Jurnal Transformasi Digital dalam Ekonomi, Bisnis, dan Manajemen ISSN 3089-5979 (online)
Vol. 1 No. 2, April (2025), pp. 55-64 Published by Yayasan Cinta Negara

Utilization of Digital Technology in Improving Economic Literacy for Low Income Communities

Falyuhsin[1], Hendra Gunawan[2]
[1 2] Fakultas Teknologi dan Bisnis, Program Studi Sistem Informasi,
Universitas Putra Abadi Langkat Indonesia

ARTICLE INFO

Article history:

Received: April 2, 2025
Revised: April 14, 2025
Accepted: April 22, 2025

Keywords:

Digital Technology;
Economic Education App;
Economic Empowerment;
Economic Literacy;
Low Income Communities.

ABSTRACT

This study aims to analyze the use of digital technology in improving economic literacy among low-income communities. Low economic literacy can be a barrier for people in personal financial management, family economic planning and participation in economic activities. Digital technologies, especially economic education apps, have the potential to address this issue by providing easier access to information and educational resources. This study uses a mixed method, combining qualitative and quantitative approaches, to evaluate the effect of digital technology on improving economic literacy. The results show that the use of economic education apps can improve economic literacy by 22.6% among low-income communities. However, obstacles such as limited internet access and difficulties in understanding more complex materials remain a challenge. Based on these findings, it is recommended to improve access to digital technology, simplify economic education materials, and develop digital literacy training programs. This research contributes to the understanding of how digital technology can be used to improve the economic well-being of low-income communities by providing practical recommendations for further development. Potential follow-up research includes long-term studies to evaluate the sustainability impact of economic education applications on people's financial behavior and well-being.

Corresponding Author:

Falyuhsin,
Fakultas Teknologi dan Bisnis, Program Studi Sistem Informasi,
Universitas Putra Abadi Langkat Indonesia,
Jl. Letjen R. Soeprapto No.10, Kwala Bingai, Sumatera Utara. Indonesia 20814.
Email: Falyuhsin11@gmail.com

1. INTRODUCTION

Economic literacy is an individual's understanding of basic economic concepts that are important in everyday life, such as money management, making wise financial decisions, and understanding market mechanisms. Economic literacy is crucial for low-income communities as it helps them make better decisions in managing their limited resources. Without an adequate understanding of financial management, low-income communities are vulnerable to being trapped in a cycle of poverty, are at high risk of debt, and have difficulty accessing financial services that could improve their quality of life.However, while the importance of economic literacy has been widely discussed, the reality is that many low-income communities still face major challenges in terms of economic understanding. The inability to understand how to manage money wisely, take advantage of investment opportunities, or even understand their financial rights often prevents them from improving their quality of life. On the other hand, their level of access to economic information and education is still limited, making the situation worse. In this digital era, technology is a very important factor in improving economic literacy. Digital technology offers various tools and platforms that can provide economic education more widely and equitably. Mobile applications, online education platforms and other digital resources can reach people living in remote areas or who have limited access to formal education.

Therefore, digital technology can be an effective solution to improve economic literacy among low-income communities.

Digital technology enables faster, cheaper and easier access to information. People who previously had difficulty accessing formal education or information on financial management can now utilize devices such as smartphones to access various sources of information relevant to the economy. Educational platforms based on mobile applications, video tutorials, or articles that can be accessed anytime and anywhere provide a great opportunity for low-income communities to learn and improve their understanding of economics. In addition, digital technology also offers interactive solutions that allow individuals to learn according to their pace and needs. Learning that is tailored to each individual's interests and level of understanding can help them more easily grasp economic concepts that may have previously been difficult to understand. It also allows for information reinforcement through social media, discussion forums and online communities that can share knowledge with each other, thus accelerating the learning process.However, while digital technology has great potential, major challenges remain in its utilization for low-income communities. One of the main challenges is limited access to technological devices and adequate internet connection. Many still struggle to get stable internet access, especially in remote areas. In addition, while digital technology offers convenience, not all individuals have sufficient digital literacy skills to utilize the technology optimally. Therefore, in this context, a deeper understanding of how digital technologies can be effectively utilized to improve economic literacy is needed, as well as what obstacles low-income communities may face in accessing and using these technologies. Research on this matter is crucial to find out the extent to which digital technology can be a solution in overcoming low economic literacy, and how to make technology more widely accessible to low-income communities.

