Management Science Letters

Country	Canada - SIR Ranking of Canada
Subject Area and Category	Business, Management and Accounting Business, Management and Accounting (miscellaneous)
Publisher	Growing Science
Publication type	Journals
ISSN	19239335, 19239343
Coverage	2017-2020
Scope	Information not localized

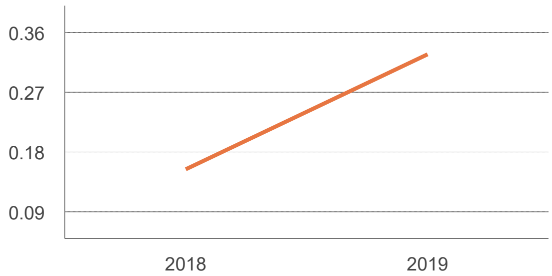
13

H Index

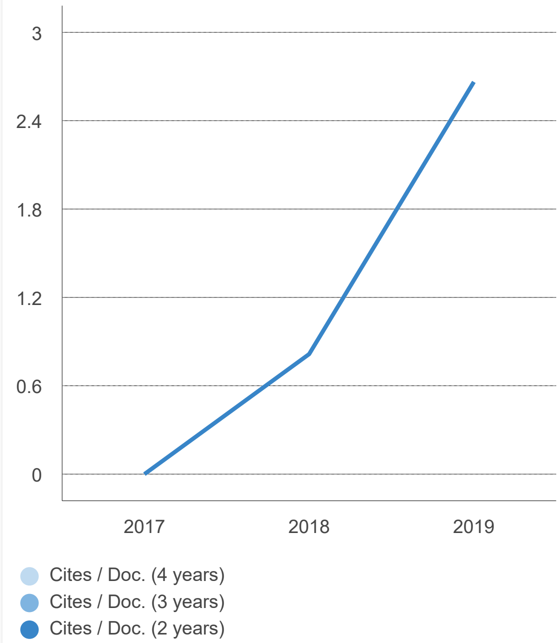
Join the conversation about this journal

Quartiles

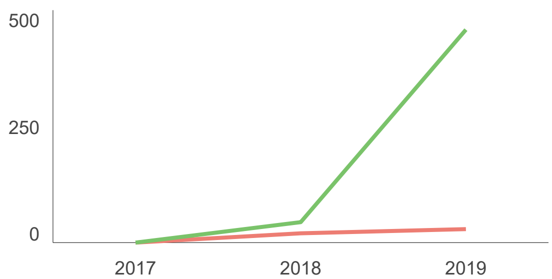
SJR



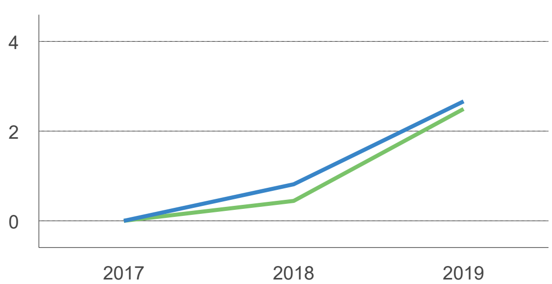
Citations per document



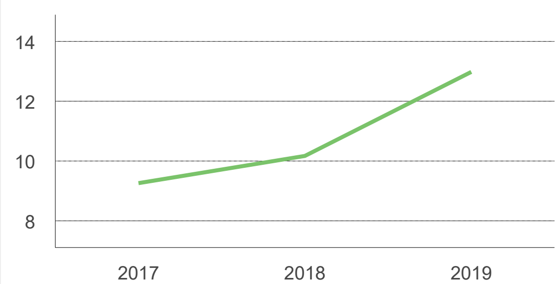
Total Cites Self-Cites



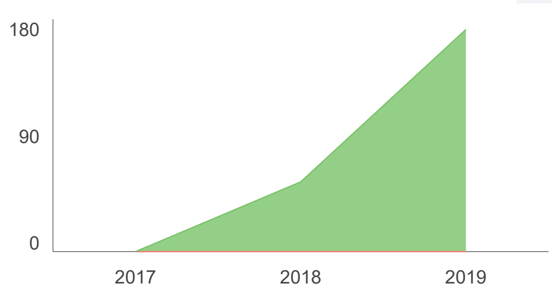
External Cites per Doc Cites per Doc



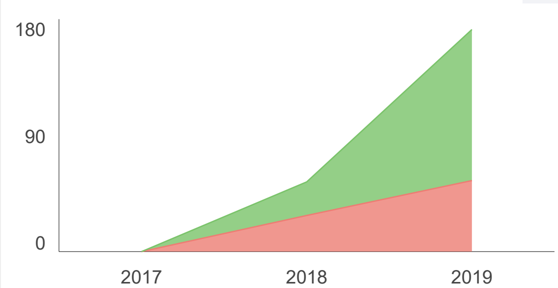
% International Collaboration



Citable documents Non-citable documents



Cited documents Uncited documents



← Show this widget in your own website

Just copy the code below and paste within your html code:

