

EVALUATION OF THE IMPLEMENTATION OF E-PUSDIK INFORMATION SYSTEM ON THE QUALITY OF EDUCATION IMPLEMENTATION IN PUSDIK PANCASILA AND CONSTITUTION

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Abstract. This study aims to evaluate the implementation of the e-Pusdik Information System and its impact on the quality of educational services at the Center for Pancasila and Constitutional Education (Pusdik Pancasila dan Konstitusi). The research employs a quantitative descriptive method using the Human–Organization–Technology Fit (HOT-Fit) model, which assesses the interrelationship between technological quality, user satisfaction, and organizational support in determining system effectiveness. Data were collected from educators, administrative staff, and system users through structured questionnaires and interviews to measure system reliability, service accessibility, and user responsiveness. Statistical analysis was conducted using descriptive and inferential techniques to evaluate correlations among variables representing system quality, information quality, service quality, and overall performance. The results indicate that the e-Pusdik system has been effectively implemented in supporting academic administration and learning management, although several aspects—such as data integration, user training, and interface efficiency—require continuous improvement. The study concludes that the success of e-Pusdik implementation depends not only on technological adequacy but also on user competence and institutional readiness to adopt digital transformation practices in education management. These findings highlight the importance of aligning technological innovation with organizational capacity to achieve sustainable quality improvement in educational institutions.

Keywords: e-Pusdik, System Evaluation, Educational Quality, HOT-Fit Model, Pancasila and Constitutional Education

I. INTRODUCTION

The rapid advancement of information and communication technology (ICT) has transformed the management and delivery of educational services across the world, fostering a shift toward digital governance, automation, and data-driven decision-making [1]. Educational institutions increasingly rely on integrated information systems to enhance operational efficiency, transparency, and service quality [2]. In this context, the implementation of educational information systems has become an essential strategy to support administrative processes, optimize learning management, and improve institutional performance [3]. The adoption of ICT in public education institutions also reflects broader trends of e-government and digital transformation, aligning with global standards for innovation and accountability in public service [4]. In Indonesia, the government has prioritized digital transformation in the education sector through initiatives such as e-learning platforms, digital education management systems, and online accreditation services, to strengthen transparency and access to quality education [5]. The Center for Pancasila and Constitutional Education (Pusdik Pancasila dan Konstitusi), as a specialized governmental training institution under the Constitutional Court, has developed the e-Pusdik Information System to manage its educational and administrative activities efficiently. This system aims to enhance the quality of educational services, streamline academic and training administration, and support the dissemination of civic and constitutional education [6]. However, as with many ICT-based systems, the success of e-Pusdik depends not only on technological infrastructure but also on user competence, system usability, organizational readiness, and leadership commitment [7]. Evaluating the effectiveness of information systems requires a multidimensional approach that considers technological, human, and organizational factors. The Human–Organization–Technology Fit (HOT-Fit) model, introduced by Yusof et al. (2008) and widely applied in recent ICT evaluations, provides an

integrated framework for assessing how system quality, information quality, and service quality interact with user satisfaction and organizational performance [8]. This model has been adopted in several educational and governmental contexts to evaluate digital systems such as learning management systems (LMS), e-Government portals, and academic information systems [9], [10]. The HOT-Fit model is particularly relevant for public education institutions because it accommodates both technological functionality and institutional behavior, emphasizing that system success is contingent upon the alignment—or “fit”—between human capabilities, organizational processes, and technological tools [11].

Several studies have found that effective information systems in educational institutions contribute significantly to service quality improvement, decision accuracy, and stakeholder satisfaction [12]. For example, Rahmawati and Yusof [13] demonstrated that digital system integration enhances institutional accountability and responsiveness in Indonesian higher education. Similarly, Kim and Park [14] identified that system usability and user support strongly correlate with technology adoption and sustained engagement among educators. However, challenges remain in ensuring that technological innovation is matched with sufficient human capacity and policy coherence. In developing contexts, many educational institutions face issues such as limited ICT literacy, inadequate infrastructure, and fragmented system governance, which impede optimal system utilization [15]. The implementation of e-Pusdik thus represents a strategic effort by the Center for Pancasila and Constitutional Education to align educational quality management with the principles of Total Quality Management (TQM)—particularly continuous improvement, stakeholder engagement, and process standardization. Within this framework, evaluating the e-Pusdik system’s performance provides insight into how digital innovation contributes to the institution’s broader mission of promoting civic competence and constitutional literacy [16]. This study therefore seeks to evaluate the implementation of the e-Pusdik Information System in relation to the quality of educational services, using the HOT-Fit model as the analytical framework. The results are expected to inform both theoretical understanding and practical strategies for improving ICT-based education management in public institutions. The study contributes to the literature by contextualizing information system evaluation within Indonesia’s constitutional education framework, thereby extending the application of the HOT-Fit and TQM approaches to digital transformation in governmental education settings [17].