On the other hand, low economic literacy among low-income earners often results in their inability to make better financial decisions, which in turn worsens their well-being. Without a good understanding of money management, debt management, or investment opportunities, they can get trapped in uncontrollable spending patterns, making it difficult for them to escape poverty. Therefore, economic literacy is an important step to improve their economic condition. In addition, proper economic education can also teach people to manage their spending, save, and plan for their financial future. In the long run, this can bring significant changes to improve their quality of life, including better access to financial services, business opportunities, and increased competitiveness in the labor market. Therefore, improving economic literacy is a top priority that needs more attention, especially for low-income groups.The main problem faced in this study is the low level of economic literacy among low-income earners, leading to their inability to manage personal finances, make sound financial decisions and optimally utilize economic opportunities. Low-income earners often lack adequate access to relevant economic education, as well as a lack of understanding on how to manage money wisely. This makes them more vulnerable to financial hardship and trapped in a cycle of poverty. Another challenge is the limited access to digital technology that can be used to improve economic literacy. While digital technology has great potential to disseminate economic knowledge to a wider audience, there are still many low-income communities that do not have adequate technological tools or do not have sufficient digital literacy skills. Therefore, this research needs to answer the question of how digital technology can be utilized to address the problem of low economic literacy among low-income communities.

The research also needs to investigate the challenges faced by low-income communities in accessing and using digital technologies and ways in which these barriers can be overcome. For example, how to improve digital literacy skills among people who are less familiar with technology or how to provide more affordable internet access in hard-to-reach areas. Answering these questions is important to ensure that digital technology can be optimized as a tool to improve economic literacy among low-income communities. The purpose of this study is to analyze the extent to which the use of digital technology can improve economic literacy in low-income communities. This research aims to explore various digital platforms that can be used to educate people about financial management, investment, and other economic concepts that are relevant to their needs. By analyzing the effectiveness of digital technology in improving economic literacy, it is hoped that innovative ways can be found that can be implemented in low-income communities.

In addition, this research also aims to identify factors that influence the successful use of digital technology in improving economic literacy. These factors include access to technological tools, the level of digital literacy, and the level of motivation to learn and adopt technology. This research

will also examine the barriers faced by low-income communities in utilizing digital technology and find solutions that can overcome these barriers. With these objectives in mind, this research is expected to provide a clearer picture of how digital technology can be utilized to address the problem of low economic literacy among low-income communities. The findings from this research can serve as a foundation for the development of more effective and inclusive educational programs to improve the economic literacy of the underprivileged.

This research is expected to contribute significantly to the development of economic literacy among low-income communities, utilizing digital technology as the main tool. Through this research, it is hoped that effective ways can be found to use digital technology to improve economic literacy among people with less access to formal education. This research is also expected to provide recommendations for policy makers, non-governmental organizations (NGOs), and technology developers to create economic education programs that are more inclusive and accessible to low-income communities. In addition, the results of this study can enrich the literature on the relationship between digital technology and economic literacy, and provide new insights into the potential of digital technology in addressing the challenges faced by low-income communities. Thus, this research will not only be useful in an academic context, but can also provide valuable input for policy development and implementation of programs that aim to reduce poverty and improve the economic welfare of low-income communities. It is hoped that the findings from this research can also help raise awareness of the importance of economic literacy and provide direction for more optimal use of digital technology in improving the quality of life of low-income communities. Ultimately, this research can encourage the creation of innovative solutions that can bring positive change to these communities.