<a href="https://www.scimag

Contents lists available at GrowingScience

Management Science Letters

homepage: www.GrowingScience.com/msl

The effects of financial literacy and subjective norms on saving behavior

Indra Widjaja[a], Agus Zainul Arifin[a] and Made Setini[b*]

[a]*Magister Management Program, Tarumanagara University, Jakarta Barat, Indonesia*
[b]*Faculty of Economics and Business, Udayana University, Bali, Indonesia*

C H R O N I C L E

Article history:
Received: May 30, 2020
Received in revised format:
May 30 2020
Accepted: June 19, 2020
Available online:
June 19, 2020

Keywords:
Saving behavior
Financial literacy
Subjective norm
Saving intention
Attitude towards saving

A B S T R A C T

This paper examines the influence of Financial Literacy on savings behavior that is improved by storing intentions and attitudes towards savings. Also, the study investigates the effect of subjective norms on saving behavior that is mediated by attitudes toward austerity. Research subjects were primary data from 469 young workers who worked in the DKI Jakarta area in 2018. Data were collected online by distributing questionnaires using Google Docs and they were analyzed using SEM-PLS. The research findings prove that financial literacy affects saving behavior, both directly and indirectly through the variables of saving intention and attitude to saving mediation. Other findings prove that subjective norms do not directly affect thrifty behavior, but had indirect effects through attitudes toward thrifty variables. This study offers alternative models of researchers associated with frugal behavior with theories of planned behavior theory with predictors of financial literacy and subjective norms to improve frugal behavior proving that saving intentions and attitudes towards saving can mediate financial literacy. Furthermore, a mediator's attitude towards savings can improve the subjective norm relationship with saving behavior. Thus, the planned behavior theory can explain the relationship between financial literacy and subjective norms by storing behavior. This is an initial empirical study that attempts to examine the relationship between financial literacy and subjective norms and their impact on savings behavior that is mediated by saving intention and attitude towards saving.

1. Introduction

The Harrod-Domar model stated that the economic growth of a country is determined by three factors, namely saving ratio, the marginal efficiency of capital, and capital. High capital of savings will affect the level of investment (Harrod, 1939). Therefore, saving becomes an important part of macroeconomic policy. The economy of a country is running well or not, which can be seen from the level of savings and investment. From the micro side, saving is an activity that is encouraged to become a behavior of human life that makes it undoubtedly a positive activity to deal with family economic problems that are unexpected. An act according to Theory Planned Behavior (TPB) developed by Ajzen (1991) begins with an intention, namely the saving intention. However, the habit of saving must begin through education that can generate awareness so that awareness and desire to save arise. Saving money is a way to control one's financial use for daily needs. The funds saved will be used for future needs. Gross Domestic Saving to gross domestic product (GDP) rate of Indonesia in 2018 was 33,07%. This data is lower than Cina (46.5%), Singapore (54.5%), and Brunei (56, 3%) (World Bank, 2029). The data shows that Indonesian people's understanding of financial literacy is still low. This understanding is important as a person's first step to saving and saving behavior (Chen & Volpe, 1998). This level shows that saving habits are still not good. BPS (Indonesia Statistics Central Bureau) reports the poverty rate in Indonesia until September 2019 was 25.95 million people (9.82 percent) spread in urban communities (7.02%) and rural areas (13.20%). The biggest contribution to poverty occurred in the staple food sector (73.48 percent). This data shows that the habit of saving becomes a big problem for the people of Indonesia since it has not been able

* Corresponding author. Tel.: +6281 339 139 595
E-mail address: Gitan4nd4@gmail.com (M. Setini)

doi: 10.5267/j.msl.2020.6.030

to meet basic needs. (BPS, 2020). This low awareness of saving was realized by the government, so the government issued Presidential Regulation No.82 of 2016 concerning national financial inclusion strategies to increase public awareness of saving behavior (Presidential decree, 2016). This phenomenon proves that Indonesian people have a wasteful life behavior. They prefer to consume than save.

This study is based on the Theory of Planned Behavior (TPB) (Ajina, 2019). TPB stated behavior that is driven by intention, which is associated with saving behavior (Ajzen, 1991). The intention is built from three components: attitudes, subjective norms, and perceptions of belief in the existence of control if one acts (control beliefs) (Arifin, 2018). Applications of TPB related to the study of saving behavior have been widely studied which states that saving behavior is influenced by three factors namely financial literacy and attitude which are then related to literacy financial (Nidar & Bestari, 2012; Sondari & Sudarsono, 2015; Thung et al., 2012; Widyastutiet at el., 2016; Satsios & Hadjidakis, 2018). There are studies associated with social influences such as the role of parents and friends to subjective norms, saving interest, and attitude (Thung et al., 2012; Widyastuti et al., 2016). Jamal et al. (2015) and Mahdzan and Tabiani (2013) saw financial literacy influenced Saving Intention and attitude towards saving, expressed Subjective norms influence saving attitudes.

