The Influence of Digital Financial Literacy on the Use of Non-Cash Payments in Makassar City: Gender as a Moderating Variable

Fera Fahira[a,*], Agusdiwana Suarni[b], Muhammad Khaedar Sahib[c]
[a,b,c] *Faculty of Economics and Business, Muhammadiyah University of Makassar, Indonesia*
[*] *Corresponding author. E-mail address: ferafahira2222@gmail.com[a], agusdiwana.suarni@unismuh.ac.id[b], khaedar@unismuh.ac.id[c]*

ARTICLE INFO

Article history:
Received
November
Accepted
December

Keywords
Literacy,
Payment,
Gender.
Financial,
Non-Cash

A B S T R A C T

This study examines the influence of digital financial literacy on the adoption of non-cash payments among residents of Makassar City, using gender as a moderating variable. A total of 103 respondents were surveyed through explanatory and quantitative research methodologies. The analysis reveals that digital financial literacy positively and significantly affects the adoption of non-cash payments. However, the moderating effect of gender on this relationship is not statistically significant, as indicated by a p-value greater than 0.05. This suggests that digital financial literacy has a universally positive impact on the adoption of non-cash payments, irrespective of gender. The findings underscore the critical role of digital financial literacy in promoting non-cash payment systems, highlighting that its benefits extend equally across all gender groups. This aligns with broader efforts to create inclusive financial ecosystems and emphasizes the importance of fostering digital financial skills at all levels of society. The study calls for targeted initiatives to improve digital financial literacy through education programs, workshops, and outreach efforts, ensuring equitable access to digital financial tools. Future research could explore additional moderating variables, such as age, income, or education level, to gain a deeper understanding of the factors influencing non-cash payment adoption in urban contexts like Makassar City.

1. Introduction

Good financial literacy can prevent people from experiencing financial problems, where financial problems are not only caused by minimal income, but can also be due to poor financial management caused by minimal insight into financial aspects which results in errors in decision making [1]. Meanwhile, non-cash payments refer to any form of transaction that does not involve physical money, including payments through credit cards, electronic bank transfers, and various digital wallet applications. Digital financial literacy is very important because people who are literate in financial technology are better able to manage their finances independently and can take advantage of digital innovations to improve their welfare

The phenomenon of increasing the use of cashless payments in Indonesia, is related to the significant growth of the financial technology sector and government policies that support a cashless society. However, there are still gaps in digital financial literacy, especially among older groups of society and those who do not have access or understanding of technology [2]. Low financial literacy can increase the risk of financial vulnerability, especially when people adopt digital payment methods without sufficient understanding of how to manage financial risks.

Based on Article 33 of the 1945 Constitution, the Indonesian government is committed to advancing public welfare through an inclusive economy, including financial digitalization, which is regulated in Law No. 23 of 1999 concerning Bank Indonesia and PBI No. 18/40/PBI/2016. The National Non-Cash Movement (GNNT) program since 2014 has encouraged the adoption of digital

payments, supported by advances in information technology, strategic policies, and the COVID-19 pandemic situation which has accelerated the shift from cash to non-cash transactions, including in South Sulawesi [3].

The context of this study is very relevant in the midst of the increasing adoption of digital payments in Makassar City, which has the potential to accelerate financial inclusion in the area. However, there are challenges that must be overcome related to the level of digital financial literacy of the community, especially among women and older age groups [4]. Therefore, the analysis of the role of gender moderation in the use of non-cash payments is important to understand how gender differences can affect digital financial literacy and the use of this financial technology.

The main problem identified in the use of non-cash payments in Makassar City is the low level of digital financial literacy, especially among certain groups of society. Low digital financial literacy can lead to unwise use of financial technology, such as excessive or incorrect use of spending. Groups of people with low financial literacy often face difficulties in understanding the financial implications of using digital payment instruments, which in turn can increase their financial vulnerability. Gender was also found to be an important factor in financial literacy, where women tended to have lower digital financial literacy than men, which exacerbated the financial risks they faced [4].

The role of gender as a moderation variable in digital financial literacy and the use of non-cash payments is an important topic in many studies. In the context of Makassar City, gender differences are often a determining factor in the adoption of financial technology. Women, in particular, often face barriers to understanding and using digital financial services due to limited access to education and technology [5]. This results in a gender gap in digital financial literacy, which ultimately affects the effective use of cashless payments. Although technology is becoming more evenly distributed, cultural differences and social expectations remain a major challenge in encouraging women's participation in the digital financial system.

The use of non-cash payments in Makassar City has shown a significant increase, mainly driven by technological advances and government initiatives to encourage people to switch to modern payment systems. This phenomenon can be seen from the increasing use of digital wallets, bank transfers, and credit cards that replace physical money. However, challenges arise because some people, especially in rural areas, the elderly, and those with low levels of education, still have difficulty adopting this technology due to a lack of understanding of the benefits and how to use it. In addition, there is a gender gap in digital financial literacy, where women often have more limited access to technology and are less educated in the use of digital financial applications, making them more vulnerable to risks such as ineffective money management or getting trapped in digital debt. Therefore, education about digital financial literacy needs to be improved to ensure that all levels of society, without exception, can use this technology wisely and safely.