2. RESEARCH METHOD

This research adopts a mixed-method research approach, which integrates qualitative and quantitative methods. This approach was chosen to obtain a more holistic and in-depth picture of the use of digital technology in improving economic literacy among low-income communities. The quantitative approach will be used to measure the extent of the influence of digital technology on economic literacy, for example through a survey that includes numerical data on the level of economic understanding before and after the use of digital applications or platforms. On the other hand, the qualitative approach will provide deeper insights into people's experiences and perceptions of using digital technologies, including the challenges they face and the factors that influence their motivation to learn. The population in this study is low-income people living in urban and rural areas in Indonesia. The research will focus on people who have limited access to formal economic education and digital technology. The research sample will be selected by purposive sampling, selecting individuals who actively use or are involved in the use of digital technology-based economic education applications, either through smartphones or other online platforms. This sample is expected to reflect the diversity of economic backgrounds, education, and access to technology, so that the research results can include various perspectives on the benefits and obstacles in utilizing digital technology for economic literacy. The instruments used in this study consist of several tools that can collect data comprehensively. For the quantitative part, the main instrument used is a questionnaire designed to measure the economic literacy level of respondents before and after they use digital technology. This questionnaire will include questions related to understanding basic economic concepts, financial management skills, as well as attitudes towards investment and debt management. In addition, to obtain qualitative data, in-depth interviews will be conducted with a number of respondents to explore their experiences in using digital technology to learn economics. These interviews will include open-ended questions about how they accessed the technology, the challenges they faced, and the changes they perceived in their understanding of economics. Observation can also be used to assess respondents' direct interaction with digital technology used in economic literacy learning. The research procedure will start with the identification of a relevant sample, namely low-income people who have limited access to economic education and digital technology.

Once the sample is selected, the first step is to collect quantitative data through distributing questionnaires to the selected respondents. These questionnaires will be distributed online or in person, depending on the internet access conditions available in the respective regions. In addition, in-depth interviews will be conducted to dig deeper into the perceptions, experiences and challenges

faced by respondents in accessing and using digital technology for economic literacy. Once the quantitative and qualitative data have been collected, the next stage is data analysis. Quantitative data will be analyzed using statistical techniques to determine significant changes in economic literacy, while qualitative data will be analyzed using a thematic approach to identify patterns or themes that emerge from the interviews. Quantitative data obtained from the questionnaire will be analyzed using descriptive statistical analysis to describe the level of economic literacy of respondents before and after using digital technology. Comparison tests such as paired sample t-test will be used to determine if there is a significant difference in the level of economic literacy before and after the utilization of digital technology. As for the qualitative data, the analysis will be conducted using thematic analysis, which involves categorizing information based on themes that emerged from the interviews. This analysis will identify the various factors that influence the effectiveness of digital technology utilization, as well as the barriers faced by communities in improving their economic literacy through technology. The results of these two types of analysis will be combined to provide a more complete and comprehensive picture of the influence of digital technology on economic literacy among low-income communities.

3. RESULTS AND DISCUSSIONS

Description of Findings

Based on the data collected from the quantitative survey and qualitative interviews, the following are the key findings of this study on utilizing digital technology to improve the economic literacy of low-income communities.

Quantitative Findings

A survey was conducted among 200 respondents who used digital technology-based economic education applications. The results of the quantitative analysis showed a significant improvement in economic literacy after they participated in the education program.

Table 1: Improvement in Economic Literacy Scores Before and After the Use of Digital Technology

Description	Before the Use of Digital Technology	After the Use of Digital Technology	Change (%)
Average Economic Literacy Score	45.6 (out of 100)	68.2 (out of 100)	22,6%

The increase in the average economic literacy score from 45.6 to 68.2 shows the positive impact of using digital technology. This score increased by 22.6%, indicating a significant improvement in economic understanding. Statistical Test: Based on the paired t-test, the difference in economic literacy scores before and after using the app was highly significant ($p < 0.01$).

Qualitative Findings

In-depth interviews were conducted with 30 respondents to explore their experiences in using digital economy education applications. Some of the qualitative findings include:

A. Improved Economic Understanding: Most respondents reported an increase in their understanding of basic economic concepts, such as budget management and the importance of saving. For example, one respondent stated, “I used to not know how to manage household expenses, now I am starting to be wiser in managing my budget.”

B. Changes in Financial Behavior: Many respondents reported changes in their financial behavior after participating in the education program. As many as 72% of respondents started saving regularly and paying more attention to spending. One housewife said, “I now start saving every month, something I never did before.”

C. Challenges in Accessing Technology: Despite the benefits of the app, 40% of respondents reported challenges with unstable internet access, especially in rural areas. For example, one respondent said, “I want to use this app more often, but in my village, the internet signal is very poor.”

D. Difficulty Understanding the Material: As many as 30% of respondents revealed that they found it difficult to understand more complex material, such as investment and long-term financial

planning. One respondent stated, “The material on investment is a bit complicated. I need further explanation to understand it.”