From previous studies, there was a research gap regarding the relationship between Financial Literacy and Subjective Norms to saving behavior. The gap is in the form of a moderating variable which later became a model in this study. The purpose of this study is to re-explore the determinants of variables by building a model that explains (a) the direct effect of Financial Literacy, Subjective Norms, Saving Intention, and Attitude towards Saving on Saving behavior, (b) the indirect effect of Financial Literacy on Saving behavior through the mediating variable Saving Intention and Attitude towards Saving, and (c) The indirect effect of Subjective Norm on Saving behavior through the Attitude towards Saving moderation variable. The model was built using Theory Planned Behavior. To test the hypotheses, we use a sample of workers who work in the DKI Jakarta area. The reason for selecting these samples is since they have sufficient information on various savings products and can be considered representative of workers in Indonesia.

2. Theoretical Review and Hypotheses Development

Saving money is a residual income after being reduced by current consumption for a certain period (Browning & Lusardi, 1996). Savings' behavior includes two actions that coincide with the act of saving with the perception of future needs, and savings behavior is carried out to face risks if unexpected problems occur that require large funds (Satsios & Hadjidakis, 2018; Warneryd, 1989). Saving behavior is manifested in various actions based on intentions because of the future views, such as unexpected expenses, forcing to one person to set aside the income before being used for consumption, making estimates of future needs, avoiding expenses for things that are not important, and saving regularly (Ismail at al., 2013), also, in response to actions from the environment or people to obtain satisfaction, needs, and desires (Calderone at al., 2018). The intention to save is an individual's desire and desire to invest or save funds in financial institutions to meet future needs (Mahdzan & Tabiani, 2013). This desire becomes a force that can trigger individuals to pay attention to activities without coercion (Henager & Mauldin, 2015). The magnitude of this power depends on (a) Saving for a purpose, (b) Saving for risk, and (c) Saving barrier, a strong intention to save is realized in the form of the behavior of setting aside income for the unexpected, achieving goals in the future, willing to take risks due to profit opportunities, reducing consumption spending (Widyastuti et al., 2016). The research result proved that Saving Intention has a positive and direct effect on saving behavior (Rodermund, 2012; Satsios & Hadjidakis, 2018; Kisaka, 2014). Based on theoretical studies and relevant research results, hypotheses about the relationship between Saving Intention are built into the Intention of saving behavior.

Hypothesis 1: Saving Intention has a positive effect on saving behavior.

Attitude is a reaction and evaluation in the form of a person's positive or negative feelings towards an object which gives favorable or unfavorable evaluation results of behavior (Ajzen, 199; Berkowitz, 1972). Attitude consists of three components, namely affective, cognitive, and conative. The affective component in the form of individual emotional feelings and the cognitive component is in the form of an individual's belief or perception of an object (Berkowitz, 1972). The cognitive component in the form of a tendency to act by the attitudes of individuals (Secord & Backman, 1965). Attitude towards saving is a feeling and positive or negative response made by someone to saving activities. Individuals who are positive about saving activities will find it easier to do so, and vice versa. The positive attitude of saving includes giving a sense of security, providing benefits, and trends that exist in society (Widyastuti et al., 2016). Furnham and Tankel, (2015) found evidence that there is a positive relationship between saving attitude and saving behavior save even more.

Hypothesis 2: Attitude Towards Saving affects saving behavior.

Financial Literacy is knowledge in managing and solving financial problems (Chen & Volpe, 1998), shaping the behavior and mindset that give an effect on the financial situation of individuals to be better (Raju, Lonial, & Mongial, W, 1995). Behavior that is formed in the form of awareness to manage finances in the future to be able to meet their needs. For this reason, the research tried to increase the knowledge relating to the functions of loans for money, savings, banking services, pension knowledge, and others (Falahati et al., 2012). Individual finances become better because individuals care about the accuracy

of transactions, always check financial statements, prepare retirement periods, and make financial asset choices more effective (Magendans, 2014).
Good knowledge about financial assets, which shape, mindset, and awareness will encourage individuals to have high Saving behavior, even Financial Literacy is an important driving factor to form saving behavior (Thung et al., 2012). The result proved that Financial Literacy has a positive relationship with saving behavior (Jamal et al., 2015; Thung et al., 2012), but the results of other studies proved not to have a significant relationship (Widyastuti et al., 2016; Sabri et al., 2019).

Hypothesis 3: Financial Literacy has a positive effect on saving behavior.

Financial Literacy is a process to improve knowledge and skills. This ability will be an individual's strength in managing finances and raising awareness (Sanjeewa & Hongbing, 2019) of the high importance of being able to meet financial needs in the future (Falahati et al., 2012). The process builds an attitude which then forms intentions (Ajzen, 1991a). The better a person's financial literacy is, the motivation to save is stronger. The result of research conducted on high school students proved that Financial Literacy has a positive effect on Saving Intention ((Lestari et al., 2017). But in other research financial literacy was not significant to saving intention (Widyastuti et al., 2016).