This study differs from previous studies because it focuses not only on how digital financial literacy affects the use of non-cash payments, but also looks at the role of gender as a factor that moderates the relationship. Previous studies usually only discuss the importance of digital financial literacy in general or its impact on financial inclusion, but not many have explored how the differences between men and women are in understanding and using digital payment technology. By focusing on Makassar City, this study also becomes more relevant to see the unique local dynamics, including cultural differences and access to technology that affect the financial literacy of people in the region.

This research is very important because digital financial literacy and the gender gap in the adoption of non-cash payments have a direct impact on financial inclusion in Indonesia, especially in Makassar City. With increased access to financial technology and various government programs to support cashless transactions, understanding the factors affecting these gaps will help in formulating more effective policies [6]. In addition, this research can provide solutions in increasing digital

financial literacy, especially among women and underserved communities, which will ultimately accelerate financial inclusion overall.

Based on the phenomenon that has been described, this study is titled "The Influence of Digital Financial Literacy on the Use of Non-Cash Payments in Makassar City: Gender as a Moderating Variable." The problem raised in this study is how the influence of digital financial literacy on the use of non-cash payments in Makassar City, as well as whether gender plays a role as a moderating variable in the relationship between digital financial literacy and the use of non-cash payments in the region.

2. Literature Review

2.1 Theoritical Review

Digital Financial Literacy (Variable X)

Digital financial literacy refers to an individual's ability to understand and use financial services and products provided digitally. It includes an understanding of basic financial concepts, the use of digital means of payment, and risk management associated with financial technology. According to research, digital financial literacy is important because it helps individuals make wise financial decisions, especially in an ecosystem increasingly dominated by technology-based financial services [7]. In addition, with the emergence of various financial technologies (fintech), individuals are required to have the ability to understand digital products to maintain their financial well-being [8].

The measurement of the level of digital financial literacy conducted by the Australian Securities and Investments Commission, as quoted by Soraya & Lutfiati, includes various aspects, including: knowledge of values and priority scales in life; ability to budget, save, and manage money; credit management; an understanding of the importance of insurance and protection against risks; the basics of investment; program planning for retirement; shopping use and product comparison; and the ability to resolve conflicts over financial uses or priorities [9].

Non-Cash Payments (Variable Y)

A cashless payment system is a payment method that does not involve physical money in the form of paper or coins, but uses digital means of payment such as debit cards, credit cards, e-money, or e-wallet applications. The use of cashless payments facilitates faster, safer, and more efficient transactions because it does not require physical handling of cash [10]. With the development of financial technology, cashless payment systems have become an essential part of the modern digital economy.

The non-cash payment system indicator includes three main aspects, namely the volume of non-cash transactions, the number of non-cash payment instruments, and the level of security and user trust. The volume of non-cash transactions reflects the increased use of debit cards, credit cards, and e-money, which shows the efficiency and shift of society to digital payments. The number of non-cash payment instruments, such as ATMs, POS terminals, and e-wallet applications, reflects the ease of access and the financial institution's commitment to financial inclusion [11]. In addition, user security and trust in digital transactions are essential to drive the adoption of cashless payments, where improved data protection and user education are key supporting factors [10].

Gender (Z variable)

Gender refers to the social, cultural, and behavioral differences associated with sex, which are determined by society, not just based on biological differences between men and women. Gender often reflects how society expects individuals to act based on their gender. Gender roles are a set of expectations given by society about how men and women should act. According to research, gender roles are formed through a long socialization process and internalized by individuals from childhood [12].

Gender role indicators include gender-based division of duties, gender stereotypes, and social and family influences. Traditional division of duties often expects women to take care of the household and provide emotional support, while men are considered the primary breadwinners [13]. Gender stereotypes shape social expectations, portraying women as sensitive and in need of protection, while men are expected to be strong and dominant [14]. In addition, the family and social environment play an important role in shaping understanding of gender roles through the process of socialization from an early age, although changes can occur through education and more egalitarian environmental influences [15].

2.2 Related Work

The article titled "Digital Financial Literacy and Usage of Cashless Payments in Jordan: The Moderating Role of Gender" written by Maha Shehadeh, H.M. Dawood, and Khaled Hussainey and published in 2024, explores the relationship between the adoption of cashless payment systems among Jordanian university affiliates and the elements of digital financial literacy (awareness, subjective knowledge, experience, digital legal framework, and skills), as well as the function of gender as a moderating variable. The research discovered that although the digital legal framework and subjective knowledge did not significantly affect the adoption of cashless payments, digital awareness, experience, and skills did. This link was found to be moderated by gender, with women showing a greater correlation between cashless payment usage and digital financial experiences [5].

The similarity of this study with the title "The Influence of Digital Financial Literacy on the Use of Non-Cash Payments in Makassar City: Gender as a Moderating Variable" resides in the analysis's emphasis on gender's influence on the adoption of non-cash payment methods and digital financial literacy. Both make use of the planned behavior theory (TPB) approach and consider experience and skills to be significant factors. The setting of the site and the goals of the study varies; although research in Makassar may be more focused on the general populace, research in Jordan is more focused on universities. Furthermore, the digital legal framework is examined as an independent variable in the Jordanian research, something that was not included in the Makassar study.

The research of the article entitled "Financial Vulnerability, Financial Literacy, and the Use of Digital Payment Technologies" written by M.M. Naeser Seldal and Ellen K. Nyhus, published in 2022, examines the connection between financial vulnerability, digital payment technology usage, and financial literacy. The research examined the relationship between financial vulnerability and the usage of digital payment technologies, including contactless, internet, and mobile payments, using data from 2,202 respondents in Norway. Contrary to other US research, the findings indicated that those who used digital payments were not more financially susceptible than those who did not. Less financial difficulty is associated with more financial knowledge, and women are more likely than males to adopt digital payment technologies [2].

