

Financial Literacy at an Early Age: The Role of Digital Technology in Students' Financial Literacy

Puji Muniarty¹

¹Management Department-STIE Bima-NTB-Indonesia

M Rimawan², Ovriyadin³, Wulandari⁴, M Syukur Dwiriansyah⁵

^{2,3,4}Management Department-STIE Bima-NTB-Indonesia

⁵Management Department-Universitas Muhammadiyah Kupang-NTT-Indonesia

Correspondence: puji.stiebima@gmail.com¹



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ABSTRACT

Purpose: This research aims to explore the extent to which the role of digital technology can increase financial literacy among students. The problems in the study are the low financial literacy of students and not optimal use of smartphones and the internet, digital technology as an effective solution in applying financial principles interactively & easily accessible, not all students have the same access to financial technology and the lack of specific research that discusses the effectiveness of digital technology in increasing financial understanding among students.

Design/Methodology/Approach: The population in this study was all students in semesters IV (Four) and VI (Six) of the Financial Management concentration study program at the Sekolah Tinggi Ilmu Ekonomi Bima, with a total sample of 161 students, and the sampling used was purposive.

Findings: The research results show that the use of digital technology plays an important role in increasing financial literacy among students. Digital financial applications, social media, and online education platforms are proven to be able to help students manage personal finances, understand basic financial concepts, and make wiser financial decisions. Apart from that, financial literacy in the digital era needs to continue to be improved through the integration of technology-based financial education in the curriculum and the provision of digital platforms that are trusted and easy for students to access. It is believed that this approach can create a younger generation that is more financially intelligent and ready to face future economic challenges.

Keywords: *Financial Applications; Digital Technology; Financial Literacy*

INTRODUCTION

In this fast-paced digital era, the ability to manage finances wisely has

become a very important life skill, especially for the younger generation, such as students. Unfortunately, quite a few students still face challenges in managing personal finances, ranging from consumer patterns, lack of budget planning, to ignorance of the importance of saving and investing. This condition often has an impact on their financial stability during the study period.

Financial literacy from an early age is a crucial solution for forming healthy financial habits. In the context of students, financial literacy is not only important for short-term needs such as paying college fees or daily needs, but also for building a strong financial foundation in the future. Along with the development of digital technology, various financial platforms and applications now exist as educational tools that are practical and easy to access. Financial literacy means understanding financial concepts, knowledge, and practices such as financial planning, budget management, investment, debt, and other related topics (Puspa Sari & Nikmah, 2023). According to Ningtyas (2019), financial literacy is a person's skill in implementing financial management, including obtaining and assessing information used to make decisions, as well as understanding the impacts that will occur as a result of these decisions.

Various innovations and technological developments today are constantly diversifying in various implementations, especially in the economic sector. Almost all activities in the digitalized era are fast, accurate, and efficient (Muniarty et al., 2023). Digital technology plays a strategic role in encouraging student financial literacy. Financial recording applications, e-wallets, and digital investment platforms are tools that not only facilitate transactions but also have the potential to educate users in managing finances intelligently. By using the right technology, students can learn to make a budget, understand expenses, and start investing responsibly. According to Danuri (2019), digital technology is information technology that prioritizes activities carried out by computers/digitally rather than using human power. But it tends to be a completely automatic and sophisticated operating system with a computerized system/format that is read by a computer. Meanwhile, according to Costat (2024), in research by Azizi et al. (2024), digital technology has opened up new opportunities in increasing financial literacy, such as through mobile applications, interactive simulations, and online learning platforms. These platforms can provide wider and more flexible access for young people to learn about financial management, as well as enable more personalized and adaptive learning.

However, although technology can be an effective tool, there are challenges in ensuring that students can utilize digital technology wisely and correctly. This research aims to explore the extent to which digital technology plays a role in increasing students' financial literacy, as well as analyzing the factors that influence their understanding of personal financial management. With the right

approach, it is hoped that students can become financially intelligent individuals and be able to manage their finances well in the future.

