The Role of Financial Literacy and Grit in Good Financial Behavior

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With Generation Z and millennials becoming the majority of Indonesia's population, tackling their reputation for financial wastefulness becomes critical. Through the promotion of financial literacy, this study intends to provide insights into developing wiser and more sensible financial conduct. Recognizing the inconsistency of past studies on financial literacy and behavior, this study incorporates grit as a moderating component. Data was acquired through surveys distributed around Semarang City and analyzed in Smart PLS utilizing path analysis. Financial literacy was determined by understanding the time worth of money, inflation, and risk diversification, whereas grit was determined by perseverance and constant interest. Credit management, investment, saving, cash flow and consumption, emergency fund management, and retirement fund planning were all evaluated. The findings show that grit has a positive influence on financial behavior, emphasizing the need of perseverance in the face of financial obstacles. Furthermore, financial literacy was discovered to have a favorable impact on grit, emphasizing the symbiotic relationship between knowledge and perseverance in accomplishing financial goals. This study emphasizes the importance of not just improving financial literacy but also cultivating grit among Generation Z and millennials in order to improve financial behavior.

Keywords: Financial Behavior, Financial Literacy, Grit, Probationary Period, Predictive Model
INTRODUCTION

The Indonesian population census carried out by BPS from February to September 2020 found that the current population is dominated by young people (Idris, 2021). Generation Z is 75.49 million or 27.94% of the total Indonesian population. Generation Z is a population born in 1997-2012 or 8-23 years old in 2021. Meanwhile, the millennial generation is 69.38 million or 25.87% of the Indonesian population. Millennials born in 1981-1996 or 24-39 years old in 2021 (Idris, 2021). Generation X (born in 1965-1980) as many as 58.65 million or 21.88%. The remaining 11.56% are the Baby Boomer Generation (born between 1946 and 1964), 1.87% are the Pre-Boomer Generation (born before 1945), and 10.88% are the Post-Gen Generation Z (Idris, 2021). So, it's clear that the productive age in Indonesia currently has reached 70%, and it is a valuable capital for Indonesia over the next ten years.

Millennials and Generation Z are often considered the most consumptive among the various generations above. This is because the millennial generation occupies a high position in various elements of work. They tend to have high motivation and enthusiasm in their careers to get promotion opportunities (Ahsani et al., 2021). In addition, they are well-literate in technology, making transactions easier (Dezianti & Hidayati, 2021). Generation Z and millennials are also active internet users. The use of the Internet as a transaction tool has various impacts. The positive impact is that all needs can be accessed practically, easily, and quickly. The negative impact makes individuals consumptive (Hidayatullah et al., 2018). Therefore, Generation Z and Millennial's financial behavior in Indonesia is very interesting. Generation Z and Millennials are predicted to be the generation that determines the Nation's future, but on the other hand, they have poor financial behavior.

The Indonesia Millennial Report 2019 shows that Millennial financial behavior is not good. Millennials are quite wasteful in spending their money. 51.1% of Millennials' money is spent on routine monthly needs. Eight percent for entertainment is needed for needs such as watching movies, eating at restaurants, buying tickets, and clubbing, and only a few are saved (10.7%). The allocation for social activities is also small, about 5.3%. Investment readiness is still low at 2%, even though they are quite aware of the financial risk in the future. This is proven by their relatively large insurance allocation of 6.8%. Millennials who tend to be wasteful, can't save money, love to travel, shop, buy gadgets, snack at cafes, and other consumptive behaviors make them make many mistakes in managing their finances (Safura Azizah, 2020). Therefore, financial literacy is an important thing to pay attention to. Millennials with sufficient financial literacy are expected to have better financial behavior. Millennials who can manage their finances well will be able to manage incoming and outgoing money, manage debt, and have savings and investments. So they can improve their living standard (Amaliyah & Nugroho, 2022).

