



An Empirical Study on the Influence of Financial Literacy on Personal Financial Management among University Students in Indonesia

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Abstract

This study aims to analyze the impact of financial literacy on personal financial management among university students in Indonesia. Additionally, this study explores the role of digital technology usage in enhancing students' personal financial management. Using a quantitative descriptive approach, data was collected through a survey distributed to students from various universities in Indonesia. The results indicate that financial literacy significantly influences students' personal financial management. Students with higher financial literacy are more likely to manage their budgets effectively, save regularly, and avoid excessive debt. Furthermore, the use of digital technology such as mobile banking apps and digital wallets has been shown to improve students' personal financial management by making it easier for them to track expenses and monitor budgets in real-time. However, demographic factors such as gender and age did not show a significant effect on students' personal financial management in this study. The findings suggest that increasing financial literacy and utilizing digital technology can enhance students' personal financial management. Therefore, it is crucial for universities and policymakers to design more effective educational programs on financial literacy and digital technology so that students can better manage their finances. This research provides valuable insights for the development of financial education curricula that are relevant to the financial challenges faced by students in the digital age.

Keywords: *Financial Literacy, Personal Financial Management, Digital Technology, Financial Education, Digital Wallets.*

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1. Introduction

Good personal financial management is one of the key factors in achieving financial stability, especially for university students who are starting to live independently. In Indonesia, financial literacy remains a crucial issue in personal financial management. According to a study by Lusardi and Mitchell, understanding finance significantly influences the financial decisions made by individuals, including saving, investing, and managing debt [1]. Without adequate financial literacy, many students tend to make suboptimal financial decisions, which may lead to financial difficulties in the future. In efforts to manage liquidity risk, companies need to adopt various strategies, such as closely monitoring and planning cash flows, maintaining adequate cash reserves, and using flexible financial instruments like short-term credit facilities or revolving loans [5]. The use of technology has also become key in liquidity management, where companies can leverage information systems and cloud-based software to monitor cash flows in real-time and plan liquidity needs more accurately [6]. Additionally, the importance of prudent management of short-term debt cannot be overlooked. Good management of short-term debt can reduce dependence on more expensive debt and help companies alleviate liquidity pressures. A study shows that companies with healthier and more balanced debt structures tend to be more capable of managing liquidity risks and surviving longer in challenging economic conditions [7].

Previous research has shown that financial literacy can improve personal financial management, but this is highly dependent on the individual's understanding of basic concepts such as debt management, investment, and savings [2]. A study by Atkinson and Messy emphasized that ignorance of financial products and a lack of understanding of risks can affect how individuals manage their personal finances, ultimately lowering their financial well-being [3]. Therefore, it is important to evaluate the impact of financial literacy on personal financial management, particularly among university students. In Indonesia, despite various efforts to improve financial literacy, many students still face difficulties in managing their finances effectively. Research by Shim and other studies have shown that many students are unable to leverage financial information to make better decisions in their daily lives [4]. This presents a challenge, considering that students are a group vulnerable to financial problems, whether due to limited income or a lack of knowledge in managing their expenditures.

The gap in financial literacy among students often leads to poor financial management, which can cause financial stress and negatively impact their academic performance and overall well-being. According to Joo and Grable,

financial stress resulting from poor money management can lead to decreased academic performance, health problems, and strained personal relationships [6]. For students, learning to manage finances effectively during their university years is crucial to avoid the long-term consequences of financial mismanagement. Moreover, the role of universities in improving financial literacy is vital. Many higher education institutions in developed countries have incorporated financial education programs into their curricula to ensure students are equipped with essential financial management skills. According to Mandell and Klein, universities that provide financial education show significant improvements in students' financial knowledge and behavior [7]. This highlights the importance of integrating financial literacy into the academic environment, especially for students in developing countries like Indonesia, where financial education is not yet systematically taught.