Hypothesis 4: Financial Literacy has a positive effect on saving Intention.

Based on the theoretical framework that explained the partial direct relationship between Financial Literacy and Saving behavior (Hypothesis 3), Financial Literacy with Saving Intention (Hypothesis 4), and Saving Intention with saving behavior (Hypothesis 1), it should be assumed that Saving Intention mediates the relationship between Financial Literacy with Saving behavior. Thus, one hypothesis is built for this framework.

Hypothesis 5: Saving Intention moderates the relationship between financial literacy and saving behavior.

Individuals who have financial literacy in the form of knowledge and techniques to manage finances will be able to control financial use better. Some of the income will be saved for future financial needs (Zait & Bertea, 2014). This ability is an attitude dimension in TPB theory (Ajzen, 1991) due to financial literacy that is not only related to knowledge and abilities, it is also part of one's cognitive abilities (Supanantaroek et al., 2016). The attitudes related to finance (attitude toward saving) are a person's psychological characteristics related to personal financial problems. Openness to financial information, awareness to manage finances, not impulsive in consumption, and awareness to prepare finances in the future, will be an increasingly better outlook which is embodied in the form of individual attitudes to save. So, it can be stated that financial literacy has a positive influence on attitudes toward saving (attitude towards saving) (Gutter & Copur, 2011; Samadi, 2018; Salem & Chaichi, 2018).
Little research has been conducted to examine the relationship between financial literacy and attitude towards saving. Zahriyan (2012) found evidence that financial literacy has a positive effect on attitude Towards Saving.

Hypothesis 6: Financial Literacy has a positive effect on attitude Towards Saving.

Theories that explain the partial relationship between financial literacy and saving behavior (Magendans, 2014), Financial Literacy with Attitude towards Saving (Gutter, 2008), and Attitude towards Saving on Saving behavior (Widyastuti et al., 2016), build a theoretical framework model, namely Attitude towards Saving moderates the relationship between Financial Literacy and Saving behavior.

Hypothesis 7: Attitude towards saving moderates the relationship between financial literacy and saving behavior.

Subjective norms in TPB are guided by social values that encourage someone to do or not to do an action. If the value allows you to do something and has a positive impact on individuals, then the individual will be motivated to follow that social value (Fiksenbaum et al., 2017). Awareness of the importance of setting aside his income for future needs so the person will set aside the income to save. If awareness is supported by the benefits provided by saving, then building a character in the form of saving habits (Sabri & Juen, 2014). The results of previous studies proved that positive subjective norms affect saving behavior (Widyastuti et al., 2016).

Hypothesis 8: Subjective norm influences saving behavior.

Jamal et al., (2015) and Thung et al., (2012) explained that subjective norms originating from the environment, such as friends, family had a great influence on one's attitude. An impulsive environment will shape a person into consumptive. As a result, individual attitudes in saving become low, and vice versa. Kisaka, (2014) and Rodermund, (2012) proved that subjective norms have a positive effect on attitudes toward saving (attitude toward saving). Existing attitudes will result in different ways of saving depending on the individual environment that shapes them.

Hypothesis 9: Subjective norms have a positive effect on attitudes toward saving (attitude toward saving).

Kisaka, (2014) explained that subjective norms form beliefs about the value of the environment that allows or is prohibited from doing something. The environment is like friends, family, and couples, if the environment has a high impulsive environment, then individuals will tend to have a higher consumptive nature. This will form a low saving behavior. Satsios and Hadjidakis (2018) explained the subjective norm will form an attitude toward saving. (Gerhard et al., 2018) explained that attitude toward saving will form saving behavior. Based on the theories that explain the relationship between subjective norms with attitudes and saving behavior, and attitude with saving behavior, it can be said that attitude mediates the relationship between subjective norms with saving behavior.

Hypothesis 10: Attitude towards saving mediates the relationship between subjective norms and saving behavior.

3. Research method

The subjects in this study were workers under the age of 35 working in the DKI Jakarta Region. The reason for using samples of workers whose domicile in Jakarta is that they have sufficient access to information because they are in capital country. In addition, they are young workers who generally have good financial literacy. The research objects that build the research model in this study are financial literacy, subjective norm, saving intention, attitude toward saving and saving behavior. Saving intention and attitude toward saving become a moderator variable that explained the relationship between financial literacy with saving behavior. The research model also places attitude toward saving as the moderating variable of the relationship between Subjective Norms and saving behavior. Primary data is used to test the model. Data obtained by distributing questionnaires. The questionnaire was distributed online using the Google document application. Data samples were young employees (under 35 years old), each indicator item was measured using a scale. The range of scales ranges from 1-10, from the worst scale to the best scale. The result obtained as many as 469 data samples.