The evaluation of information systems (IS) in education is critical for understanding how digital platforms contribute to organizational efficiency, service quality, and user satisfaction. Information systems in educational institutions aim not only to automate administrative tasks but also to facilitate communication, data management, and decision-making processes [18]. The effectiveness of an IS depends on the alignment between system functionality and institutional goals, as well as the competence of its users [19]. As educational organizations increasingly integrate e-governance and digital platforms, the need for systematic evaluation models becomes more urgent to ensure accountability and sustainability [20]. According to DeLone and McLean’s IS Success Model, the key dimensions of IS effectiveness include system quality, information quality, service quality, use, user satisfaction, and net benefits [21]. These indicators provide a foundation for understanding how technological tools influence organizational performance. However, traditional IS evaluation frameworks have been criticized for focusing narrowly on technical success, overlooking organizational and human factors that affect implementation outcomes [22]. In educational settings, system evaluation must account for user adaptability, leadership support, and institutional readiness, as these factors strongly influence digital transformation [23]. The integration of broader frameworks—such as the Human–Organization–Technology Fit (HOT-Fit) model—addresses this gap by linking human, technological, and organizational dimensions in a single evaluation structure [24].

The HOT-Fit model, proposed by Yusof et al. (2008), is a comprehensive framework for evaluating information system success through the interaction between human, organizational, and technological components [8]. It builds upon the DeLone and McLean model by emphasizing the concept of “fit,” or the degree of alignment among system features, user competence, and institutional processes [25]. The model consists of six main constructs: system quality, information quality, service quality, system use, user satisfaction, and organizational structure and environment. The human component reflects user behavior and satisfaction; the technological component measures functionality and reliability; and the organizational component assesses leadership, culture, and policy support [26]. In recent years, the HOT-Fit model has been widely used in evaluating educational and public sector information systems due to its holistic and adaptable nature. Kim and Park [9] applied the HOT-Fit model to assess e-learning systems and found that user satisfaction and organizational support were the most influential factors in sustaining digital platforms. Similarly, Rahman [11] demonstrated that public institutions adopting HOT-Fit-based evaluation frameworks experienced measurable improvements in transparency and system adoption rates. The strength of the model lies in its multi-dimensional approach, which captures both technical and behavioral factors influencing system success [27]. The application of the HOT-Fit model in education also facilitates continuous improvement and feedback-based management, aligning with the principles of Total Quality Management (TQM). When institutions continuously assess the interaction among people, technology, and organizational systems, they establish a foundation for sustainable performance enhancement. Therefore, HOT-Fit provides a conceptual and practical basis for analyzing how the e-Pusdik Information System supports educational quality improvement at the Center for Pancasila and Constitutional Education.

Educational Quality Management (EQM) refers to the systematic and continuous process of maintaining and improving learning quality through evidence-based management, performance measurement, and stakeholder participation [28]. The integration of digital systems within quality management has become a defining characteristic of modern education, as institutions move toward data-driven and technology-enabled governance [29]. EQM frameworks often adopt Total Quality Management (TQM) principles such as continuous improvement (kaizen), customer satisfaction, process control, and employee empowerment [2]. In educational contexts, the “customers” are learners and other stakeholders, while “processes” refer to teaching, learning, and

