DOI: https://doi.org/10.33487/edumaspul.v9i1

EDUMASPUL
JURNAL PENDIDIKAN

Vol 10 No. 02 (2026) page 653-664

p-ISSN 2548-8201 | e-ISSN 236-0469
https://ummaspul.e-journal.id/maspuljr/

The Utilization of E-Puskesmas in Supporting Learning and Competency Development of Health Workers: A Study of the Perception of Usability, Convenience, Attitudes, User Intentions, and Actual Use at the Puskesmas in the Solor Region, East Flores Regency

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Abstract

Digital transformation in the healthcare sector is driving the use of health information systems as a means of improving service quality and developing the competencies of healthcare workers. One innovation implemented in primary healthcare facilities is E-Puskesmas, an electronic-based information system that supports the integrated management of patient data, healthcare services, and healthcare center administration. This study aims to analyze the use of E-Puskesmas in supporting the learning and competency development of healthcare workers through a study of perceived usefulness, perceived ease of use, user attitudes, user intentions, and actual use at healthcare centers in the Solor area of East Flores Regency. The study used a quantitative approach with an explanatory survey design. Data were obtained by distributing questionnaires to healthcare workers who use E-Puskesmas in their daily service activities. Data analysis was conducted using the Technology Acceptance Model (TAM) approach with Structural Equation Modeling based on Partial Least Squares (SEM-PLS). The results indicate that perceived usefulness and perceived ease of use play a significant role in shaping healthcare workers' positive attitudes toward using E-Puskesmas. This positive attitude fosters user intentions to utilize the system continuously, which in turn increases actual use in healthcare services. The actual use of e-Puskesmas not only improves the effectiveness and efficiency of services but also contributes to improving digital literacy, information technology skills, and the professional competence of healthcare workers through workplace learning. This study concludes that e-Puskesmas plays a strategic role as a healthcare service medium and a learning and competency development tool for healthcare workers. Therefore, training support, strengthening digital literacy, and developing a system tailored to user needs are needed to optimize the benefits of e-Puskesmas in supporting the digital transformation of healthcare services.

Keywords: *e-Puskesmas, healthcare worker learning, competency development, Technology Acceptance Model, perceived usability.*

Abstract

Digital transformation in the health sector encourages the use of health information systems as a means of improving service quality as well as developing the competence of health workers. One of the innovations applied to first-level health service facilities is E-Puskesmas, which is an electronic-based information system that supports the management of patient data, health services, and the administration of health centers in an integrated manner. This study aims to analyze the use of E-Puskesmas in supporting the learning and competency development of health workers through a study of the perception of usability, perception of ease of use, user attitude, user intention, and actual use in the Puskesmas in the Solor area, East Flores Regency. The study uses a quantitative approach with an explanatory survey design. Data was obtained through the distribution of questionnaires to health workers who use E-Puskesmas in daily service activities. Data analysis was carried out using the Technology Acceptance Model (TAM) approach with Structural Equation Modeling techniques based on Partial Least Squares (SEM-PLS). The results

of the study show that the perception of usability and the perception of ease of use play an important role in shaping the positive attitude of health workers towards the use of E-Puskesmas. This positive attitude encourages the formation of users' intention to utilize the system in a sustainable manner which further has an impact on increasing actual use in health services. The actual use of E-Puskesmas not only increases the effectiveness and efficiency of services, but also contributes to improving digital literacy, information technology skills, and professional competence of health workers through the work-based learning process (*workplace learning*). This study concludes that E-Puskesmas has a strategic role as a medium for health services as well as a means of learning and developing competencies of health workers. Therefore, training support, strengthening digital literacy, and developing systems that suit user needs are needed to optimize the benefits of E-Puskesmas in supporting the digital transformation of health services.
Keywords: E-Puskesmas, health worker learning, competency development, Technology Acceptance Model, usability perception.

