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Effectiveness of the Utilization of SIMDIKLAT Application in Education and Training Activities

Sirajuddin Saleh[1], Dilla Septianti[2], Muh. Darwis[3*]
[1,2,3]Universitas Negeri Makassar
Email: muh.darwis@unm.ac.id

ABSTRACT

This study aims to analyze the effectiveness of the implementation of the Education and Training Management Information System (SIMDIKLAT) in the implementation of education and training programs at the Makassar Religious Education and Training Center. Using a qualitative approach with purposive sampling techniques, data were collected through participatory observation, in-depth interviews, and documentation studies. Data analysis was carried out using the Miles and Huberman method, including data reduction, data presentation, and conclusion drawn. The results of the study show that the implementation of SIMDIKLAT has contributed positively to the effectiveness of the management of training activities, especially in terms of accuracy, relevance, and timeliness of the information produced. However, this study also identified several significant challenges, including: (1) the limitation of competent human resources in the operation of SIMDIKLAT, and (2) the lack of comprehensive training for training participants and staff in the use of the system. SIMDIKLAT has increased the efficiency of training management, the optimization of its potential is still constrained by organizational and technical factors. The theoretical and practical implications of these findings are discussed, including recommendations for the development of policies and strategies for the implementation of management information systems in the context of government education and training institutions.

Keyword: Management Information Systems, SIMDIKLAT, Effectiveness, Education and Training, Religious Education and Training Center

INTRODUCTION

This digital era that continues to develop, information and communication technology (ICT) has become a catalyst for change in various sectors, including education and training management. Government institutions, in their efforts to improve the efficiency and effectiveness of human resource management, are now facing demands to adopt an integrated management information system. (Jamaluddin et al., 2021; Mustafa et al., 2023; Nasrullah et al., 2021). One manifestation of this effort is the implementation of the Education and Training Management Information System (SIMDIKLAT) in various government agencies, including the Makassar Religious Education and Training Center.

SIMDIKLAT, as an ICT-based application, is designed to integrate all aspects of education and training management, from planning to evaluation. This system not only aims to improve administrative efficiency, but also to accelerate access to information and improve the quality of education and training services. However, the implementation of new information systems often faces various challenges, both in terms of technical aspects and user adaptation. (Arhas & Suprianto, 2020; Eritrina et al., 2023; Kusmawati et al., 2022; Syam et al., 2020).

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Program evaluation is a critical component in measuring training effectiveness. (Gegenfurtner et al., 2020; LE et al., 2022; Noe, 2020). The role of assessment in learning and training programs as an instrument to improve service quality (Andi, 2022; Halomoan, 2020; Nurbakti, 2020). Furthermore, Cascio & Montealegre (2016) revealed that the adoption of technology in organizations not only has an impact on operational efficiency, but also on the transformation of work culture and increasing human resource competency. However, there is still a gap in the literature regarding the specific implementation of SIMDIKLAT in religious training institutions in Indonesia.

Based on this background, this study aims to analyze the effectiveness of the use of the SIMDIKLAT application in teaching and learning activities at the Makassar Religious Training Center. Specifically, this study will examine the level of adoption and utilization of SIMDIKLAT by various stakeholders, its impact on administrative efficiency and service quality, and the challenges faced in its implementation.

The significance of this study lies in its contribution to theoretical and practical development in the field of technology-based education and training management. Theoretically, this study is expected to enrich the literature on the implementation of information technology in the context of government training institutions, especially in the religious sector. This is in line with the views of DeLone and McLean (2003) which emphasizes the importance of multidimensional evaluation in measuring the success of information systems. Practically, the findings of this study can be a reference for policy makers in optimizing the use of SIMDIKLAT and similar systems in other government training institutions. As emphasized by Rogers (1993) In the theory of innovation diffusion, understanding the factors that influence technology adoption is essential in designing effective implementation strategies.

Thus, this study not only contributes to improving the efficiency and effectiveness of education and training management at the Makassar Religious Training Center, but also provides valuable insights for the development of technology-based education and training management policies and practices in Indonesia more broadly.

METHOD

The research approach used in this study is a qualitative research approach as a research procedure that produces descriptions in the form of written and spoken words from people and behavior that can be observed with a type of qualitative descriptive research, namely research that describes narratively based on research data that is reviewed objectively from the results of interviews, observations, and documentation.

The data collection technique used in this study is by using observation, interviews and documentation. This research observation was carried out directly to examine matters related to the objects of this research, the interview technique was carried out to obtain information from the source in more depth and without limitation. This interview was conducted to strengthen the data by interviewing directly and having in-depth discussions with employees. The documentation technique was carried out by collecting documents that could be used as references in order to complete the data.

