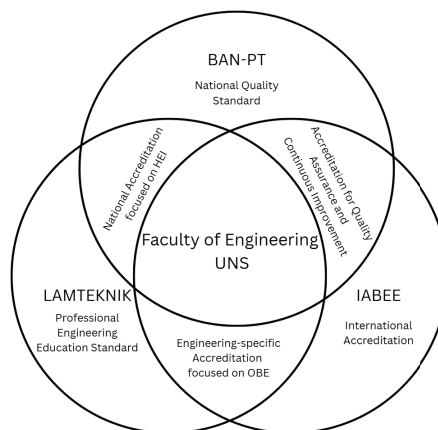


Figure 2: Multi-Agency Accreditation adoption by Faculty of Engineering at Universitas Sebelas Maret

BAN-PT

The National Accreditation Board for Higher Education in Indonesia (BAN-PT) offers the initial and most basic level of accreditation. The *Standar Nasional Pendidikan Tinggi* or National Standard for Higher Education (SN-Dikti), which establishes the minimal academic and institutional requirements for higher education, is followed according to the BAN-PT, which was set up by government regulation. Considering BAN-PT accreditation is required for all programs and institutions, it serves as the foundation for institutional legitimacy and is a requirement for the state to acknowledge graduates.

Over the past decade, BAN-PT has evolved from a compliance-driven system to a more dynamic quality improvement model. The adoption of IAPS 4.0 for study programs and IAPT 3.0 for institutions reflects this paradigm shift, emphasizing cycles of continuous improvement, stakeholder interaction, and results rather than merely evaluating static inputs (BAN-PT, 2022). The combined outcomes from both phases, including institutional data analysis, quality assurance procedures, and adherence to national standards, form the basis of the final accreditation decision (BAN-PT, 2022). This change aligns BAN-PT with global certification trends that prioritize outcome-based criteria, reflecting earlier measures taken by frameworks such as the Accreditation Board of Engineering and Technology (ABET) and the European Network for the Accreditation of Engineering Education (ENAE) (Qadir et al., 2020).

However, there are still issues with BAN-PT. Its extensive reach, certifying more than 4,000 universities in a wide range of subject areas, leads to standardization challenges and administrative constraints. The scope of the organization's mandate according to critics, occasionally restricts the scope of its assessments, turning into a "legitimate gatekeeper" rather than an institution's multi-tiered accreditation system for institutions, serving as the foundation for international (IABEE) and professional (LAM Teknik) accreditations.

LAM-TEKNIK

The Indonesian Engineer Association started and currently is oversight of the accreditation process for engineering study programs in Indonesia since 2020. The Independent Accreditation Agency for Engineering (LAM-TEKNIK) is an independent accreditation agency

that has been authorized to take over responsibility for engineering programs that were previously accredited by BAN-PT (Kemendikbudristek RI, 2023). In contrast to BAN-PT, which uses general standards for all fields, LAM Teknik places a strong emphasis engineering - specific standards that meet the industry demands and professional expectations. Its approach assesses how well schools develop graduates' technical proficiency, problem solving skills, and professional ethics in addition to their adherence to national standards.

The national higher education standards (SN-DIKTI) are referenced in the scoring element and accreditation criteria. The accreditation assessment considers the achievement of higher education standards that are created and established by higher education institutions, which exceeds SN-DIKTI, since it not only evaluates compliance but also the performance of study programs (LAMTEKNIK, 2022). In 2025, there will be 1,848 accredited study programs overall, according to batch (LAMTEKNIK, 2025). Similar to BAN-PT, LAM-TEKNIK evaluates through field and adequacy assessments. The growing popularity of LAM Teknik is indicative of a larger global trend where accrediting organizations transform from general supervision organizations into specialized professional accreditors, such as ABER in the US or ENAEE in Europe.

However, because it was only recently developed, institutions are still adjusting to the specifications. The frequently face transitional difficulties when it comes to coordinating faculty development, assessment procedures, and curricula with the new professional standards.

Indonesian Accreditation Board for Engineering Education (IABEE)

The Indonesian Engineers Association founded the independent, non-profit Indonesian Accreditation Board for Engineering Education (IABEE) to accredit international higher education in the domains of computing and engineering based on Outcome Based Education (OBE). In 2023 IABEE has been a full signatory Washington Accord (WA) for engineering program, Sydney Accord for engineering technologist program and Dublin Accord for engineering technician program under International Engineering Alliance, while in 2024 IABEE is a fully signatory of Seoul Accord for computing and information technologies program. (IABEE, 2025).

