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The influence of financial literacy of Economics Faculty students at Simalungun University on the use of e-money

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ABSTRACT

Participants in this study totaled 54,127 customers who made direct purchases of tofu walik Siantar on Jalan Kartini Pematangsiantar between January 20 and April 29, 2023, regardless of gender. Multiple linear regression is an analytical technique that was initially validated and tested for reliability. The findings of this study indicate that word of mouth influences purchasing decisions in a favorable and substantial way. This implies that the likelihood of making a purchase will increase with an increase in word of mouth. Total income has a favorable and substantial impact on purchasing decisions. This implies that purchasing choices will increase as income levels rise. Product quality has a positive and considerable impact on price.

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1. INTRODUCTION

Financial literacy has evolved in recent years and received more attention especially in developed countries because financial intelligence is now one of the important aspects of life (Abad-Segura & González-Zamar, 2019; Chen et al., 2021; Goyal & Kumar, 2021). In line with the rapid development of technology, people's lifestyles and payment system patterns in economic transactions have also changed. Technological advances in the payment system are slowly shifting the role of cash as a means of payment to a more efficient form of payment (Alam et al., 2021; Loh et al., 2021).

Low interest rates on savings, increasing levels of bankruptcy and indebtedness and the increasing responsibility of individuals when making decisions that will affect the economy in the future are some of the factors that have caused economic literacy to grow rapidly in recent years (Kose et al., 2021; Leandro & Botelho, 2022; Ricca et al., 2021). Financial literacy is closely related to individual well-being, financial knowledge and skills in managing personal finances in everyday life are very important to understand (Abdullah et al., 2019; Lusardi, 2019; Riitsalu & Murakas, 2019).

Students are millennials who always follow the latest technology trends (Nawaz, 2020; Szabó et al., 2021; Szymkowiak et al., 2021). The use of technology is increasingly popular among the younger generation today, including students (Jackson, 2019; Szymkowiak et al., 2021). As students who are the closest part of society to the problem of access to the internet world, especially in technology and information, students are required to always look for the latest information, especially about the various basic needs of individuals in the era of digital globalization (Lembani et al., 2020; Suzin et al., 2021). The development of e-money to date is very rapid, as evidenced by the increasing number of national banks participating in launching e-money products. BCA Flazz electronic money was first used for public transportation payments and payments at minimarkets, until now electronic money based on cellular phones that has developed among the public, namely Gojek's Gopay, OVO owned by the Lippo Group Elang Mahkota Tekologi, DANA owned by PT. Tbk

(EMTEK) and so on. Telecommunications providers such as Telkomsel also participate in providing e-money facilities in the form of t-cash.

Based on data published on the Bank Indonesia (BI) website, the value of electronic money transactions reached IDR 35.10 Trillion / December 2021, an increase of 58.60% from the same period in 2020, namely IDR 22.13 Trillion. The volume of electronic money transactions reached 438.04 million times / December 2020 and recorded an increase in December 2021 to 602.29 million times.

Efforts to increase non-cash transactions are in line with Bank Indonesia's cash-less society program, which is an effort to create an effective and efficient payment system. The culture of Indonesian society, namely the culture of holding cash by the Indonesian people, is one of the obstacles in the development of a cash-less society. For this reason, the role of e-money is considered increasingly important at this time, especially now that the world community, especially Indonesia, is being hit by the covid-19 outbreak which requires people to stay at home and carry out strict health protocols. In addition, digital service users in Indonesia have also experienced a growth of around 37% during this pandemic. E-wallet is very helpful in paying online transactions for people to fulfill their daily needs.

2. RESEARCH METHOD

1) Simple Linear Regression Analysis

Simple linear regression analysis is a linear relationship between one independent variable (X) and the dependent variable (Y). Simple regression analysis can be used to determine the direction of the relationship between the independent variable and the dependent variable, whether it has a positive or negative relationship and to predict the value of the dependent variable if the value of the independent variable increases or decreases. In simple regression, the data used usually has an interval or ratio scale (Jan & Shieh, 2019; Montgomery et al., 2021; Stapor & Stapor, 2020).