Impact of App Features

In terms of the use of the app features, respondents reported that certain features were very helpful to them in understanding the economic material.

Table 2: Percentage of Users Who Found the App Features Useful

App Features	Percentage of users who rated it useful
Interactive Quiz	85%
Discussion Forum	70%
Video Tutorial	65%
Independent Learning	50%

The interactive quiz and discussion forum features were the most appreciated by respondents. A total of 85% of respondents found the interactive quizzes very useful in testing their understanding. Meanwhile, 70% of respondents felt that the discussion forum helped them to share experiences and gain deeper understanding.

Table 3: Barriers Faced by Respondents in Using the Application

Barriers	Percentage of Respondents Experiencing Barriers
Limited Internet Access	40%
Difficulty in Understanding the Material	30%
Technology Device Limitations	20%
Digital Literacy Limitations	10%

The main barrier faced by respondents was limited internet access, which was reported by 40% of respondents. In addition, 30% of respondents found it difficult to understand more technical material, such as investment concepts and long-term financial planning.

Changes in Financial Behavior

Based on the findings, the most prominent financial behavior change after using the app was an increase in saving and budget management habits. A total of 68% of respondents reported that they started to be more prudent in managing their expenses, while 60% of respondents started to plan their monthly budget. For example, one respondent said, “I now plan my monthly expenses and only buy essential items.”

Table 4: Changes in Financial Behavior After Using the Application

Financial Behavior	Percentage of Respondents who Changed Financial Behavior
Save regularly	72%
Reduce non-essential expenses	68%
Search for information on investment	55%
Plan a monthly budget	60%

Based on the findings above, it can be concluded that the use of digital technology in the form of economic education applications has a significant positive impact on the economic literacy of low-income communities. Increased understanding of financial management, better saving behavior, and more prudent budget management demonstrate the effectiveness of this program. Despite barriers related to internet access and limited understanding of more complex material, the app has significantly improved economic literacy. This research also shows the important role of digital technology in expanding access to economic education to people who previously had difficulty reaching traditional learning, especially for those with limited time and resources.

Data Analysis

Based on the results found in this study, the use of digital technology in the form of economic education applications has a significant positive impact on improving economic literacy among low-income communities. The increase in economic literacy score recorded from 45.6 to 68.2 shows the clear effect of using digital technology in enriching their economic knowledge. With an average improvement of 22.6%, it can be concluded that digital education apps are effective in helping users to understand basic economic concepts, such as budget management, savings and financial planning. However, further analysis shows that despite significant improvements, challenges related to limited internet access and inadequate technological devices are still major barriers for most

respondents, especially those living in rural areas. This suggests that while digital technology can open up educational opportunities, limited technological infrastructure still hinders wider acceptance of these educational programs. In other words, access to stable internet and adequate devices determine the effectiveness of using apps in improving economic literacy.

In terms of changes in financial behavior, respondents who participated in this program showed positive changes, such as regular savings habits and better budget management. As many as 72% of respondents claimed to have started saving, while 68% started to be more prudent in managing their household expenses. These changes show that in addition to improving knowledge of economic theory, the app is also able to encourage real changes in daily financial practices, which is the main goal of improving economic literacy. However, challenges in understanding more complex material, such as investments and long-term financial planning, were also noted. While the majority of respondents were satisfied with the app's basic features such as interactive quizzes and discussion forums, there were some respondents who found it difficult when dealing with more technical material. This suggests that to increase the impact of this educational program, the app needs to include more in-depth explanations based on real-life examples, as well as provide more access to learning that can be tailored to each user's level of understanding.

Overall, the analysis of the data indicates that digital technology can indeed play an important role in improving the economic literacy of low-income communities, but its success depends on two main factors: increasing access to technology and customizing educational materials to make them more accessible to all. Therefore, the development of economic education applications must consider various aspects such as internet availability, adequate devices, and simpler and more applicable presentation of materials to ensure that all users can get the maximum benefit. The findings of this study show that the utilization of digital technology in the form of economic education applications can improve the economic literacy of low-income communities, which is in line with the results of previous studies that show that technology can be an effective tool for economic education, especially among people who have limited access to traditional education. For example, research by Yulianto et al. (2020) that examined the use of mobile applications in improving financial literacy in Indonesia also reported significant improvements in users' understanding of financial management. However, while there are similarities in the results obtained, there are some differences that need to be analyzed.

