The Influence of Fintech and Financial Literacy on Personal Financial Behavior of Medan State University Students

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ARTIKEL INFO	ABSTRAK
	Keadaan dimana seluruh dunia tengah diserang oleh virus mematikan yaitu Covid19. Membuat penduduk bumi mengalami kesulitan, baik masyarakat maupun pemerintah. Khususnya Indonesia sebagai salah satu negara berkembang merasakan dampak yang sangat besar. Mulai dari kesehatan yang terancam dan ekonomi yang rusak. Oleh karena itu setiap pemerintah harus memutar otak untuk menentukan kebijakan. Kebijakan yang dikeluarkan harus mampu menekan bahkan menghentikan penyebaran virus Covid19. Pemerintah pada umumnya membuat kebijakan lockdown, sekolah daring, dan WFH (Work from Home). Penulis melakukan penelitian yang bertujuan untuk mengetahui seberapa besar pengaruh kepercayaan masyarakat terhadap kebijakan pemerintah kota Medan dalam menangani Covid 19 dan penelitian ini merupakan penelitian lanjutan dari penelitian sebelumnya. Penelitian dilakukan dengan menggunakan pendekatan metode kuantitatif, penulis menyebarkan kuesioner yang diberikan kepada 30 orang dan mengolah data menggunakan SPSS26. Berdasarkan jawaban yang diberikan oleh mahasiswa sebagai responden menunjukkan adanya ketidakpercayaan mereka terhadap kebijakan yang telah dikeluarkan selama masa pandemi Covid-19. Dengan kata lain pengaruh kepercayaan masyarakat terhadap kebijakan pemerintah Kota Medan adalah negatif.
	A situation where the whole world is attacked by a deadly virus, Covid19. Making the earth's population experience difficulties, both the community and the government. Especially Indonesia, one of the developing countries, felt a huge impact. Starting from threatened health and damaged economy. Because of this, every government must turn their heads to determine policies. The policies issued must be able to reduce and even stop the spread of the Covid19 virus. The government generally makes lockdown, online school, and WFH (Work from Home) policies. The author conducts research aimed at finding out how much influence public trust has on the Medan city government's policy in dealing with Covid 19 and this research is a follow-up research to previous research. The research was conducted using a quantitative method approach, the authors distributed questionnaires given to 30 people and processed the data using SPSS26. Based on the answers given by students as respondents, it shows their distrust of the policies that have been issued during the Covid-19 pandemic. In other words, the effect of public trust in the Medan City government policy is negative.

1. PENDAHULUAN

In the industrial era 4.0 which has entered various aspects of human life, major changes have occurred in various sectors, including finance. Digital technology has enabled a significant transformation in the way we manage personal finances, and one of the most striking developments in this regard is fintech (financial technology). For Carney, fintech can be defined in a broad way as financial innovation enabled by technology that can produce the latest forms of business fields, applications, processes, or products that have important consequences on financial markets , financial institutions. (FSB,2017).

Fintech offers an uncomplicated and hassle-free way of making payments. With no necessity to hold physical cash, users can securely store their funds as digital currency within the application. To make a transaction, users simply input a code or scan the provided QR code, resulting in an instant transfer of funds to the recipient. The user-friendly nature of fintech has contributed significantly to its swift progression and widespread adoption

Industry 4.0 has brought significant changes in various aspects of life, including the way financial transactions are conducted. The presence of financial technology (Fintech) has changed the landscape of payments and financial management, influencing personal financial behavior. Students as agents of future change are no exception to this influence. This study aims to investigate how Fintech payments and financial literacy affect students' personal financial behavior in the context of the Industry 4.0 era.

For Carney, fintech can be defined in a broad way as financial innovation enabled by technology that can produce the latest forms of business fields, applications, processes, or products that have important consequences on financial markets, financial institutions. (FSB,2017). Nowadays the internet is part of our daily activities. Wherever we are and whenever we need it, the internet is always a necessity. The quantity of internet users in Indonesia has grown significantly, marking a surge of 600 percent within the last decade. This rise led to a total of 143.26 million internet users in the country, constituting 54.7 percent of the entire population of Indonesia (APJII, 2018).

