STRENGTHENING THE QUALITY ASSURANCE SYSTEM THROUGH TRACER STUDIES: AN EVIDENCE-BASED QUALITY ASSURANCE PERSPECTIVE

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Abstract. Tracer studies are strategic instruments in higher education quality assurance systems because they provide relevant graduate outcome data for evidence-based decision making. This study aims to analyze the implementation and utilization of tracer studies in the Internal Quality Assurance System (SPMI) at UIN Walisongo Semarang from the perspective of evidence-based quality assurance. This study uses a qualitative approach with a case study design. Data were collected through in-depth interviews, documentation studies, and limited observations, then analyzed using the Miles and Huberman interactive model. The results show that the tracer study at UIN Walisongo has a clear policy basis and is implemented based on technical guidelines integrated into the SPMI. Tracer study data is mainly used in the evaluation and improvement stages of the PPEPP cycle, particularly to assess the relevance of the curriculum and the competency achievements of graduates. However, the utilization of tracer study results is not yet optimal because it is still limited to reporting and has not been consistently followed up in quality improvement planning. This study recommends strengthening the integration of tracer studies in all stages of PPEPP, strengthening cross-unit governance, and developing a culture of quality so that tracer studies function effectively as an evidence-based quality assurance instrument in higher education.

Keywords: Tracer Study, Evidence-Based Quality Assurance, University.

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Abstrak. *Tracer study merupakan instrumen strategis dalam sistem penjaminan mutu pendidikan tinggi karena menyediakan data luaran lulusan yang relevan untuk pengambilan keputusan berbasis bukti. Penelitian ini bertujuan untuk menganalisis implementasi dan pemanfaatan tracer study dalam Sistem Penjaminan Mutu Internal (SPMI) di UIN Walisongo Semarang dari perspektif evidence-based quality assurance. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus. Data dikumpulkan melalui wawancara mendalam, studi dokumentasi, dan observasi terbatas, kemudian dianalisis menggunakan model interaktif Miles dan Huberman. Hasil penelitian menunjukkan bahwa tracer study di UIN Walisongo telah memiliki landasan kebijakan yang jelas dan diimplementasikan berdasarkan panduan teknis yang terintegrasi dalam SPMI. Data tracer study dimanfaatkan terutama pada tahap evaluasi dan peningkatan dalam siklus PPEPP, khususnya untuk menilai relevansi kurikulum dan capaian kompetensi lulusan. Namun demikian, pemanfaatan hasil tracer study belum sepenuhnya optimal karena masih terbatas pada pelaporan dan belum secara konsisten ditindaklanjuti dalam perencanaan peningkatan mutu. Penelitian ini merekomendasikan penguatan integrasi tracer study dalam seluruh tahapan PPEPP, penguatan tata kelola lintas unit, serta pengembangan budaya mutu agar tracer study berfungsi secara efektif sebagai instrumen evidence-based quality assurance dalam pendidikan tinggi.*

Kata Kunci: *Tracer Study, Penjaminan Mutu Berbasis Bukti, Perguruan Tinggi*

INTRODUCTION

The Quality Assurance System (QAS) in higher education institutions plays a strategic role in ensuring the quality of the implementation of the three pillars of higher education in accordance with national and internal standards. The QAS promotes a culture of quality and continuous improvement, enhances accountability and stakeholder trust. In addition, the QAS forms the basis for decision-making, accreditation, and improving the competitiveness of institutions and the relevance of graduates to the needs of society and the world of work.

On the other hand, from a theoretical perspective, the quality of higher education is no longer understood solely as the fulfillment of administrative standards, but as a dynamic process oriented towards continuous improvement based on empirical evidence (evidence-based quality assurance). Harvey & Green (1993) emphasizes that quality

encompasses the dimensions of purpose, value, and transformation, so that quality assessment requires the use of valid and relevant data on higher education achievements.

In line with this, evidence-based quality assurance places graduate outcomes and impact as the main basis for quality decision-making. One of the instruments that provides such empirical data is a tracer study, which is a study that tracks graduates to obtain information about their waiting period for employment, the relevance of their field of work, the suitability of their competencies to the needs of the world of work, and the satisfaction of graduate users. Tracer studies play an important role in assessing the achievement of learning outcomes and the effectiveness of the higher education process in a contextual manner (Schomburg, 2016).

In a global context, tracer studies are also seen as an instrument that helps connect higher education practices with the needs of the job market and professional organizations, thus becoming an integral part of quality assurance in higher education (Fahmy et al., 2025) . A literature review indicates that tracer studies are an important tool for improving the quality of education and providing substantial input for improving the Internal Quality Assurance System (SPMI/Sistem Penjaminan Mutu Internal) in higher education institutions (Saif et al., 2024).