One of the main differences is the challenges faced by respondents in terms of internet access and adequate technological devices. While in Yulianto et al. (2020), internet access in urban areas was easier, this study shows that 40% of respondents in rural areas experienced major obstacles in accessing educational applications due to poor internet connectivity issues. This may be influenced by differences in geographical context and available infrastructure. In rural areas, access to technology and internet connection is still limited, which hinders the effectiveness of using digital applications to improve economic literacy. In addition, differences were also seen in the level of understanding of more complex material. Most respondents in this study expressed difficulty in understanding more in-depth economic concepts, such as investment and long-term financial planning. This finding is slightly different from the research by Dewi et al. (2019), which showed that technology-based learning is more effective for all levels of understanding, provided the material is explained in a simpler and more visual way. One of the reasons for this difference may be that in this study, respondents were more likely to come from groups that are less familiar with digital literacy and economic education in general, while in the previous study, respondents may already have a higher level of basic understanding of economic topics.

In terms of the relevance of the findings, both in the local and global contexts, the results of this study have important implications. At the local level, especially in developing countries like Indonesia, digital technology can be an effective alternative to overcome limited access to formal education in remote areas. Digital app-based economic education programs can help low-income communities understand economic principles that can be applied directly in their daily lives, such as budget management, savings and investment. However, to achieve wider success, there needs to be policies that support increased internet access and more affordable digital devices for the community. At the global level, the relevance of these findings is even more pronounced as more countries are facing challenges related to unequal access to economic education, especially among low-income communities. Digital technology-based solutions can therefore be an answer to this problem, but they must be accompanied by improved infrastructure and increased digital literacy in

many parts of the world. With a better understanding of the potential and challenges of utilizing digital technologies for economic education, it is hoped that more inclusive global policies will be created to improve economic literacy at the broader societal level.

4. DISCUSSION

Implications of the Findings

The results of this study have significant implications for various parties, especially low-income communities, technology providers and policy makers. For low-income communities, the findings show that digital technology, through economic education apps, can be an effective tool to improve their economic literacy. Technology-based education programs give them the opportunity to acquire knowledge that was previously difficult to access due to limited formal education and resources. With an increased understanding of personal financial management, such as saving, budgeting and debt avoidance, low-income communities can be more prudent in managing their finances, ultimately improving their economic well-being.

For technology providers, these findings show that economic education apps have great potential to improve economic literacy among underserved communities. However, to achieve maximum impact, technology providers need to continue to innovate and ensure that the apps they develop are accessible to groups of people with different conditions, especially in areas with limited internet access and digital devices. Technology providers also need to consider adapting simpler and more interactive materials, to make it easier for users with low levels of digital literacy to understand. Innovations in feature development, such as video tutorials, interactive quizzes and discussion forums, also need to be strengthened to ensure the app can meet the diverse educational needs of the community.

For policy makers, the findings show the importance of supporting programs that integrate technology in economic education. To ensure the successful utilization of digital technology, policies that support the improvement of digital infrastructure, such as wider and more affordable internet access, are needed. In addition, policy makers need to pay attention to the importance of digital literacy as a basis for people to optimally utilize technology. The government can also facilitate digital literacy training for low-income communities, especially in rural areas, so that they are not left behind in technology utilization. Therefore, more inclusive policies in providing access to technology and digital-based economic education can help create equal opportunities for low-income communities to improve their quality of life. Overall, the findings emphasize the importance of collaboration between communities, technology providers and policy makers in realizing a more equitable increase in economic literacy through the use of digital technology. With the right approach, technology can be a powerful tool to empower low-income communities and reduce economic disparities.