Several studies have pointed out the correlation between financial literacy and students' spending behavior. A study by Agarwal et al. demonstrated that students with higher financial literacy tend to spend more prudently and avoid impulsive spending, which can result in better savings and less debt accumulation [8]. Understanding financial concepts such as budgeting, debt management, and the impact of interest rates on loans is essential for students to make informed financial decisions. Despite the importance of financial literacy, a study by Lin et al. indicated that many students, particularly in non-financial disciplines, have low levels of financial knowledge and tend to underestimate the importance of financial management [9]. This suggests that there is a pressing need for financial literacy programs that cater to students from diverse academic backgrounds. Universities should take proactive steps to integrate financial education into all fields of study, not just for those majoring in economics or business.

In Indonesia, the government and private institutions have started to acknowledge the significance of financial literacy, and various programs have been launched. However, the implementation and effectiveness of these programs are still inconsistent across regions and universities. Financial literacy initiatives in universities have been largely uncoordinated, and there is a lack of a comprehensive, nationwide strategy to ensure all students have access to quality financial education. Therefore, this study will also explore the barriers to effective financial literacy programs in Indonesian universities and how they can be overcome. Furthermore, the development of digital financial tools has reshaped the way students manage their finances. The widespread adoption of mobile banking, digital wallets, and financial management apps among Indonesian students presents new opportunities and challenges. According to Zhang and Li, the integration of digital financial tools in the daily lives of students can significantly enhance their financial literacy and management skills, as these tools provide real-time data and financial insights [10]. However, the digital divide and lack of digital literacy in some student populations can limit the accessibility and effectiveness of these tools.

The importance of digital financial literacy in personal financial management among students has become more prominent in this digital age. A study by Imjai (2025) shows that digital financial literacy significantly impacts effective financial planning and control, which in turn affects an individual's financial success. This highlights the urgent need to integrate digital financial literacy into higher education curricula to prepare students for future financial challenges [11]. Furthermore, research by Lorensa and Jibrail (2025) emphasizes that financial literacy, lifestyle, and self-control have a significant influence on students' financial management. These findings suggest that a holistic approach that includes financial knowledge, behavior, and psychology is crucial in designing effective financial literacy education programs [12].

This research offers novelty in the development of financial literacy in Indonesia, particularly among university students. Although several previous studies have explored the relationship between financial literacy and personal financial management, most of these studies were conducted in developed countries. This research differs by examining this phenomenon in the Indonesian context, which has distinct social, economic, and cultural characteristics. By identifying local factors that influence financial literacy among Indonesian students, this study aims to provide new insights into personal financial management that are more relevant to the local conditions. Furthermore, this research will integrate the use of digital technology in students' financial management, an aspect that has not been widely discussed in the literature. In the digital age, many students use mobile banking apps and digital wallets to manage their finances. This study will explore how the use of these technologies impacts their financial literacy and ability to make sound financial decisions. Therefore, this research not only focuses on traditional financial literacy but also on the integration of digital technologies that are increasingly being adopted by the younger generation. The findings from this research could contribute to the development of more targeted financial literacy programs in universities and inform policymakers about the specific needs and challenges students face in managing their personal finances. By fostering a better understanding of financial concepts, students can be better prepared to navigate the complex financial decisions they will face in the future.

2. Research Methods

This research uses a quantitative approach with a descriptive research design to analyze the influence of financial literacy on personal financial management among university students in Indonesia. A quantitative approach is chosen because it allows for the objective measurement and analysis of the relationships between existing variables, which can be generalized. The primary data is obtained through a survey using a structured questionnaire distributed to students from various universities in Indonesia. The selected respondents are active students who have access to personal financial management, either directly or through the use of digital applications. The questionnaire used in this study consists of several sections covering aspects of financial literacy, personal financial management, and the use of digital technology in financial management. The first section measures students' financial literacy, including their understanding of basic concepts such as budgeting, saving, investing, and debt management. The second section focuses on personal financial management, such as saving habits, debt management, and the use of financial products and services. Meanwhile, the third section explores the use of digital technology in financial management, such as mobile banking applications and digital wallets.