Thus, tracer studies serve not only as an evaluation tool, but also as a strategic mechanism that bridges higher education with the needs of society and the world of work. Quality education must be able to respond to the needs of the world of work and the dynamics of the global economy. The mismatch between educational curricula and industry needs remains a classic problem in Indonesia (Kwartarani et al., 2025)

In the Indonesian context, the urgency of tracer studies has grown stronger with the implementation of the Quality Assurance System as stipulated in Permendiktek Number 39 of 2025 concerning Higher Education Quality Assurance, in which graduate employment rates are one of the components of evaluation that can be carried out through tracer studies. Tracer studies have a strategic position as a source of empirical data for assessing the achievement of graduate standards and the relevance of the curriculum to the needs of external stakeholders.

However, various studies show that the implementation of tracer studies in Indonesian universities still tends to be oriented towards fulfilling accreditation and reporting obligations, and has not been fully integrated into evidence-based quality

decision-making. Tracer study data is often not optimally utilized for curriculum development, improving the quality of learning, and strengthening institutional policies. This condition indicates a gap between the conceptual framework of evidence-based quality assurance and quality assurance practices at the institutional level.

Based on these conditions, this study positions UIN Walisongo Semarang as a case study to examine how tracer studies are implemented and utilized in internal quality assurance systems. UIN Walisongo, as a State Islamic Higher Education Institution that is strengthening its culture of quality and graduate competitiveness, provides a relevant context for exploring the role of tracer studies in supporting evidence-based quality assurance. Through this case study, the research is expected to provide an empirical description of the contribution of tracer studies in strengthening SPMI, while also offering conceptual reflections for the development of quality assurance practices in similar higher education institutions.

LITERATURE REVIEW

A comprehensive literature review shows that tracer studies provide data on employability, competency development, and the alignment between graduate competencies and industry demands, which are essential for evidence-based quality assurance systems. The findings of this study emphasize the need for collaboration between academia and industry and the integration of technological developments to support the analysis of tracer study results for academic policy-making (Fahmy et al., 2025).

In line with these findings, empirical research in Islamic universities shows that tracer study data can be used as a medium to identify aspects of learning that need improvement, such as learning experiences and campus facilities, thereby encouraging improvements in the quality of study programs that are more responsive to the needs of the job market (Saif et al., 2024).

The literature also shows that tracer studies can serve as a tool for evaluating the suitability of learning outcomes and the demands of the world of work. Research on Indonesian Language undergraduate programs, for example, shows that information from tracer studies forms the basis for curriculum evaluation and mapping the competencies of graduates to the job market. The results of this study show that the majority of alumni

work in fields relevant to their study programs, but also identify the need to strengthen certain competencies to cope with current labor market conditions (Wilyanti et al., 2023).

In addition, tracer studies in various higher education contexts (including vocational education) show that tracer studies also play a role in mapping graduate competencies and the needs of the world of work, which can then be used as a reference in curriculum policy formulation and the development of study programs that are more adaptive to industry dynamics (Development of vocational education tracer studies) (Munir et al., 2021).

Other literature shows that although tracer studies have great potential for improving the quality of higher education, there are challenges in their implementation, such as low alumni participation rates, limited alumni databases, and a lack of integration of tracer study results into strategic academic policies. These findings are evident, for example, in the context of tracer studies in vocational schools, which are also quality assurance instruments but face data and human resource constraints (Tracer study management)(Hayati et al., 2021; Ramadhani et al., 2025).

Based on a literature review, tracer studies are a strategic instrument in higher education quality assurance systems that support an evidence-based quality assurance approach. Various studies show that tracer studies provide empirical data on the achievement of learning outcomes, the relevance of the curriculum to the needs of the world of work, and the satisfaction of graduate users, which are important for sustainable quality decision-making. In the context of national policy, tracer studies play an important role in the implementation of SPMI and the fulfillment of accreditation requirements, but in practice they are often administrative in nature. The literature identifies a gap between the potential of tracer studies and their use in strategic academic policy. Therefore, the integration of tracer studies into the internal quality assurance cycle needs to be strengthened in order to have a real impact on improving the quality of higher education.

RESEARCH METHOD

This study uses a qualitative approach with a case study design. This approach was chosen because the study aims to gain an in-depth understanding of how tracer studies are implemented and utilized in internal quality assurance systems as a form of evidence-based quality assurance. Case studies allow researchers to explore phenomena

contextually, holistically, and based on the actual conditions of the institution (Creswell & Creswell, 2018).

UIN Walisongo Semarang was chosen as a single-case study because it is the largest State Islamic Higher Education Institution in Central Java with more than 20,000 students who are strengthening the culture of quality, the SPMI system, and the competitiveness of graduates, making it relevant to examine the role of tracer studies in strengthening higher education quality assurance.