In recent years, fintech payments have grown rapidly in Indonesia and have permeated various aspects of people's lives. Medan University students are one of the groups that have great potential in using fintech payments, both to pay tuition fees, daily bills, to investment. However, despite the widespread use of fintech payments, the level of financial literacy among students tends to be low. This can have a negative impact on financial decisions made by students, such as money management, credit taking, and investing. Therefore, studies on the influence of fintech payments and financial literacy on the personal financial behavior of students of the University of Medan State become relevant and important to do.

Fintech payments have become an integral part of the financial ecosystem in Indonesia, and an understanding of how their use affects personal financial behavior, especially among university students, is crucial. Increasing financial literacy among students is also an important step in creating a smarter young generation in managing their finances. The result of this study is to determine the relationship between fintech payments and financial literacy on personal financial behavior. As well as being able to provide insight to financial and educational institutions to develop more effective programs in improving financial literacy and understanding the implications of using fintech payments. In addition, students will also benefit from understanding how to manage their finances more wisely.

2. RESEARCH METHODOLOGY

This research is included in the category of quantitative research. The source of research data used that was carried out was primary data, then data collection techniques using survey techniques. After that, the sampling technique uses purposive sampling with the criteria of respondents who are in Medan State University students and uses fintech payment applications, the number of respondents taken in this study was 51 people. The scale in this study used the Likert scale. In this study there are five choices in

determining the answer, namely strongly disagree, disagree, neutral, agree and strongly agree. Data analysis techniques in this study use multiple linear regression analysis techniques then partial tests (t tests) and simultaneous tests (f tests will be carried out).

The Likert scale is an assessment tool that gauges the sentiments, viewpoints, and understandings of an individual or a collective concerning societal occurrences. Quantifiable aspects evaluated through the Likert scale are transformed into distinctive markers. These markers are subsequently utilized as a foundation for developing an instrument item, which can manifest as either a query or a declaration. The Likert scale operates as a standard metric, employing a scoring range of 1 to 5, governed by specific parameters.:

Table 2.1
Likert Scale Instruments

No	Statement	Score
1.	Strong Disagree	1
2.	Disagree	2
3.	Neutral	3
4.	Agree	4
5.	Totally Agree	5

To obtain reliable research results, you need valid and reliable instruments. Validity refers to the capability of an instrument to measure the intended construct accurately. On the other hand, reliability implies that when an instrument is employed multiple times to measure the same entity, it consistently yields the same results. Validity tests are utilized to assess the accuracy of the instrument, ensuring that it measures precisely what it intends to measure. The instrument is deemed valid if it can effectively measure the specific aspect it is designed for. In the context of a questionnaire, validity is confirmed if the calculated correlation value (R) surpasses the table R, as outlined by Sugiyono (2008: 248).. Next, the validity test is conducted to ascertain the accuracy of the instrument in measuring the intended construct. This ensures that the instrument effectively gauges what it is intended to measure. The instrument is considered valid if the collected data aligns with the actual data in the studied object. Specifically, for a questionnaire, validity is confirmed when the calculated correlation value (R) exceeds the corresponding table R, as stipulated by Sugiyono (2008: 248). As stated by Suprapto (2001: 80), quantitative research employs measuring instruments such as questionnaires, which collect data in the form of responses provided by employees in relation to the posed questions or items. Well-crafted items adhere to the following principles: Relevance to the subject under scrutiny, Conciseness of the content, Clarity in presenting details, and Conveying a single coherent idea per item. In this research, multiple linear regression analysis was employed due to the involvement of various independent variables. The factor affecting the outcome is referred to as the independent variable, whereas the affected factor is termed as the dependent variable. This particular study incorporates two independent variables, namely organizational culture (X1) and work environment (X2), with employee productivity (Y) serving as the dependent variable. Multiple linear regression analysis, according to Suharyadi and Purwanto (2004: 508), is a form of linear regression used to assess the extent of the relationship and the impact of more than two independent variables. The equation representing the multiple regression model is as follows (Suharyadi and Purwanto, 2011: 210):