In contrast to LAM Teknik's professional focus and BAN-PT's regulatory orientation, IABEE uses a clear outcome-based methodology. Clear proof of student learning outcomes, ongoing improvement procedures, curriculum alignment with global standards, and stakeholder involvement are all required by its accreditation standards. This ensures that engineering programs exhibit both minimum quality and global readiness by placing a significant emphasis on OBE and methodical Plan-Do-Check-Act (PDCA) cycles. Figure 3 presents the evaluation process conducted by IABEE follows a structured annual cycle.

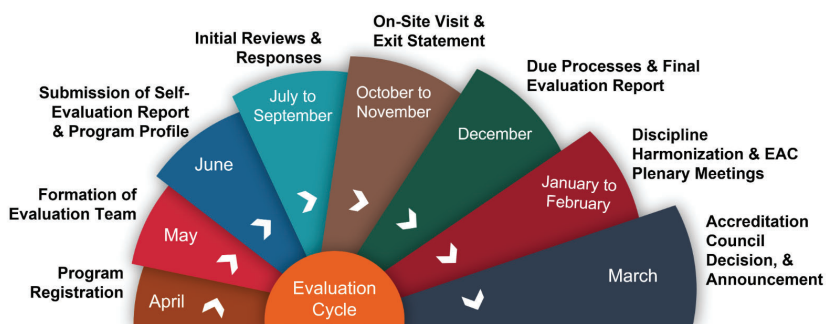


Figure 3: Evaluation Process of IABEE (IABEE, 2025)

IABEE accreditation is considered prestigious and challenging among Indonesian higher education institutions. It symbolizes recognition on global scale, but it also requires major

changes in documentation procedures, evaluation techniques, and curriculum design. Therefore, pursuing IABEE in addition to BAN-PT and LAM Teknik highlights the essence of multi-agency accreditation: provides institutions access to worldwide legitimacy but also introduces another level of complexity into their already resource-intensive quality assurance systems.

OBE, PDCA Cycle, and Quality Assurance System

To manage the different expectations of BAN-PT, LAM Teknik, and IABEE, Indonesian higher education institutions are increasingly using the Plan–Do–Check–Act (PDCA) cycle and Outcome-Based Education (OBE) as guiding frameworks for quality assurance. OBE emphasizes measurable student learning outcomes and curriculum alignment with graduate competencies, which is consistent with the paradigm shift in international certification frameworks such as ABET and ENAEE (Qadir et al., 2020). OBE is particularly significant for engineering programs in Indonesia since it is both explicitly required by IABEE and discreetly incorporated into the BAN-PT and LAM Teknik assessment tools.

The core concept of OBE is the idea of achieving specific, quantifiable learning objectives (Premalatha, 2019; Rao, 2020). OBE puts more emphasis on what students can know, do, and demonstrate after completing a program than traditional education models, which primarily concentrate on teaching inputs (such as curriculum content or teaching hours) (Spady, 1994). Program educational objectives (PEO), learning outcomes (PLO), curriculum development, and PLO evaluation are the four components of OBE principles (Spady, 1994).

The Plan-Do-Check-Act (PDCA) Cycle is a continuous improvement model that was first created for industry quality management but is currently being used extensively in education quality assurance. This is the meaning of the PDCA cycle abbreviation: (1) Plan: Determine the goals, requirements, and strategies for instructional activities. (2) Do: Put the curriculum, instructional strategies, and support systems into action. (3) Check: Use monitoring and assessment tools to measure and compare results to predetermined goals. (4) Act: Evaluate the evaluation results and implement corrective actions to improve program quality.

The PDCA cycle offers an organized method for ongoing improvement that enhances OBE. PDCA was first created for industrial quality management, but it has since been widely used in higher education to organize planning, execution, assessment, and remedial measures (Oliviera et al., 2021). Combining OBE and PDCA improves the sustainability of curriculum development and quality assurance procedures in engineering education, according to recent studies (Yan et al., 2025).

At Universitas Sebelas Maret's Faculty of Engineering, Figure 4 shows how OBE and PDCA are combined into a thorough quality assurance framework. This model's Plan phase aligns with BAN-PT's institutional planning and documentation requirements, the Do phase reflects LAM Teknik's focus on professional competency implementation, and the Check and Act phases align with IABEE's emphasis on continuous improvement and outcome assessment. The framework's built-in feedback loop shows how data from accreditation procedures is methodically incorporated back into stakeholder engagement, faculty development, and curriculum design.

