ORIGINAL PAPER

DOI: 10.26794/2587-5671-2024-28-3-218-230
JEL G41, E71

The Road to Financial Resilient: Testing Digital Financial Literacy and Saving Behavior

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ABSTRACT

The crisis caused by the COVID-19 pandemic has clearly demonstrated the importance of financial resilience for households. It is necessary as a measure of preparedness for the economic shocks that may arise, especially in connection with the recession problem, which has been increasingly discussed recently. Financial resilience can be formed through resilience-building financial behaviors, including saving behavior. This study investigates the predictors that shape household saving behavior in a digital context by adopting the Theory of Planned Behavior (TPB), i.e., how human behavior is guided. This model also adds digital financial literacy (DFL) as an extension of the TPB. The digital context is taken because of the oblique shift in financial behavior with the rise of Digital Financial Services (DFS) in society. This study used a survey method with a well-structured questionnaire. The reflective measurement was performed using the Partial Least Square Structural Equation Model (PLS-SEM). Analysis was conducted on respondents in Java, Indonesia, to the survey's screened data (N = 900). The study results show that all predictors influencing household decisions to save include all predictors of TPB and DFL. In the mediating effect, the intention toward saving behavior act as a partial mediating variable on the relationship between exogenous and endogenous variables. This study suggests policymakers, government, and educational institutions provide DFL to households.

Keywords: attitude; subjective norm; perceived behavior control; intention; digital financial literacy; saving behavior

For citation: **Rahayu S.M., Worokinasih S., Damayanti C.R., Normawati R.A., Rachmatika A.G., Aprilian Yu.A. The road to financial resilient: testing digital financial literacy and saving behavior. *Finance: Theory and Practice*. 2024;28(3):218-230. DOI: 10.26794/2587-5671-2024-28-3-218-230**

ОРИГИНАЛЬНАЯ СТАТЬЯ

Путь к финансовой устойчивости: тестирование цифровой финансовой грамотности и сберегательного поведения

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АННОТАЦИЯ

Кризис, вызванный пандемией COVID-19, наглядно продемонстрировал важность финансовой устойчивости домохозяйств. Она необходима как мера готовности к экономическим потрясениям, которые могут возникнуть, особенно в связи с проблемой рецессии, которая все чаще обсуждается в последнее время. Финансовая устойчивость может быть сформирована через финансовое поведение населения, особенно в части сбережений. В данном исследовании изучаются предпосылки, которые формируют поведенческую модель сбережений домохозяйств в цифровом контексте, используя теорию планируемого поведения (ТПП), т.е. то, как человек ведет себя. Эта модель также включает цифровую финансовую грамотность (ЦФГ) в качестве расширения ТПП. Цифровой контекст рассматривается из-за косвенного сдвига в финансовом поведении с появлением в обществе цифровых финансовых услуг (ЦФУ). В данном исследовании использовался **метод** опроса с хорошо структурированной анкетой. Рефлексивное измерение проводилось с помощью модели структурных уравнений с частичным наименьшим квадратом (PLS-SEM). Анкетирование проводилось среди респондентов на острове Ява, Индонезия, по отсеянным данным исследования (N = 900). Результаты исследования показывают, что предпосылки, влияющие на решения домохозяйств по поводу сбережений, включают ТПП и ЦФГ. В посредническом эффекте намерение к сберегательному поведению выступает

в качестве частичной посреднической переменной между экзогенными и эндогенными переменными. Авторы рекомендуют политикам, правительству и образовательным учреждениям повышать цифровую финансовую грамотность домохозяйств.

Ключевые слова: отношение; субъективная норма; воспринимаемый контроль над поведением; намерение; цифровая финансовая грамотность; сберегательное поведение

Для цитирования: **Rahayu S.M., Worokinasih S., Damayanti C.R., Normawati R.A., Rachmatika A.G., Aprilian Yu.A. The road to financial resilient: testing digital financial literacy and saving behavior. *Финансы: теория и практика*. 2023;28(3):218-230. DOI: 10.26794/2587-5671-2023-28-3-218-230**

INTRODUCTION

The financial shock to households during the past COVID-19 pandemic due to job losses, income reductions, and uncertainty gives us a new picture of the need to focus on the financial resilience of individuals and households. Likewise, the expected recession in the future (the International Monetary Fund projects 2023 will be a difficult year for the global economy). The OECD states that the global economy challenges due to several things, including stunted growth, high inflation, shortages of energy supply, which can push prices higher, interest rate increases, financial vulnerabilities that increase the risk of debt distress in low-income countries, and food scarcity),[1] which are essential for maintaining household financial resilience. Financial resilience is the ability to sustain one's livelihood by preventing or reducing the impact of financial fluctuations or shocks.