The similarity with the research entitled "The Influence of Digital Financial Literacy on the Use of Non-Cash Payments in Makassar City: Gender as a Moderating Variable" is that both examine how gender influences the link between digital financial literacy and the adoption of non-cash payments. The study in Makassar highlights the connection between digital literacy and the effectiveness of using non-cash payments in urban communities, whereas Seldal and Nyhus' research focuses on financial vulnerabilities in the highly digitalized Norwegian contextual setting. The research article titled "Cashless Japan: Unlocking Influential Risk on Mobile Payment Service", authored in 2021 by Wei-Lun Chang, Li-Ming Chen, and Takako Hashimoto, addresses the dangers influencing Japan's adoption of mobile payment systems. The research compares the desire to utilize mobile payments with six perceived risk categories financial, privacy, performance, psychological, security, and time using a decision tree algorithm. The study's findings indicate that consumers with low to high desire to utilize mobile payments are most concerned about privacy and performance threats. High-intent users are more concerned with security and psychological danger, while low-intent users are more concerned with privacy. These results provide light on tactics businesses may use to lower perceived risk and boost the use of cashless payments [4].

The similarity with the research "The Influence of Digital Financial Literacy on the Use of Non-Cash Payments in Makassar City: Gender as a Moderating Variable" is that both emphasize the elements such as an examination of user attitudes toward risk and technological adoption that impact the acceptance of non-cash payments. The research focus of the two studies differed, though; the Makassar study concentrated more on the relationship between digital financial literacy and the role of gender as a moderating variable in influencing the use of non-cash payments, whereas the Japanese study concentrated on the risks perceived by different categories of mobile payment users. The primary distinctions between these two subjects are also related to geography and culture. The article entitled "Gender Issues in Digital Financial Literacy and Financial Behavior among Millennials" by Febrianty, Yuliansyah, Hamzah, and Annisa, was published in 2024 in the Economia Journal. The impact of digital financial literacy on millennials' financial behavior—particularly their saving and spending habits—as well as gender-based disparities are examined in this research. Digital financial literacy significantly improves spending and saving behavior, according to research using pairwise comparisons and linear models. But when it comes to spending, gender differences are important, but not when it comes to saving. This research offers significant new information on how digital financial literacy might help the younger generation manage their finances better [16].

This study has similarities with the research plan on the influence of digital financial literacy on the use of non-cash payments in Makassar City, particularly in emphasizing the moderating factors of gender and digital financial literacy. The emphasis is different; the study plan is primarily focused on non-cash payments, while the research in the article addresses financial behavior in general (saving and spending). Furthermore, while the study strategy may target a larger audience in Makassar City, the research in this article focuses on economics students.

The article titled "Financial Inclusion – Does Digital Financial Literacy Matter for Women Entrepreneurs?" was written by Rashedul Hasan, Muhammad Ashfaq, Tamiza Parveen, and Ardi Gunardi. In 2024, this article was published. Using data from the World Bank Global Findex, this research examines the relationship between women's participation in formal banking services and digital financial literacy across 144 countries. According to the findings, women who possess greater levels of digital financial literacy are more likely to use credit cards, save, borrow, and hold bank accounts with official financial institutions. This article makes policy recommendations to increase women's access to digital education and advance digital literacy-based financial inclusion [17].

The two studies are similar in that they employ gender as a significant variable and concentrate on digital financial literacy and how it affects financial actions. The distinction is that your study plan is more focused on the usage of non-cash payments in Makassar City by taking gender influence into account as a moderating variable, while the research in this article is more focused on women entrepreneurs globally. The primary distinctions are in population coverage and geographic strategy.

2.3 Research Gap

Digital financial literacy is a person's ability to understand and use digital payment technologies such as digital wallets, online bank transfers, or credit cards. With the increasing use of cashless payments in Makassar City, many people are switching from cash to more practical digital payment methods. However, not everyone understands how to use this technology correctly. For example, older people or living in remote areas often find it difficult to adopt these new technologies due to a lack of digital financial literacy. This can lead to improper use of technology, such as overspending or difficulty managing money wisely.

In addition, there is a gap between men and women in terms of digital financial literacy. Women often have limited access to education and technology, which makes them more vulnerable to financial problems when using digital payments. For example, women may have a harder time understanding how payment apps work or how to keep personal data safe. As a result, they are more at risk of problems such as mistransactions or even poorly managed debt. Therefore, it is important to provide wider education so that everyone, both men and women, can use this technology safely and wisely.

This research is crucial to understand how differences in digital financial literacy and gender gaps affect the use of non-cash payments. By studying this, it is hoped that ways can be found to help people who are less tech-savvy, such as providing training or digital financial education. In addition, the results of this study can also help the government design better policies so that all people, including women and the elderly, can enjoy the benefits of digital payment technology. This will support financial inclusion and help improve the well-being of society as a whole.

2.4 Research Hypothesis

The following are the research hypotheses:

Hypothesis 1 (H1): Digital financial literacy has a positive effect on the use of non-cash payments in Makassar City.

Hypothesis 2 (H2): Gender moderates the relationship between digital financial literacy and the use of non-cash payments in Makassar City, where the effect of digital financial literacy on the use of non-cash payments differs significantly between men and women.