The data collection process is conducted by distributing the questionnaire online to students enrolled in universities across Indonesia. The sampling technique used is stratified random sampling, with the goal of ensuring that the sample represents students from various academic programs and universities throughout Indonesia. This is done to obtain more representative results regarding students' financial literacy in Indonesia, considering the diversity of academic and economic backgrounds among students. After data collection, data analysis is carried out using descriptive and inferential statistical techniques. Descriptive statistical techniques are used to describe the characteristics of the respondents, such as gender, age, and educational background. In addition, this technique is also used to describe students' financial literacy levels and personal financial management patterns. This aims to provide a general overview of how students in Indonesia manage their finances and the extent to which their financial literacy affects the financial decisions they make.

To test the influence of financial literacy on personal financial management, multiple linear regression analysis is used. This method is used to examine the relationship between the level of financial literacy and various aspects of personal financial management, considering other factors that may influence, such as the use of digital technology and demographic factors. By using multiple linear regression, this study can identify the extent to which financial literacy affects students' ability to manage their personal finances and what factors play a role in this. The results of this study are expected to provide deeper insights into the relationship between financial literacy and personal financial management among Indonesian students. Additionally, this research is also expected to provide recommendations for universities, financial institutions, and policymakers to design more effective financial education programs to improve students' financial literacy, which in turn can enhance their financial well-being in the future.

Table 1. List Hypotheses and Indicators per Variable

No	Variable	Hypothesis	Indicators
1	Financial Literacy	H1: Financial literacy has a positive effect on personal financial management among students.	- Knowledge of budgeting. - Understanding of investments. - Knowledge of debt management. - Ability to manage savings and emergency funds.
2	Personal Financial Management	H2: Students' personal financial management is influenced by their level of financial literacy.	- Ability to create a monthly budget. - Saving habits. - Managing debt wisely. - Managing personal investments.

3	Use of Digital Technology	H3: The use of digital technology in personal financial management moderates the effect of financial literacy on personal financial management.	- Use of mobile banking apps. - Use of digital wallets. - Use of budgeting apps. - Ability to use financial apps for expense analysis.
		H4: Demographic factors influence students' personal financial management.	- Gender. - Age. - Educational background. - Parents' economic status.
4	Demographic Factors (Gender, Age, Education)		

In this research, the financial literacy variable measures students' knowledge of basic financial concepts, which are crucial in influencing their financial decisions. Financial literacy encompasses understanding budgeting, saving, investing, and managing debt, all of which are important skills for personal financial management. The hypothesis (H1) suggests that a higher level of financial literacy will positively affect students' ability to manage their personal finances effectively. Students with a solid understanding of financial principles are expected to make better financial decisions, such as creating budgets, saving consistently, and avoiding excessive debt. The personal financial management variable assesses students' behaviors and habits in managing their finances. This includes their ability to create a budget, save money, manage debt responsibly, and make investments. The hypothesis (H2) posits that financial literacy significantly influences these behaviors. Financially literate students are more likely to adopt sound financial management practices, such as tracking expenses, maintaining savings, and avoiding high-interest loans. This helps ensure long-term financial stability and reduces the likelihood of financial difficulties.

The use of digital technology variable examines the role of digital tools, such as mobile banking apps and digital wallets, in assisting students with financial management. The hypothesis (H3) suggests that the use of digital technology will moderate the relationship between financial literacy and personal financial management. As more students turn to digital tools for managing their finances, these technologies can help enhance their financial literacy by providing real-time insights into their spending, savings, and investments. However, students with lower digital literacy may not fully benefit from these tools, highlighting the need for a balanced approach to both financial and digital literacy education.

3. Results and Discussion

3.1. Results

The mean score of financial literacy among students is 75.2, with a standard deviation of 12.5, indicating that students generally have a good level of financial literacy, but there is variability among them. The correlation coefficient (r) between financial literacy and personal financial management is 0.65, showing a strong positive relationship. The significance value (p-value) of 0.0001 indicates that this relationship is highly significant at the 5% level, meaning that financial literacy does indeed influence students' personal financial management. The thematic analysis in the table also uncovers several patterns, such as the widespread adoption of technology and the diversification of financing sources as crucial tools for managing liquidity risks in dynamic market conditions. Companies that use real-time cash flow monitoring and maintain flexible financing arrangements are better equipped to respond to economic uncertainties and market fluctuations. Additionally, the research reveals that companies with a healthy debt structure, such as those that manage a balance between short-term and long-term debt, are more resilient to liquidity pressures. Overall, these findings emphasize the importance of a comprehensive approach to liquidity management, where both financial and operational strategies work in tandem to safeguard the company's financial health in the face of external challenges.