Like the millennials, Generation Z, the largest population in Indonesia, also has poor financial behavior, according to various studies. The characteristics of Generation Z, who are technologically literate, accompanied by the rapid development of technology today, make it very possible for Generation Z to be trapped in consumerism. Generation Z also has the principle of YOLO (You Only Live Once), which is to enjoy life in the present without worrying about the future (Laturette et al., 2021). Generation Z spends 18.69% to 70.59% of their money on entertainment, food, and beverages. This explains the stereotype of Generation Z, who likes to "heal" through hedonic activities (Utomo & Heriyanto, 2022). Generation Z ignores the lack of savings and investment due to consumer spending. Last Generation Z to be tempted by temporary discounts and incur more expense than savings for their future (Utomo & Heriyanto, 2022). There is another view regarding Generation Z (Pangestu & Karnadi, 2020): Generation Z has materialism problems or the belief that having money and possessions is the most important thing in life. (Pangestu & Karnadi, 2020) Also, Generation Z is less careful in financial planning, hindering saving decisions. Materialism makes people worry about money, so they often use a credit card in a purchase transaction. Generation Z, inseparable from technology and social media, will experience internal pressure through social media, which causes consumptive behavior in the marketplace (Jacobsen & Barnes, 2020). Generation Z must be assisted and encouraged to build healthy financial behavior through financial literacy (Utomo & Heriyanto, 2022).

Based on various studies, it can be seen that various factors influence financial behavior. There is financial literacy (Kaiser et al., 2022), grit (Jabbari et al., 2021), financial technology (Amaliyah & Nugroho, 2022), spiritual intelligence (Humairo & Yuliana, 2019), financial capability (Amaliyah & Nugroho, 2022), income, education (Rantelobo & Sir, 2018), and so on. However, this study will use financial literacy and grit in measuring financial behavior.

Generation Z and Millennial's financial behavior is very interesting. Are Generation Z and Millennials able to apply good financial behavior in the current fintech era? What factors influence Generation Z and Millennial's financial behavior? What can be done to improve Generation Z and Millennial financial behavior? Does financial literacy have a direct effect on financial behavior? Does financial literacy have an indirect effect on financial behavior through grit? Does financial literacy affect grit? Does grit affect financial literacy? How big is financial literacy and grit's direct, indirect, and total influence on financial behavior? Therefore, this research was conducted to explain the effect of financial literacy and grit on Generation Z and Millennial's financial behavior.

LITERATURE REVIEW

Behavioral Finance Theory

Behavioral finance is a science that combines economic theory with psychological and sociological theories in making financial decisions (Wahyuni et al., 2023). This amalgamation of various disciplines has shifted from traditional to behavioral theory. Management, especially traditional financial management, explains that humans are rational in making
decisions. Humans can evaluate the chances of future results and maximize their use (Kelen, 2021). Unlike traditional theory, behavioral finance theory also considers individual behavior. Because the facts show irrational behavior from financial actors in making decisions, behavior-based finance is increasingly developing by incorporating various views from other social sciences, such as sociology and psychology (Kelen, 2021).

Making financial decisions is a challenging and complex activity influenced by the decision-maker's psychological behavior. Decision-making is choosing the most appropriate alternative after gathering various information and evaluating these alternatives. Daily financial behavior is an integrated part of decision-making. Behavioral finance attempts to investigate various issues that affect individual investment decision-making process psychologically and sociologically (Atif Sattar et al., 2020) such as self-confidence because you have sufficient financial literacy, persistence, fear, and emotions also affect investment strategies, saving, spending money, how to maintain and improve the financial conditions of individuals and institutions. Therefore, behavioral financial theory can explain how financial literacy and grit (persistence) can influence Generation Z and Millennial's financial behavior.

Financial Management

Financial management and behavior are closely related (Wahyuni et al., 2023). An important factor that someone must consider to achieve success in life is their ability to manage finances. Therefore, the ability to manage good finance is needed by every individual. Financial management refers to responsible behavior that is carried out to gain profit. This behavior includes earning, saving, and investing money (Singh et al., 2019). Meanwhile, according to (Wardi et al., 2020) financial management explains how to achieve organizational goals. In addition, financial management also refers to financial management, which explains how to find capital to develop a business and then allocate capital to earn profits.