Table 1
Description of Respondents

Gender	Frequency	Percentage
Male	203	43%
Female	266	57%
Total	469	100%
Age		
17-21 years old	134	29%
22-26 years old	219	47%
27-31 years old	76	16%
32-35 years old	40	9%
Total	469	100%
Work Place		
West Jakarta	148	32%
Central Jakarta	118	25%
South Jakarta	63	13%
East Jakarta	69	15%
North Jakarta	71	15%
Total	469	100%
Education		
D3-Diploma	29	6%
Master Degree (S2)	89	19%
Bachelor Degree (S1)	288	61%
High School/ Vocational School	63	13%
Total	469	87%
Occupation		
Private employees and civil servants	272	58%
Professional	66	14%
Entrepreneur	131	28%
Total	469	100%
Marital Status		
Single	448	96%
Married	21	4%
Total	469	100%
Income (1 USD = Rp.13.700)		
Under Rp 4.000.000	30	6%
Rp 4.000.000 - Rp 6.000.000	112	24%
Rp 6.000.000 - Rp 10.000.000	151	32%
Above 10.000.000	176	38%
Total	469	100%
Status of residence		
Live with parents	270	58%
Rent	136	29%
One's own	63	13%
Total	469	100%

This research examined the model by having the test of outer and inner models. Outer model is used to test validity and reliability while Inner model is implemented to examine the theory of the model, goodness of fit and the coefficient of determination and to verify the data used PLS based on SEM. PLS is used since it can analyze latent variables and the data which are not normally distributed (Hair et al., 2014). The variable in this study is the latent variable and it is measured using indicators. Each indicator is measured on a scale of 1-10. Scale 1 for respondents who answered poorly, and scale 10 for respondents who gave the best response. The variables and indicators used in this study are presented in Table 2. The research sample is workers working in the Capital City of Jakarta area. The data collected were 469 samples. The number of samples is based on demographic criteria such as gender, age group, and place of work, education, type of work, income, and status of ownership of residential homes. The sample is dominated by age groups that have just entered the world of work (47%) with 61% education is Bachelor (S-1), living relatively scattered in Five Areas of Jakarta. Most of the participants in our survey (96%) were single. Based on income, the highest amount was 38% above Rp10, 000.000. A description, complete description of the respondents is presented in Table 1. Reliability Tests are carried out using three criteria, namely Cronbach's Alpha, rho_A, and Composite Reliability. All three of these criteria use the same criteria. One variable is declared reliable if its value> 0.7 (Hair et al., 2014). Test result with these three criteria conclude that the model variables are declared reliable. This result is presented in Table 4.

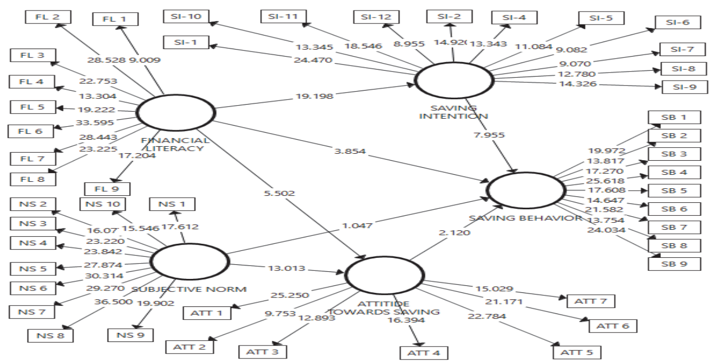


Fig. 2. Validity Test of the second stage with Loading Factor

Table 4
Variability Test of Research Model Variables

	Cronbach's Alpha	rho_A	Composite Reliability
ATTITIDE TOWARDS SAVING	0.769	0.778	0.834
FINANCIAL LITERACY	0.869	0.873	0.896
SAVING BEHAVIOR	0.858	0.861	0.888
SAVING INTENTION	0.826	0.832	0.862
SUBJECTIVE NORM	0.891	0.892	0.911

The purpose of Inner Model is to show three things, hypothesis testing, test the accuracy of the model (Goodness of Fit), and the coefficient of determination. The result of the statistical hypothesis test is presented in Table 5. In Table 5 it is proved that the direct relationship between the two variables is significantly positive, except for the relationship between subjective norms and saving behavior. This evidence supports hypotheses 1, 2, 3, 4, 6, and 9 but rejects Hypothesis 8. Indirect relationship proved that the Saving Intention and Attitude towards Saving variables are moderating variables between Financial Literacy and Saving behavior (Hypotheses 5 and 7). Attitude towards Saving variable moderates the relationship of subjective norm with saving behavior (Hypothesis 10).