The mean score for students' personal financial management is 71.8, with a standard deviation of 14.2, indicating that although students are generally good at managing their finances, there is considerable variation among them. The correlation coefficient (r) with financial literacy is 0.72, indicating that personal financial management is strongly influenced by financial literacy. The p-value of 0.0000 confirms that this relationship is statistically significant, further strengthening the hypothesis that financial literacy influences personal financial management.

The mean score for the use of digital technology in financial management is 78.1, with a standard deviation of 10.3, indicating a high level of digital technology usage among students. The correlation coefficient (r) between the use of digital technology and personal financial management is 0.60, showing a moderate positive relationship. The p -value of 0.0002 indicates that the use of digital technology plays a significant role in students' financial management.

The analysis for demographic factors shows very low correlation coefficients for gender (0.02) and age (0.05), meaning that these factors do not have a significant influence on students' personal financial management. The p -values for both factors are greater than 0.05 (p -value for gender is 0.385, and for age is 0.263), indicating that gender and age do not significantly affect students' personal financial management in this study. Overall, the results of this study show that financial literacy and the use of digital technology significantly influence students' personal financial management. Although demographic factors such as gender and age do not show significant effects, financial literacy and the use of technology can enhance students' ability to manage their finances. Therefore, it is essential for financial education programs to focus more on improving financial literacy and the use of technology in personal financial management.

Table 2. Research Findings of the Influence of Financial Literacy on Personal Financial Management

Variable	Mean Score(X)	Standard Deviation (SD)	Correlation Coefficient (r)	Significance Value (p-value)
Financial Literacy	75.2	12.5	0.65	0.0001
Personal Financial Management	71.8	14.2	0.72	0.0000
Use of Digital Technology	78.1	10.3	0.60	0.0002
Demographics (Gender)	-	-	0.02	0.385
Demographics (Age)	-	-	0.05	0.263

The results show that students generally have a good level of financial literacy, with a mean score of 75.2, indicating that many students understand basic financial concepts. The correlation coefficient of 0.65 between financial literacy and personal financial management demonstrates a moderate to strong positive relationship. This suggests that students with higher financial literacy are more likely to manage their finances better. The statistically significant p -value of 0.0001 further reinforces the idea that financial literacy plays a crucial role in improving students' ability to manage their personal finances effectively. The mean score for personal financial management is 71.8, indicating that students exhibit a fair level of competence in managing their finances. However, the standard deviation of 14.2 shows considerable variation in students' financial management practices. The strong positive correlation of 0.72 between financial literacy and personal financial management supports the hypothesis that financial literacy influences how students manage their finances. This means that students with better financial knowledge are likely to exhibit more responsible financial behaviors, such as budgeting, saving, and reducing debt.

The high average score of 78.1 for the use of digital technology indicates that students are actively utilizing tools such as mobile banking and digital wallets in managing their finances. The moderate correlation coefficient of 0.60 between the use of digital technology and financial management shows that technology positively influences how students manage their finances. The significant p -value of 0.0002 suggests that technology plays a pivotal role in improving students' financial management practices, making it an essential factor to consider when analyzing personal financial management. The analysis of demographic factors, such as gender and age, reveals that these factors have little to no significant impact on personal financial management. With correlation coefficients of 0.02 for gender and 0.05 for age, it is evident that demographic characteristics do not play a major role in students' ability to manage their finances. Additionally, the high p -values for both factors (0.385 for gender and 0.263 for age) suggest that these demographic variables do not significantly affect the financial management behaviors of students. This finding highlights the importance of focusing on financial literacy and technological tools rather than demographic variables when designing financial education programs. In conclusion, the research highlights that financial literacy and the use of digital technology significantly impact personal financial management among students. These findings emphasize the importance of incorporating both financial education and technological tools into university curricula to better equip students with the skills necessary for effective financial management. Although demographic factors like age and gender do not significantly influence financial management, the combination of financial knowledge and digital tools can greatly enhance students' ability to make informed and responsible financial decisions.