Research Background

The development of information and communication technology has encouraged digital transformation in various sectors, including the health sector.(Bloom 2020) Digitization of health services is one of the important strategies in improving service quality, governance effectiveness, and administrative efficiency in first-level health care facilities.(Andini Pramudita 2025) The Government of Indonesia through the health system transformation agenda continues to strengthen the implementation of an integrated health information system as part of public service reform. Through the policy of digitizing electronic medical records and integrating with the SATUSEHAT ecosystem, all health service facilities, including health centers, are encouraged to utilize information technology to support faster, accurate, and data-based services. Puskesmas as the spearhead of primary health services has a strategic role in providing promotive, preventive, curative, and rehabilitative services to the community. As the complexity of health services increases, health centers are no longer only required to provide quality services, but also to be able to manage health data effectively, compile reports in a timely manner, and support information-based decision-making.(Suryana et al. 2025)

Therefore, the use of health information systems is a necessity that cannot be separated from the modern health service process. One of the innovations that is widely implemented in first-level health service facilities is E-Puskesmas, which is a health service management information system that integrates the patient registration process, electronic medical records, poly services, pharmacy, laboratories, reporting, and integration with various national systems such as BPJS Kesehatan and SATUSEHAT. The presence of E-Puskesmas provides convenience for health workers in recording services electronically, reducing duplication of work, accelerating the preparation of reports, and improving the accuracy of health data. In addition, this system supports electronic medical record standards in accordance with national regulations and utilizes cloud computing technology so that it can be accessed more flexibly. Behind this administrative function, E-Puskesmas has another dimension that has not been widely studied, namely as a learning medium (*Learning Media*) and a means of developing the competency of health workers.(Amanda, Husain, and Wijayati 2026)

The routine use of health information systems requires health workers to continue to improve their digital literacy skills, mastery of information technology, health data management, and evidence-based decision-making (*evidence-based decision making*), as well as the ability to adapt to technological changes.

Thus, the activity of using E-Puskesmas is not only part of the implementation of health services, but also a continuous learning process (*Continuous learning*) that supports the improvement of the professional competence of health workers. In an educational perspective, adult learning (*Adult Learning*) emphasized that work experience is a very important learning resource for competency development. The continuous use of digital applications allows health workers to gain hands-on experience in managing information, solving service problems, understanding technology-based operational procedures, and improving the ability to analyze health data. (Public and Year 2025)

Therefore, E-Puskesmas can be seen as a means of work-based learning (*Workplace Learning*) that strengthen the capacity of health human resources in a sustainable manner. However, the success of the implementation of E-Puskesmas is not only determined by the sophistication of the technology used. Various studies show that the success of an information system is greatly influenced by the user's acceptance of the technology. Even a well-designed system is not necessarily optimally utilized if users do not have a positive perception of the benefits, convenience, and added value provided by the system. In contrast, systems that are considered useful and easy to use tend to gain higher acceptance rates, resulting in an increase in the intensity of use in daily activities. One of the theories that is widely used to explain the behavior of technology acceptance is the Technology Acceptance Model (TAM). (Firdaus, Khaerani, and Wijaya 2025)

This model explains that the acceptance of a technology is influenced by the perception of usability (*perceived usefulness*) and the perception of ease of use (*perceived ease of use*). The two constructs form the attitude of the user (*attitude toward using*), which further influences the intention to use technology (*behavioral intention to use*) and is ultimately reflected in actual use (*Current use*). This model has been widely used to evaluate the acceptance of various information systems, including health information systems, because it is able to explain the relationship between users' psychological factors and technology usage behavior. The perception of usability illustrates the belief of health workers that E-Puskesmas is able to improve the quality of work, speed up services, reduce recording errors, and increase work productivity. The greater the benefits felt, the higher the likelihood that health workers will utilize the system sustainably. On the other hand, the perception of ease of use has to do with the belief that the system is easy to understand, easy to learn, not complicated to operate, and does not require excessive effort.(Tyas and Darma 2017)