Table 5
Test of Statistical Hypothesis Research Model

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Direct Relationship test			
ATS → SB	0.120	2.120	0.035
FL → ATS	0.237	5.502	0.000
FL → SB	0.203	3.854	0.000
FL → SI	0.650	19.198	0.000
SI → SB	0.475	7.955	0.000
SN → ATS	0.573	13.013	0.000
SN → SB	0.065	1.047	0.296
Indirect relationship test			
FL → ATS → SB	0.029	2.022	0.044
SN → ATS → SB	0.069	2.045	0.041
FL → SI → SB	0.308	7.126	0.000

FL: Financial Literacy ATS: Attitude Towards Saving SI: Saving Intention SN: Subjective Norm SB: Saving behavior

Test the model using the NFI Test: NFI values range from 1-10. The value indicated that the closer to 1, the less fit the model, and vice versa, the closer to 1, the more fit the model (Hair at al., 2014). NFI Test Result = 0.689. This proves the model is relatively fit, since it is close enough to 1.0. The coefficient of determination test is to measure how much the endogenous/ dependent variable is explained by the endogenous/ independent variable. The test determines the value of R Square (Hair et al., 2014). The result of the analysis of the coefficient of determination are presented in Table 6.

Table 6
Determination Coefficient Test

	R Square
ATTITIDE TOWARDS SAVING	0.541
SAVING BEHAVIOR	0.585
SAVING INTENTION	0.422

5. Discussion

Financial Literacy has a relationship, both directly and indirectly, with saving behavior. Indirect effects are mediated through saving intention and attitude towards saving. The direct relationship between the variable's financial literacy, saving intention and attitude towards saving has a positive relationship with saving behavior. This proves that financial literacy, saving intention, and attitude towards saving has a very important role to encourage saving behavior. The positive relationship between Financial Literacy and saving behavior will be encouraged by increasing the ability to control financial statements since this indicator provides the largest contribution from the Financial Literacy variable. Saving Intention mediates the relationship between Financial Literacy with Saving behavior proves that the Saving Intention variable will strengthen the relationship of financial literacy with saving behavior. Saving intention is a strong determination to save (Jamal et al., 2015). The magnitude of this power depends on (a) Saving for a purpose, (b) Saving for risk, and (c) Saving barrier (Widyastuti et al., 2016). Therefore, saving intention needs to be increased by raising awareness that future circumstances run the risk of large and unforeseen expenses. From the external side, it is very important to create conditions, namely the ease of saving on various assets and easy to control (Saving Barrier). Progress in the field of financial technology (fintech) is important because fin-tech provides these two things, namely the ease of choosing investment assets and the ease to control them. Attitude towards saving mediates the relationship between Financial Literacy and saving behavior proving that the Attitude towards Saving variable will further strengthen this relationship. The attitude that needs to be encouraged is a positive attitude about the importance of saving (Berkowitz, 1972). A positive attitude can be enhanced by the knowledge that risk is something that can be controlled and cannot be avoided (cognitive factors) and financial needs in the future are certain (Secord & Backman, 1964).

The Attitude towards saving variable mediates the relationship between Subjective Norms and saving behavior. But the Subjective Norm has no direct relationship with saving behavior. This proves that the existence of Attitude towards saving has a very important position. Positive subjective norms, such as encouragement from friends and family, cannot encourage a person to have saving behavior. Subjective Norm will encourage saving behavior if the individual has the behavior in the form of a positive response to saving activities. A positive response will grow if a sense of security is created when saving. Safety (ATS-1) is the main determining factor because it gives the highest weight of the attitude towards saving indicator. This finding proves that subjective norms are not an important consideration for investors in developing savings behavior. This finding is contrary to the results of the study Kisaka, (2014) and Satsios and Hadjidakis, (2018) but it is still within the framework of the TPB which explains that subjective norm is a dimension of intention (Ajzen, 1991).

6. Implications and Limitation

This research has an important impact, both directly and indirectly. In explaining saving behavior. This study implies that Financial Literacy and Subjective Norm are positive factors that will encourage saving behavior for the better. To improve Financial Literacy and Subjective Norms, Saving Intention and Attitude towards saving needs to be grown on each individual. This can be done through the ease of saving, the ease of saving to control their savings, and the awareness of the importance of preparing finances in the future. Furthermore, the existence of fin-tech can be two of three factors, namely the ease of saving and controlling savings. Fin-tech in Indonesia has not been able to provide security for the culprit. First, this study focuses on the workforce of formal workers who live and work in the Province of DKI Jakarta, so this sample does not represent the actual condition of the population of workers in Indonesia Therefore the findings in this study cannot be generalized and applied as a whole of workers in Indonesia. Most workers in Indonesia work in the informal sector. For better research results that depict workers in Indonesia, then the number and variation of samples need to be expanded. Second, the focus of this research is attributed to the role of financial literacy and subjective norm in influencing saving behavior, many other variables are influencing saving behavior. Future studies could include other variables in the model. Including these additional variables can shed further light on financial literacy and the subjective norm on saving behavior. Third, the extended saving behavior model could also be tested in specific products of securities (e.g. bond, common stock, insurance, etc.). Fourth, in this study using the TPB theory approach, for future research TPB can be combined with other management theories, such as innovation theory, Dynamic Capability Theory, etc.