There has been a lot of research on financial literacy among college students, especially that highlights the level of financial understanding, consumer behavior, and the influence of external factors such as family environment and formal education on the ability to manage finances. However, there are still few studies that deeply explore the role of digital technology, such as financial applications, educational social media, and fintech platforms, in shaping wise financial behavior from an early age among college students. Most previous studies tend to use conventional approaches and are limited to aspects of financial knowledge or attitudes, without strategically linking them to advances in digital technology that have now become an integral part of students' daily lives. In this digital era, students are intensively involved with various technology-based platforms that actually have great potential as informal but effective financial learning tools. Unfortunately, there has not yet been any research that comprehensively examines the relationship between financial literacy, the formation of early financial intelligence, and the use of digital technology as a tool for student financial empowerment.

Based on the findings in the field based on the results of interviews with students, this research found problems including low financial literacy of students, and the less than optimal use of smartphones and the internet, digital technology as an effective solution in implementing financial principles interactively & easily accessible, not all students have the same access to financial technology and the lack of specific research that discusses the effectiveness of digital technology in improving financial understanding among students. This was also revealed by research conducted by Ningtyas (2019), with the conclusion of the research, namely that the millennial generation is aware of or financially literate but does not practice good financial behavior and previous studies have not discussed much about the effectiveness of various types of technology in improving students' financial literacy. Therefore, this discussion will explain how important it is to be financially intelligent from an early age, as well as the extent to which digital technology can improve financial literacy among students. With this understanding, it is hoped that students will be able to make wiser financial decisions for a more stable and economically independent future.

METHODS

This study uses a descriptive qualitative approach to gain an in-depth understanding of (topic/issue being studied). This approach was chosen because it is able to comprehensively capture the meaning, views, and perceptions of subjects in natural situations. The main instrument in this study was an open-ended questionnaire distributed via Google Forms, which was designed to explore information from

participants. Although data was collected through a questionnaire, this study did not apply quantitative statistical analysis, but instead focused on thematic or narrative analysis of respondents' answers. The data obtained were analyzed by identifying patterns, categories, and main themes that emerged from respondents' responses to produce a descriptive and interpretive understanding. This approach is in line with the characteristics of qualitative research, which emphasizes subjective meaning compared to numerical data.

This research was conducted on students of the Management Study Program at the Sekolah Tinggi Ilmu Ekonomi Bima who were studying in semesters four (IV) and six (VI), with a focus on financial management concentration. The number of students who met the criteria was 161. Research sampling is purposive sampling, which is a technique for determining samples based on criteria or special objectives that have been previously determined (Sugiyono, 2013). The criteria for students referred to in this research are active students in semesters IV (Four) and VI (Six) concentrating on financial management (1) have experience managing personal finances, have (2) regular access to digital technology such as smartphones, the internet, financial applications, and (3) have used at least a digital platform related to financial management (such as mobile banking) Data collection through observation, direct interviews with respondents and documentation. The research instrument used was an online questionnaire (Google Form) with a Likert scale and a Guttman scale. Thematic/narrative data analysis of each component content in the Google form. The following are indicators of the research variables.

Table 1. Description of Variables, Indicators, and Scale

Variables	Definition	Indicators	Scale
Student Financial Literacy	The level of understanding, skills, and attitudes of students in managing financial resources effectively to achieve personal financial well-being	<ol style="list-style-type: none"> 1. I understand the importance of managing finances from an early age. 2. I know financial products such as savings, deposits, and investments. 	Likert Scale
Use of Digital Technology	The extent to which individuals or groups utilize digital-based devices, applications, and services (such as the internet, smartphones,	<ol style="list-style-type: none"> 1. I use digital financial applications (digital wallets, budgeting applications, and E-Banking). 2. I once attended a webinar/online seminar about finance. 	Guttman Scale

	computers, mobile applications, and other digital platforms) to support daily activities, work, learning, or communication		
The Role of Digital Technology in Financial Literacy	The extent to which the use of information and communication technology (such as financial applications, internet banking, e-wallets, social media, and digital education platforms) influences individual financial behavior and knowledge	<ol style="list-style-type: none"> 1. Digital technology makes it easier for students to understand the concept of financial literacy. 2. I feel more motivated to manage my finances after using digital technology 	Likert Scale

Source: Data processed (2025)

RESULTS

Sample Description

In the current digital era, technology has a central role in accelerating and expanding access to financial literacy, especially among students. Digital technology, such as financial applications, online education platforms, social media, and digital payment systems, has become an effective tool for forming smart financial behavior from an early age. In general, technology provides various sources of financial information quickly and easily accessible, which helps students gain a broad understanding of personal finance. So, digital technology plays a role as a facilitator, educator, and accelerator in forming student financial literacy. By using appropriate technology, students not only understand financial theory but are also able to practice healthy and responsible financial management from a young age.