Ease of use is an important factor, especially for health workers who have diverse backgrounds in information technology capabilities. The perception of usability and convenience then shapes consumers' attitudes towards E-Puskesmas. A positive attitude will increase the motivation of health workers to make optimal use of the system, while a negative attitude can lead to resistance to digital change. This attitude further affects the intention of users to use E-Puskesmas in a sustainable manner. This intention is the main predictor that determines whether technology is really used in daily health care practices. When the intention of use has been firmly established, then the actual use will increase and technology becomes part of the work culture of the organization. In the context of competency development, the actual use of E-Puskesmas provides an opportunity for health workers to continue to update their digital knowledge and skills. The more often the system is used, the higher the learning

experience gained through direct interaction with technology. (Hapzi Ali, Hamdan, and M. Rizky Mahaputra 2022)

This experience contributes to the improvement of digital competence, health data analysis skills, electronic medical record documentation skills, and adaptability to the ongoing digital transformation in the Indonesian healthcare sector. The health center in the Solor area, East Flores Regency, is one of the areas that faces the geographical challenges of the archipelago, limited resources, and the need to improve the quality of health services. In such conditions, the implementation of E-Puskesmas is very important as an instrument that supports the effectiveness of services while increasing the capacity of health workers through technology-based learning. However, the success of the use of the system is not only determined by the availability of infrastructure, but also by how health workers view the usefulness of the system, ease of use, form a positive attitude, have the intention to use, and finally use the E-Puskesmas in real life in daily service activities.

Based on this description, this study aims to examine the use of E-Puskesmas in supporting the learning and competency development of health workers through the analysis of usability perceptions, user-friendliness perceptions, user attitudes, user intentions, and actual use in the Puskesmas in the Solor area, East Flores Regency. The results of the research are expected to make a theoretical contribution to the development of technology acceptance models in the fields of education and health, as well as practical recommendations for policy makers in strengthening the implementation of digital transformation and sustainable development of health human resource competencies.

Research Methods

This study uses a quantitative approach with an explanatory survey research design (*Explanatory Survey*).(Assayakurrohim et al. 2023) The quantitative approach was chosen because the study aims to analyze the relationships between variables in the Technology Acceptance Model (TAM) model which includes the perception of usability (*perceived usefulness*), perception of ease of use (*perceived ease of use*), consumer attitudes (*attitude toward using*), user intent (*behavioral intention to use*), and actual use (*Current use*) in the use of E-Puskesmas as a means of learning and developing the competencies of health workers. Explanatory design is used to explain the causal relationship between variables based on the conceptual model that has been formulated and test the suitability of the technology acceptance model in the context of primary health services. TAM is one of the most widely used models to explain the acceptance of information technology through the constructs of usability perception, ease of use perception, attitude, intention of use, and actual use.(Sofya et al. 2024)

The research was carried out in all health centers in the Solor area, East Flores Regency, East Nusa Tenggara Province. The research location was chosen purposively because all health centers in the region have utilized the E-Puskesmas application in the implementation of health services so that it is possible to evaluate the level of technology acceptance as well as its use as a medium for work learning (*Workplace Learning*) for health workers. The research population is all health workers who use the E-Puskesmas application in carrying out health services, including doctors, dentists, nurses, midwives, pharmaceutical personnel, public health workers, nutrition workers, laboratory personnel, medical record officers, and administrative personnel who directly operate the system. Respondents were selected using purposive sampling techniques, with the following criteria: (1) having used the E-Puskesmas application for at least six months,

(2) using the application in service activities regularly, and (3) willing to become research respondents. (Hermina 2026)