3. Methodology

This study uses a type of quantitative research with an explanatory research approach [18], which aims to explain the relationship between digital financial literacy, the use of non-cash payments, and the role of gender as a moderation variable. The research was conducted in Makassar City, with a population of 1,464,624 people [19].

The sample used was using the following Slovin formula [20]:

$$n = \frac{\text{N}}{1 + \text{N (e)}^2}$$

Di mana:
- n = sample size
- N = population size (1,464,624)
- e = margin of error (9.85% or 0.0985)

With the values N = 1,464,624 and e = 0.0985, we enter them into the formula:

$$n = \frac{1.464.624}{1 + 1.464.624 \text{ x } (0{,}0985)^2}$$

$$n = \frac{1.464.624}{1 + (1.464.624 \text{ x } 0{,}009705)}$$

$$n = \frac{1.464.624}{1 + 14.219{,}11}$$

$$n = \frac{1.464.624}{14.220{,}11}$$

$$n = \frac{1.464.624}{14.220{,}11} = 103{,}04 = 103$$

So, the sample used was 103 respondents, selected using purposive sampling technique, which is a sample selection technique based on certain criteria [21], such as having used non-cash payment methods and having experience with digital financial technology. This approach allows researchers to obtain data that is relevant to the focus of the research.

3.1 Data Collection

Data was collected through a questionnaire consisting of closed-ended questions using the Likert scale to measure the level of digital financial literacy, the intensity of the use of non-cash payments, and gender perception in the management of financial technology. The questionnaire was distributed to respondents who matched the research criteria. In addition, demographic data such as age, gender, education level, and occupation were also recorded to provide a more in-depth picture of the characteristics of the sample.

3.2 Analysis Techniques

The data was analyzed using simple linear regression analysis to measure the influence of digital financial literacy on the use of non-cash payments. Furthermore, to test the role of gender as a moderation variable, a moderation analysis with PROCESS V4.2 by Andrew F. Hayes was used. This technique allows researchers to evaluate how and to what extent gender differences affect the relationship between digital financial literacy and the use of non-cash payments. This analysis

provides comprehensive results on direct relationships as well as moderation in the research model [22].

3.3 Validation

Validation is carried out through reliability and validity tests of questionnaires to ensure that the data collected is consistent and accurate. In addition, the results of the analysis are compared with previous literature to ensure conformity with existing theories. The researcher also involves experts in the field of digital financial technology to provide input and evaluation of the research process and analysis results. Thus, this study is expected to produce reliable and relevant findings to provide insights into digital financial literacy, the use of non-cash payments, and the role of gender in Makassar City.

4. Results and Discussion

4.1 Respondent Description

Table 1: Distribution of Gender

Gender	Frequency	Percent
Man	49	47,6%
Woman	54	52,4%
Total	**103**	**100%**

Source: Data processed at SPSS 25 of 2024

Table 2: Age Distribution

Age	Frequency	Percent
18 - 30 Years	96	93,2%
31 - 40 Years	5	4,9%
> 50 Years	2	1,9%
Total	**103**	**100%**

Source: Data processed at SPSS 25 of 2024

Table 3: Distribution of Last Education

Last Education	Frequency	Percent
High School/Vocational School	58	56,3%
D3	8	7,8%
S1	30	29,1%
S2	6	5,8%
S3	1	1,0%
Total	**103**	**100%**

Source: Data processed at SPSS 25 of 2024

Table 4: Distribution of Jobs

Work	Frequency	Percent
Civil servants	7	6,8%
Entrepreneur/Businessman	33	32,0%
Private Employees	24	23,3%
TNI/POLRI	18	17,5%
Others (Farmers, Teachers, SOE Employees)	21	20,4%
Total	**103**	**100%**

Source: Data processed at SPSS 25 of 2024

Table 5: Distribution of Working Ages

Length of Work	Frequency	Percent
< 5 Years	78	75,7%
5 - 10 Years	20	19,4%
> 10 Years	5	4,9%
Total	**103**	**100%**

Source: Data processed at SPSS 25 of 2024

Table 6: Monthly Salary Distribution

Monthly Salary	Frequency	Percent
< 1 Million	14	13,6%
1 - 5 Million	64	62,1%
> 5 Million	25	24,3%
Total	**103**	**100%**

Source: Data processed at SPSS 25 of 2024

The tables in the figure illustrate the characteristics of the respondents of this study. Table 1 shows the gender distribution of respondents, with the proportion of women (52.4%) slightly higher than men (47.6%). Table 2 explains the age distribution, the majority of respondents are in the productive age range of 18-30 years (93.2%), showing that this study involves many young groups who are more exposed to digital financial technology.

Tables 3 to 6 provide additional information related to education, employment, length of work, and salary per month. The majority of respondents had their last high school/vocational education (56.3%), with most working as entrepreneurs/businessmen (32%) or private employees (23.3%). In terms of length of work, most respondents have less than 5 years of work experience (75.7%), while the distribution of salaries per month is dominated by the group with an income of 1–5 million (62.1%). This information is relevant in identifying demographic factors that affect digital financial literacy and the adoption of non-cash payments in Makassar City, especially considering the role of gender in this study.