$$Y = a + b_1X_1 + b_2X_2 + ... + b_kX_k$$

Information:
Y   : the predicted value of Y
A   : Constant Number
B1,B2,...,BK   : coefficient of the independent variable
x1,x2,   : independent variable
X1   : Organizational Culture
X2   : Work Environment

The regression model in this study is stated as follows:

$$P (Y) = a + b1(BO)+b2(LO)$$

Information:
P   : Productivity
b1,b2 : Regression coefficient
A   : constant

Identifying the X and Y variables designated for inclusion in the aforementioned regression analysis is facilitated through software, in line with the latest advancements, such as the prevalent usage of SPSS among researchers. The outcomes derived from the analysis necessitate interpretation, with a primary focus on the computed F-value, which evaluates the variables X1, X2, and other variables collectively in their impact on Y. The utilization of SPSS software will facilitate the execution of these tests within this study. Multiple linear regression tests are very helpful to determine the simultaneous effect of both quality and quantity of independent variables on non-free variables. The results of the regression equation model can be used as a guideline to predict the relationship between variables outside the data sampled in a population. As for this study there are three hypotheses, namely:

H1 : There is an Influence of Fintech Payment (X1) on Personal Financial Behavior (Y)

Payment using fintech services has the possibility to influence users' financial habits. Various payment methods, including payment technology, can have an impact on consumer spending habits. The impact can include direct changes in consumer psychology and perceptions of payment technology (See-To and Ngai, 2019). The results of research by Becker (2017) show that the use of fintech can increase household savings, which is part of financial management behavior. Meanwhile, research conducted by Mukti et al. (2022) shows that optimal use of fintech payments can have a positive impact on financial behavior, based on good understanding and maximum utilization of fintech services. In addition, research by Erlangga and Krisnawati (2020) shows that payments through financial technology also have a significant positive influence on student financial management behavior.

H2 : There is an Effect of Financial Literacy (X2) on Personal Financial Behavior (Y)

Someone who understands financial concepts tends to have a better understanding of financial matters. Studies conducted by Selian (2020) and Thi et al. (2015) show that financial understanding positively and significantly influences financial management behavior, which shows a clear improvement in financial understanding can produce beneficial effects in individual financial management behavior. The results of Tang and Baker's (2016) research in "Self-esteem, financial knowledge and financial behavior" show a significant relationship between subjective understanding of finance and financial behavior.

H3: There is an Effect of Fintech Payment (X1) and Financial Literacy (X2) on Personal Financial Behavior (Y), where the third hypothesis is the influence between X1 and X2 on Y simultaneously or simultaneously.

The third hypothesis (H3) states that there is a simultaneous or concurrent influence between fintech payments (X1) and financial literacy (X2) on personal financial behavior (Y). This implies that both the use of fintech payments and the level of financial literacy together have an influence on how individuals manage their personal finances. Thus, this hypothesis suggests that both factors have a significant contribution in shaping personal financial behavior

3. RESULT AND DISCUSSION

In this study, the author processed questionnaire data consisting of 6 questions for the Fintech Payment Variable (X1), 6 questions for the Financial Literacy Variable (X2), and 7 questions for the Personal Financial Behavior Variable (Y). The questionnaire that had been prepared by the author was then distributed to 51 Medan State University students as a sample of this study using questionnaires.

Based on the results of the study, a picture of respondents' identity based on gender was obtained as follows:

Table 3.1 By Gender

Gender	Frequency	Precentage
Download	34	66,7%
Woman	17	33,3%
Total	**51**	**100%**

From table 3.1, it can be seen that respondents consisted of 34 female students or 66.7% of the total respondents and 17 male students or 33.3% of the total respondents. So it can be concluded that female students make up the majority of respondents in this study.