Financial resilience can be fostered through appropriate skills and tools for money management. This is necessary because, despite the fiscal and regulatory measures issued by the government to support society in the face of financial difficulties, sound financial management remains an essential element of any financial strategy to deal with the consequences of future crises.[2] Money management skills, which play a vital role in financial literacy, can be defined as the extent to which a person's decisions or judgments regarding using money are considered effective [1]. In the context of resilience-building financial behaviors, we must identify, which potential financial behaviors are vulnerable and need to be strengthened [2]. When a financial shock occurs, it directly results in a decrease in financial well-being [3] so, adequate economic resources to meet their basic needs and to anticipate and respond to change and disruption are core factors in this problem [3]. Ideally, households will use their savings or sell investment assets [3–5]. But most households cannot cope with this situation, especially in Indonesia, because low-savings funds are not prepared to deal with this kind of condition.[3]

Saving reflects financial management skills, i.e., how individuals or households set aside some of the money that can later be used as an emergency fund or for other unpredictable needs in the future [4]. Cultivating this behavior is essential because saving is a form of resilience-building financial behavior. Saving is significant because it affects the standard of living, emergency reserves, and the ability to meet financial goals and expectations [4]. Poor savings decisions may not have much impact, but they have profound implications for long-term financial security [5]. A lack of financial literacy could lead to a small amount of savings held and more future expenses [6].

Current saving activities can be done easily by utilizing DFS. The use of DFS for all financial activities found momentum during the COVID-19 crisis. The policy response to limiting social activities accelerated and catalyzed human change in adopting DFS.[4] The convenience offered by DFS is also a bargaining chip for users to switch from conventional financial activity models to digital ones. Meanwhile, this convenience also has an impact on the possibility of changes in financial behavior, both positive and destructive [5]. DFS grows in a decentralized atmosphere. It means each individual is responsible for their financial decisions, DFL is considered to have an important role. The OECD suggests increasing DFL because financial technology has unique characteristics, benefits, and risks that may not exist in conventional services. DFL is considered to be able to minimize financial risks due to the use

[1] IMF. World Economic Outlook Update January 31, 2023. URL : https://www.imf.org/en/News/Articles/2023/01/31/tr-13123-world-economic-outlook-update (accessed on 04.02.2023); OECD. Confronting the Crisis-OECD Economic Outlook, November 2022. URL: https://www.oecd.org/economic-outlook/november-2022/ (accessed on 20.12.2022).

[2] OECD. G20. OECD-INFE. Report on supporting financial resilience and transformation through digital financial literacy. URL: https://www.oecd.org/finance/financial-education/supporting-financial-resilience-and-transformation-through-digital-financial-literacy.htm (accessed on 20.12.2022).

[3] Worldbank. Gross savings (% of GDP). URL: https://data.worldbank.org/indicator/NY.GNS.ICTR.ZS (2021) (accessed on 20.12.2022).

[4] The Institute of International Finance, Deloitte, Realizing the Digital Promise Series. COVID-19 Catalyzes and Accelerates Transformation in Financial Service. 2020:1–14.

of financial services, and financial literacy provides support for better financial behavior. Both provide direction to users to avoid destructive activities, such as overspending, and simultaneously increase positive activities, such as saving [2]. Also, access to savings increases if DFL improves [5], which is highly expected in the context of resilience-building financial behaviors.

The Theory of Planned Behavior, proposed by Ajzen, reviews how a person's behavior is formed through the relationship of attitudes, subjective norms, and control of one's behavior and intentions. This theory is widely used to explain behavior patterns and understand how individuals make behavioral decisions [7]. This study applied this theory to identify the relationships that influence makeup saving behavior in a digital context. More broadly, this study investigates the predictors that influence saving behavior, and evaluates the moderating effect of intention on saving behavior. Regarding the contribution of DFS to saving behavior, DFL is also investigated. The influence of DFL on intention and saving behavior is considered an extension of TPB, a novelty in this study. We report on our study of 900 households in Indonesia. Using PLS-SEM, survey responses are used to test hypotheses. These results have important implications because they can shed light on the factors that may influence saving behavior. In the future, these results can be used as a practical policy tool to strengthen behavior in order to build financial resilience and ultimately increase public financial resilience.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

TPB is a development of the Theory of Reasoned Action (TRA). TRA reviews how attitudes and behaviors relate. Individual behavior is formed from intention. Intention is influenced by attitude and subjective norms. Starting in 1980, the TRA was used to study human behavior and develop more appropriate interventions. So in 1991, another factor that affects a person's intentions was perceived behavioral control [8].

We build a conceptual framework for research based on TPB by using all variables; attitude, subjective norm, perceived behavior control, and intention as determinants of saving behavior. In addition, we added DFL as another determinant that formed saving behavior (the importance of DFL has been explained in the research background) and considered the relationship of DFL to intention and saving behavior as an extension of the TPB. This line was formed by adapting another theory, the Social Cognitive Theory [9, 10] that the behavior of one of them is developed by cognitive aspects (*Fig. 1*) [11, 12].

Attitude. Attitudes develop reasonably from the beliefs people hold about something. The appearance of a liking attitude towards certain behaviours is due to the presence of most of the expected consequences and vice versa. Attitudes eventually accumulate and form an intention for behaviours [8]. TPB assumes that a person's behaviours is very likely to be carried out when the more positive a person's attitude towards a particular behaviours [12].