4.2 Variable Description

Digital Financial Literacy (Variable X)

Table 5: Description of X Variables

Question	Mean	Median	Mode	Std. Deviation
Question 1	4,55	5,00	5	0,638
Question 2	4,56	5,00	5	0,536
Question 3	4,54	5,00	5	0,538
Question 4	4,26	4,00	5	0,840
Average	**4,48**			

Source: Data processed at SPSS 25 of 2024

The table illustrates the statistical description for the Digital Financial Literacy variable (Variable X) in this study. The mean for each question ranged from 4.26 to 4.56, with an overall average score of 4.48, indicating that respondents generally have a high level of digital financial literacy. The median and mode for most questions was 5, indicating that the majority of respondents gave "strongly agree" answers to statements related to digital financial literacy. The relatively low standard deviation (ranging from 0.536 to 0.840) showed a small variation in answers among respondents, indicating uniformity in their perception of digital financial literacy. This data shows that digital financial literacy among respondents is quite good and is an important factor in this study.

Non-Cash Payments (Variable Y)

Table 6: Y Variable Description

Question	Mean	Median	Mode	Std. Deviation
Question 1	4,38	4,00	5	0,702
Question 2	4,35	4,00	5	0,696
Question 3	4,47	5,00	5	0,591
Question 4	4,51	5,00	5	0,592
Question 5	4,30	4,00	5	0,739
Question 6	4,47	5,00	5	0,669
Question 7	3,77	4,00	5	1,254
Question 8	3,99	4,00	4	1,071
Average	**4,28**			

Source: Data processed at SPSS 25 of 2024

The table presents a statistical description for the Non-Cash Payment variable (Variable Y) in this study The mean of each question ranged from 3.77 to 4.51, with an overall average of 4.28, which shows that most respondents have a positive perception of the use of non-cash payments. The median and mode of most questions is a value of 4 or 5, indicating a high dominance of answer responses, i.e. "agree" to "strongly agree." The standard deviation ranged from 0.591 to 1.254, which indicates a moderate level of variation in respondents' answers. Overall, this data shows that the use of non-cash payments in Makassar City is quite high and relevant as an important part of this study.

Gender (Z variable)

Table 7: Z Variable Description

Question	Mean	Median	Mode	Std. Deviation
Question 1	4,35	5,00	5	1,045
Question 2	3,68	4,00	4	1,182
Question 3	3,43	4,00	3	1,383
Question 4	3,42	3,00	3	1,340
Question 5	4,56	5,00	5	0,572
Question 6	4,18	4,00	4	0,988
Average	**3,94**			

Source: Data processed at SPSS 25 of 2024

The table presents a statistical description for the Gender variable (Variable Z) in this study. The mean for each question ranged from 3.42 to 4.56, with an overall average of 3.94, indicating that most respondents had a fairly positive perception of the role of gender in moderating digital financial literacy and the use of non-cash payments. The median for most questions was 4.00 to 5.00, which indicates the dominance of "agree" to "strongly agree" responses. The standard deviation ranged from 0.572 to 1.383, indicating a moderate to high variation in respondents' answers. This data is relevant to show how gender can affect the relationship between digital financial literacy and the use of non-cash payments.

4.3 Validity and Reliability Test

Table 8: Validity Test

Variable		R Calculate	R Table	Result
Digital Financial Literacy	X1	0,683	0,1937	Valid
	X2	0,786	0,1937	Valid
	X3	0,734	0,1937	Valid
	X4	0,786	0,1937	Valid
	X Total	1	0,1937	Valid
Cashless Payments	Y1	0,692	0,1937	Valid
	Y2	0,761	0,1937	Valid
	Y3	0,597	0,1937	Valid
	Y4	0,723	0,1937	Valid
	Y5	0,567	0,1937	Valid
	Y6	0,665	0,1937	Valid
	Y7	0,621	0,1937	Valid
	Y8	0,653	0,1937	Valid
	Y Total	1	0,1937	Valid
Gender	Z1	558	0,1937	Valid
	Z2	514	0,1937	Valid
	Z3	845	0,1937	Valid
	Z4	823	0,1937	Valid
	Z5	449	0,1937	Valid
	Z6	639	0,1937	Valid
	Z Total	1	0,1937	Valid

Source: Data processed at SPSS 25 of 2024

The table displays the results of the Validity Test for the variables of Digital Financial Literacy, Non-Cash Payments, and Gender in this study. All items in the variables X (Digital Financial Literacy), Y (Non-Cash Payments), and Z (Gender) have a calculated R value greater than the R Table (0.1937), so all items are declared valid. These results show that the research instrument can be used to measure the three variables accurately and in accordance with the research objectives. This validity ensures that the data collected is reliable for further analysis.

Table 9: Cronbach's Alpha Rule

Cronbach's Alpha	Interpretation
> 0.90	Excellent
0.80 – 0.90	Good
0.70 – 0.80	Acceptable
0.60 – 0.70	Less (Questionable)
0.50 – 0.60	Poor
< 0.50	Unacceptable

Table 10: Reliability Test Results

Variable	Cronbach's Alpha	Number of Questions
Digital Financial Literacy (Variable X)	0,724	4
Cashless Payments (Variable Y)	0,783	8
Gender (Z variable)	0,721	6

Source: Data processed at SPSS 25 of 2024

The table shows the results of the Reliability Test using Cronbach's Alpha values for three variables in this study. The value of Cronbach's Alpha for Digital Financial Literacy (Variable X) is 0.724, Non-Cash Payments (Variable Y) is 0.783, and Gender (Variable Z) is 0.721, all of which are in the acceptable category according to Cronbach's Alpha rule (>0.70). These results show that the research instrument has a good level of internal consistency, so it can be relied on to measure each variable precisely.