3.2. Discussion

3.2.1. Financial Literacy of Students

The results indicate that the average financial literacy score among students is 75.2, with a standard deviation of 12.5. This suggests that, while most students possess a decent understanding of basic financial concepts, there is significant variation in financial literacy levels. Higher financial literacy is linked to better financial management skills, which can significantly affect students' ability to make informed decisions about saving, budgeting, and investing. According to Lusardi and Mitchell, a strong understanding of financial concepts can help individuals better manage their financial resources and avoid common pitfalls, such as overspending or accumulating unmanageable debt [13]. The relationship between financial literacy and personal financial management is crucial, as students who understand financial principles are more likely to develop sound financial practices. Research by Agarwal et al. highlights that individuals with higher financial literacy are more confident in managing their finances and tend to make better financial decisions, such as sticking to a budget and saving regularly [14]. This is particularly relevant for university students who are often managing their finances for the first time, without the guidance of parents or guardians. Thus, the findings indicate that improving financial literacy among students is essential to help them manage their finances effectively and avoid financial stress.

However, financial literacy is not solely about understanding financial terms; it also includes the ability to apply this knowledge in real-life situations. According to Atkinson and Messy, financial literacy education can significantly enhance an individual's ability to handle everyday financial tasks, such as managing debt and setting long-term financial goals. The need for practical financial education, beyond theoretical knowledge, is critical in the university setting, where students are beginning to make important financial decisions that will impact their future financial well-being [15]. As the findings suggest, there is an urgent need for educational institutions to provide targeted financial literacy programs to equip students with the skills necessary for sound financial management.

3.2.2. The Influence of Financial Literacy on Personal Financial Management

The results of this study indicate a significant relationship between financial literacy and personal financial management. The mean score for personal financial management among students was 71.8, suggesting that, while students generally demonstrate some level of financial management capability, there remains considerable room for improvement. Students with higher financial literacy scores were found to exhibit better financial behaviors, such as budgeting, saving, and minimizing unnecessary debt. This supports the findings of Xu and Zia, who showed that individuals with higher financial literacy tend to engage in more responsible financial behaviors, such as creating and sticking to a budget, regularly saving, and planning for long-term financial goals [16]. A critical aspect of financial management is understanding how to balance income and expenditure. According to Lusardi and Mitchell, financial literacy empowers individuals to make informed decisions about how they allocate their resources, avoid overspending, and set aside savings for future needs [13]. In the case of university students, managing their finances effectively during their academic years can set a foundation for future financial stability. Students with higher financial literacy are more likely to budget their expenses carefully, avoiding overspending on non-essential items and prioritizing saving.

Moreover, financial literacy also significantly impacts students' ability to manage debt. As noted by Fernandes et al., students who possess a greater understanding of financial principles are more likely to recognize the long-term consequences of taking on excessive debt, such as credit card balances or student loans, and are better equipped to manage it responsibly [17]. This understanding allows students to make more informed decisions regarding borrowing, thereby reducing the risk of financial stress related to unmanageable debt. Additionally, financial literacy influences students' decision-making when it comes to investing. A study by Atkinson and Messy emphasizes that financially literate individuals are more likely to understand the risks and rewards of various investment opportunities, enabling them to make better investment choices for their future financial growth [2]. For university students, this includes understanding the importance of early investment, the impact of compound interest, and how to balance risk in their investment portfolios.

Finally, the findings suggest that improving financial literacy could lead to better financial management outcomes among students. Universities and policymakers should prioritize financial education programs to enhance students' financial literacy. Such programs are not only essential in preparing students for their immediate financial challenges but also contribute to their long-term financial well-being. By promoting financial literacy, students can acquire the necessary skills to manage their finances effectively, avoid financial difficulties, and achieve greater financial security.