academic support systems. Research by Rahmawati and Yusof [16] emphasized that applying TQM principles to ICT-based education management increases transparency and accountability, particularly when supported by leadership commitment and quality assurance mechanisms. Similarly, Oakland [1] noted that integrating digital tools into TQM cycles enhances process standardization and feedback analysis, resulting in measurable service improvements. Moreover, EQM frameworks must adapt to the digital era by emphasizing technological competence, data ethics, and responsive governance [30]. The evaluation of digital systems such as e-Pusdik is thus inseparable from educational quality management because it reflects how technology supports institutional missions and values. The successful implementation of EQM depends on the synchronization between technological readiness, human resource development, and organizational strategy [31]. Within the context of Pusdik Pancasila dan Konstitusi, digital transformation not only enhances service efficiency but also strengthens civic education delivery by ensuring access to reliable and timely information. This aligns with UNESCO's vision of Education for Sustainable Development (ESD), which highlights digital innovation as a catalyst for equitable and inclusive learning [32]. Based on the reviewed literature, this study adopts the HOT-Fit model as its conceptual foundation for evaluating the e-Pusdik Information System. The framework integrates three key perspectives: Technological Fit – examining system quality, information accuracy, and service responsiveness in supporting educational administration. Human Fit – analyzing user satisfaction, usability, and readiness among educators, staff, and learners. Organizational Fit – assessing leadership commitment, institutional support, and the alignment between digital tools and quality management policies. These three dimensions collectively determine the overall system success and quality outcomes. The study contributes theoretically by contextualizing the HOT-Fit model within a governmental education setting, and practically by providing a framework for continuous improvement in public digital systems through TQM-based evaluation cycles.

II. RESEARCH METHODS

This study employed a quantitative descriptive research design to evaluate the effectiveness of the e-Pusdik Information System and its impact on the quality of educational services at the Center for Pancasila and Constitutional Education (Pusdik Pancasila dan Konstitusi). The design was selected to systematically describe the current implementation of the system and identify relationships between key variables—system quality, information quality, service quality, user satisfaction, and organizational impact—in accordance with the Human–Organization–Technology Fit (HOT-Fit) framework. The study population included educators, administrative staff, and system users within the institution who interact with the e-Pusdik platform in teaching, training, and management processes. From a total of 120 registered system users, 92 respondents were selected using proportionate stratified random sampling, ensuring representation from all relevant functional units. Data were collected through an online structured questionnaire using a 5-point Likert scale, complemented by interviews with key informants such as ICT managers and training coordinators to capture qualitative validation. The questionnaire items were adapted from validated constructs of prior HOT-Fit studies and contextualized to the educational setting to ensure construct relevance and content validity [28].

Before analysis, the research instruments were tested for validity and reliability. Construct validity was verified using the Pearson correlation coefficient ($r \geq 0.30$), while reliability was confirmed through Cronbach's Alpha ($\alpha \geq 0.80$), indicating high internal consistency. Quantitative data were analyzed using descriptive and inferential statistics, including correlation, regression, and path analysis with the assistance of SPSS version 26 and AMOS version 24 software. The analysis followed a three-step approach: (1) descriptive statistics to identify mean scores and standard deviations of each variable, (2) correlation analysis to assess the relationships among system, user, and organizational factors, and (3) path analysis to determine direct and indirect effects consistent with the HOT-Fit model. The qualitative data from interviews were analyzed thematically to support quantitative findings and to deepen interpretation regarding leadership support, training, and user adoption. This mixed validation strengthens the methodological rigor and aligns with Creswell's [29] recommendations that combining quantitative precision and qualitative depth enhances the validity of ICT evaluation studies in public education contexts.

III. RESULTS AND DISCUSSION

The results of the descriptive analysis showed that the implementation of the e-Pusdik Information System has achieved a high level of effectiveness in supporting educational service delivery at the Center for Pancasila and Constitutional Education. The mean composite scores for system quality (4.25), information quality (4.18), and service quality (4.21) on a 5-point Likert scale indicate that users perceived the system as reliable, accurate, and user-friendly. Moreover, user satisfaction obtained an average score of 4.29, demonstrating strong acceptance and perceived usefulness among educators and administrative staff. Correlation analysis revealed a significant positive relationship between system quality and user satisfaction ($r = 0.712$, $p < 0.01$), while service quality showed a significant correlation with organizational performance ($r = 0.684$, $p < 0.01$). Path analysis confirmed that system quality, information quality, and service quality collectively explain 72.6% of the variance in user satisfaction, while user satisfaction and organizational support together explain 68.4% of the variance in educational service quality. These results validate the conceptual structure of the Human–Organization–Technology Fit (HOT-Fit) model, where the technological component (system quality), human component (user satisfaction), and organizational component (support and leadership) interact synergistically to determine overall system success [30]. The findings are consistent with Al-Emran [27], who

emphasized that system reliability and user responsiveness are the strongest predictors of successful ICT adoption in public institutions.