The majority of studies state that attitude affects intention [6, 13–18] and is the dominant influential factor in the formation of intention [14, 18]. In the context of saving behaviour, the influence of attitude on intention is stated in the research of Widyastuti et al., Satsios and Hadjidakis, Widjaja et al. [4, 12, 14].

H1. Attitude toward saving behavior has a positive influence on intention toward saving behaviour.

Subjective Norm. Subjective norms refer to perceived social pressures to perform or not perform a behaviour, and these norms can predict behavioural intentions [8]. The empirical finding provides evidence that subjective norms influence intention [4, 12, 17–19]. Widyastuti et al. and Satsios and Hadjidakis state that subjective norm influence saving intention.

H2. Subjective norm has a positive influence on intention toward saving behaviour.

Perceived Behaviours Control. Perceived behaviour control refers to a person's perception of their ability to exhibit certain behaviours. This construct includes sensing one's ease or difficulty associated with a particular task or behaviour [8]. The relationship was studied in research conducted by Warsame and Ireri [16], Satsios and Hadjidakis [4], and Raut [13], where perceived behaviour control had a positive and significant effect on intention.

H3. Perceived behaviour control has a positive influence on intention toward saving behaviours.

H4. Perceived behaviour control has a positive influence on saving behaviour.

Digital Financial Literacy. Since the rise of DFS, DFL has become a concern for various groups, governments, financial service companies, and the public [2]. DFL is directly related to online purchases, payments, and banking [18]. DFL includes digital products and services, awareness of digital financial risks, and digital knowledge [19]. The more people use DFS in their daily financial transactions, the more the need for financial literacy increases. Strengthening DFL has become a global policy agenda, where improving DFL is a policy priority in almost all countries. This

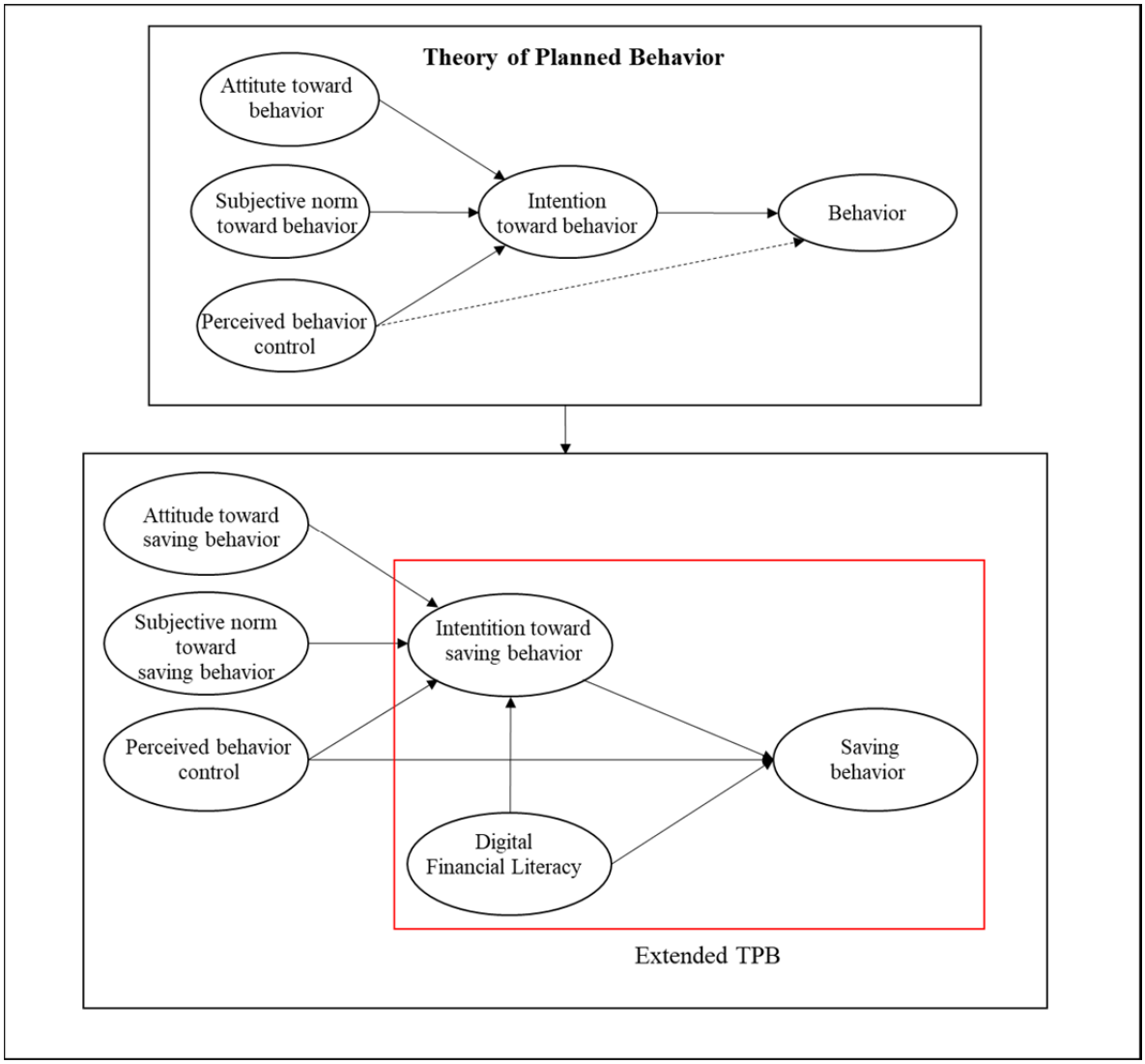

Fig. 1. **Research Framework**

Source: Based on TPB by Ajzen, 1991 [8]. A research framework developed by the authors.