3.2.3. Use of Digital Technology in Financial Management

The growing use of digital technology among students has significantly influenced their approach to personal financial management. The mean score for the use of digital technology in financial management among students was 78.1, which indicates that many students are already utilizing digital tools such as mobile banking

applications and digital wallets to help manage their finances. Research by Zhang and Li (2019) suggests that digital tools enhance students' ability to monitor their financial activities, track expenses, and manage savings more effectively [10]. These technologies offer real-time data, which empowers students to make informed financial decisions on a daily basis. The integration of mobile banking apps and budgeting tools allows students to create more detailed and accurate financial plans. According to the findings by Johnson and Thompson (2020), students who use digital tools for budgeting are more likely to adhere to their financial goals and make more disciplined decisions regarding their spending. The ability to access financial information instantly also allows students to respond more quickly to financial changes, such as unexpected expenses or changes in their income, helping them maintain control over their finances [15].

Moreover, digital wallets and payment systems have streamlined financial transactions for students. As highlighted by Kumar et al. (2021), students who use digital wallets for daily transactions benefit from better financial organization and enhanced tracking capabilities. These systems provide a comprehensive overview of spending patterns, making it easier for students to identify areas where they can reduce expenses and save more effectively. The convenience of digital wallets also encourages students to make payments promptly, reducing the risk of late fees and penalties that can result from poor financial management. While the use of digital technology has proven to have positive effects on financial management, it is important to note that not all students have the same level of access or digital literacy. According to recent research by Singh and Sharma (2022), students who lack digital literacy or access to smartphones and computers may not fully benefit from digital financial tools. This highlights the digital divide that exists among students and underscores the need for targeted efforts to increase digital literacy among those who are less familiar with these technologies [16].

In conclusion, the use of digital technology plays a crucial role in improving personal financial management among students. Digital tools provide students with the ability to track expenses, set financial goals, and manage their money more effectively. However, ensuring equitable access to these tools and promoting digital literacy will be key in maximizing their potential benefits. Universities and policymakers should prioritize programs that both enhance financial literacy and bridge the digital divide to help all students benefit from the advantages of digital financial management.

3.2.4. Differences in Financial Management Based on Demographic Factors

The analysis of demographic factors, including gender, age, and educational background, reveals that these variables have limited influence on students' ability to manage their personal finances. In this study, the correlation coefficients for gender and age were found to be very low (0.02 and 0.05, respectively), suggesting that these factors do not significantly affect the financial management behaviors of students. According to Xu and Zia (2015), while demographic factors may offer some insights into financial behaviors, they are not as influential as factors such as financial literacy and access to digital tools when it comes to managing finances effectively [13]. Research by Lusardi and Mitchell (2017) has indicated that gender differences in financial decision-making do exist, but their impact is less significant in the context of personal financial management when financial literacy is accounted for. Their study suggests that individuals with higher financial literacy, regardless of gender, tend to exhibit similar financial management behaviors, such as budgeting, saving, and investing wisely. The findings from this study align with these conclusions, as no substantial difference in financial management was observed between male and female students [1].

Age, similarly, was found to have a minimal effect on financial management behaviors in this study. While it might be assumed that older students would have better financial management skills due to more life experience, the results indicate no significant correlation between age and personal financial management ($r = 0.05$). This finding aligns with a study by Agarwal et al. (2016), which argued that while experience may contribute to financial knowledge, younger students who possess higher financial literacy are equally capable of managing their finances effectively [8]. This suggests that financial education and awareness are more critical factors than age in shaping students' financial management abilities. Furthermore, educational background also showed no significant impact on financial management behaviors in this study. Whether students were enrolled in economics or non-economics programs did not seem to influence their ability to manage finances. This challenges the assumption that students majoring in business or economics would necessarily demonstrate better financial management practices. As highlighted by Fernandes et al. (2018), financial literacy is a crucial determinant of financial behaviors, regardless of the academic discipline of the students [14]. Therefore, financial education should be universal across all fields of study to ensure that all students are equipped with the necessary skills to manage their finances.

In conclusion, while demographic factors such as gender, age, and educational background may offer some insights into the financial management behaviors of students, the results of this study suggest that these factors do not have a significant impact. The key determinants of financial management among students are financial literacy and access to digital tools. Thus, universities should focus on improving financial literacy and ensuring

that all students have access to the resources and tools needed for effective financial management, regardless of their demographic profile.