Data collection techniques used interviews with quality assurance system and tracer study managers; and documentation, namely tracer study documents and data obtained from the tracer study information system.

Data analysis in this study refers to the interactive model of Miles & Huberman, (2014), which includes data reduction, data presentation, and conclusion drawing/verification. In the data reduction stage, researchers selected and focused on data from interviews, documentation, and observations relevant to the role of tracer studies in internal quality assurance systems. Next, the data was presented in the form of thematic narratives and matrices to map the relationship between the tracer study and the PPEPP (Penetapan, Pelaksanaan, Evaluasi, Pengendalian, Peningkatan) cycle. The final stage was carried out by drawing conclusions iteratively through continuous verification of patterns and findings, resulting in a credible understanding of the contribution of the tracer study as an evidence-based quality assurance instrument.

RESULT AND DISCUSSION

Trecer Study Policy

The results of the study show that the implementation of tracer studies at UIN Walisongo Semarang formally has a clear and integrated policy foundation in the Internal Quality Assurance System. Tracer studies are positioned as part of the graduate quality evaluation mechanism that refers to the university's SPMI documents, which include the SPMI policy (Rector's Decree 089/2025), SPMI standards (Rector's Decree 090/2025), SPMI documentation procedures (Rector's Decree 091/2025), and guidelines for implementing the PEPP cycle (Rector's Decree 092/2025). All of these documents were established and enforced through a Rector's Decree, thereby providing institutional legitimacy for the implementation of the tracer study

Within the SPMI structure, tracer studies are explicitly linked to standards related to graduates and the relevance of education, particularly graduate competency standards and learning standards. The implementation of tracer studies is then outlined in more operational terms in the technical guidelines for tracer studies compiled by the relevant unit. These guidelines regulate the technical aspects of implementation, ranging from the objectives of the tracer study, the target respondents, the data collection instruments, the timing of graduate tracking, to the mechanisms for data processing and reporting. Thus, the tracer study at UIN Walisongo is not only incidental but is designed as a structured and recurring activity in the quality assurance cycle.

Tracer Study Implementation Mechanism

The results of the study show that the tracer study implementation mechanism at UIN Walisongo Semarang is regulated in detail in the tracer study technical guidelines, which were developed as an operational derivative of the SPMI policy. The technical guidelines contain several main components, namely the objectives of the tracer study, the targets and criteria for respondents, the design and indicators of the instrument, the timing of graduate tracking, the data collection mechanism, and the management of data processing and reporting of results.

The tracer study aims to track the conditions of graduates within a certain period after graduation, with the main target being alumni who have entered the workforce or continued their studies. The tracer study instrument is designed based on national standards to collect data on the waiting period for employment, the suitability of the field of work with educational background, the level of competency mastery, and graduates' perceptions of the relevance of the curriculum and learning process. Data collection is conducted online through the https://sitrace.walisongo.ac.id/ system managed by the Walisongo Career Center unit at the Student Quality Assistance and Development Center, involving faculties and study programs to increase respondent participation rates.

The technical guidelines also regulate the roles and responsibilities of the tracer study implementation unit, from planning and implementation to reporting the results. The results of the tracer study are then documented in the form of an official report (at the end of each semester), which becomes part of the internal quality evaluation documents and is used as follow-up material by the study program and faculty leadership.

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The regulation of the tracer study mechanism through technical guidelines reflects institutional efforts to ensure its implementation is systematic, standardized, and sustainable. The clarity of the objectives, instruments, and implementation process enables the tracer study to function as a credible source of data in the internal quality assurance system, in line with the view that an effective tracer study requires relevant instrument design and clear governance so that graduate data can be utilized in quality decision-making (Harvey, 2001; Schomburg, 2016). In the context of quality assurance, tracer study data serves as a feedback mechanism to evaluate learning outcomes and the relevance of the curriculum to the needs of the world of work (Brennan & Shah, 2000).

The involvement of various units and study programs demonstrates a collaborative approach to internal quality assurance (Stensaker, 2007). However, the findings of this study confirm that the existence of technical guidelines does not automatically guarantee the optimal utilization of tracer study results, especially in follow-up actions to improve quality and develop curricula. This is in line with international studies showing that graduate tracking data often stops at the reporting stage and is not fully utilized for academic policy improvement (Schomburg & Teichler, 2011). Therefore, strengthening tracer studies requires not only comprehensive technical guidance, but also strengthening a culture of quality and institutional commitment in order to function effectively as an evidence-based quality assurance instrument.