must be done to increase digital financial inclusion and improve people's welfare.[5]

The relationship between literacy and behaviour was studied by Widjaja et al., that financial literacy positively affects intention in the context of saving behaviour [14]. Meanwhile, the results of other studies showed different results, as in the research of Widyastuti et al. and Bongini and Cucinelli, where financial literacy did not affect intention [11, 12]. The evidence that has not been strong prompted the submission of hypotheses in this study;

H5. DFL has a positive influence on intention toward saving behaviour.

Giné and Yang in Prasad and Shen et al. state that a lack of basic knowledge of financial concepts is one of the main reasons for the low demand for formal banking services [15, 17]. This statement is reinforced by the findings of Setiawan et al. in their research, which show that DFL affects saving behaviour positively [5]. While the results of the Bongini and Cucinelli study in 2019 were contrary to the above statement [11].

H6. DFL has a positive influence on saving behaviour.

Intention. Intention is assumed to be a motivational factor that influences behaviour. Intentions indicate how hard people are willing to try, and how much effort they plan to put into the behaviours. The intention is instructions people give themselves to behave in specific ways [15]. The stronger the intention to do something, the more likely the behaviour is to form [8]. Some empiricists state that intention has a positive and significant influence on behaviour [4, 14, 15].

[5] G20/OECD INFE Policy Guidance on Digitalization and Financial Literacy. URL: www.oecd.org/going-digital.%0Ahttp://www.oecd.org/finance/G20-OECD-INFE-Policy-Guidance-Digitalisation-Financial-Literacy-2018.pdf

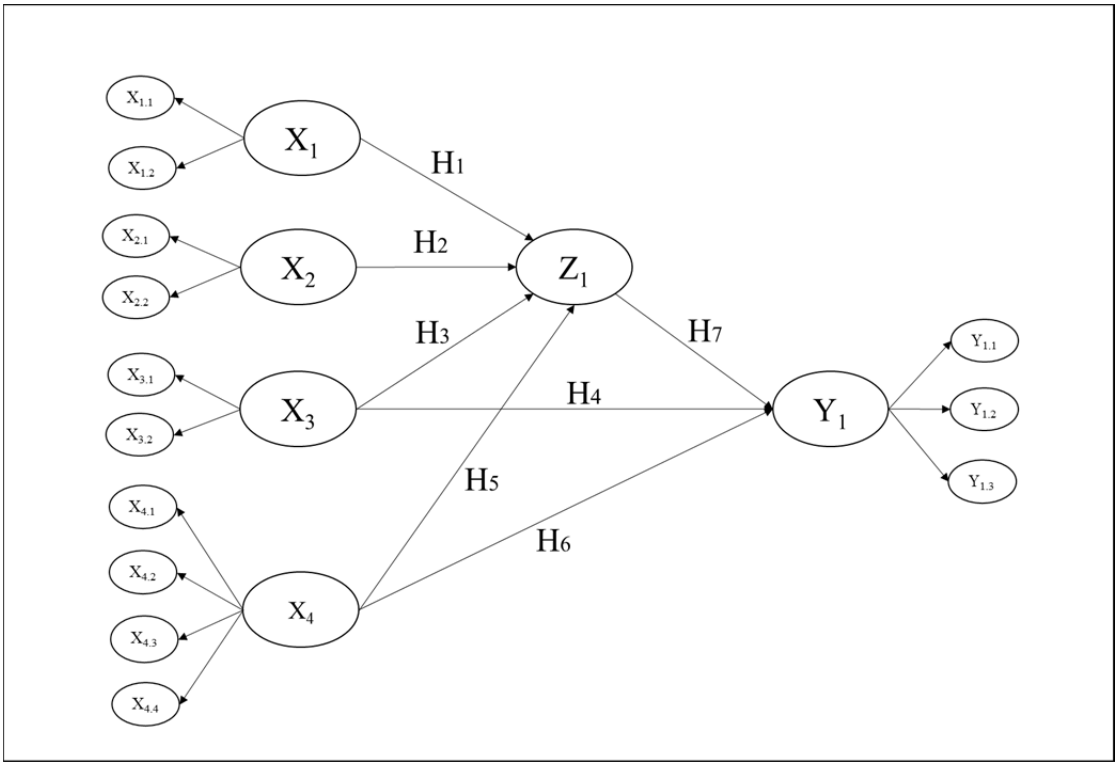

Fig. 2. **Research Hypotheses**
Source: Elaboration by the authors.