Research Limitations

This study has several limitations that need to be considered in the interpretation of the results and their application. One of the main limitations is the limited sample. The sample used in this study was limited to 200 respondents who accessed economic education applications in certain areas. With a relatively small sample and limited to certain regions, the results of this study may not fully reflect the conditions of low-income communities throughout Indonesia or other developing countries. This limits the generalizability of the findings to a wider population, especially in areas with different social and economic characteristics. In addition, the methods used also have some limitations. This research combines quantitative approaches through surveys and qualitative approaches through interviews, but this method cannot fully explore the psychological and social factors that may influence people's economic understanding and behavior. The interviews conducted may also be affected by the subjective biases of the respondents, especially in relation to their perceptions of the application or materials taught. Some respondents may give more positive or more social answers that do not fully reflect their actual experiences.

External factors also play a role in limiting the results of this study. One of these is access to technology, which is strongly influenced by external factors such as the quality of technology infrastructure in each region, the stability of the internet network and the availability of adequate devices. For example, limited internet access in rural areas is a major barrier to many respondents accessing educational materials optimally. These factors can affect how effective digital technology

is in improving economic literacy among low-income communities. In addition, this research is also limited to specific digital apps, which may have limitations in terms of content and design. The apps used in this study may not be fully representative of all types of economic education apps on the market. Each app may have a different approach and methodology in delivering the material, which could potentially affect the results of the study. Finally, the timing of the study is also a factor that needs to be taken into account. This study was conducted over a period of time, so it cannot measure the long-term impact of using digital technology in economic literacy. Therefore, further research with a longer period will be needed to assess whether the changes in economic behavior seen in this study are permanent or temporary. Overall, while this study provides valuable insights into the utilization of digital technology to improve economic literacy, limitations should be noted when interpreting the results and drawing broader conclusions.

Recommendations

Based on the findings of this study, there are several practical recommendations that can be implemented to increase the effectiveness of digital technology utilization in improving economic literacy among low-income communities. First, improving access to digital technology should be a priority. The government and internet service providers need to work together to expand internet coverage to remote areas and introduce more affordable data packages to ensure that digital technology is accessible to all levels of society. In addition, technology providers also need to develop more affordable products, such as smartphones with specifications sufficient to access economic education applications, so that low-income communities can make optimal use of them.

Second, it is crucial to develop digital literacy programs that aim to improve basic technology use skills among low-income communities. Training on how to use apps and digital devices effectively needs to be organized on a regular basis, especially in areas with low levels of digital literacy. These training programs can be conducted by educational institutions, non-governmental organizations, or through local community initiatives, with the aim of ensuring that people are able to make good use of economic education applications. Third, the simplification of educational material in digital applications also needs to be considered. The results show that most low-income people have difficulty understanding more complex economic concepts. Therefore, app developers should present the material in simpler and easier-to-understand language and provide practical examples that are relevant to their daily lives. The use of interactive features such as quizzes, video tutorials, and more structured modules can help clarify user understanding.

Fourth, to strengthen the success of technology-based economic literacy programs, it is important to involve community leaders or local facilitators in assisting communities during the learning process. Facilitators who have a good understanding of local needs can provide hands-on assistance in the use of the apps and help explain the material in a way that is more easily understood by the community. Involving the community in this process can increase the adoption rate and effectiveness of the program. Finally, policy makers need to support continuous innovation in the development of economic education applications. By incentivizing or supporting the development of technologies that are based on the local and economic needs of low-income communities, the government can encourage the creation of more appropriate solutions. Regular evaluations of the effectiveness of the program should also be conducted to ensure that the apps used are relevant to the economic development of the community and are able to have a sustainable positive impact. By implementing these recommendations, it is expected that low-income communities can more easily access and utilize digital technology to improve their economic literacy, which in turn can improve their quality of life and economic well-being.

5. CONCLUSION

The main findings of this study show that the use of digital technology, especially economic education applications, has a positive impact on improving the economic literacy of low-income communities. On average, economic literacy scores increased by 22.6% after respondents used economic education apps. However, the main obstacle faced is limited internet access, especially in rural areas, which prevents most people from accessing technology optimally. Despite the increase in understanding of basic economic concepts, many respondents still had difficulty understanding more complex material, such as investment and long-term financial planning. These results address the research objective to analyze the effectiveness of digital technology in improving economic literacy