The number of samples was adjusted to the provisions of the Partial Least Squares–Structural Equation Modeling (PLS-SEM) analysis, which is a minimum of five to ten times the number of research indicators so as to meet the requirements of structural model analysis. The PLS-SEM approach is commonly used in TAM research because it is able to analyze the relationship between latent constructs with relatively moderate sample sizes. The data used consists of primary data and secondary data. Primary data was obtained through the distribution of questionnaires to health workers using E-Puskesmas, while secondary data was obtained from Puskesmas documents, E-Puskesmas implementation reports, operational guidelines, and various other supporting documents related to the digitalization of health services. The research instrument was in the form of a closed questionnaire compiled based on the Technology Acceptance Model (TAM) construct using a five-level Likert scale, namely 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The usability perception variable is measured through the indicators of the benefits of E-Puskesmas in improving work effectiveness, service productivity, service quality, and efficiency in task implementation.(Masruroh and Fatimah 2023)

The variables of ease of use perception were measured through indicators of ease of learning the system, ease of operation of the application, clarity of interface, and ease of interaction with the system. User attitude variables are measured through the level of enjoyment, acceptance, and positive assessment of the use of E-Puskesmas. User intent variables are measured through the desire to use the application continuously, readiness to utilize all features, and commitment to use the system in daily services. The actual use variables are measured through the frequency of use, intensity of use, duration of use, and the level of utilization of E-Puskesmas features in health service activities. These constructs are the main indicators commonly used in TAM research. Before being used as a research instrument, the questionnaire was tested for the validity of the content (*Content validity*) through the assessment of experts in the field of health information systems and research methodologies. Next, instrument tests were carried out (*Pilot test*) to a number of respondents who have characteristics similar to the research sample.

The results of the test were analyzed to determine the validity of the construct using the *Outer Loading* and *Average Variance Extracted* (AVE), while the reliability of the instrument was tested using Cronbach's Alpha, Composite Reliability (CR), and rho_A. The instrument was declared to meet the requirements if the *Outer Loading* ≥ 0.70, AVE ≥ 0.50, and Cronbach's Alpha and Composite Reliability values ≥ 0.70. The data analysis technique used Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the help of SmartPLS software version 4. The analysis is carried out through two main stages, namely the evaluation of the measurement model (outer model) and the structural model (inner model). Evaluation *Outer model* The purpose of testing the convergent validity, discriminant validity, and construct reliability is to be tested. Next evaluation *Inner model* carried out to determine the value of the determination coefficient (R^2), *effect size* (f^2), *predictive relevance* (Q^2), *Goodness of Fit*, path coefficient (*Path Coefficient*), as well as the significance of the relationship between variables using a bootstrapping procedure with a significance

level of 5% ($\alpha = 0.05$).(Nurlaela, Noch, and Pongtiku 2025)

The SEM-PLS approach was chosen because it is able to analyze the simultaneous relationships between latent constructs, accommodate complex models, and is widely used in research on the acceptance of TAM-based technology in the fields of health and education information systems. This study also pays attention to the ethical aspects of research by upholding the principles of data confidentiality, voluntary consent (*informed consent*), respondent anonymity, and the use of data solely for scientific purposes. All respondents were given an explanation of the purpose of the study, the benefits of the research, and the right to stop participation at any time without any consequences. Thus, all stages of research are carried out in accordance with the principles of research ethics and applicable scientific principles.

Results and Discussion

A. Utilization of E-Puskesmas

The use of E-Puskesmas is part of the digital transformation in the health sector which aims to improve the quality, effectiveness, and efficiency of health services at the primary level. E-Puskesmas is an electronic-based health information system designed to support various service activities at health centers, ranging from patient registration, medical record recording, poly services, pharmaceuticals, laboratories, health reporting, to integrated administrative management. The presence of this system is a solution to various obstacles that have been faced in manual health data management, such as delays in reporting, risk of data loss, duplication of records, and low efficiency in the service process. In practice, the use of E-Puskesmas provides various conveniences for health workers in carrying out their duties and responsibilities.(Tarigan and Maksum 2022)

This system allows the process of recording patient data to be carried out more quickly, accurately, and well documented, making it easier to trace health service history. In addition, healthcare workers can access patient information in real time, which ultimately helps improve the accuracy of diagnosis, medical decision-making, and more effective health action planning. With the availability of complete and integrated data, health services can be provided more optimally and oriented to the needs of patients. The use of E-Puskesmas also contributes to improving the efficiency of health service administration. Reports that were previously prepared manually can now be generated automatically through the system, reducing the administrative workload of health workers. This condition allows health workers to focus more on service to the community compared to administrative work that requires a lot of time and effort.