Based on the results of the study, a picture of respondents' identity based on Faculty was obtained as follows:

Table 3.2
By Faculty

Faculty	Frequency	Precentage
Faculty of Langauge and Art's	7	13,7%
Faculty of Engineering	7	13,7%
Faculty of Social Sciences	7	13,7%
Faculty of Mathematics and Natural Sciences	4	7,8%
Faculty of Sports Science	1	2%
Faculty of Education	2	4%
Faculty of Economic	23	45,1%
Total	**51**	**100%**

From table 3.2 it can be seen that respondents who are students from the Faculty of Discussion and Dance are 7 people or 13.7%, students from the Faculty of Engineering as many as 7 people or 13.7%, students from the Faculty of Social Sciences as many as 7 people or 13.7%, students from the Faculty of Mathematics and Natural Sciences as many as 4 people or 7.8%, students from the Faculty of Sports Sciences as many as 1 person or 2%. students from the Faculty of Education as many as 2 people or 4%, and students from the Faculty of Economics as many as 23 people or 45.1%. And it can be concluded that respondents from the Faculty of Economics became the majority in this study.

Based on the results of the study, a picture of respondents' identity based on the Adopted Year was obtained as follows:

Table 3.3
By Year of Force

Class Year	Frequency	Precentage
2019	2	3,9%
2020	10	19,6%
2021	28	54,9%
2022	5	9,8%
2023	6	11,8%
Total	**51**	**100%**

From table 3.3, It can be seen that respondents consisted of 2 students from the class of 2019 or 3.9%. From the class of 2020 as many as 10 people or 19.6%, from the class of 2021 as many as 28 people or 54.9%, from the class of 2022 as many as 5 people or 9.8%, from the class of 2023 as many as 6 people or 11.8%. So, it was concluded that students from the 2021 academic year made up the majority of respondents in this study.

Data Analysis

Validity tests are utilized to evaluate the accuracy of indicators, instruments, or questionnaires of each variable. The validity test process is carried out by comparing the calculated r value with the r value in the table through the use of SPSS software. Validity evaluation was carried out through a two-way test with a significance level of 1%, with 51 respondents requiring the calculation of the rtable value first.

$$df = n - 2 = 51 - 2 = 49$$

Table 3.4
Variable Validity Test X

Variable	Items	Calculated r value	Table r value	Information
X1	X1.1	0,538	0,2787	VALID
	X1.2	0,552	0,2787	VALID
	X1.3	0,472	0,2787	VALID
	X1.4	0,596	0,2787	VALID
	X1.5	0,524	0,2787	VALID
	X1.6	0,305	0,2787	VALID
X2	X2.1	0,648	0,2787	VALID
	X2.2	0,366	0,2787	VALID
	X2.3	0,544	0,2787	VALID
	X2.4	0,440	0,2787	VALID
	X2.5	0,582	0,2787	VALID
	X2.6	0,692	0,2787	VALID
Y	Y1	0,370	0,2787	VALID
	Y2	0,560	0,2787	VALID
	Y3	0,568	0,2787	VALID
	Y4	0,551	0,2787	VALID
	Y5	0,632	0,2787	VALID
	Y6	0,667	0,2787	VALID
	Y7	0,624	0,2787	VALID

According to Sugiyono (2016), he stated that reliable research is research that shows data consistency in different time spans. Sugiyono also suggested that an instrument can be considered reliable if the value of the coefficient or Cronbach's Alpha is at least 0.6. The test results in this study on the variables Financial Literacy (X1), Payment Gateway (X2), and Financial Behavior (Y) can be described as follows:

Variable	Combrach's Alpha	Minimum Limit	Information
X1	0,745	0,6	Reliable
X2	0,786	0,6	Reliable
Y	0,819	0,6	Reliable