References

Ajina, A. (2019). Predicting customers' online word of mouth intention: The theory of planned behavior applied to understand youth Saudi social media behaviors. *Management Science Letters*, *9*(10), 1553-1566.

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior And Human Decision Precesses*, *50*, 179–211.

Arifin, A. Z. (2018). Influence factors toward financial satisfaction with financial behavior as intervening variable on Jakarta area workforce. *European Research Studies Journal*, *21*(1), 90–103.

Berkowitz, L. (1972). Frustrations , Comparisons , and Other Sources of Emotion Arousal as Contributors to Social Unrest. *JOURNAL OF SOCIAL ISSUEAS*, *28*(1), 77–91.

BPS, (Indonesia Statistic Central Bureau). (2020). *Berita Resmi Statistik: Profil Kemiskinan di Indonesia September 2019 (Official Statistics news: Poverty Profile in Indonesia September 2019) No. 08/01/Th. XXIII, January, 15, 2020*. Jakarta: Biro Pusat Statistik.

Browning, M., & Lusardi, A. (1996). Household Saving: Micro Theories and Micro Facts. *Journal of Economic Literature*, *34*(4), 1797–1855.

Calderone, M., Sadhu, S., Fiala, N., Sarr, L., & Mulaj, F. (2018). Financial Education and Savings Behavior: Evidence from a Randomized Experiment among Low-Income Clients of Branchless Banking In India. *Economic Development and Cultural Change*, *66*(4), 793–825.

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, *7*(2), 107–128.

Falahati, L., Sabri, M. F., & Paim, L. H. J. (2012). Assessment a model of financial satisfaction predictor: Examaning the mediate of financial behavior and financial strain. *Worls Applied Sciences Journal*, *20*(2), 190–197.
DOI: https://doi.org/10.5829/idois.wasj.2012.02.1832

Fiksenbaum, L., Marjanovic, Z., & Greenglass, E. (2017). Financial threat and individuals' willingness to change financial behavior. *Review of Behavioral Finance*, *9*(2). https://doi.org/10.1108/RBF-09-2016-0056

Furnham, A., & Tankel, M. P. G. (2015). Understanding savings , pensions and life assurance in 16 – 21-year-olds. *Human Relation*, *55*(5), 603–628.

Gerhard, P., Gladstone, J. J., & Hoffmann, A. O. I. (2018a). Psychological characteristic and houshold savinga behavior: The importance of accounting for latent heterogeneity. *Journal of Economic Behavior and Organization*, *148*, 66–82. https://doi.org/https://doi.org/10.1016/j.jebo.2018.02.013

Gerhard, P., Gladstone, J. J., & Hoffmann, A. O. I. (2018b). Psychological characteristics and household savings behavior : The importance of accounting for latent heterogeneity. *Journal of Economic Behavior and Organization*, *148*, 66–82. https://doi.org/10.1016/j.jebo.2018.02.013

Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal Family and Economic*, *32*, 699–714. https://doi.org/10.1007/s10834-011-9255-2

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2014). PLS-SEM: Indeed a silver bullet. *The Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Harrod, R. F. (1939). An essay in dynamic theory. *The Economic Journal*, *49*(193), 14–33.

Henager, R., & Mauldin, T. (2015). Financial literacy: The relationship to saving behavior in low-to moderate-income households. *Family and Consumer Sciences Research Journal*, *44*(1), 73–87. https://doi.org/10.1111/fcsr.12120

Ismail, S., Kamis, R., Hashim, N., Harun, H., & Khairuddin, N. S. (2013). An empirical investigation on determinants of attitude towards saving behavior. In *Procedia Economics and Finance* (pp. 1–11). Elsevier Ltd. Retrieved from www.elsevier.com/located/procedia

Jamal, A. A. A., Ramlan, W. K., Karim, M. R. A., Mohidin, R., & Osman, Z. (2015). The effects of social influence and financial literacy on saving behavior : A study on students of higher learning institutions in Kota Kinabalu, Sabah. *International Journal on Business and Social Science*, *6*(11), 110–119.

Kisaka, S. E. (2014a). The impact of attitudes towards saving, borrowing and investment on the capital accumulation process in Kenya: An Application of the Theory of Planned Behavior. *Research Journal of Finance and Accounting*, *5*(9), 140–152.

Kisaka, S. E. (2014b). The impact of attitudes towards saving, borrowing and investment on the capital accumulation process in Kenya : An Application of the Theory of Planned Behavior. *Research Journal of Finance and Accounting*, *5*(9), 140–151.

Lestari, D., Ferlina, A., & Trenggana, M. (2017). Pengaruh Literasi Keuangan Terhadap Minat Menabung (Studi Pada SMA Di Kota Bandung). *Infirmatic, Science, Entreprneur, Applied Art, Research, Humanism*, *16*(2).