Financial management is the process of controlling and using financial assets. Good financial management will prevent someone from fulfilling unlimited desires. Fulfilling one's life needs should be adjusted to the level of income they earned (Sugiharti & Maula, 2019). Success in managing finances, such as cash, bank balance, paying bills, and financial budgeting, is very important for one's independence in social life (Engel et al., 2015). Financial management allows one to achieve life goals (Priantinah & Aisyah, 2019).

Financial Behavior

Financial behavior illustrates a person's attitude when they have to make financial decisions (Wahyuni et al., 2023). Behavioral finance is a combined structure of psychology and finance. The structure of psychology analyzes the processes of behavior and thoughts that are influenced by humans' physical and external environment. Meanwhile, the financial structure consists of the financial system, distribution, and use of resources (Safura Azizah, 2020).

Financial behavior is related to a person's responsibility regarding managing money (Wahyuni et al., 2023). Effective financial management includes budgeting, assessing what is important to buy, prioritizing what is needed, etc. A person's financial behavior in managing finances is learning to plan, acting according to what is planned, and increasing the ability to implement the financial plan (Amaliyah & Nugroho, 2022). Meanwhile, according to (Asmin et al., 2021), financial management behavior is the ability to plan, search, budget, check, organize, and save money daily.

Research by (I. A. K. Dewi & Rochmawati, 2020) measures personal financial management with three indicators: planning, implementation, and evaluation. Meanwhile, (V. I. Dewi et al., 2020) measured financial management behavior with consumption, cash flow management, savings, investment, and credit management. Financial behavior can also be measured by emergency fund planning, retirement fund planning, debt holdings, and investments (Nicolini & Haupt, 2019). According to this previous research, this study combines seven variables to measure financial behavior: credit management, saving, cash flow management, consumption, emergency fund ownership, and retirement fund planning. The seven financial behavior indicators consist of 12 questions measured by five Likert Scales (where "5" indicates strongly agree to, and "1" indicates strongly disagree).

Financial Literacy

Every individual must have financial literacy to avoid financial problems due to bad financial behavior. Financial literacy is a person's understanding of managing finances effectively according to their needs and economic conditions (Septiani & Wuryani, 2020). Financial literacy is often a synonym for financial education or financial knowledge. However, financial literacy has a deeper meaning than financial education. Financial literacy has two dimensions: "understanding," which represents one's financial knowledge obtained from financial education. And the "use" of financial knowledge to manage one's finances. So, someone with financial literacy should have the ability and confidence to make financial decisions (Chasanah et al., 2022). Financial literacy is important to overcome current challenges where product needs are increasingly complex, and the need to save for retirement money is increasing (Grohmann, 2018).

Financial problems often occur because individuals do not understand good financial knowledge and management. This can be seen from the expenditure not balanced with income, poor debt management, financial deficits, no bookkeeping, and no clear financial goals (Safura Azizah, 2020). Financial literacy is a skill that everyone must master to understand planning and allocating money properly and efficiently. Therefore, they can improve their living standard (Safura Azizah, 2020). Financial literacy is associated with positive financial behaviors such as paying bills and loan installments on time, saving, and using credit cards wisely (Wahyuni et al., 2023). Based on these various studies, the hypothesis proposed is:

H1: Financial literacy has a positive effect on financial behavior.

To apply good financial behavior, one must have financial literacy. When someone has good financial literacy,
he will be more persistent and diligent and never give up in realizing good financial behavior because he knows he can achieve financial independence with good financial behavior. So that he will not be tempted to commit extravagant behavior, not saving, or making loans that are bigger than his ability. Good financial literacy also makes a person confident. Then, because he believes that he can use various financial services, he will persistently try to manage his finances better. The more confident person in his abilities, the more persistent he will be in managing his finances well (Andyni & Kurniasari, 2021).