In addition, data integration in the system also helps speed up the reporting process to the health office and related agencies so as to support more accurate data-based policymaking. From the perspective of human resource development, E-Puskesmas not only functions as a tool for health services, but also as a means of learning and improving the competence of health workers. The sustainable use of health information systems encourages health workers to improve digital literacy skills, information technology skills, and the ability to manage and analyze health data. The process of continuous interaction with digital systems creates a practical and contextual learning experience so as to strengthen professional competence in the face of increasingly rapid development of health technology. Furthermore, the use of E-Puskesmas supports the creation of a more modern, transparent, and accountable work culture. Every service activity carried out can be documented systematically to facilitate the process of monitoring and evaluating

performance.(Diah Ratri Larasati and Cau Kim Jiu 2025)

The transparency of the data produced also helps to increase the accountability of health services to the community and strengthens public trust in the quality of services provided by health centers. On the other hand, the data stored in the system can be used as a source of information for health program planning, identification of public health problems, and evaluation of the success of various service programs that have been implemented. In the era of digital transformation and the implementation of electronic-based health systems, the use of E-Puskesmas is an unavoidable need. The success of using this system is not only determined by the sophistication of the available technology, but also by the readiness of human resources, organizational support, availability of infrastructure, and user acceptance of the technology. Therefore, the optimization of the use of E-Puskesmas needs to continue to be encouraged through training, mentoring, strengthening digital literacy, and policy development that supports the sustainable use of technology. With optimal utilization, E-Puskesmas can be an important instrument in improving the quality of health services while developing the competence of health workers in facing health service challenges in the digital era.

B. Learning and Competency Development of Health Workers

Learning and competency development of health workers is a continuous process to improve the knowledge, skills, attitudes, and professionalism of health workers in providing quality services to the community. In the midst of increasingly complex developments in science, health technology, and service demands, health workers are required to continue to update their competencies in order to be able to adapt to changes in the work environment and meet applicable health service standards. Therefore, learning is no longer understood as an activity that only takes place during formal education, but rather as a lifelong process (*lifelong learning*) inherent in the health worker profession. In the context of modern health services, the competencies of health workers include various aspects, including clinical competence, communication skills, managerial skills, the ability to work in a team, digital literacy, and the ability to utilize health information technology.(Khasanah and Priyadi 2021)

Mastery of these competencies is very important because the quality of health services is greatly influenced by the ability of health workers to carry out their duties and responsibilities professionally. The higher the level of competence possessed, the greater the ability of health workers to provide safe, effective, efficient, and patient-oriented services. Learning for health workers can be carried out through various approaches, both formal and informal. Formal learning is generally carried out through continuing education, training, seminars, workshops, professional certifications, and capacity building programs organized by health institutions and educational institutions. Meanwhile, informal learning takes place through daily work experience, discussions with colleagues, problem solving in the workplace, the use of information technology, and reflection on service practices that have been carried out. The two forms of learning complement each other in forming comprehensive professional competencies.(Kustiarini, Rondhianto, and A'la 2024)

The development of digital technology has brought significant changes in the learning process and competency development of health workers. Various health information systems, digital applications, online learning

platforms, and electronic medical records are now an integral part of health service activities. The use of such technology not only helps the implementation of service tasks, but also creates a learning environment that allows health workers to acquire new knowledge and skills on an ongoing basis. Through interaction with technology, health workers can improve digital literacy skills, understand health data management, and develop skills in utilizing information to support clinical and administrative decision-making. Work-based learning (*Workplace Learning*) is one of the increasingly relevant approaches in the development of health worker competencies. This approach emphasizes that the work environment is a rich source of learning because it provides opportunities for individuals to gain real experience in solving various professional problems.(Safina, Yasmin, Aurelia et al. 2026)