Magendans, J. (2014). *The cost of self-protective measures : psychological predictors of saving money for a financial buffer*. University of Twente. Retrieved from http://purl.utwente.nl/essays/65722

Mahdzan, N. S., & Tabiani, S. (2013). The impact of financial literacy on individual saving: An exploratory study in the Malaysian context. *Transformations in Business & Economics*, *12*(1), 41–55.

Nidar, S. R., & Bestari, S. (2012). Personal financial literacy among university students (Case Study at Padjldjaran University Students, Bandung, Indonesia). *Worid Journal of Social Sciences*, *2*(4), 162–171.

Presidential decree. (2016). PERPRES NO 82 2016 Tentang Strategi Nasional Keuangan Inklusif (Presidential Decree No. 82 Year 2016 concerning the National Strategy for Inclusive Finance) (pp. 1–43). Government of the Republic of Indonesia.

Raju, P. S., Lonial, S. C., & Mongial, W, G. (1995). Differential Effectts of Subjective Knowledge, Objective Knowledge, and Usage Experience on Decision Making: An Exploratory Investigation. *Journal of Consumer Psychology*, *4*(2), 153–180.

Rodermund, R. H. (2012). Examining the savings habits of individuals with present fatalistic time perspectives using the theory of planned behavior. Retrieved from https://www.academyfinancial.org/resources/Documents/Proceedings/2012/F2-Rodermund.pdf

Sabri, M. F., & Juen, T. T. (2014). The influence of financial literacy, saving behaviour, and financial management on retirement confidence among women working in the Malaysian public sector. *Asian Social Science*, *10*(14), 40.

Sabri, M., Razak, N., & Wijekoon, R. (2019). The mediation effect of intention in the pro-environmental workplace (PEW) behavior of Malaysian public employees. *Management Science Letters*, *9*(10), 1567-1576.

Salem, S., & Chaichi, K. (2018). Investigating causes and consequences of purchase intention of luxury fashion. *Management Science Letters*, *8*(12), 1259-1272.

Samadi, S. (2018). Theory of planned behavior and knowledge sharing among nurses in patient computer management system: The role of distributive justice. *Management Science Letters*, *8*(5), 427-436.

Sanjeewa, W. S., & Hongbing, O. (2019). Consumers' insurance literacy: Literature review, conceptual definition, and approach for a measurement instrument. *European Journal of Business and Management*, *11*(26), 49–65. https://doi.org/10.7176/EJBM

Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, *5*(1), 105–115. https://doi.org/10.1016/j.jfbs.2014.01.002

Satsios, N., & Hadjidakis, S. (2018a). Applying the theory of planned behavior (TPB) in saving behavior of Pomak Housholds. *International Journal of Financial Research*, *9*(2), 122–133.

Satsios, N., & Hadjidakis, S. (2018b). Applying the theory of planned behaviour (TPB) in saving behaviour of Pomak Households. *International Journal of Financial Research*, *9*(2), 122–133. https://doi.org/10.5430/ijfr.v9n2p122

Secord, P. F., & Backman, C. W. (1965). *Social Psychology*. (A. Levine, Ed.), *Social Forces* (Vol. 44).

Sondari, M. C., & Sudarsono, R. (2015). Using theory of planned behavior in predicting intention to invest: Case of Indonesia. *International Academic Research Journal of Business and Technology*, *1*(2), 137–141.

Supanantaroek, S., Lensink, R., & Hansen, N. (2016). The impact of social and financial education on savings attitudes and behavior among primary school children in Uganda. *SAGE Journals*, *41*(6), 1–31.

Thung, C. M., Kai, C. ing, Nie, F. S., Chiun, L. W., & Tsen, T. C. (2012). Determinants of saving behaviour among the university students in Malaysia. *Universiti Tunku Abdul Rahman*, (May), 109. https://doi.org/10.1177/0022427810397948

Thung, C. M., KAI, C. Y., Nie, F. S., CHIUN, L. W., & Tsen, T. C. (2012). *DETERMINANTS OF SAVING BEHAVIOUR AMONG THE UNIVERSITY STUDENTS IN MALAYSIA*. Malaysia.

Warneryd, K.-E. (1989). On the psichology of saving: An essay on economic behavior. *Journal of Economic Psychology*, *10*, 515–541.

Widyastuti, U., Suhud, U., & Sumiati, A. (2016). The impact of financial literacy on student teachers' saving intention and saving behaviour. *Mediterranean Journal of Social Sciences*, *7*(6), 41–48. https://doi.org/10.5901/mjss.2016.v7n6p41

World Bank. (2019). Gross Domestic Saving (% of GDP) Data. New York: The World Bank. Retrieved from https://data.worldbank.org/indicator/NY.GDS.TOTL.ZS

Zait, A., & Bertea, P. E. (2014). Financial literacy – conceptual definition and proposed approach for a measurement instrument. *Journal Of Accountingc and Management*, *4*(3), 37–42.