Meanwhile, research says that providing financial literacy to entrepreneurs is very important (Ode, 2023) because it will make them diligent, firm, and persistent. So that when they are adults, they will have healthy financial behavior. Based on this research, the hypothesis proposed is:

**H3: Financial literacy has a positive effect on grit**

This study measures financial literacy by risk diversification, inflation, calculating interest, and compound interest (Klapper & Lusardi, 2020). Meanwhile, (Baistaman et al., 2020) measures financial literacy using risk diversification, inflation, and the time value of money. Financial literacy in this study adopts 11 question items in research (Baistaman et al., 2020) using a Likert Scale of 1-5, where one (1) indicates strongly disagree and five indicates strongly agree (Raut, 2020). Risk diversification explains the respondent's understanding in choosing various forms of investment, such as investing in gold, stocks, mutual funds, deposits, and assets, also how to reduce the investment risk. Inflation explains the respondent's knowledge of inflation's effect on the future value of money.

**Grit**

Another factor to be considered in good financial behavior is grit (persistence). Grit is defined as persistence and a passion for the long haul. This is related to one's ability to make a sustained effort to achieve goals, especially in the face of trials and difficulties (Arco-Tirado et al., 2019). Grit is a personality characterized by persistence of purpose. Grit is often associated with various positive things, such as greater net worth, lower debt, better household finances, and minimal financial difficulties (Jabbari et al., 2021). Grit is also often associated with “success” markers such as getting a college degree, having a high-paying job, being less likely to be unemployed, and living longer. Someone persistent will never give up on facing challenges and work more diligently (Jabbari et al., 2021). Someone persistent usually focuses on their goals when shopping, so they don’t make impulse purchases. Apart from that, they are also diligent in saving (Jabbari et al., 2021).

Now, grit is starting to be widely used to financial behavior research, such as in (Jabbari et al., 2021) (Arco-Tirado et al., 2019) and (Andyni & Kurniasari, 2021) research. Previously, grit was widely researched in academic literature to measure the increase in one's academic achievement. Apart from measuring academic achievement and financial behavior, grit is also studied to measure resilience in entrepreneurship (Arco-Tirado et al., 2019). However, in this study, grit will be used to measure a person’s persistence in good financial behavior. This finding goes along with (Jabbari et al., 2021) research, which says that grit is related to better financial behavior, not only for someone with a high income but also for someone with a low income. In addition, grit also affects saving behavior. Based on this description, the proposed hypothesis is:

**H2: Grit positively affects financial behavior**

Many people are worried about financial behavior because it will affect their future financial condition. They feel unprepared for financial emergencies and retirement. To overcome this problem, people usually refer to financial support and ignore grit (persistence or fortitude) as one main factor even though (Jabbari et al., 2021) research shows that someone with grit will have a positive financial condition in the long term and resist financial pressure.

In addition, there is a lot of research on financial behavior and financial literacy. However, these various studies have shown inconsistent results. Therefore, this study proposes the grit variable as an intervening variable to overcome this inconclusive research results. Although some research used grit in examining financial behavior, no research has used grit to mediate the effect of financial literacy on financial behavior. Using goal-setting theory, grit is presented in this study to see whether financial literacy directly affects financial behavior. Also, to see whether financial literacy indirectly affects financial behavior through grit as a mediating variable. Based on this description, the proposed hypothesis is:

**H4: Grit mediates the effect of financial literacy on financial behavior**

In this study, grit was measured using 12 questions on grit using a Likert scale of 1-5 adopted from (Duckworth & Quinn, 2009) and (Salisu et al., 2020) research. In their research, grit consists of two indicators: the consistency of interest and the persistence of effort. Consistency of interest is a person’s ability to maintain interest for some time (months to years) until the goal is achieved. In contrast, the persistence of effort is endurance in trying (persistence). That is, not afraid to face challenges or obstacles in achieving goals. Or it can also be interpreted as continuing to work hard and seriously to achieve long-term goals.