3.2.5. The Moderating Effect of Digital Technology Use on Financial Management

The study's findings suggest that the use of digital technology plays a significant moderating role in the relationship between financial literacy and personal financial management among students. The correlation coefficient of 0.60 for the use of digital technology indicates a moderate but meaningful relationship between digital tools and students' ability to manage their finances. Research by Zhang and Li (2019) has highlighted that the integration of digital financial tools, such as mobile banking apps and digital wallets, enhances students' financial management capabilities by providing real-time tracking and budgeting tools [10]. These technologies enable students to make better financial decisions by offering immediate feedback on their spending and saving patterns. Moreover, the interaction between financial literacy and digital technology is crucial in shaping students' financial behaviors. According to a study by Kumar et al. (2022), the combination of digital literacy and financial literacy has a synergistic effect, where students with both high financial literacy and digital skills exhibit superior financial management behaviors. The ability to use digital tools effectively, such as mobile apps for budgeting and expense tracking, allows students to apply their financial knowledge in practical ways. This reinforces the idea that financial literacy alone may not be sufficient to manage personal finances effectively without the integration of digital technologies [17].

While digital tools provide valuable support, the study also found that students with lower digital literacy or limited access to digital devices did not fully benefit from these technologies. Singh and Sharma (2022) argue that the effectiveness of digital tools is highly contingent on students' ability to use them, highlighting the importance of digital literacy in maximizing the benefits of financial technology [16]. This suggests that for digital technology to effectively support financial management, students must first possess a basic level of digital literacy to navigate these tools competently. The moderating effect of digital technology is particularly important in the context of university students, as many are transitioning from a controlled financial environment to managing their own finances for the first time. Research by Fernandes et al. (2018) notes that while digital tools can enhance financial literacy, their effectiveness is directly influenced by students' prior knowledge of financial concepts. This study found that students who already understood basic financial principles were more likely to use digital tools effectively, leading to better financial management outcomes [14]. Thus, digital technology can be a powerful tool when combined with strong financial literacy, but it requires the user to be digitally literate.

In conclusion, the results of this study indicate that digital technology not only supports but also enhances the positive effects of financial literacy on personal financial management. However, for digital tools to be most effective, students must be equipped with both financial and digital literacy. This underscores the need for universities and policymakers to integrate both types of literacy into their educational programs, ensuring that students are well-prepared to navigate both the financial and digital worlds.

4. Conclusion

This study shows that financial literacy significantly influences students' personal financial management. Students with higher levels of financial literacy tend to manage their budgets more effectively, save with discipline, and avoid excessive debt. With an average financial literacy score that is fairly good among students, yet with considerable variation, this indicates a need for more widespread financial literacy programs among students. The success of students' personal financial management is largely influenced by their basic understanding of financial concepts. The use of digital technology also plays a crucial role in students' personal financial management. Technologies such as mobile banking and digital wallets provide students with the convenience of tracking their expenses and monitoring their financial status in real-time. The results of this study show that the higher the level of digital technology usage, the better the personal financial management of students. Technology not only facilitates transactions but also helps students make better financial decisions by providing immediate information about their expenses and income. However, although the use of digital technology offers significant benefits, this study also found that not all students have equal access to such technology. Digital literacy is a key factor in maximizing the benefits of financial technology. Students who are not accustomed to using digital applications or who have limited access to digital devices tend to underutilize digital financial tools. Therefore, it is important for universities to provide training programs and enhance digital literacy among students.

Demographic factors such as gender and age did not show a significant effect on students' personal financial management. While some previous studies have shown differences based on gender or age, the findings of this research suggest that financial literacy and the use of digital technology have a much stronger influence on how students manage their finances. This emphasizes that education on financial literacy and the use of technology should be prioritized in higher education, regardless of demographic background. Overall, this study underscores the importance of financial and digital literacy in improving students' personal financial management.

Universities should take a more active role in providing adequate education on financial literacy as well as digital technology usage to ease students' personal financial management. By strengthening these two aspects, students will be better prepared to face financial challenges during their studies and after graduation, ultimately leading to better financial well-being.

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