Table 2. Gender and Age Respondents

Age	Number	Percentage	Gender	Number	Percentage
< 18	1	0,60%	Female	141	87,60%
18-20	92	57,10%	Male	20	12,40%
21-23	65	40,40%			
> 23	3	1,90%			
Amount	161	100%		161	100%

Source: Data processed from Google Form, 2025

A total of 161 students belonging to the financial management concentration of the management study program at the Bima College of Economics were taken as research samples. The age range is dominated by 18-20 years, around 57.1%, while the remaining 40.4% are aged 21-23 years. The majority of students are female, with a percentage of 87.6% while the remaining 12.4% are male.

The sample taken consisted of students with a predominantly female age range and had the potential to influence the level of generalization of the research results. The findings obtained most likely reflect the perspectives and behavior of young and female age groups in the context of financial management. Given that the majority of respondents were in the 18–20 year age range, the characteristics and patterns of financial decision-making identified in this study are very likely to be influenced by the stage of cognitive development and life experience that are still relatively limited. Thus, the results of this study must be interpreted by considering these limitations, especially in terms of application to a wider population and diverse ages and genders.

Financial literacy refers to a person's ability to understand and apply various financial skills effectively, such as personal financial management, budget preparation, and investment management. This literacy is achieved when individuals have a set of knowledge and skills that enable them to optimize available resources to achieve financial goals.

Student Financial Literacy

Table 3. Student Financial Literacy Indicators

Indicators	Strongly agree	%	Agree	%	Disagree	%	Strongly disagree	%
I understand the importance of managing finances from an early age	55	34,20 %	97	60,20 %	9	5,60 %	0	0
I know financial products such as savings, deposits, and investments	16	9,90 %	127	78,90 %	17	10,60 %	1	0,60 %

Source: Data processed from Google Form, 2025

Based on the table above, 55 students gave strongly agree answers or 34.20%, 97 students agreed or 60.20% and 9 students or 5.60% disagreed. This indicates that students realize that, as a young

generation who is in the transition stage towards financial independence, they need a strong financial understanding.

To measure the level of financial literacy of students as respondents in this research, especially regarding a basic understanding of various financial products. Knowledge of products such as savings, deposits, and investments shows that 9.90% (16 students) of students strongly agree, 78.90% (127 students) agree, 10.60% (17 students) disagree, and 0.60% (17 students) strongly disagree. From the percentage of this indicator, it can be concluded that in terms of knowledge of financial products, students have knowledge related to financial products such as savings, deposits, and investments, indicating that students understand options for managing and developing personal finances.

Use of Digital Technology

Table 4. Use of Digital Technology Indicators

Indicators	Yes	%	No	%
1. I use digital financial applications (digital wallets, budgeting applications, and E-Banking)	140	87%	21	13%
2. I once attended a webinar/online seminar about finance	30	18,60%	131	81,40%

Source: Data processed from Google Form, 2025

The use of digital financial applications reflects the level of adoption of digital financial technology reflects the level of adoption of financial technology by individuals in managing daily financial activities. This indicator measures the extent to which respondents utilize various platforms such as digital wallets, budgeting applications, e-banking to meet transaction needs, personal financial management, and long-term financial planning. From Figure 4 above, there are 140 students, or 87% using digital financial applications, while the remaining 21 students, or 13% do not use digital financial applications. Based on further interviews regarding this indicator, students using digital wallets find that they carry out non-cash transactions quickly and practically, such as paying bills, buying necessities, or transferring money without having to go to an ATM. Then the budgeting application, namely wallet, helps students to record income and expenses so that they can monitor and control their budget effectively. Meanwhile, e-banking services allow them to access account information, make inter-bank transfers, and manage routine payments easily via digital devices. So, by using these three types of applications, students feel more efficient, safe, and aware in managing their financial conditions.

The student participation rate was 131 people, or 81.40% who stated that they had never attended a webinar or online seminar about finance. Meanwhile, the remaining 30 people, or 18.60% took part in

online seminars on finance. This shows that interest in online financial education is not very high.