The simple linear regression formula is as follows:

$$Y = a + bX + e \quad (1)$$

Description:

Y = Dependent variable (dependent variable)
X = Independent variable (free variable)
a = Constant
b = Regression coefficient
e = Error rate

2) Hypothesis Test (t Test)

The t test is used to determine the effect of the independent variable on the dependent variable (Pratama et al., 2022; Shabbir & Wisdom, 2020). To see the tabe*l* in the hypothesis in the regression model. Furthermore, it will be compared with T_{table}, if $T_{count} < T_{table}$ then HO is accepted and H1 is rejected, this means that there is no meaningful influence by the financial literacy variable (X) and the use of e-money (Y). However, if $T_{count} > T_{able}$ then HO is rejected and Ha is accepted, this means that there is a meaningful influence by financial literacy (X) and the use of e-money (Y).

3) Coefficient of Determination

The coefficient of determination (R2) aims to determine how much the ability of the independent variable to explain the dependent variable (Chicco, 2021; Katagiri & Fujii, 2022). In the SPSS output, the coefficient of determination is located in the Model Summary table and written R Square, but for multiple linear regression it is better to use R Square which has been adjusted for the number of independent variables. The value of R Square is said to be good if it is above 0.5 if R Square ranges from 0 to 1. In general, samples with time series words (time series) have R Square and Adjusted R Square quite high (above 0.5) while samples with data on certain items called crossection data generally R Square and Adjusted R Square are rather low (below 0.5), but it does not rule out the possibility of crossection type data having high R Square and Adjusted R Square values.

3. RESULTS AND DISCUSSIONS

1. Data Instrument Test

a) Validity Test

The validity test is used to measure whether or not a question from the questionnaire is valid with a total score at a significance level of 5% with a sample size of 94 respondents. In this validity test, the researcher compares the pearson correlation value of each question with the r product moment table. If the value of rcount> rtable and is positive, the statement item is declared valid. Obtained the r table value which is 0.2028. The validity test results can be seen in the following table :

Tabel 1. X Variable Validity Test Results

Variabel	R_{count}	R_{table}	Description
Question 1	0,736	0,2028	Valid
Question 2	0,668	0,2028	Valid
Question 3	0,727	0,2028	Valid
Question 4	0,770	0,2028	Valid
Question 5	0,614	0,2028	Valid

Tabel 2. Y Variable Validity Test Results

Variabel	R_{count}	R_{table}	Description
Question 1	0,607	0,2028	Valid
Question 2	0,698	0,2028	Valid
Question 3	0,798	0,2028	Valid
Question 4	0,611	0,2028	Valid
Question 5	0,719	0,2028	Valid
Question 6	0,549	0,2028	Valid

Source: data processed using SPSS Version 26, 2020

From the validity test above, it is known that all r_{count} on variables X and Y> 0.2028, so all question items X (financial literacy) and Y (e-money usage) are declared valid.

b) Reliability Test

Reliability test is used as a tool to measure a questionnaire which is an indicator of the construct variable. In the reliability test, one method is used, namely the Cronbach Alpha Reliability Method (α) because each item pernyamnmcvnxdmctaan proposed uses an interval measurement scale. An instrument can be said to be reliable if it has an alpha (α) value greater than 0.7. The results of the reliability test can be seen in the table below:

Table 3. Reliability Test Results

No	Variabel	*Cronbach's Alpha*	Description
1	Financial Literacy	0,734	Reliabel
2	Use of e-money	0,734	Reliabel

Source: data processed using SPSS V.26, 2022

Based on the reliability test results above, the financial literacy and e-money usage variables, the Cronbach's alpha value obtained is 0.734 each. Variables X and Y> 0.70, so all data is declared reliable.

2. Classical Assumption Test

a. Normality Test

In this study, the normality test used was the Kolmogorov-Smirnov test. The choice of this analysis is because it reduces the occurrence of errors when compared to using graph analysis. The normality test is said to be normal if the significance test is greater than 0.05. The following are the results of the normality test:

Table 4. Normality Test Result

		Unstandardized Residual
N		94
Normal Parameters[a,b]	Mean	0.0000000
	Std.Deviation	2.23289028
Most Extreme Differences	Absolute	.074
	Positive	.074
	Negative	-.036
Test Statistic		.074
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal
b. Calculated from data
c. Lilliefors Significance Correction
d. This is a lower bound of the true significance

Source: processed using SPSS Version 26, 2023

Based on the results of the normality test above, an asymp sig value of 200 can be obtained, where the value is greater than 0.05. Because the sig value is greater than 0.05, it can be concluded that the dependent variable and also the independent variable are normally distributed.