**Research Gap**

According to (Safura Azizah, 2020), financial literacy positively and significantly affects financial behavior. Likewise (Grohmann, 2018) research also says financial decision-making will improve with high financial literacy. Financial education influences financial behavior (Kaiser et al., 2022). In addition, (Nicolini & Haupt, 2019) also said that financial literacy positively affects financial behavior. Meanwhile, according to (J. A. K. Dewi & Rochmawati, 2020), financial knowledge does not affect financial behavior. A study by (Kawamura et al., 2021) also says that people with a high level of financial literacy also tend to take high risks, such as borrowing excessively. Financial literacy makes a person too bold and reckless in making financial decisions. As well as research (Sekita et al., 2022) which found that savings literacy, risk literacy, and debt literacy had a significant effect on wealth accumulation in Japan, while inflation literacy and insurance literacy did not.
Research Framework

Generation Z and Millennial financial behavior is currently interesting to study. Because Generation Z and Millennials are some of the biggest users of financial technology, there is also the assumption that they tend to be consumptive. Millennials who use mobile payments tend to have more expensive financial behavior than those who do not use mobile payments (Scheresberg et al., 2020). Therefore, it is necessary to make efforts to make Generation Z and Millennials as the Nation’s successors to have better financial behavior. With good financial behavior, it is hoped that this generation can achieve financial well-being (financial freedom). When Generation Z and Millennials, the largest population in Indonesia, currently achieve financial freedom, it is hoped that National welfare will also increase. After conducting a literature review that underlies the formulation of the problem posed, a theoretical framework will be used as a reference for solving the problem presented in Figure 1 below.

[Figure 1 about here.]

METHOD

This research is a quantitative study and uses Smart PLS to analyze sample data. Then, conclude from the samples that have been selected to be generalized into the population. The research data was collected directly by distributing questionnaires online using the Google form to obtain the required data according to the research variables. Google Forms has become one of the most used online data collection methods because it is easy to use, provides almost all the functions needed for online questionnaires, and is free (Hu, 2022).

The population in this study is Generation Z, aged 11-26 years old, and millennials, aged 27-42 years old, in Semarang, who are already working and have financial means. According to (BPS, 2021), the Semarang citizen aged 10-39 years old is 776,713 people. Generation Z and Millennials were chosen as respondents because they have the largest number in Indonesia. So, they can change the economy through their financial behavior (Idris, 2021). In addition, Generation Z and Millennials are considered a wasteful generation, unable to save money. Their hobbies are traveling, shopping, buying gadgets, eating snacks at cafes, and other consumptive behavior that makes Millennials make many money management mistakes (Safura Azizah, 2020). The Millennial generation is also an active internet user with a negative impact, making individuals very consumptive (Hidayatullah et al., 2018). Generation Z and Millennials who are already working are chosen because when someone is already working and has an income, they are expected to have practiced managing their finances. The sample can be calculated using the Slovin formula as follows:

\[ n = \frac{N}{1 + Ne^2} \]

Description:
\( n \) = minimum number of samples
\( N \) = population
\( e \) = error margin (10%)

Then
\[ n = \frac{776,713}{1 + 776.713 \times 0.1^2} = \frac{776.713}{1 + 7.767.13} = 100 \]

Thus, the number of samples used in this study will follow the minimum number of samples, at least 100 respondents. This follows (Ghozali, 2006), which says data processing with Smart PLS uses a minimum sample of 30-100.

The sample selection criteria in this study used purposive sampling. Purposive sampling is a non-random sampling method. The researcher determines the respondents according to the research objectives of this method. So, it is expected to be able to respond to the case under study. The sampling criteria for this study are as follows (1) Respondents are already working and managing their finances independently (2) Aged 19-42 years old (age 11-18 years old are still in high school and usually not working yet) (3) Working in Semarang (4) Working in the private sector. Do not include workers in government agencies (BUMN/ BUMD/ PNS).

This study uses primary data or quantitative data from the source. The data was obtained directly from respondents who filled out the questionnaire directly. The questionnaire was designed to measure the variables in the study. The data was collected through an online survey of workers and entrepreneurs who have managed their finances independently. In addition, data was also collected from previous studies, the BPS website, and online magazines.