Based on the information listed in Table 10, it is found that the alpha coefficient or Cronbach's Alpha of the variable X1 is 0.745, exceeding the minimum value of reliability by 0.6. This indicates that the variable can be considered reliable. Similarly, Cronbach's Alpha value of variable X2 is 0.786, while variable Y has Cronbach's Alpha value of 0.819, indicating that both variables can be considered reliable. Thus, the conclusion that can be drawn is that all variables in the study are reliable

Regression Test
H1 : There is an Influence of Fintech Payment (X1) on Personal Financial Behavior (Y)
H2 : There is an Effect of Financial Literacy (X2) on Personal Financial Behavior (Y)
H3: There is an Influence of Fintech Payment (X1) and Financial Literacy (X2) on Personal Financial Behavior (Y)

Basic Decision Making :
A. Test t
  1. If the sig value < 0.05 or t is calculated > the table, there is an influence of variable X on variable Y
  2. . If the sig value > 0.05 or t is calculated < the table then there is no effect of variable X on variable Y

T table = t(a/2; n-k-1) = t(0.025; 48) = 2.010

B. F Test
  1. If the sig value < 0.05, or F calculate > F table then there is a simultaneous influence of variable X on variable Y.
  2. If the sig value > 0.05, or F calculate < F table then there is no simultaneous influence of variable X on variable Y.

F table = F(k; n-k) = F(2; 49) = 3.19

H1 and H2 Hypothesis Testing with t Test

Coefficientsa

Type		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	8.521	3.981		2.141	.037
	Financial Technology (X1)	.351	.196	.257	1.787	.080
	Financial Literacy (X2)	.434	.159	.392	2.727	.009

a. Dependent Variable: Personal Financial Behavior (Y)

A. First Hypothesis Testing (H1)

Evidently, the Sig. value for the impact of X1 on Y is 0.080, exceeding 0.05, while the computed t value is 1.787, falling below the t table value of 2.010. Consequently, the rejection of H1 leads to the conclusion that there is no discernible influence of X1 on Y

B. Second Hypothesis Testing (H2)

The data indicates that the Sig. value for the impact of X2 on Y is 0.009, falling below 0.05, while the computed t value stands at 2.727, surpassing the t table value of 2.010. Hence, the acceptance of H2 leads to the conclusion that there exists an influence of X2 on Y.

ANOVAa

Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	271.062	2	135.531	12.150	.000b
	Residuals	535.447	48	11.155		
	Total	806.510	50			

a. Dependent Variable: Personal Financial Behavior (Y)

b. Predictors: (Constant), Financial Literacy (X2), Financial Technology (X1)

C. Third Hypothesis Testing (H3)

The results indicate that the combined impact of both X1 (Fintech Payment) and X2 (Financial Literacy) on Y (Personal Financial Behavior) is statistically significant, with a significance value of 0.000, which is less than the threshold of 0.05. Additionally, the calculated F value of 12.150 exceeds the critical value in Table 3.19. Therefore, it can be inferred that H3 is validated, suggesting that there is a simultaneous influence of both X1 and X2 on Y.

Termination Coefficient

Model Summary

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580a	.336	.308	3.340

a. Predictors: (Constant), Financial Literacy (X2), Financial Technology (X1)

Based on the output above, it is known that the R square value is 0.336, this means that the influence of variables X1 and X2 simultaneously on variable Y is 33.6%

Coefficientsa

Type		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	8.521	3.981		2.141	.037
	Financial Technology (X1)	.351	.196	.257	1.787	.080
	Financial Literacy (X2)	.434	.159	.392	2.727	.009

a. Dependent Variable: Personal Financial Behavior (Y)