4.4 Classic Assumption Test

Table 11: Results of the Normality Test

Test	N	Test Statistic	Asymp. Sig. (2-tailed)	Monte Carlo Sig. (2-tailed)
Kolmogorov-Smirnov	103	0,111	0,003	0,175

Source: Data processed at SPSS 25 of 2024

The table displays the results of the Kolmogorov-Smirnov Normality Test for this study. With the total data (N) of 103, the Test Statistic value is 0.111, and Asymp. Sig. (2-tailed) is 0.003, which is smaller than 0.05. This indicates that the data is not normally distributed. However, the Monte

Carlo Sig. (2-tailed) value of 0.175 provides a looser alternative, suggesting that the data are close to the normal distribution based on the Monte Carlo simulation. This information is relevant to determine the appropriate data analysis method in the research.

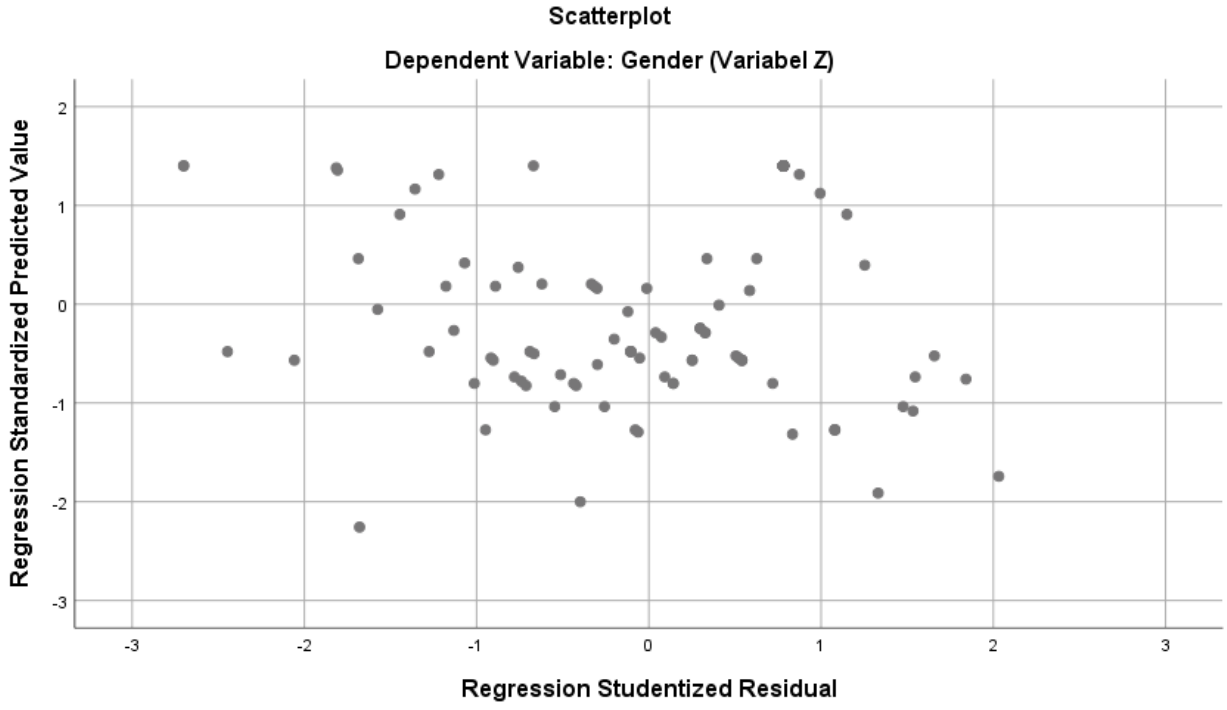
Table 12: Multilinear Test Results

Variable	Tolerance	VIF
Digital Financial Literacy	0,599	1,670
Cashless Payments	0,599	1,670

Source: Data processed at SPSS 25 of 2024

The table shows the results of the Multicollinearity Test in this study. The tolerance value for the variables of Digital Financial Literacy and Non-Cash Payments is 0.599, and the VIF value is 1.670. Both of these values met the tolerance criteria of > 0.10 and VIF < 10, which indicates that there was no symptom of multicollinearity between the independent variables. Thus, the regression model in this study can be used for further analysis without strong influence between independent variables.

Figure 1: Heterokedasticity Test



Source: Data processed at SPSS 25 of 2024

The figure shows the results of the Heteroscedasticity Test using a scatterplot in this study. The dots on the scatterplot are randomly scattered above and below the zero line without a specific pattern, which indicates that there is no heteroscedasticity problem in the regression model. This indicates that the residual variance is constant, so the regression model satisfies the classical assumptions for further analysis.

4.5 Simple Linear Regression Analysis

Table 13: Simple Linear Regression Test Results

Variable	B	t	Sig.
Constant	9,746	3,256	0,002
Digital Financial Literacy	1,366	8,227	0,000

Source: Data processed at SPSS 25 of 2024

Based on the results of a simple linear regression analysis, the regression equation is Y = 9.746 + 1.366X, where Y is Non-Cash Payments as the dependent variable, a (9.746) is a constant, and b (1.366) is the coefficient of Digital Financial Literacy as an independent variable. This means that if Digital Financial Literacy is worth zero, then the average Non-Cash Payment is 9,746. Furthermore, every increase in one unit of Digital Financial Literacy will increase Non-Cash Payments by 1,366.