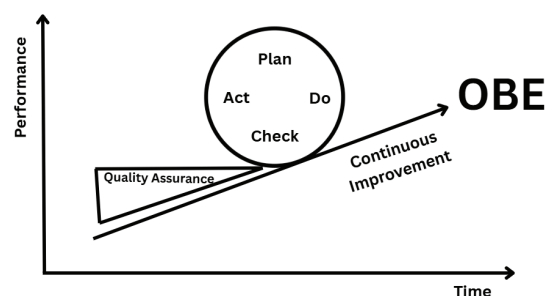


Figure 4: Integrated PDCA Cycle, Quality Assurance, and OBE into A Quality Assurance Framework System

This framework turns multi-agency accreditation from a compliance-driven burden into a strategic quality assurance model by presenting OBE and PDCA as complementary systems rather than parallel ones. It helps create a long-lasting culture of academic excellence that complies with international standards in addition to fulfilling a variety of accreditation requirements.

Despite the widespread use of frameworks like OBE and PDCA in higher education quality assurance, the majority of research, both internationally and in Indonesia, focuses on general QA mechanisms or single accreditation bodies, leaving little knowledge of how various agencies interact within a single institutional setting. The concurrent management of BAN-PT, LAM Teknik, and IABEE has received little attention in Indonesian research, which has frequently focused on either BAN-PT's function as the country's accreditor or IABEE's contribution to the introduction of outcome-based standards. The Faculty of Engineering at Universitas Sebelas Maret is used as a case study in this study to close that gap and show how OBE and PDCA can be operationalized as strategic tools to balance conflicting accreditation requirements and promote a long-lasting culture of quality assurance.

Methodology

Study Design

For the purpose of to support a qualitative descriptive approach related to the opportunities and challenges encountered in implementing Multi-Agency Accreditation within the Faculty of Engineering, Universitas Sebelas Maret, this study employed a quantitative survey design. While a Likert-scale survey was used to collect quantitative data, open-ended questions produced qualitative insights. Both quantitative trends and comprehensive views on the challenges and opportunities of multi-agency accreditation could be documented thanks to this design.

In all, fifteen respondents took part in the study. The respondents were specifically selected based on their positions as decision-makers, such as head of study programs, members of the quality assurance team, and faculty leadership members, as well as active participants in multi-agency accreditation (LAM-TEKNIK, BAN-PT, and IABEE).

Instrument

There were two sections on the survey instrument. Six Likert-scale statements (with 1 denoting strongly disagree and 5 denoting strongly agree) were included in the first survey to assess respondents' opinions of the opportunities and difficulties associated with multi-agency accreditation. Examples consist of:

- “Multi-agency accreditation increases the administrative workload for faculty and staff.”

- “Accreditation from multiple agencies contributes positively to curriculum innovation and continuous improvement.”
- “Overlapping standards among BAN-PT, LAM Teknik, and IABEE create coordination challenges.”

Three open-ended questions designed for obtaining qualitative insights formed the second section. The following were some examples of questions:

- “What do you consider the biggest challenge in managing multi-agency accreditation?”
- “What opportunities or benefits have emerged from this process?”
- “What strategies do you suggest to improve the implementation of multi-agency accreditation at the faculty level?”

After reviewing the literature on accreditation, the items were modified for the Indonesian context (Duarte et al., 2023; Qadir et al., 2020). To guarantee content validity, the instrument was examined by two faculty members with expertise in quality assurance before being distributed.

Data Collection and Analysis

Google Forms was used to administer the survey online in order to make it more accessible to respondents. In order to identify general patterns, quantitative responses were examined using descriptive statistics (mean, mode, and standard deviation). Thematic analysis, which included coding, classifying, and interpreting recurrent themes, was applied to qualitative responses. The reliability of the results was increased by combining the two types of data.

Results and Discussion

Challenges in Multi-Agency Accreditation

Significant agreement was identified in the quantitative results that multi-agency accreditation leads to coordination issues ($M = 4.4$) and a significant increase in administrative workload ($M = 4.6$). According to the respondents, creating distinct documentation for BAN-PT, LAM Teknik, and IABEE takes a significant amount of staff time and resources. This was supported by qualitative responses, which brought to light problems like redundant reporting requirements, disorganized data systems, and an unequal division of duties among faculty members.