H7. Intention toward saving behaviour has a positive influence on saving behaviour.

The relationship between the variables examined in this study is shown in the image below (*Fig. 2*).

DATA AND METHODOLOGY

This research study gathered primary data from respondents, women or men, who have settled down, have accessed digital banking, and are domiciled in Java, Indonesia. Java Island, one of the largest populated islands in Indonesia, is a target demographic area in this investigation. This island includes six provinces: Banten, DKI Jakarta, West Java, Central Java, DI Yogyakarta, and East Java.

Data collection followed the first two steps of pilot testing for testing research instruments. The research instrument test involved 30 respondents. At this stage, statements declared invalid or reliable are evaluated and retested. Data collection was carried out by conducting a survey that was distributed using online media and obtained by 900 respondents who filled out the complete online form in June-July 2022.

Respondents were selected using nonprobability sampling techniques. The approach used in this study is purposive sampling. Participants answered questions related to attitude, subjective norm, perceived behavior control, DFL, and saving behavior and reported their socio-economic and demographic characteristics. We guarantee the anonymity and confidentiality of respondents of this research.

The item scale used to determine attitude consists of five questions, subjective norm consists of four questions, and perceived behaviour control consists of four questions. Statements were modified and adapted from C. Boonroungrut [1]. The item scale used to determine DFL consists of eleven questions adapted from M. Setiawan et al. [5] and P. J. Morgan et al [18]. The intention of saving consists of three questions. Saving behaviour consists of ten questions modified and adapted from C. Boonroungrut [1] and S. Brown et al. [19]. All questions consist of 37 questions. The questionnaire was prepared with extreme seriousness, including all the relevant details on the 5-point Likert scale. The reflective measurement was performed using the PLS-SEM with WarpPLS 7.0 as the analysis tool.

Descriptive Analysis

The characteristics of the sample used for the analysis are shown in *Table 1*. Of the 900 respondents to this study, most were women (87%), and the remaining were men (13%). The education of respondents is at all levels of education. Most are in Senior High School of the total respondents (50%). In the sample, entrepreneur and salaried employee are the dominant occupations at more than 30% each. The sample consists of respondents with monthly family income

Table 1

Demographic and Socio-economic Details of the Respondents

Demographic and Socio-economic		Frequency	Percent
Gender	Male	117	13%
	Female	783	87%
Education	Junior High School	34	4%
	Senior High School	451	50%
	Associate degree	114	13%
	Bachelor Degree	269	30%
	Master Degree	25	3%
	Doctoral Degree	7	1%
Occupation	Salaried Employee	295	33%
	Civil servant	24	3%
	Entrepreneur	352	39%
	Other	229	25%
Monthly Family Income	< IDR 3.000.000	219	24%
	IDR 3.000.000 – IDR 5.000.000	368	41%
	IDR 5.000.001 – IDR 10.000.000	248	28%
	> IDR 10.000.000	65	7%

Source: Compiled by the authors.

under IDR 3,000,000 (24%), up to IDR 10,000,000 (7%), and the rest between IDR 3,000,000 and IDR 10,000,000 (68%).

RESULT

Assessment of Measurement Model

Assessment of measurement models is carried out by conducting validity and reliability tests. This study is a 2nd order model, so the analysis is done by running twice. Convergent validity, 2nd order, is intended to find out whether the dimension is valid in measuring variables. The reflective measure is high if it correlates more than 0.7 with the construct to be measured. This test results in a convergent validity value of >0.7 on all dimensions, declaring all dimensions valid.

Convergent validity 1st order is intended to determine whether an indicator is valid for measuring dimensions or variables. The loading factor value in question is > 0.7; however, for early-stage research from the development of a measurement scale, the loading factor value of 0.5 to 0.6 is considered sufficient [20, 21], while for explanatory research, the value of 0.6 to 0.7 is still acceptable [22]. The results of these measurements show that all indicators are valid (*Table 2*).

Convergent validity testing is carried out using the Average Variance Extracted (AVE). The results of the AVE test will reflect each latent factor in the reflective model. An instrument is said to meet convergent validity testing if it has an AVE above 0.5 [22]. Based on the test results, all dimensions are declared valid because they have a value of > 0.5. Construct reliability can be calculated using composite reliability. All composite reliability values are > 0.7 [22]. So that all dimensions are declared reliable (*Table 3*).

Assessment of Structural Model

The assessment of the structural model was evaluated using the goodness of fit model using the coefficient of determination (R^2). R^2 shows a result of 0.564, which means that the variability observed is explained by the model in a moderate way. It can be interpreted that attitude, subjective norm, perceived behavior control, and DFL can explain the diversity of intention toward saving by 56% or the contribution of these four variables to intention is 56%; the rest are other variables that were not discussed in this study. Meanwhile, the contribution of attitude, subjective norm, perceived behavior control, DFL, and intention to saving behavior is 60.5% (*Table 4*).