The data analysis technique in this study was the data analysis technique according to Miles and Huberman in Suprianto (2024) consisting of data collection, conducted to review all field notes obtained through interviews, observations and documentation studies, to be summarized later. Next, display data, the data that has been collected in the data display will be clearly visible and arranged systematically. And the last is drawing conclusions or verification.

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RESULT AND DISCUSSION

To find out students' perceptions of the Merdeka Belajar Kampus Merdeka program, researchers used 5 indicators, namely 1) SIMDIKLAT Implementation, 2) Human Resource Adaptation, 3) System Integration, 4) Quality of Information Produced, and 5) Effectiveness of SIMDIKLAT Use. The research results from the five indicators are as follows:

Implementation of SIMDIKLAT

The implementation of information systems in the public sector is a crucial step towards modernizing and improving the efficiency of government services. The case of SIMDIKLAT at the Makassar City Religious Education Center presents an interesting example of how technological innovation can be applied in the context of human resource management in government institutions, especially in the field of education and training.

This study reveals the complex dynamics that arise when a new information system is implemented in a bureaucratic environment. Initiated in 2017, the SIMDIKLAT initiative reflects an awareness of the importance of digitizing employee data management in the religious sector. However, like many other government innovation projects, this implementation faces significant challenges.

Based on the research that has been conducted, the implementation of SIMDIKLAT at the Makassar City Religious Education Center has begun since 2017, marking an important step in the modernization of the employee data management system in the religious sector. The implementation of this system is a response to the need for efficiency and accuracy in the management of education and training information. Since its initial implementation, SIMDIKLAT has shown significant potential in improving the education and training process. This system is designed not only to facilitate administrative processes, but also to improve the overall quality of education services.

Along the way, the implementation of SIMDIKLAT faced various challenges. The main obstacles faced in the early years were limited funds for updating and processing applications, as well as the lack of experts in data processing. This underlines the importance of careful planning and adequate resource allocation in the implementation of large-scale information systems. The implementation of SIMDIKLAT at the Makassar City Religious Education Center since 2017 shows the institution's commitment to adopting information technology to improve the efficiency of data management. This is in line with the Diffusion of Innovation theory Rogers (1993), which states that the adoption of new technology in organizations is a complex and time-consuming process.

The challenges faced in early implementation, such as limited funding and expertise, reflect what is called by Laudon & Laudon (2018) as "organizational resistance" to technological change. This shows that the implementation of information systems is not only a technical issue, but also involves aspects of change management. The potential of SIMDIKLAT in improving the quality of educational services is in line with the findings Wibowo & Sari (2018) about the positive correlation between technology adoption and improved organizational performance in higher education institutions. However, the different contexts between higher education and training centers indicate the need for adaptation in implementation.

The obstacles faced in the implementation of SIMDIKLAT emphasize the importance of careful planning and adequate resource allocation, as emphasized by DeLone & McLean (2003) dalam model kesuksesan sistem informasi mereka. Ini menunjukkan bahwa The success of implementation depends not only on the quality of the technology, but also on the readiness of the organization.

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Human Resource Adaptation

SIMDIKLAT at the Makassar Religious Education and Training Center revealed significant challenges in adapting HR capacity to the demands of new technologies. The identified skills gap, indicated by the direct involvement of leaders in data processing, underscores the urgency of systematic staff competency development. Although there are positive indications of a willingness to adapt, this study underlines the importance of a structured and sustainable HR development strategy to optimize system effectiveness. These findings provide valuable insights for public administration practitioners and researchers on the complexity and urgency of change management in the context of digitalization of government services.

Based on the research that has been conducted, Human Resources adaptation to SIMDIKLAT is one of the crucial aspects that influences system effectiveness. The study shows that this adaptation process is still not optimal, especially due to the limited number of operators who are able to operate the application with the available technology. This limitation has a significant impact on system operations. The head of data collection and personal data collection staff often have to be directly involved in data processing, indicating a skills gap that needs to be addressed. This situation reflects the importance of a comprehensive and sustainable training program.

Nevertheless, there are positive indications that HR at the Makassar Religious Education and Training Center has the willingness to adapt to new technologies. This can be seen from the efforts made to overcome limitations, such as the involvement of senior staff in the data processing process. However, to achieve optimal effectiveness, a more structured and sustainable HR development strategy is needed.

The less than optimal adaptation of HR to SIMDIKLAT reflects what is called by Venkatesh et al. (2012) in Unified Theory of Acceptance and Use of Technology (UTAUT) as "business expectations". The limited number of operators able to use the system suggests that the technology may be considered too complex by some users.