b) Heteroscedasticity Test

Heteroscedasticity test using a scatter plot where the points on the graph look spread out and do not form a certain pattern, so there are no symptoms of heteroscedasticity as shown in the results below:

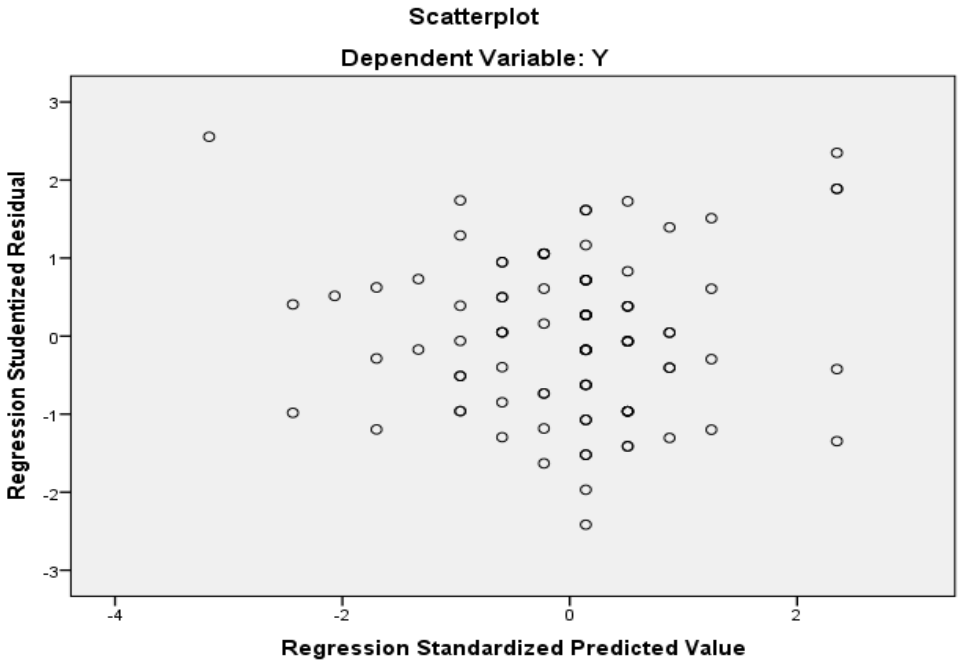

Figure 1. Heteroscedasticity results

Based on the scatterplot output above, it can be seen that the dots spread and do not make a clear pattern. So it can be concluded that there is no heteroscedasticity problem.

c) Linearity test

The basis for decision making in the linearity test is if the probability value> 0.05 then the relationship between variable X and variable Y is linear. Based on the linearity test results below, it can be concluded that the relationship between variable x (financial literacy) and variable Y (e-money

usage) is linear. Because the deviation from linearity shows a deviation from the linear pattern, namely significance (sig> 0.05). The significance of the liearity test results below is 0.374.

Table 5. Anova Table

			Sum of Squares	df	Mean Square	F	Sig.
Y*X	Between Groups	(Combined)	449.419	12	37.452	7.518	.000
		Linearity	389.257	1	389.257	78.137	.000
		Deviation from Linearity	60.162	11	5.469	1.098	.374
Within Groups			403.517	81	4.982		
Total			852.936	93			

Table 5. Simple Linear Regression Test Results

Model		Unstandardized Coefisients		Standardized Coefisients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.085	1.612		3.774	.000
	x	.753	.086	.676	8.788	.000

a. Dependent Variable : Y

The table above shows that the constant value (a) is 6.085, while the coefficient value for service quality (b) is 0.753. From the constant value and the regression coefficient, the regression equation is obtained as follows:

$Y = a + bX + e$
$Y = 6.085 + 0.753X$

Based on the equation above, it shows that the constant value (a) is 6.085, which means that if the independent variable is zero, the dependent variable will be equal to 6.085. The regression coefficient of variable X is 0.753; meaning that if variable X increases by 1%, then Y will increase by 0.753. The coefficient is positive, meaning that there is a positive relationship between X and Y, the higher X, the more Y increases.