With a significance value of 0.000 (less than 0.05), it can be concluded that Digital Financial Literacy has a positive and significant influence on Non-Cash Payments. These results show that the higher a person's digital financial literacy level, the more likely they are to use cashless payments. These findings support the importance of digital financial literacy education in encouraging the adoption of non-cash payments in Makassar City.

4.6 PROCESS V4.2 Moderation Test by Andrew F. Hayes

Table 13: Moderation Test Results

Variable	Coeff	ONE	t	p	LLCI	ULCI
Constant	20,7108	14,0831	1,4706	0,1446	-7,2332	48,6548
Digital Financial Literacy (X)	0,2485	0,7692	0,3230	0,7474	-1,2778	1,7747
Gender (Z)	-2,2179	0,6159	-3,3538	0,7242	-1,4399	1,0041
Interaction (X*Z)	0,0333	0,0331	1,0071	0,3164	-0,0323	0,0990

The table shows the results of the Moderation Test using PROCESS V4.2 by Andrew F. Hayes in this study. The results show that the interaction coefficient of X*Z (Digital Financial Literacy and Gender) is 0.0333 with a value of p = 0.3164, which is greater than 0.05. This shows that the interaction between Digital Financial Literacy and Gender is not statistically significant in moderating the influence on Non-Cash Payments. The confidence interval (LLCI = -0.0323 to ULCI = 0.0990) that includes zero also reinforces that the moderation effect is not strong enough. Thus, gender as a moderation variable does not have a significant influence on the relationship between Digital Financial Literacy and Non-Cash Payments.

5. Discussion

5.1 The Effect of Digital Financial Literacy on the Use of Non-Cash Payments in Makassar City

The usage of non-cash payments in Makassar City is positively and significantly impacted by digital financial literacy, as shown by a significance value of 0.000 (less than 0.05). According to these findings, non-cash payment options including credit cards, digital wallets, and bank transfers are more often used by those with higher levels of digital financial literacy. Understanding digital

payment instruments, controlling financial risks, and making prudent use of financial technology are all components of digital financial literacy. The adoption of contemporary financial technology will rise when people are sufficiently informed about the advantages of cashless payments and how they operate.

Additionally, consumers that possess digital financial literacy are able to maximize non-cash payment benefits including time efficiency, expenditure tracking, and transaction security. This is very pertinent to the government's initiatives to promote financial inclusion and digital transformation via the Non-Cash National Movement (GNNT) program. The public's growing access to financial apps and payment infrastructure is another factor propelling Makassar City's growing acceptance of digital payments. Even while non-cash payments are on the rise, the research also finds that certain community groups particularly those with lower educational attainment or those living in suburban areas do not have equal access to technology.

User confidence in digital payment systems is also strongly correlated with the impact of digital financial literacy. Cashless payments tend to be more comfortable for those who are more knowledgeable about protecting personal information, such as utilizing two-factor authentication and using secure passwords. However, those who are unaware of the dangers associated with digital technology could be reluctant to adopt this approach. As a result, in an increasingly sophisticated digital age, digital financial literacy not only promotes the use of cashless transactions but also motivates individuals to handle their money more effectively and safely. These results underline how crucial it is to expand the reach of digital financial education initiatives in order to sustain the growth in the use of non-cash payments.

5.2 Gender Plays a Moderating Variable in the Relationship Between Digital Financial Literacy and the Use of Non-Cash Payments in Makassar City

The results of the study indicate that gender does not play a significant role as a moderating variable in the relationship between digital financial literacy and the use of non-cash payments in Makassar City. This is indicated by the interaction coefficient value of 0.0333 and $p = 0.3164$ (greater than 0.05), which indicates that the effect of digital financial literacy on the adoption of non-cash payments is consistent, both for men and women. This finding is in line with previous studies stating that digital financial literacy is a universal factor in encouraging the use of financial technology [23].

However, although gender did not show a moderating effect in this study, previous literature states that women often face greater challenges in accessing financial technology, especially in communities with low levels of education or limited access to technology [24]. Therefore, it is important to continue to pay attention to gender aspects in developing financial literacy programs, although in the context of this study, its effect is not significant.

In addition, these results suggest the need for further exploration of other factors that may influence the relationship between digital financial literacy and the use of non-cash payments. Variables such as education level, access to technology, or cultural factors may be important aspects that moderate the relationship. The social and cultural context in Makassar City must also be considered to better understand the adoption of non-cash payment technology among certain communities. This is in line with findings that emphasize the importance of a holistic approach to driving inclusive digital transformation [25].

6. Conclusion

The use of non-cash payments in Makassar City is positively and significantly impacted by digital financial literacy, according to the study's findings. This demonstrates that the adoption rate of non-cash payments increases with people's level of digital financial literacy. However, the analysis's findings also demonstrate that gender has no discernible moderating effect on the association between the use of non-cash payments and digital financial literacy. Therefore, there are no significant variations between men and women in the impact of digital financial literacy on the usage of non-cash payments.

7. Recommendation

Based on the results of the research, it is recommended that the government and financial institutions continue to improve digital financial literacy programs, especially to reach people who do not have adequate access to technology. In addition, although gender does not play a significant role as moderation, efforts to increase women's financial inclusion are still needed through financial technology training and the provision of more equitable digital infrastructure. Further research is suggested to explore other variables, such as education level or access to technology, which may have a more significant influence in moderating the relationship between Digital Financial Literacy and the Use of Non-Cash Payments.