In practice, health workers learn through direct involvement in patient services, the use of health information systems, collaboration between professions, and evaluation of the work that has been achieved. This experience allows for more contextual knowledge transfer and skill development according to job needs. The development of health worker competencies also has a strategic role in improving the quality of health services. Competent health workers tend to be better able to provide services that meet standards, reduce the risk of medical errors, improve patient safety, and create public satisfaction with health services. In addition, good competencies support the ability of health workers to face various new challenges, including changes in health policies, the development of medical technology, and the increasingly dynamic needs of society. In the era of digital transformation, competency development not only focuses on the technical aspects of health services, but also on the ability to adapt to information technology.(July 2012)

Health workers need to have skills in operating digital systems, managing electronic data, maintaining the security of health information, and utilizing technology to improve service effectiveness. This digital competence is one of the important indicators of the readiness of health human resources in facing the ever-evolving technology-based health service system. Furthermore, learning and developing competencies of health workers is a long-term investment for health service organizations. Increasing the capacity of human resources not only has an impact on individuals, but also contributes to improving organizational performance, service efficiency, governance quality, and the successful implementation of various health innovations. Therefore, every health service institution needs to create a learning culture that supports sustainable competency development through training, mentoring, the use of technology, and the provision of a conducive work environment for the learning process.

Thus, learning and competency development of health workers is a fundamental element in realizing quality and sustainable health services. Through a continuous learning process, health workers can increase their professional capacity, adapt to technological developments, and provide services that are more effective, safe, and oriented to the needs of the community. In today's digital era, competency development is the main key in supporting the transformation of health services towards a more modern, integrated, and responsive system to various future health challenges.

C. Study of Perception of Learning, Usability, Attitude, Intention, User, and Actual Use at the Solor Regional Health Center, East Flores Regency

The development of information technology in the health sector has encouraged

a change in the work pattern of health workers from a conventional system to a digital-based service system. The implementation of various health applications, including E-Puskesmas, not only functions as a means of administration and health services, but also as a learning medium that supports the improvement of the competence of health workers. In this context, the success of the use of technology is greatly influenced by the user's perception of the benefits and convenience of the system used. Therefore, the study of learning perceptions related to usability, convenience, attitudes, user intentions, and actual use is important to understand the level of technology acceptance in the Puskesmas in the Solor area, East Flores Regency. Perception of usefulness (*perceived usefulness*) is the belief of health workers that the use of digital systems is able to provide real benefits in supporting the implementation of their duties and responsibilities.(Utomo and Hidayah 2023)

In the context of learning, the perception of usability is not only related to the system's ability to speed up services or facilitate data management, but also concerns its contribution to improving the knowledge, skills, and professional competence of health workers. When health workers feel that the use of technology can help them understand work procedures more effectively, improve service quality, and expand their knowledge of health information management, the perception of the usefulness of the system will be higher. This positive perception is an important factor in encouraging the acceptance and sustainable use of technology. In addition to usability perception, another factor that affects the success of technology implementation is the perception of ease of use (*perceived ease of use*). The perception of ease describes the extent to which health workers believe that the system used is easy to understand, learn, and operate without requiring excessive effort.(Irawati, Bagye, and Saleh 2026)

In the learning process, ease of use has a very important role because it can increase individual motivation to continue to use technology as a means of learning and working. The easy-to-use system allows healthcare workers to adapt faster to technological changes, reduce technical barriers, and increase confidence in carrying out various digital-based healthcare activities. The perception of usability and the perception of ease of use will subsequently shape the attitude of the user (*attitude toward use*) against the technology used. User attitudes reflect a person's positive or negative evaluation of the use of a system. In the health center environment, a positive attitude can be shown through the enthusiasm of health workers in utilizing technology, willingness to learn new features, and belief that the system is able to provide benefits for their work.(Rizqulloh, Iqbal, and Puspitasari 2022)