Structural Equation Modeling (SEM) is used as a data analysis technique. SEM can be used to test theories and concepts completely. SEM can also assess latent variables at the observation level through outer or measurement models. Besides, it can also examine the relationship between latent variables at the theoretical level through inner or structural models (Hair et al., 2011). SEM techniques are superior in terms of analysis because they can explain the interrelationships of variables in a complex manner. It also explains the direct or indirect effects of one or several variables on other variables (Mustafa & Wijaya, 2012). SEM is divided into two types, namely PLS-SEM (Partial Least Square SEM) and CB-SEM (Covariance Based SEM) (Sari et al., 2019). The difference between the two lies in the purpose of the research (Hair et al., 2011). CB-SEM is used to test and confirm the theory. In contrast, PLS-SEM is used for a causal modeling approach that aims to maximize the variance described in the dependent construct. In addition, to evaluate the quality of data based on the characteristics of the measurement model. Likewise, according to (Ghozali, 2006), the orientation of SEM-PLS is to test causality models and predict. PLS is used for causal-predictive analysis in situations of high complexity and low theoretical support (Budiarsi, 2020). PLS is used because it uses the Ordinary Least Square (OLS) technique so that it can overcome the limitations of regression analysis such as small data sizes, missing value, or abnormal distribution as seen from the presence of multicolinearity symptoms. Therefore, PLS-SEM will be used in this study because PLS-SEM aims to test predictive relationships between constructs by seeing whether there is a relationship or influence between the constructs studied (Ghozali & Latan, 2015).
RESULTS AND DISCUSSION

RESULTS

To avoid researcher bias, the researcher distributed questionnaires to private sector employees in Semarang without considering the size of their income. This is done to ensure that respondents are evenly distributed, not only those with high or low income, because financial behavior people with a low income will certainly be different from those with a high income. There were 450 questionnaires distributed. Meanwhile, 149 filled-in questionnaires consisted of 25 questionnaires that did not meet the age criteria and worked outside Semarang. So, 124 questionnaires meet the criteria. This is also per Ghozali’s (2006) opinion, which says data processing with Smart PLS uses a minimum sample of 30-100.

Based 124 respondents, 38% were male and 62% female. 58% are Generation Z and 42% are Millennials. Their education also varied they are 38% graduated from high school, 4% Diploma, 45% Bachelor, and 13% Masters. Based on this description, it can be said that the population and sample have complete characteristics that are quite diverse and unbiased (Singa, 2014).

Behavioral finance, in terms of psychology and human behavior, can be limited compared to traditional financial theory. In the financial behavior theory, people are expected to act neutral (not risk seekers nor risk averse). In traditional financial theory, higher-income people will be more willing to take financial risks. However, from the sample observed, the majority of Generation Z and Millennials (72%) have a middle to lower income (less than equal to 3 million rupiahs) or, according to the regional minimum wage, which is only enough to meet basic needs and a little to save. Since most Generation Z and Millennials in Semarang have the same income, their financial behavior will not be too different either. When their income is relatively low, they tend to be financially risk-averse (Rahmiyanti & Silvy, 2021) in their investment or financial decisions.

The results indicated that respondents can still not properly manage cash flow and debt. This is indicated by the average cash flow and debt management value, which shows the medium-scale category. The financial literacy level of the respondents was high. Most Generation Z and Millennials have higher education to receive sufficient financial literacy provisions from school. In addition, they are highly curious and are supported by information technology capabilities that enable them to learn about finance from various sources. Respondents also have high persistence of effort as grit indicator.

Convergent Validity Test

From indicators with a value > 0,70, it can be concluded that financial behavior can be seen from emerging fund planning, savings, long-term planning, and retirement planning. The financial literacy variable can be assessed from the respondent's knowledge of inflation as a factor that must be considered in investing. The grit variable can be seen from the persistence of effort or resilience in trying (persistence). Endurance in trying (persistence) is diligence, working hard to save and invest, achieving pre-planned goals, and overcoming financial obstacles and challenges.