The direct involvement of the head of data collection and personal data collection staff in data processing suggests a significant skills gap. This is in line with the findings Cascio &Montealegre (2016) about the challenges of digital transformation in organizations, where digital skills are crucial but often lacking. The willingness of HR to adapt, although limited, shows the potential for improvement. This is in line with the concept of "technology readiness" put forward by Parasuraman (2000) where individuals have a tendency to adopt new technologies, but require adequate support and training.

The need for a more structured HR development strategy reflects the importance of "organizational learning" in the context of new technology implementation, as emphasized by Senge (1991). This suggests that technology adaptation should be seen as an ongoing process, not just a one-time event.

System Integration

SIMDIKLAT at the Makassar Religious Education and Training Center reveals the complexities faced in efforts to create an integrated information ecosystem. Limitations in database integration, the absence of a central server, and challenges in coordination between institutions reflect structural and technical barriers commonly encountered in large-scale government digitalization projects. These findings emphasize the importance of a holistic approach in developing government information systems, which not only focuses on technological aspects, but also considers organizational, policy, and human resource factors.

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This study provides valuable insights for policy makers and public administration practitioners about the urgency of strategic planning and cross-sectoral collaboration in realizing an integrated and efficient government system.

Based on the research that has been conducted, System integration is a challenge in the implementation of SIMDIKLAT. The study revealed that the integration of SIMDIKLAT with other systems under the auspices of the Ministry of Religion has not been fully achieved. The Education and Training Center has not built a database that allows for comprehensive information integration, creating a gap in the flow of information between institutions. Efforts to socialize SIMDIKLAT to other ministries of education have been carried out, but have not produced optimal results. The Ministry of Education and Culture's personal data has not been well integrated, largely due to the absence of a main server that can be a center for storing and retrieving integrated information.

This situation illustrates the complexity in creating a fully integrated system. The challenges lie not only in the technical aspects, but also in the coordination between institutions and the standardization of processes. Improvements in this system integration aspect will be key in optimizing the potential of SIMDIKLAT as an effective and efficient information management tool. The challenges in integrating SIMDIKLAT with other systems within the Ministry of Religious Affairs reflect the complexity faced in creating a fully integrated information system. This is in line with the concept of "information silo" discussed by Peppard (2016), where various departments or institutions have separate information systems that are difficult to integrate.

The absence of an integrated database and a main server for information integration indicates a gap in technology infrastructure. This is in accordance with the findings Kumar et al. (2017) about the importance of adequate IT infrastructure in supporting cross-organizational system integration. SIMDIKLAT socialization efforts that have not provided optimal results indicate challenges in coordination between institutions. This is in line with the Organizational Coordination theory put forward by Malone & Crowston (1994), which emphasizes the importance of coordination mechanisms in complex systems.

The complexity of system integration emphasizes the importance of a holistic approach in information system implementation, as argued by Waring and Wainwright (2000). This shows that the success of integration depends not only on technical aspects, but also on organizational and institutional factors.

Quality of Information Produced

SIMDIKLAT at the Makassar Religious Education and Training Center demonstrated how the right investment in technology and infrastructure can produce information output that meets the standards of accuracy, relevance, and timeliness. This success not only reflects the technical effectiveness of the implemented system, but also demonstrates the institution's strategic understanding of the crucial role of information technology in supporting data-driven decision-making. These findings emphasize the importance of focusing on output quality in any digitalization initiative in the public sector, given its direct impact on management effectiveness and service quality. This study provides valuable insights for public administration practitioners and researchers on how investment in information systems, if managed well, can significantly increase an organization's capacity to produce high-quality information that supports better governance. Based on the research that has been conducted, the quality of Information Produced by SIMDIKLAT is one aspect that shows the success of the implementation of this system. The study shows that the information produced from data management using the SIMDIKLAT application has met the expected quality criteria, namely accurate, relevant, and timely. This success is inseparable from the investment made in providing adequate equipment and infrastructure. This shows that the Makassar

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Religious Education and Training Center has understood the importance of technological support in producing high-quality information.

This good quality of information has a positive impact on decision-making and planning at the management level. Accurate and timely information allows leaders to make policies that are more targeted and responsive to the needs of the organization.

The quality of information produced by SIMDIKLAT which is considered good (accurate, relevant, and timely) is in line with the criteria for information quality put forward by DeLone & McLean (2003) in their information system success model. This shows that SIMDIKLAT has succeeded in meeting one of the main objectives of implementing a management information system.