Table 2

Loading Factor, SE, and P Value (Output from Warp PLS)

Variable	Dimension	Loading Factor	SE	Value
Attitude	Attitude Toward Behavior	0.857	0.031	0.001
	Behavioral Belief	0.857	0.031	0.001
Subjective Norm	Subjective Norm	0.890	0.031	0.001
	Normative Belief	0.890	0.031	0.001
Perceived Behavior Control	Perceived Power Control	0.883	0.031	0.001
	Control Belief	0.883	0.031	0.001
Digital Financial Literacy	Digital Financial Knowledge	0.846	0.031	0.001
	Digital Financial Experience	0.736	0.031	0.001
	Digital Financial Awareness	0.750	0.031	0.001
	Digital Financial Management	0.845	0.031	0.001
Saving Behavior	Rational Motive	0.848	0.031	0.001
	Psychological Motives	0.905	0.031	0.001
	Active saving using DFS	0.887	0.031	0.001

Source: Compiled by the authors.

Table 3

AVE and Composite Reliability (Output from Warp PLS)

Variable	Dimension	AVE	Composite Reliability
Attitude	Attitude Toward Behavior	0.595	0.814
	Behavioral Belief	0.699	0.823
Subjective Norm	Subjective Norm	0.760	0.864
	Normative Belief	0.689	0.816
Perceived Behavior Control	Perceived Power Control	0.747	0.855
	Control Belief	0.749	0.856
Digital Financial Literacy	Digital Financial Knowledge	0.591	0.877
	Digital Financial Experience	1.000	1.000
	Digital Financial Awareness	0.615	0.827
	Digital Financial Management	0.775	0.873
Intention toward Saving		0.637	0.840
Saving Behavior	Rational Motive	0.554	0.860
	Psychological Motives	0.773	0.911
	9Active saving using DFS	0.753	0.859

Source: Compiled by the authors.

Table 4

R^2 and Q^2 (Output from Warp PLS)

Endogen	R^2	Q^2
Intentition toward saving	0.564	0.563
Saving behavior	0.605	0.606

Source: Compiled by the authors.

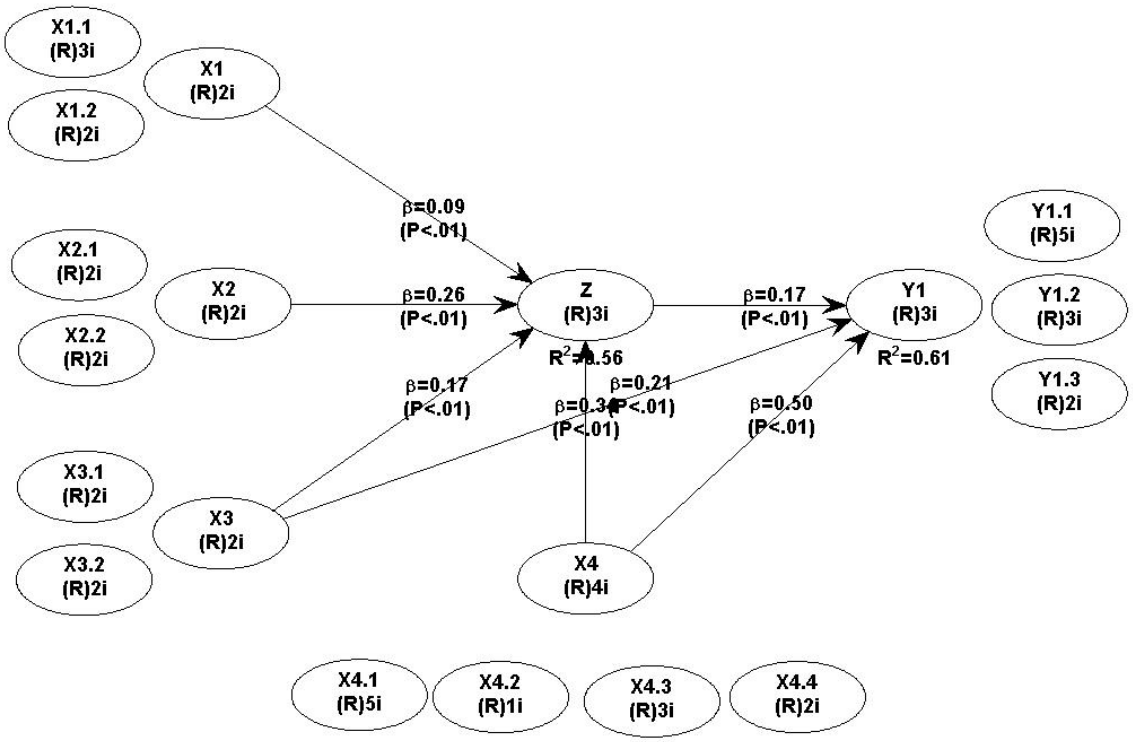

Fig. 3. **Path Diagram**

Source: Output from Warp PLS.

Q^2 reuse is used to validate endogenous construct models. Q^2 for the endogenous variable is considered good if the value is > 0. The Q^2 value from testing the model on intention and saving behavior shows a strong prediction (*Table 4*).