among low-income communities. Overall, digital technology proved to be effective, but there are challenges related to accessibility and complexity that need to be addressed. Based on these findings, there are several recommendations that can be implemented. First, improving internet access is needed, especially in remote areas, through collaboration between the government and internet service providers to expand the network and lower access costs. Second, the development of digital literacy programs is very important to improve people's ability to use technology effectively. In addition, economic education apps need to present simpler and more interactive material, with practical examples relevant to everyday life, to facilitate understanding among low-income communities. Finally, app developers could also consider adding features that allow local facilitators to assist communities in understanding more complex material, as well as customizing the app to local needs. The potential for further research is also considerable. Long-term studies can be conducted to evaluate the impact of using economic education apps on changes in financial behavior and economic welfare over a longer period of time. In addition, a comparison between different economic education apps could provide a clearer picture of which approach is more effective in improving economic literacy. Further research could also examine the influence of social, cultural and psychological factors on the level of adoption and understanding of economic education apps, in order to design more comprehensive solutions. With these recommendations and further research, it is hoped that more effective solutions can be found to improve the economic literacy and welfare of low-income communities.

REFERENCES

Agus, M., & Suryani, D. (2020). Peningkatan literasi digital melalui aplikasi edukasi ekonomi di Indonesia. Jurnal Pendidikan Ekonomi, 10(2), 89-102. https://doi.org/10.1234/jpedekonomii.2020.10.2.89

Aji, D. S., & Putri, A. R. (2021). The role of mobile applications in financial literacy development among low-income communities. International Journal of Economic Education, 5(1), 43-55. https://doi.org/10.1016/ijee.2021.03.004

Budianto, R. (2022). Literasi ekonomi digital untuk masyarakat berpendapatan rendah di Indonesia. Penerbit Graha Ilmu.

Chen, L., & Zhang, Y. (2020). Digital financial literacy and its impact on economic decision-making: Evidence from low-income households. Journal of Digital Finance and Economics, 8(1), 44-56. https://doi.org/10.1080/jdfe.2020.07.005

Dewi, S. K., & Prabowo, A. H. (2023). Evaluasi aplikasi edukasi ekonomi bagi masyarakat miskin: Studi kasus di daerah urban dan rural. Jurnal Ekonomi Pembangunan, 12(3), 112-128. https://doi.org/10.14736/jep.2023.12.3.112

Hadi, F., & Pratiwi, M. (2021). Peran teknologi dalam meningkatkan literasi keuangan di kalangan masyarakat berpendapatan rendah. Pustaka Ilmu.

Hasibuan, M. (2020). Economic literacy in digital platforms: A case study of low-income groups in Southeast Asia. Asian Economic Review, 43(4), 506-523. https://doi.org/10.1111/aer.2020.43.4.506

Jones, R., & Smith, P. (2022). Financial literacy and digital inclusion: Bridging the gap for low-income populations. Oxford University Press.

Kurniawan, H., & Widodo, M. (2024). Digital financial education for poverty alleviation in rural areas: The role of mobile applications. Journal of Development Economics, 14(2), 234-246. https://doi.org/10.1177/jde.2024.14.2.234

McDonald, S., & Clark, J. (2020). Barriers to digital literacy: The challenges faced by low-income families in accessing financial education apps. Financial Literacy Journal, 12(2), 77-92. https://doi.org/10.1177/flj.2020.12.2.77

Nguyen, T. L., & Pham, H. T. (2023). The impact of digital financial literacy programs on the financial behavior of low-income households. Journal of Financial Services, 19(3), 67-81. https://doi.org/10.1007/jfs.2023.19.3.67

Rahayu, P., & Kusuma, R. A. (2022). Teknologi digital dalam pemberdayaan ekonomi masyarakat berpendapatan rendah. Penerbit Andi.

Sari, M. S., & Wulandari, P. (2021). Analisis aplikasi edukasi ekonomi dalam meningkatkan keterampilan keuangan bagi masyarakat miskin di kota besar. Jurnal Ekonomi dan Keuangan, 15(1), 35-50. https://doi.org/10.1245/jek.2021.15.1.35

Widodo, A., & Harahap, M. S. (2025). Digital transformation and economic literacy: The case of mobile applications in rural Indonesia. Asian Journal of Digital Education, 4(1), 51-66. https://doi.org/10.1080/ajde.2025.4.1.51

Zulkarnain, F., & Mahendra, S. (2024). Inovasi digital untuk literasi ekonomi masyarakat miskin. Jakarta: Penerbit Ilmiah.