Investment in equipment and infrastructure that supports information quality reflects the institution's understanding of the importance of technology support. This is in accordance with the findings Bharadwaj (2000) about the relationship between IT capabilities and organizational performance. The positive impact of information quality on decision making and planning is in line with the concept of "IT business value" discussed by Melville et al. (2004). This suggests that investment in information systems can provide strategic benefits to organizations, especially in terms of improving the quality of decision making. Success in producing high-quality information also reflects the effectiveness of the data transformation process into information, as described in the model Ackoff (1989) about the DIKW (Data, Information, Knowledge, Wisdom) hierarchy. This shows that SIMDIKLAT has succeeded in the critical stage of transforming raw data into meaningful and useful information for the organization.

Effectiveness of Using SIMDIKLAT

SIMDIKLAT at the Makassar Religious Education and Training Center shows that the success of an information system is not only measured by the quality of information output, but also by the extent to which the system can be integrated into the existing organizational structure and human resources. The mixed results in terms of information quality, human resource adaptation, and system integration reflect the multidimensional challenges faced in modernizing public administration. These findings emphasize the importance of a holistic approach to technology implementation, which considers not only technical aspects, but also human and organizational factors. This study provides valuable insights for policy makers and public administration practitioners on the importance of a balance between technological innovation, human resource capacity development, and organizational process transformation in achieving optimal effectiveness of management information systems in government institutions. Based on the research that has been conducted, it was found that the effectiveness of SIMDIKLAT use showed mixed results in various aspects. In terms of the quality of information produced, the use of SIMDIKLAT is considered very effective. This system has succeeded in increasing the accuracy, relevance, and timeliness of the information produced, which are the main objectives of implementing a management information system. However, in terms of human resource adaptation and system integration, the effectiveness of SIMDIKLAT use is still not optimal. The limited number of skilled operators and the lack of integration of data between institutions are significant inhibiting factors. This shows that the effectiveness of the system does not only depend on the quality of technology, but also on the readiness of human resources and supporting infrastructure. However, the potential for SIMDIKLAT to improve the efficiency and effectiveness of education and training management at the Makassar Religious Education and Training Center remains high. With improvements in aspects of human resource adaptation and system integration, SIMDIKLAT can become a more powerful tool in supporting decision-making and improving the quality of education and training services.

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In conclusion, the implementation of SIMDIKLAT at the Makassar Religious Education and Training Center has shown positive results, especially in terms of improving the quality of information. However, there is still room for improvement, especially in terms of human resource adaptation and system integration. The challenges identified in this study, such as the limited number of skilled operators and the suboptimal integration of data between institutions, are important points that need to be addressed in future system development. Proper handling of these challenges will be key to optimizing the effectiveness of SIMDIKLAT as a whole.

Finally, this study highlights the importance of a holistic approach in implementing a management information system. Success is determined not only by the quality of technology, but also by the readiness of human resources, system integration, and infrastructure support. By considering all these aspects, SIMDIKLAT has great potential to become a transformative tool in improving the quality of education and training within the Ministry of Religious Affairs.

The mixed results in the effectiveness of SIMDIKLAT use reflect the complexity of implementing information systems in public organizations. Success in producing high-quality information is in line with the information system success model DeLone & McLean (2003) which emphasizes information quality as one of the key dimensions.

Challenges in HR adaptation and system integration show that the effectiveness of information systems depends not only on the quality of technology, but also on organizational and human factors. This is in accordance with the findings Heeks (2002) on the factors that influence the success or failure of e-government projects in developing countries. The potential of SIMDIKLAT in improving the efficiency and effectiveness of education and training management is in line with the concept of "public value of IT" put forward by Cordella & Bonina (2012). This suggests that information systems in the public sector have the potential to provide broader benefits to society, not just internal organizational efficiency.

The need for improvements in aspects of human resource adaptation and system integration reflects the importance of a socio-technical approach to information system implementation, as argued by Bostrom & Heinen (1977). This emphasizes that the success of information systems requires alignment between the technological and social aspects of the organization.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that the implementation of SIMDIKLAT at the Makassar Religious Education and Training Center shows mixed results in various aspects of its effectiveness. Although this system has succeeded in improving the quality of information produced, by achieving high levels of accuracy, relevance, and timeliness, there are still significant challenges in terms of human resource adaptation and system integration. The limited number of skilled operators and the less than optimal data integration between institutions are the main inhibiting factors in optimizing the potential of SIMDIKLAT as a whole. This finding emphasizes the importance of a holistic approach in the implementation of management information systems in government institutions, which not only focuses on technological aspects, but also considers organizational factors and HR capacity development. To improve the effectiveness of SIMDIKLAT in the future, a more comprehensive strategy is needed, including improving HR training programs, improving IT infrastructure, and developing more effective inter-institutional coordination mechanisms, so that it can optimize the potential of the system in supporting decision making and improving the quality of education and training services within the Ministry of Religion.

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