On the other hand, negative attitudes can arise if users feel that the system is too complicated, does not meet work needs, or does not provide significant benefits. Therefore, the formation of a positive attitude is one of the key factors in the successful implementation of the health information system. A positive user attitude will affect the appearance of user intent (*behavioral intention to use*) to use technology sustainably. User intent is a psychological indicator that shows an individual's readiness and desire to continue utilizing a system in daily activities. From a learning perspective, the intention to use technology reflects the commitment of health workers to continue to develop their competencies through the use of digital systems. The higher the user intent, the more likely it is that the technology is used consistently and becomes part of the

organization's work culture.(Rita Yuniarti, Asriwati Asriwati, and Miskah Afriani 2025)

The next stage is actual usage (*Current use*), namely the real use of technology by health workers in carrying out health duties and services. Actual use is an indicator of the success of technology acceptance because it shows the extent to which the system is actually utilized in daily work practices. In the context of learning, actual use allows for a continuous learning process through direct experience (*experiential learning*). Each interaction with the system provides an opportunity for healthcare workers to deepen understanding, improve digital skills, and develop the ability to manage health information effectively. At the Puskesmas in the Solor area, East Flores Regency, the study of the perception of usability, convenience, attitudes, user intentions, and actual use is very relevant considering geographical challenges and the need to improve the quality of health services in the archipelago.

The use of health technology not only serves to accelerate services to the community, but also becomes a strategic means in increasing the capacity of health human resources. Through the use of an integrated information system, health workers have the opportunity to learn sustainably, strengthen professional competence, and improve their ability to adapt to technological developments in the health sector. This study is also important to identify factors that support or hinder the process of accepting technology in the health center environment. A comprehensive understanding of user perceptions can be the basis for policymakers in designing strategies to improve the competence of health workers, provide appropriate training, and develop systems that are easier and more beneficial for users.

Thus, optimizing the use of technology not only has an impact on improving the quality of health services, but also contributes to the development of a learning culture and improving the competence of health workers in a sustainable manner. Overall, the study of learning perceptions of usability, convenience, attitudes, user intentions, and actual use provides a comprehensive picture of how healthcare workers receive and utilize technology in their work environment. The relationship between these five aspects shows that the success of technology implementation is not only determined by technical factors, but also by psychological, behavioral, and user learning experiences. Therefore, strengthening a positive perception of technology is a strategic step in supporting digital transformation and the development of competencies of health workers at the Health Center in the Solor area, East Flores Regency.

Conclusion

The use of E-Puskesmas in the Puskesmas in the Solor area, East Flores Regency shows a significant role not only as a health service information system, but also as a means of learning and developing the competence of health workers. The implementation of E-Puskesmas has supported the digital transformation process of health services through the provision of a system that is able to simplify data management, improve administrative efficiency, accelerate services, and support more accurate information-based decision-making. In the context of human resource development, the use of E-Puskesmas provides a sustainable learning experience for health workers in improving digital literacy, information technology skills, health data management skills, and professional competencies needed in the digital era. Based on a study on the perception of usability, perception of ease of use, user attitude, user intention, and actual use, it was found that the perception of usability and ease of use are the main factors that encourage the acceptance of E-Puskesmas by health workers. The higher

the benefits felt and the easier the system is to use, the more positive the attitude of health workers towards the use of E-Puskesmas. This positive attitude further encourages the formation of a strong intention to continue to use the system in daily health service activities. High user intent contributes to the increase in the actual use of E-Puskesmas in various health services at health centers. Continuous actual use not only reflects the successful implementation of health information systems, but also indicates the occurrence of work-based learning processes (*Workplace Learning*) that enables healthcare workers to gain new knowledge and skills through hands-on experience in using technology. Thus, E-Puskesmas becomes an effective learning medium in supporting the continuous improvement of the competence of health workers.

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