The Role of Digital Technology in Financial Literacy

Table 5. The Role of Digital Technology in Financial Literacy Indicators

Indicators	Strongly agree	%	Agree	%	Disagree	%	Strongly disagree	%
1. Digital technology makes it easier for students to understand the concept of financial literacy	50	31,10 %	111	68,90 %	0	0 %	0	0 %
2. I feel more motivated to manage my finances after using digital technology	24	14,90 %	124	77 %	13	8,10 %	0	0 %

Source: Data processed from Google Form, 2025

Digital technology provides broad and easy access to various information sources and interactive learning platforms related to financial literacy. It can be seen from the picture above that as many as 50 students, or 31.10% answered strongly agree, and 111 students, or 68.90% answered agree. From this, it can be concluded that through financial applications, investment simulations, educational videos, and e-learning, students can understand basic concepts such as budget management, savings, investment, and debt management in a more interesting and practical way.

With digital technology, information about how to manage finances, investment tips, or financial literacy education can be accessed at any time. This encourages students to study and be more responsible for their finances. Apart from that, digital technology also provides direct control over money, such as limiting spending, setting a budget, or setting bill reminders. This motivates someone to be more disciplined in managing finances. From the picture above, it can be seen that 24 students, or 14.90% answered strongly agree, 124 students, or 77% answered agree, and 13 students, or 8.10% answered disagree. Seeing the answers above 50% in the affirmative answer explains that students feel more interested and helped because the technology provides features that are easily accessible, informative, and interactive.

DISCUSSION

Student Financial Literacy

Financial literacy refers to an individual's understanding of financial concepts and risks and the ability to make effective financial decisions in the context of everyday life. For students, financial literacy is an important skill for managing expenses, investing, avoiding excessive debt, and planning future finances, including after graduating from college, so in this case, it is an important provision for building financial independence from an early age. By utilizing digital technology, students not only gain wider access to information but also experience financial learning that is more practical and applicable, so that students can be financially intelligent in the modern era.

1. I understand the importance of managing finances from an early age.

Financial literacy refers to an individual's understanding of financial concepts and risks and the ability to make effective financial decisions in the context of everyday life. For students, financial literacy is an important skill for managing expenses, investing, avoiding excessive debt, and planning future finances, including after graduating from college, so in this case, it is an important provision for building financial independence from an early age. By utilizing digital technology, students not only gain wider access to information but also experience financial learning that is more practical and applicable, so that students can be financially intelligent in the modern era.

Good financial management from a young age helps them avoid consumer behavior, manage debt wisely, and build long-term financial plans. Of course, financial literacy based on digital technology not only increases knowledge but also forms wise financial behavior from an early age. In this way, the younger generation can be better prepared to face personal economic challenges and contribute to society's financial stability. It can be seen in research by Lusardi and Mitchell (2014) in research Dawolo et al. (2025) that low levels of financial literacy among young adult students cause poor financial decision making, which leads to high levels of consumer debt and low savings for the future.

2. I know financial products such as savings, deposits, and investments.

Savings are usually associated with saving funds for short-term needs with a high level of liquidity. Deposits involve saving money for a certain period of time with a fixed interest rate that is higher than regular savings. Meanwhile, investment refers to the allocation of funds into instruments such as shares, bonds, mutual funds, or

property with the aim of gaining profits but with varying levels of risk. In this way, understanding these three products reflects the student's ability to plan finances, assess risks, and choose financial instruments that suit the student's goals and risk profile. So this can provide an overview of students' readiness to make wise financial decisions. This research is in line with research conducted by Lusardi & Mitchell (2014) that students understand financial products (savings, deposits, investments) from an early age and are more able to make rational financial decisions. This proves that the use of technology increases understanding of financial products.

Use of Digital Technology

Digital technology, such as financial applications, online education platforms, social media, and e-wallets, provides students with easy access to financial information that is fast, cheap, and interactive. This accelerates the process of learning financial literacy, starting from managing personal budgets, basic investments, to using digital financial products. Digital technology provides various practical tools for understanding financial concepts in real time. Mobile banking applications, e-wallets, and educational platforms such as financial webinars and online courses enable students to learn and practice financial literacy in an interactive and flexible way.

1. I use digital financial applications (digital wallets, budgeting applications, and E-Banking).

By using digital financial applications, students not only learn theoretically about money management, but also experience it directly in everyday life. This reinforces that digital technology is an effective means of supporting practical financial learning that is carried out from an early age and can form healthy financial habits into adulthood. This is supported by research conducted by Prayustika et al. (2020), which highlights that technology-based financial services (fintech) play an important role in increasing students' financial literacy. With a descriptive qualitative approach, this study shows that the use of fintech can help students understand financial concepts in a practical and adaptive manner in everyday life.