Testing the Direct Effect

We are testing this hypothesis using the path coefficient and p-value. The criteria are between –1 to 1. The results of testing the path model in this study (*Table 5*) indicate that attitude, subjective norm, and perceived behavior control on intention toward saving behavior have a positive and significant effect, as does the relationship between intention toward saving behavior and DFL on saving behavior (*Fig. 3*).

Testing of Indirect Effects and Mediation Effects

The results of the indirect effect can be seen in the summary in *Table 6*. These results show a positive influence between attitude, subjective norm, perceived behavior control, and DFL on saving behavior through intention toward saving. The relationship between subjective norms and DFL toward saving behavior through intention toward saving shows a significant. With regard to attitude and perceived behavior control, the results are conflicting.

DISCUSSION AND POLICY IMPLICATIONS

The findings provided important insights, supported previous research results, and strengthened the theory of the conceptual research framework. Furthermore, based on the test results described above, we will compare them with the results of previous studies and review the findings. In the direct effect test, all of the research hypotheses are accepted. The findings underline the importance of attitude, subjective norm, perceived behavior control, and attention as drivers of the decision to save.

Table 5

Path Coefficient of Direct Effect (Output from Warp PLS)

Eksogen	Endogen	Path Coeff.	SE	P-Value Alpha = 5%
Attitude	Intention toward saving	0.094	0.033	0.002
Subjective norm	Intention toward saving	**0.261**	0.033	<0.001
Perceived behavior control	Intention toward saving	0.173	0.033	<0.001
Digital Financial Literacy	Intention toward saving	**0.343**	0.032	<0.001
Perceived behavior control	Saving behavior	0.210	0.033	<0.001
Digital Financial Literacy	Saving behavior	**0.497**	0.032	<0.001
Intention toward saving	Saving behavior	0.172	0.033	< 0.001

Source: Compiled by the authors.

Table 6

Path Coefficient of Indirect Effect (Output from Warp PLS)

Eksogen	Intervening	Endogen	Indirect Coef.	SE	P- Value Alpha = 5%
Attitude	Intention toward saving	Saving behavior	0.016	0.024	0.245
Subjective Norm	Intention toward saving	Saving behavior	0.045	0.023	0.028
Perceived Behavior Control	Intention toward saving	Saving behavior	0.030	0.024	0.102
Digital Financial Literacy	Intention toward saving	Saving behavior	0.059	0.023	0.006

Source: Compiled by the authors.

Attitude has a positive and significant effect on intention toward saving, strengthening the results of research by C. Boonroungrut, Widyastuti et al., Satsios and Hadjidakis, and Widjaja et al. [1, 4, 12, 14]. The positive influence relationship between attitude and intention also supports research conducted by Warsame and Ireri, Akhtar and Das, Bongini and Cucinelli, Raut, and Ilyas et al., but in the context of other financial behaviors, namely investment [13]. There is a significant positive relationship between these two variables, the higher the positive attitude toward saving behavior, the more it will accumulate as an intention toward saving behavior. Strengthening a positive attitude towards saving behavior can be done by giving positive affirmations, for example, "I can save regularly and my daily needs can still be met". Another way is to choose a positive environment, do things with positive people, and interact with positive financial behavior information. Through this habit, it will change perspectives and attitudes and ultimately lead to the intention to do so.

Tests on subjective norms and intention toward saving behavior show that this hypothesis is accepted and strengthens the research of Widyastuti et al., Satsios and Hadjidakis, Akhtar F. et al., Raut, and C. Yoopetch et al. [4, 12, 13, 15, 23]. From these results, it can be concluded that perceived social pressure to perform or not perform a behavior has a role in influencing the intention toward saving behavior. That is, when people consider saving a critical thing to do, then individuals will be interested in participating in saving.

The effect of subjective norm on intention toward saving shows the most significant value, which means that subjective norm is the most dominant variable affecting intention toward saving in TPB modelling. The more substantial effect of subjective norms indicates the impact of the social environment on household's savings. Households face perceived social pressures

from other families and their friends that lead them to save when they understand the importance of having an emergency fund. We emphasize that subjective norms are reference points for households and contribute to determining their choices and actions. These results are the same as the research findings of Bongini and Cucinelli, where subjective norms have a dominant effect on investment behavior in university students [11]. Conversely, the results of the dominant influence in this study are not in line with the findings of Widyastuti et al., who found that attitude has a dominant effect on intention compared to the other two variables in their research (financial literacy and subjective norms) [12].

Tests for perceived behavior control and intention toward saving behavior show positive results, and this reinforces the research findings of Warsame and Ireri, Satsios and Hadjidakis, and Raut [4, 13, 16]. In testing, perceived behavior control also positively affects saving behavior. This means that the individual's perception of his abilities, or even his lack thereof, can lead to behavior formation. The indirect effect of perceived behavior control to saving behavior through intention toward saving behavior shows a positive relationship, the same as the direct effect. So that this mediating effect has a partial mediation effect. This result means that whether there is an intention toward saving behavior in this relationship, perceived behavior control will still positively affect saving behavior. This statement confirms that this variable impacts the intention to behave and directly influences certain behaviors.