Based on the table above, we can see the value of constant (a) of 8.521 and for Financial Technology (value of B0 of 0.351 and Financial Literacy (value of B) of 0.434. So, it can be obtained as follows:

$$Y = 8.521 + 0.351\ X1 + 0.434\ X2 + e$$

So, it means: (a). The value of the Personal Financial Behavior (Y) constant is 8.521 which states that if the variables X1 and X2 are the same as Fintech Payment and Financial Literacy, then Personal Financial Behavior is 8.521. (b). The X1 coefficient of 0.351 means that every time there is an increase in variable X1 (Fintech Payment) by 1%, consumer loyalty increases by 0.351 (35.1%) or vice versa, every time. (c). here is a decrease in variable X1 (Fintech Payment) by 1%, consumer loyalty decreases by).351 (35.1%). (d). The X2 coefficient of 0.434 means that every time there is an increase in variable X2 (Financial Literacy) by 1%, consumer loyalty increases by 0.434 (43.4%) or vice versa, every time there is a decrease in variable X2 (Financial Literacy) by 1%, consumer loyalty decreases by 0.434 (43.4%). From the description above, it can be concluded that Fintech Payment and Financial Literacy affect Personal Financial Behavior in Medan State University (UNIMED) students

4. CONCLUSION

Based on the findings of this investigation, several comprehensive conclusions have been deduced. Firstly, the majority of the participants in this research were female students enrolled in the Faculty of Economics. Secondly, thorough examinations have been conducted to establish the validity and reliability of the variables employed, ensuring their trustworthiness. Thirdly, a noticeable correlation has been identified between financial literacy and individual financial conduct. Fourthly, while the impact of fintech payments on personal finance behavior appears insignificant when considered independently, their combined effect demonstrates a significant influence. Additionally, a marginal increase of 1% in financial literacy or fintech payments corresponds to a 43.4% and 35.1% rise in personal financial behavior, respectively. The results from the regression testing reveal that the variables of fintech payments and financial literacy collectively influence personal financial behavior. Hypothesis testing results confirm a substantial correlation between financial literacy and personal financial behavior, but no notable impact is observed between fintech payments and personal financial behavior in isolation. However, when these two variables are considered together, a significant influence is evident. Hence, it is evident that both financial literacy and fintech payments exert an influence on the personal financial behavior of students at Medan State University (UNIMED).

REFERENCES

apjii.or.id. (2018). Asosiasi Penyelenggara Jasa Internet Indonesia. Retrieved September 29, 2018, from https://apjii.or.id/content/read/104/348/BULETINAPJII-EDISI-22---Maret-2018

Becker, G. (2017) Does FinTech affect household saving behavior? Findings from a natural field experiment. Frankfurt.

Financial Stability Board (2017). FinTech credit: Market structure, business models and financial stability implications.

Mukti, V.W., Rinofah, R. and Kusmawardhani, R. (2022) "The Influence of Fintech Payment and Financial Literacy on Student Financial Management Behavior," ACCOUNTABLE: *Journal of Accounting and Finance*, 19(1), p. 52–58. doi:10.29264/JAKT. V19I1.10389

Ning Tang, Andrew Baker's, 2016. *Self-esteem, financial knowledge and financial behavior.*

See-To, E.W.K. and Ngai, E.W.T. (2019) "An empirical study of payment technologies, the psychology of consumption, and spending behavior in a retailing context," *Information and Management*, 56(3), p. 329–342. DOI:10.1016/J.IM.2018.07.007.

Selian, S.R.R. (2020) *The Influence of Financial Attitude, Financial Knowledge and Financial Technology Against Financial Management Behavior*. University of North Sumatra: Terrain. Available on: https://repositori.usu.ac.id/handle/123456789/30379.

Suharyadi &; Purwanto. (2004). *Research Methodology.* Jakarta: Gramedia Main Library.

Suharyadi & Purwanto, 2011. *Statistics For Modern Economics and Finance.* Salemba Empat: Jakarta.

Suprapto , 2001. *Statistical Theory and Applications.* Erlangga: Jakarta.

Sugiyono. 2008. *Qualitative Quantitative Research Methods and R&D.* Bandung: ALFABETA..

Thi, N., Mien, N. and Thao, T.P. (2015) "Factors Affecting Personal Financial Management Behaviors: Evidence from Vietnam," *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Sciences*thing. 1–16