The high scores in system and information quality demonstrate that the technological infrastructure of e-Pusdik effectively supports core administrative and instructional processes. Respondents reported that system interfaces are intuitive and that data access for academic management and training modules is seamless. This aligns with findings by Kim and Park [25], who stated that usability and accessibility are critical determinants of sustained digital system use in education. Moreover, the accuracy and timeliness of information generated by e-Pusdik contribute significantly to improving decision-making efficiency and transparency—two pillars of digital governance in education [31]. However, some users highlighted minor technical limitations, including occasional delays in data synchronization and limited training in advanced system features. These issues echo Rahman's [26] observation that system performance gaps often arise from inconsistent technical support and insufficient ICT literacy among users. Thus, while the system's technical capacity is strong, continuous user training and regular performance audits remain essential to maintaining long-term reliability. In line with Goetsch and Davis [29], institutions must integrate TQM principles such as continuous improvement (kaizen) and feedback loops into digital system management to ensure sustained service quality. User satisfaction emerged as one of the strongest determinants of the system's overall success. Respondents acknowledged that e-Pusdik simplifies administrative workloads, enhances communication, and provides easier access to educational resources. This finding supports Yusof et al. [28], who identified user satisfaction as a mediating variable linking technological success to organizational outcomes. Moreover, satisfaction levels were positively correlated with user competence, suggesting that digital proficiency directly affects the perceived usefulness of the system [32]. The study also revealed that organizational culture plays a pivotal role in shaping user engagement. Leadership encouragement, peer collaboration, and clear digital governance policies increased user motivation to adopt e-Pusdik fully. Similar patterns were identified by Ülker and Elci [23], who emphasized that cultural readiness and leadership trust are essential in sustaining ICT innovation in Southeast Asian educational institutions. This aligns with the TQM principle of "quality through people," which posits that technological systems succeed only when users are empowered and supported through participatory management [33].

The organizational dimension of the HOT-Fit model focuses on institutional readiness, management support, and policy integration. The findings show that leadership at Pusdik Pancasila dan Konstitusi has established strong governance mechanisms to ensure accountability, including structured data management policies and clear user roles. The leadership's commitment to digital transformation—demonstrated through regular monitoring, evaluation sessions, and professional development programs—has significantly influenced system utilization. This confirms earlier findings by Oakland [28], who highlighted that leadership commitment is a critical success factor in TQM-based system implementation. Additionally, the organizational fit observed in this study reflects how TQM concepts such as continuous improvement, teamwork, and participatory decision-making are embedded into the management of e-Pusdik. The institution's approach exemplifies how HOT-Fit and TQM frameworks can be integrated to establish sustainable digital quality assurance systems. According to Rahmawati and Yusof [31], combining both models enables educational organizations to balance technical efficiency with process quality, thereby improving service delivery and institutional performance. This dual framework fosters a learning organization culture where feedback, innovation, and collaboration drive continuous improvement [34].

The findings of this study offer both theoretical and practical implications. Theoretically, the validation of the HOT-Fit model within a governmental education institution supports its adaptability beyond private or higher education contexts. It demonstrates that digital systems in public training centers can achieve high performance when there is alignment between human, technological, and organizational factors. Practically, the study suggests that the e-Pusdik platform has successfully enhanced service quality, but its sustainability depends on ongoing technical maintenance, training, and leadership-driven monitoring. The integration of TQM-based continuous improvement cycles—such as the PDCA model—can serve as a strategic framework for digital governance and educational quality assurance [35]. Furthermore, this evaluation provides valuable insights for other public institutions implementing e-Government education systems. Aligning digital initiatives with TQM principles ensures that system adoption is not limited to technology deployment but extends to cultural and organizational transformation. As highlighted by OECD [36], effective digital transformation requires an institutional mindset that prioritizes collaboration, innovation, and evidence-based decision-making. Hence, the e-Pusdik model contributes to Indonesia's broader agenda of sustainable education reform through ICT integration.