Utilization Of Tracer Studies In The PPEPP Cycle

The results of the study show that tracer study data at UIN Walisongo Semarang has been utilized in several stages of the PPEPP cycle, particularly in the evaluation and quality improvement stages. Tracer study data is used as a source of information to observe the absorption of alumni into the workforce and to evaluate the curriculum, but there has not yet been an in-depth evaluation of the achievement of graduate competency standards and the effectiveness of the learning process.

In the control and improvement stage, some study programs have used the results of the tracer study as a basis for formulating follow-up actions, such as curriculum adjustments, strengthening competency-based courses, and developing graduates' soft skills and work readiness. The use of tracer study data is also evident in the preparation

of self-evaluation documents and quality improvement planning that are integrated with SPMI documents.

The use of tracer studies in the PPEPP cycle shows that graduate data is beginning to be positioned as evidence in the internal quality assurance process. The use of tracer studies in the evaluation and improvement stages is in line with the principle of evidence-based quality assurance, which emphasizes the importance of outcome data in assessing the performance of higher education institutions (Brennan & Shah, 2000). Tracer studies serve as a feedback loop that connects educational outcomes with learning processes and academic policies.

However, the results of this study also show that the use of tracer studies in the PPEPP cycle is not yet fully uniform and consistent across all units. The integration of tracer studies is still strong at the evaluation stage, but relatively weak at the stage of setting standards and planning for long-term quality improvement. These findings are in line with international literature which states that the main challenge of tracer studies lies in transforming data into sustainable quality improvement policies and practices (Harvey, 2001; Schomburg & Teichler, 2011).

Therefor, strengthening the use of tracer studies in the PPEPP cycle requires a more systematic follow-up mechanism, including the integration of tracer study results in setting quality standards and strategic planning for study programs. Thus, tracer studies not only serve as an evaluation tool, but also as a basis for continuous quality control and improvement in the internal quality assurance system of higher education institutions.

Challenges In Implementation And Strategies For Strengthening Tracer Studies

The results of the study identified several major challenges in implementing the tracer study at UIN Walisongo Semarang. These challenges include low consistency in alumni participation, variations in data quality and completeness, and limited utilization of tracer study results as a basis for quality improvement follow-up. In addition, coordination between units and study programs in the management and utilization of tracer study data has not been fully optimized, so that tracer study results are not always systematically integrated into quality improvement planning and curriculum development.

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These findings are in line with international literature which shows that tracer studies often face obstacles in the implementation and utilization of results, especially when graduate data is not yet fully positioned as a basis for strategic decision making (Schomburg & Teichler, 2011). Low response rates and variations in data quality can affect the credibility of tracer studies as a source of outcome evidence, thereby limiting their contribution to the quality assurance system. In addition, the weak integration of tracer studies into quality improvement planning reflects cultural challenges in quality, where data is collected but not fully utilized as a basis for academic policy (Harvey, 2001).

Based on these findings, the strategy to strengthen the tracer study needs to focus on several key aspects. First, strengthening governance and coordination across units so that the tracer study is clearly integrated into the PPEPP cycle. Second, improving the quality of instruments and strategies to increase alumni response so that the data produced is more representative and relevant. Third, strengthening the culture of quality and institutional commitment by ensuring that the results of tracer studies are used systematically in the evaluation and improvement of curricula and learning. This strategy is in line with the principle of evidence-based quality assurance, which emphasizes that the effectiveness of tracer studies is not only determined by the existence of instruments and policies, but also by the ability of institutions to convert data into sustainable quality improvement actions (Brennan & Shah, 2000; Stensaker, 2007)

CONCLUSION AND RECOMMENDATION

Conclusion

This study shows that tracer studies play a strategic role in strengthening the Internal Quality Assurance System (SPMI) when systematically integrated into the PPEPP cycle. The case study at UIN Walisongo Semarang shows that tracer studies have been supported by quality policies, quality standards, and technical guidelines that provide an institutional basis for their implementation. Tracer study data serves as outcome-based evidence to evaluate graduate competency achievements, curriculum relevance, and learning effectiveness.

However, the utilization of tracer study results has not been fully optimized, especially in converting data into follow-up actions for quality improvement and

continuous curriculum development. Therefore, strengthening tracer studies requires not only comprehensive technical guidance, but also a stronger culture of quality, cross-unit coordination, and institutional commitment so that tracer studies can function effectively as an evidence-based quality assurance instrument in higher education.

Recommendation

Higher education institutions need to strengthen the integration of tracer studies throughout the entire PPEPP cycle so that graduate data can be used not only for evaluation, but also as a basis for setting standards and continuous quality improvement. Strengthening the management of tracer studies through cross-unit coordination, standardization of instruments, and increased alumni participation is also necessary to improve the quality and credibility of data. In addition, strengthening a culture of quality and institutional commitment is key to ensuring that the results of tracer studies are systematically followed up in curriculum and learning development as part of evidence-based quality assurance.

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