3. Determination Coefficient Test (R Square)

Tabel 6. Coefficient of determination test results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.0676[a]	.456	.450	2.24499

a. Predictors : (Constant), X
b. Dependent Variable : Y

From the table above, the coefficient of determination (R Square) is obtained, the calculation of which is through the R value then squared, the result is 0.456 which means that the effect of the independent variable (X) on the dependent variable (Y) is 45.6% while the remaining 54.4% is influenced by other variables not included in this study.

4. Hypothesis Test (t Test)

The T test is conducted to determine how far the influence between the independent variable and the dependent variable. If the significant value (Sig.) is smaller than 0.05, a variable is said to have a significant effect on other variables. The criteria for acceptance and rejection of the hypothesis are as follows.

a. If $t_{count} > t_{table}$ or Sig value. <0.05 then H0 is rejected
b. If $t_{count} < t_{table}$ or Sig value. > 0.05 then H0 is accepted
   The t table value with α/2 = 0.025 and df = n-k-1 = 94-1-1 = 92 is 1.98609.

Table 7. Result of t

Model		Unstandardized Coefisients		Standardized Coefisients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.085	1.612		3.774	.000
	X	.753	.086	.676	8.788	.000

a. Dependent Variable : Y

It is known that the calculated t_{count} of 8.788 is greater than the t_{table} value of 1, 98609 with a Sig value. 0.000 <0.05 so that H0 will be rejected. Thus it can be concluded that variable X has a positive and significant effect on Y.

Based on the tests that have been carried out, it can be concluded that the effect of financial literacy (X) on the use of e-money, the significance value of the financial literacy variable on the use of e-money is 0.000 where the value is smaller than 0.05 and $t_{count} > t_{table}$ (8.788> 1.98609) so it can be concluded that the financial literacy variable directly affects the use of e-money.

4. CONCLUSION

This study examines the influence of financial literacy among Economics Faculty Students at Simalungun University on the use of e-money.Financial literacy has evolved in recent years due to the rapid development of technology and the changing lifestyles and payment system patterns in economic transactions. Factors such as low interest rates on savings, increasing levels of bankruptcy and indebtedness, and the increasing responsibility of individuals in making decisions that will affect the economy in the future have contributed to this growth. Financial literacy is closely related to individual well-being, and understanding financial knowledge and skills in managing personal finances in everyday life is crucial.Students, being millennials, are increasingly following the latest technology trends and are required to stay updated on the various basic needs of individuals in the era of digital globalization. The development of e-money is rapid, with national banks like BCA Flazz, Gojek's Gopay, OVO, and DANA providing e-money facilities in the form of t-cash. The researcher anysis the data with The reliability test results show that financial literacy and e-money usage variables have a Cronbach's alpha value of 0.734 each, making all data reliable. The Kolmogorov-Smirnov test was used in this study to reduce errors compared to graph analysis. The results showed that there is no heteroscedasticity problem, as the dots spread and do not make a clear pattern. The linearity test also showed that the relationship between variable X (financial literacy) and variable Y (e-money usage) is linear, with a significance of 0.374. This indicates that the dependent variable and independent variable are normally distributed. The heteroscedasticity test, using a scatter plot, showed no symptoms of heteroscedasticity, as shown by the constant value of 6.085 and the coefficient value for service quality and The regression equation obtained showed that the effect of the independent variable (X) on the dependent variable (Y) is 45.6%, while the remaining 54.4% is influenced by other variables not included in the study. The hypothesis test (t Test) was conducted to determine how far the influence between the independent variable and the dependent variable (Y) is influenced by other variables. The T test was used to determine the relationship between the independent variable and the dependent variable.In conclusion, the researcher found that the financial literacy and e-money usage variables have a significant influence on each other, indicating that they are not influenced by other variables. Suggestions for future research development are to expand sample coverage and consider the inclusion of additional variables that may affect e-money usage, such as psychological aspects or social factors. Involving respondents from various faculties or disciplines at universities can provide more comprehensive insights related to financial literacy and e-money usage. Deepen the analysis of external factors that may affect the relationship between financial literacy and e-money usage, such as government regulations or banking policies. Improved data quality can be achieved through more sophisticated data collection methods, such as in-depth interviews or direct observation. So that it can contribute more substantially to the understanding of the complexity of the relationship between financial literacy and e-money usage among university students, and provide a stronger basis for the development of financial literacy policies and programs.

5. REFERENCES

Abad-Segura, E., & González-Zamar, M.-D. (2019). Effects of financial education and financial literacy on creative entrepreneurship: A worldwide research. *Education Sciences*, *9*(3), 238.