The relationship between DFL and intention toward saving behavior shows a positive influence. By adopting the same relationship pattern between financial literacy and intention, these results strengthen the findings of Widjaja et al. that financial literacy has a positive effect on intention in the context of saving behavior [14]. And at the same time, it weakens the findings of Widyastuti et al. and Bongini and Cucinelli, where financial literacy does not affect intention [11, 12]. Meanwhile, the relationship between DFL and saving behavior reinforces the findings of Setiawan et al. that DFL affects saving behavior [5]. This means positive financial literacy will be followed by positive saving [24]. The indirect relationship between DFL and saving behavior through intention toward saving behavior shows a partial mediating effect.

Overall, involving the extended model of TPB, DFL is the dominant variable influencing intention and saving behavior. This new finding proves that DFL will lead to intention and saving behavior. Someone with a good DFL tends to save, taking advantage of the convenience offered by DFS, especially for performing saving behavior in a digital context. Therefore, increasing DFL in the household will have implications for increasing saving behavior. Likewise, building a saving behavior culture today will impact a good culture of saving and spending behavior in the future [5]. Since saving is a foundation that helps smooth household income and expenditure flows, people who build savings are also likely to be more resilient to financial shocks and better able to meet financial goals.[6]

This research also suggests that policy-makers determine policy directions related to strengthening financial literacy and DFL for households. This strengthening can be provided through adequate outreach about digital savings products, creating digital media so that the public can easily obtain information related to DFL, creating attractive savings products, and providing regulations that make it easy for users. Thus, the challenge for practitioners, regulators, and academics is to meet all these needs. Another practical benefit is that it is material for determining policy directions by encouraging good financial management practices. By implementing this and ensuring that each household has adequate economic resources that can be used during financial shocks, financial resilience can be realized.

CONCLUSIONS AND LIMITATION

The study identifies the important elements influencing saving behavior in the digital context. According to the results, H1-H7 was supported by the empirical test. It can be seen what factors drive the decision to save in a digital context. In testing the indirect effect, intention toward saving partially affects the relationship between perceived behavior control and DFL on saving behavior. Our analysis indicates that all predictors influencing a household's saving decision include all TPB predictors and DFL. From the analysis results, DFL has a dominant influence on intention and saving behavior. Despite different motivations, households with DFL will use DFS for saving activities.

Researchers recommend considering DFL to be given to households to increase saving behavior as a form of financial preparedness for possible shocks. This strengthening is in line with the global policy agenda and the agenda of many countries in the world[7] (OECD, 2018). Finally, as our proxy for money management behavior, our research supports theoretically and empirically the growing literature on behavioral finance.

[6] Thammarak Moenjak, Anyarat Kongprajya, and Chompoonoot Monchaitrakul, 2020 from the ADBI Working Paper Series, "Fintech, Financial Literacy, and Consumer Saving And Borrowing: The Case Of Thailand".

[7] OECD, 2008. G20/OECD. INFE Report on supporting financial resilience and transformation through digital financial literacy.

We recognize some limitations of this study. Some of the limitations we found included our research being limited to certain areas in one country, so these findings certainly cannot be generalized. In addition, we only highlight certain variables, adopt the TPB model, and add DFL in forming intention and saving behavior. Of course, many other variables become its forming factors. We also only highlight saving behavior in households to perform resilience-building financial behaviors. Meanwhile, in the case of financial shocks, adequate economic resources may be formed through other behaviors, for example, investment. These limitations can inspire further research, providing a more complex picture for building behavioral finance studies. But despite the limitations that the authors convey, of course, this research contributes to the scientific literature; moreover, the context of digital and DFL has not been widely studied.

ACKNOWLEDGMENTS

This research was supported by Brawijaya University, Indonesia under Professor Grant 2022. Brawijaya University, Malang, Indonesia.

БЛАГОДАРНОСТИ

Данное исследование было проведено при поддержке Университета Бравиджая, Индонезия, в рамках профессорского гранта 2022. Университет Бравиджая, Маланг, Индонезия.

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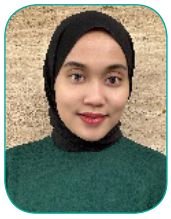

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R.A. Normawati — data collection, performed analysis, text design and creation.
A.G. Rachmatika — material collection.
Yu.A. Aprilian — assembly and graphic processing of the material of parts of the article.

Заявленный вклад авторов:
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Conflicts of Interest Statement: The authors have no conflicts of interest to declare.
Конфликт интересов: авторы заявляют об отсутствии конфликта интересов.

The article was submitted on 04.02.2023; revised on 14.02.2023 and accepted for publication on 26.02.2023.
The authors read and approved the final version of the manuscript.
Статья поступила в редакцию 04.02.2023; после рецензирования 14.02.2023; принята к публикации 26.02.2023.
Авторы прочитали и одобрили окончательный вариант рукописи.