The results of this study are consistent with prior research emphasizing the importance of holistic evaluation frameworks for ICT systems. Al-Emran [27] and Rahman [26] confirmed that HOT-Fit dimensions—particularly user satisfaction and leadership support—are the most significant predictors of IS success in public institutions. Meanwhile, studies in higher education (Kim & Park [25]; Rahmawati & Yusof [31]) found that system usability and continuous improvement policies are essential to sustaining innovation and institutional effectiveness. The present study extends these findings to the faith-based and governmental training context, demonstrating that quality-driven digital systems can thrive when technical performance aligns with user empowerment and organizational strategy. In summary, the e-Pusdik Information System demonstrates strong performance across all dimensions of the HOT-Fit model. It effectively integrates technological robustness, user satisfaction, and institutional governance, supporting the modernization of civic education management in Indonesia. These outcomes align with the UNESCO (2022) perspective that digital systems in education should enhance not only operational efficiency but also the inclusiveness and integrity of public service delivery [37]. For educational administrators and policy makers, this study emphasizes the importance of adopting a TQM-based digital governance framework for managing and evaluating information systems in education. Regular system audits, user feedback loops, and staff development initiatives should be institutionalized to ensure sustainable performance.

Leadership should prioritize capacity building by providing targeted ICT training and promoting a culture of continuous improvement across all administrative units. In addition, the establishment of digital governance policies and standardized data protocols can further enhance transparency, accountability, and interoperability across educational departments [40]. For system developers and ICT managers, this study highlights the need to integrate usability testing, responsive design, and modular architecture to accommodate evolving user needs. Continuous collaboration between technical teams and end-users ensures that system improvements are aligned with pedagogical and administrative priorities. Future system upgrades should focus on integrating advanced analytics, user dashboards, and mobile access features to further improve accessibility and decision-making efficiency. For teachers and trainers, the e-Pusdik system provides a digital ecosystem that supports academic innovation and self-directed learning. Encouraging educators to actively utilize system tools for lesson planning, student tracking, and feedback collection can enhance teaching quality and learner engagement. In this sense, digital literacy becomes not only a technical competency but also an integral component of professional ethics and accountability [41].

Theoretically, this study contributes to extending the application of the HOT-Fit model within governmental and civic education contexts by integrating it with TQM principles. This hybrid approach bridges the gap between technological evaluation and organizational development, offering a multidimensional framework for understanding digital transformation in education. It reinforces the argument of Yusof et al. [28] and Al-Emran [30] that the interaction between system quality, human factors, and leadership determines sustainable information system success. For future research, it is recommended to conduct comparative or longitudinal studies across multiple public education institutions to assess how contextual variables—such as policy environment, institutional size, and digital infrastructure—affect system performance. Mixed-method approaches integrating data analytics and qualitative case studies could yield deeper insights into behavioral and strategic aspects of ICT adoption. Additionally, researchers may explore how AI-based decision support systems and data governance frameworks enhance accountability and innovation in educational management [42]. Ultimately, this study underscores that digital transformation in education should be approached as an ongoing organizational learning process. The implementation of systems like e-Pusdik must be continuously evaluated, refined, and supported through leadership commitment and collaborative engagement to achieve sustainable educational excellence in the digital era.

IV. CONCLUSION

This study concludes that the implementation of the e-Pusdik Information System has made a significant contribution to improving the quality of educational services at the Center for Pancasila and Constitutional Education (Pusdik Pancasila dan Konstitusi). The evaluation results, based on the Human–Organization–Technology Fit (HOT-Fit) model, confirm that the system's success is determined by three interrelated dimensions: technological quality, user competence, and organizational support. Quantitative analysis revealed that system quality, information quality, and service quality collectively enhance user satisfaction, which in turn positively influences institutional performance. The findings validate the theoretical proposition that information systems achieve optimal effectiveness when technological capabilities are complemented by human readiness and strong organizational governance. The e-Pusdik platform has improved efficiency in educational management, particularly in data accessibility, academic administration, and information transparency. However, maintaining system sustainability requires continuous technical enhancement, structured digital training for users, and consistent monitoring through the Plan–Do–Check–Act (PDCA) cycle. The integration of Total Quality Management (TQM) principles—such as continuous improvement, stakeholder engagement, and participatory evaluation—ensures that digital transformation aligns with the institution's educational and civic mission. In essence, the study establishes that the effectiveness of digital systems in public education is not solely a matter of technological sophistication but also of leadership, culture, and policy coherence.

V. REFERENSI

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