Abdullah, N., Fazli, S. M., & Muhammad Arif, A. M. (2019). The Relationship between Attitude towards Money, Financial Literacy and Debt Management with Young Worker's Financial Well-being. *Pertanika Journal of Social Sciences & Humanities*, *27*(1).

Alam, M. M., Awawdeh, A. E., & Muhamad, A. I. Bin. (2021). Using e-wallet for business process development: challenges and prospects in Malaysia. *Business Process Management Journal*, *27*(4), 1142–1162.

Chen, Y., Kumara, E. K., & Sivakumar, V. (2021). Investigation of finance industry on risk awareness model and digital economic growth. *Annals of Operations Research*, 1–22.

Chicco, D. (2021). The coefficient of determination R-squared is more informative than SMAPE, MAE, MAPE, MSE and RMSE in regression analysis evaluation. *PeerJ Computer Science*, *7*, 1–24. https://doi.org/10.7717/PEERJ-CS.623

Goyal, K., & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*, *45*(1), 80–105.

Jackson, N. C. (2019). Managing for competency with innovation change in higher education: Examining the pitfalls and pivots of digital transformation. *Business Horizons*, *62*(6), 761–772.

Jan, S.-L., & Shieh, G. (2019). Sample size calculations for model validation in linear regression analysis. *BMC Medical Research Methodology*, *19*(1), 1–9.

Katagiri, K., & Fujii, T. (2022). Partitioned Path Loss Models Based on Coefficient of Determination. *2022 International Conference on Information Networking (ICOIN)*, 198–203.

Kose, M. A., Nagle, P., Ohnsorge, F., & Sugawara, N. (2021). *Global waves of debt: Causes and consequences*. World Bank Publications.

Leandro, J. C., & Botelho, D. (2022). Consumer over-indebtedness: A review and future research agenda. *Journal of Business Research*, *145*, 535–551.

Lembani, R., Gunter, A., Breines, M., & Dalu, M. T. B. (2020). The same course, different access: the digital divide between urban and rural distance education students in South Africa. *Journal of Geography in Higher Education*, *44*(1), 70–84.

Loh, X.-M., Lee, V.-H., Tan, G. W.-H., Ooi, K.-B., & Dwivedi, Y. K. (2021). Switching from cash to mobile payment: what's the hold-up? *Internet Research*, *31*(1), 376–399.

Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, *155*(1), 1–8.

Montgomery, D. C., Peck, E. A., & Vining, G. G. (2021). *Introduction to linear regression analysis*. John Wiley & Sons.

Nawaz, I. Y. (2020). Characteristics of millennials and technology adoption in the digital age. In *Handbook of research on innovations in technology and marketing for the connected consumer* (pp. 241–262). IGI Global.

Pratama, E. N., Suwarni, E., & Handayani, M. A. (2022). The effect of job satisfaction and organizational commitment on turnover intention with person organization fit as moderator variable. *Aptisi Transactions on Management (ATM)*, *6*(1), 74–82.

Ricca, L. T., Jucá, M. N., & Junior, E. H. (2021). Tax benefit and bankruptcy cost of debt. *The Quarterly Review of Economics and Finance*, *81*, 82–92.

Riitsalu, L., & Murakas, R. (2019). Subjective financial knowledge, prudent behaviour and income: The predictors of financial well-being in Estonia. *International Journal of Bank Marketing*, *37*(4), 934–950.

Shabbir, M. S., & Wisdom, O. (2020). The relationship between corporate social responsibility, environmental investments and financial performance: evidence from manufacturing companies. *Environmental Science and Pollution Research*, *27*, 39946–39957.

Stapor, K., & Stapor, K. (2020). Linear regression and correlation. *Introduction to Probabilistic and Statistical Methods with Examples in R*, 133–149.

Suzin, J. C., Zeferino, C. A., & Leithardt, V. R. Q. (2021). Digital Statelessness: The Gap Between Technological Advancement and the Full Guarantee of Human Rights. *International*

Conference on Disruptive Technologies, Tech Ethics and Artificial Intelligence, 178–189.

Szabó, C. M., Bartal, O., & Nagy, B. (2021). The methods and it-tools used in higher education assessed in the characteristics and attitude of gen z. *Acta Polytechnica Hungarica*, *18*(1), 121–140.

Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, *65*, 101565.