REFERENCES

[1] Suarni A 2023 Tingkat Literasi Keuangan Syariah Warga Muhammadiyah Di Kabupaten Sidrap *Indones. J. Sci. Technol. Humanit.* **1** 62–7
[2] Seldal M M N and Nyhus E K 2022 Financial Vulnerability, Financial Literacy, and the Use of Digital Payment Technologies *J. Consum. Policy* **45** 281–306
[3] Ekta ., Mehta M and Sehgal B 2020 Buying Practices of Homemakers through Cashless Transaction *Adv. Res.* **21** 53–61
[4] Chang W L, Chen L M and Hashimoto T 2022 Cashless Japan: Unlocking Influential Risk on Mobile Payment Service *Inf. Syst. Front.* **24** 1515–28
[5] Shehadeh M, Dawood H M and Hussainey K 2024 Digital financial literacy and usage of cashless payments in Jordan: the moderating role of gender *Int. J. Account. Inf. Manag.*
[6] Long T Q, Morgan P J and Yoshino N 2023 Financial literacy, behavioral traits, and ePayment adoption and usage in Japan *Financ. Innov.* **9**
[7] Gautam R S, Rastogi S, Rawal A, Bhimavarapu V M, Kanoujiya J and Rastogi S 2022 Financial Technology and Its Impact on Digital Literacy in India: Using Poverty as a Moderating Variable *J. Risk Financ. Manag.* **15**
[8] Zhang X 2024 Research on the Impact of Digital Finance on Household Financial Asset Allocation *Front. Business, Econ. Manag.* **13** 21–6
[9] Soraya E and Lutfiati A 2020 Analisis Faktor-Faktor Yang Mempengaruhi Literasi Keuangan *Kinerja* **2** 111–34
[10] Fathima K and Bharathi V 2024 Cashless Payment System: A Study on Perception of Small and Medium Retailers *Int. J. Adv. Bus. Stud.* **3** 21–30
[11] Noor I, Muttaqin A A, Prestianawati S A, Fawwaz M, Putri A K, Asyrof R A and Imamia T L 2024 Indicators of banks and economic indicators on non-cash payments in ASEAN-7 countries *J. Infrastructure, Policy Dev.* **8** 1–22
[12] Filiz Ünser A and Ören M 2024 Investigation of Early Childhood and Primary School Education Teacher Candidates' Attitudes to Gender Roles in Terms of Gender, Grade, Mother's and Father's Education Levels *Anadolu Üniversitesi Eğitim Fakültesi Derg.* **8** 755–77
[13] Güleryüz N N and Yurtseven N 2024 The Examination of the Reflections of the Universal

Design Learning-Based Gender Role Program on University Students *Uluslararası Eğitim Programları ve Öğretim Çalışmaları Derg.* **14** 30–54
[14] Lalhriatpuii A 2023 Negotiating Gender Roles in Margaret Atwood's Bodily Harm *Int. J. Multidiscip. Res.* **5** 1–6
[15] Udoette M and Akpan K A 2023 Gender Roles, Women and the Politics of Becoming in Abimbola Adelakun'S Under the Brown Rusted Roof *Eur. J. Lit. Lang. Linguist. Stud.* **7** 55–66
[16] Febrianty F, Yuliansyah Y, Hamzah R S and Annisa M L 2024 Gender Issues in Digital Financial Literacy and Financial Behavior among Millennials *J. Econ.* **20** 79–94
[17] Hasan R, Ashfaq M, Parveen T and Gunardi A 2023 Financial inclusion–does digital financial literacy matter for women entrepreneurs? *Int. J. Soc. Econ.* **50** 1085–104
[18] Syahrizal H and Jailani M S 2023 Jenis-Jenis Penelitian Dalam Penelitian Kuantitatif dan Kualitatif *J. QOSIM J. Pendidikan, Sos. Hum.* **1** 13–23
[19] BPS Prov Sul-Sel 2024 Jumlah Penduduk Menurut Kabupaten/Kota (Ribu Jiwa), 2022-2024. *Badan Pus. Stat. Badan Pus. Stat. Provinsi Sulawesi Selatan.*
[20] Santoso A 2023 Rumus Slovin: Panacea Masalah Ukuran Sampel? *Suksma J. Psikol. Univ. Sanata Dharma* **4** 24–43
[21] Lenaini I 2021 Teknik Pengambilan Sampel Purposive Dan Snowball Sampling *Hist. J. Kajian, Penelit. dan Pengemb. Pendidik. Sej.* **6** 33–9
[22] Yam J H and Taufik R 2021 Hipotesis Penelitian Kuantitatif *Perspekt. J. Ilmu Adm.* **3** 96–102
[23] Anggerwati A I, Syamsuriani S and Suwandi S 2024 Inovasi Literasi Digital sebagai Pemberdayaan Sumberdaya Manusia dalam Pengelolaan Keuangan Rumah Tangga *Amsir Community Serv. J.* **2** 43–8
[24] Lyons A C and Kass-Hanna J 2021 A methodological overview to defining and measuring "digital" financial literacy *Financ. Plan. Rev.* **4** e1113–20
[25] Demirgüç-Kunt A, Klapper L, Singer D, Ansar S and Hess J 2020 The Global Findex Database 2017: Measuring financial inclusion and opportunities to expand access to and use of financial services *World Bank Econ. Rev.* **34** S2–8