2. I once attended a webinar/online seminar about finance.

It was revealed that 81% of respondents did not attend the webinar held as part of the financial literacy improvement program. This finding reflects the low level of participation in webinar-based digital education media, even though the platform has been widely used in various financial literacy initiatives. This condition may indicate a gap between the availability of digital education facilities and the active involvement of students as the main target. This low participation is likely influenced by a number of factors, such as the lack of effective

promotion or information regarding the implementation of webinars, students' views on the effectiveness of online learning compared to face-to-face methods, and time and technical constraints, such as unstable internet connections or inappropriate schedules. Although digital technology has great potential in expanding access to financial education, these results emphasize the need for a more engaging and participatory communication strategy in its implementation.

In the context of this study, the data is an indicator that the use of digital technology has not been fully successful in reaching and activating student involvement in financial literacy activities. Therefore, a more personal approach, the application of gamification elements in content, maximum use of social media, and the integration of financial literacy topics into formal academic activities need to be considered so that digital financial literacy programs are more effective among students.

Based on the results of further interviews with several students, it shows that participation in this webinar or seminar reflects an effort to increase knowledge and understanding regarding independent financial management and/or financial literacy through various means, including taking part in relevant online events. Practically, the webinar involves expert speakers in the field of finance and provides relevant material to be applied in everyday life. Therefore, it is important to continue to encourage and provide wider access to financial education for students. The results of research conducted by Renanita et al. (2024) show that even though only 32 students took part in the financial education program, there was a significant increase in participants' financial understanding and efficacy after participating in the program. Participants feel that the material presented is relevant to their lives and plans to apply it in their daily lives.

The Role of Digital Technology in Financial Literacy

1. Digital technology makes it easier for students to understand the concept of financial literacy.

Digital technology allows students to access various information regarding finance via the internet. Resources such as articles, video tutorials, webinars, financial applications, and financial education platforms can now be accessed easily. This helps students to increase their knowledge on topics such as budget management, investment, debt management, and long-term financial planning. Explicitly, the role of digital technology in increasing students' financial literacy is very significant. Through various digital platforms, students can gain deeper knowledge and hone their skills in managing personal finances. However, to optimize the role of technology, it is important for educational institutions and financial service providers to provide

easy access and the right resources so that students can make maximum use of technology. In this way, students can become more financially intelligent from an early age, which will be useful in their financial planning in the future.

The convenience of digital technology supports students in becoming financially intelligent from an early age and forming healthy financial mindsets and habits for the future. From the results of interviews with students, technology provides flexibility in study time and place that suits students' current lifestyles. And it is an important foundation in forming a financially intelligent young generation from an early age. This is following the results of research by Trimurti et al. (2024), which states that by utilizing technology and social media, Generation Z can access financial information that can help them make wise financial decisions. This shows that the integration of technology in financial education can form a financially intelligent generation.

2. I feel more motivated to manage my finances after using digital technology.

An expense recording application, for example, allows students to monitor daily cash flow in real time, which indirectly raises awareness of the importance of financial planning and control. Student motivation increases due to a greater sense of control and financial awareness. The daily financial recording application helps students see where their money is spent, thereby encouraging them to be wiser in managing expenses. Then, automatic notifications or reminders from financial applications also encourage students to save regularly and avoid waste. Digital technology also offers educational content through social media and YouTube channels that discuss finances in a light and style relatable to the younger generation. This makes students not only educated but also feel that financial management is something relevant and important to master from an early age. Thus, the role of digital technology is not only as a tool but also as a driving factor for internal motivation in creating healthy financial habits among students. This research is in line with that conducted by Ananda et al. (2025) that the use of financial technology can help students manage their finances effectively.

CONCLUSION

This research shows that the use of digital technology plays an important role in increasing financial literacy among students. Digital financial applications, social media, and online education platforms are proven to be able to help students manage personal finances, understand basic financial concepts, and make wiser financial decisions. Apart from that, financial literacy in the digital era needs to continue to be improved through the integration of technology-based financial education in the curriculum and the provision of digital

platforms that are trusted and easily accessible to students. It is believed that this approach can create a younger generation that is more financially intelligent and ready to face future economic challenges.

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