These results are consistent with the institution conducted studies on accreditation systems worldwide. While Tran et al. (2025) noted administrative overload as a recurrent theme in quality assurance studies, especially in developing higher education contexts, Duarte et al. (2023) highlighted that overlapping requirements across agencies frequently result in excessive bureaucracy. Therefore, the difficulties seen at UNS are a reflection of both local realities and systemic problems that are typical of multi-agency accreditation globally.

From a policy standpoint, this suggests that Indonesia's tiered accreditation system runs the risk of overtaxing institutions and taking funds away from academic advancement in the absence of system-level harmonization. In order to prevent redundancy, it demands improved coordination mechanisms, more integrated digital systems, and a more precise definition of standards across agencies.

Opportunities in Multi-Agency Accreditation

Respondents recognized a number of advantages in spite of these difficulties. According to quantitative results, there is moderate agreement that multi-agency accreditation improves quality culture ($M = 3.9$) and encourages curriculum innovation ($M = 3.8$). Qualitative findings highlighted that while LAM Teknik promoted greater alignment with professional standards, IABEE's requirements for Outcome-Based Education (OBE) forced programs to embrace global standards.

These opportunities align with global experiences. Outcome-based accreditation promotes stakeholder engagement and continuous improvement, according to Qadir et al. (2020), while Yan et al. (2025) discovered that combining OBE with PDCA cycles maintains curriculum development in engineering programs. These advantages are especially noticeable at UNS, where PDCA is used to systematize program evaluation and feed accreditation results back into faculty development and curriculum reform.

More broadly, ASEAN's regional goals for standardized quality standards through frameworks like AUN-QA are reflected in Indonesia's multi-agency accreditation. Faculty members position themselves for regional and global competitiveness in addition to national legitimacy by obtaining multiple accreditations. This demonstrates that, with careful management, multi-agency accreditation can serve as a catalyst for long-term excellence rather than a burdensome administrative process.

Strategy Recommendations in Multi Agency Accreditation

Institutions must implement strategies that go beyond compliance in order to achieve sustainable quality enhancement in order to address the dual reality of opportunities and challenges in multi-agency accreditation. The creation of integrated digital quality assurance systems is one important suggestion. This will reduce administrative burden and redundancy by enabling evidence, reports, and performance indicators to be effectively stored and accessed by various accrediting agencies. The methodical standardization among BAN-PT, LAM Teknik, and IABEE is equally crucial. Faculty can minimize effort duplication and guarantee consistency by mapping overlapping criteria and producing crosswalk documents.

Programs can meet the requirements of several accreditors and promote a continuous improvement culture by incorporating Outcome-Based Education (OBE) into curriculum design and implementing the Plan–Do–Check–Act (PDCA) cycle in evaluation procedures. To further reduce workload and improve institutional resilience, faculty and staff capacity can be strengthened through frequent workshops and cooperative quality assurance teams. Beyond the institutional level, stronger engagement with regional frameworks like AUN-QA and policy-level harmonization among BAN-PT, LAM Teknik, and IABEE are essential for fostering convergence and mutual recognition throughout ASEAN.

When combined, these tactics demonstrate how multi-agency accreditation can transform from an excessive requirement into a force for international competitiveness, sustainable development, and institutional reputation when executed effectively.

Conclusions

This study demonstrates how multi-agency accreditation at Universitas Sebelas Maret's Faculty of Engineering creates both opportunities for curriculum innovation, quality culture enhancement, and international recognition, as well as major administrative and coordination challenges. The study emphasizes that the implementation of Outcome-Based Education (OBE) and the institutionalization of Plan–Do–Check–Act (PDCA) cycles provide a strategic approach to harmonizing overlapping requirements by analyzing the interactions between BAN-PT, LAM Teknik, and IABEE in a single institutional setting.

The primary objective of this research is to demonstrate how multi-agency accreditation, which is sometimes seen as a bureaucratic burden, can actually serve as a catalyst for long-term quality assurance and global competitiveness. The findings highlight the significance of reducing agency redundancy and standardizing accreditation standards for policymakers, while highlighting the benefits of digital integration and capacity building for institutions. This case study could be expanded in the future by contrasting university experiences and investigating how regional frameworks like AUN-QA can help ASEAN's accreditation practices become more unified.

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