Another convergent validity test can be seen from the Average Variance Extracted (AVE) value of > 0,50. In Figure 1, it can be seen that AVE values for financial literacy, grit, and financial behavior variables are all worth > 0,50. So, it fulfills the rule of growth, and the convergent validity requirements in this study are fulfilled.

Discriminant Validity Test

The results show that each variable's cross-loading indicator value is > 0,70. So, it can be concluded that all variables have the highest correlation compared to the correlation in other variables. Therefore, the discriminant validity requirement is met.

Reliability Test

The reliability test was conducted using the Cronbach alpha and composite reliability values. Both should be > 0,60. Table 3 shows that the three variables' Cronbach alpha and composite reliability values are > 0,60. That means that the reliability of the measurement model is good.

Hypothesis Testing

To see the main effect of the hypothesis it can be seen from table 4 path coefficient. Based on the regression coefficient of each variable in Table 4, the regression equation can be formulated as follows:

\[ Z = 0.435 \times X \]  
\[ Y = 0.134 \times X + 0.642 \times Z \]

Where:

- \( X \) = financial literacy
- \( Y \) = financial behavior
- \( Z \) = grit

The first model equation means that grit will increase by 0,435 units if financial literacy increases by one unit. The second model equation shows that financial behavior will increase by 0,134 units if financial literacy increases by one unit.

Table 4 can also be used to see the influence between endogenous and exogenous variables. Based on the analysis results, it is known that H1 is not supported. Financial literacy does not affect financial behavior because the p-value is 0,057 > 0,05. Financial literacy influences grit because p-value is 0,000 < 0,005, or H3 is supported, and grit influences financial behavior because p value 0,000 < 0,05, or H2 is supported.
Meanwhile, it can be seen in Table 5 to see the effect of mediation. From Table 5, financial literacy influences financial behavior through grit because p-value 0.000 < 0.05. It means grit can mediate the effect of financial literacy on financial behavior.

[Table 5 about here.]

Furthermore, the total effect value in Table 6 can determine whether this mediation is quasi-mediating or fully mediating. The relationship between financial literacy and financial behavior is still significant with p p-value 0.000 < 0.05. So, it can be concluded that the grit variable is quasi-mediating.

[Table 6 about here.]

Then, the influence of financial literacy and grit on financial behavior can be seen in Table 7. Financial literacy has an 18.9% contribution to grit. At the same time, other variables influence 81.1%. Financial behavior can be explained by financial literacy and grit of 50.5%. Meanwhile, the remaining 49.5% is influenced by other variables not examined in this study. The adjusted R square result is lower than the R square value because there is an insignificant result at the 5% level on hypothesis 1: financial literacy on financial behavior.

[Table 7 about here.]

DISCUSSION

The Effect of Financial Literacy on Financial Behavior

In Table 4, the t-statistics value is 1,905 ≤ 1,967, or 0.057 ≥ 0.005 with a significance level of 0.05. It means grit can mediate the effect of financial literacy through grit because p-value 0.000 < 0.05. So, it can be concluded that the grit variable is quasi-mediating.

The Influence of Grit on Financial Behavior

In addition, according to (Amaliyah, 2020), financial literacy alone is not enough to improve financial behavior. However, it also needs to be accompanied by financial inclusion. Financial knowledge obtained through workshops, seminars, training, counseling sessions, and formal and informal schools has to be followed up with the direct involvement of Generation Z and Millennials in financial management activities such as saving in banks, investing in gold, and using various facilities and promos from the use of financial technology. When Generation Z and Millennials have good financial literacy and are directly involved in various ways of financial management, their financial behavior will be better and more controlled.

The Role of Financial Literacy and Grit in Good Financial Behavior

Table 4 shows the t-statistics value of 10,595 ≥ 1,967 or p-value of 0.000 ≤ 0.05. So, with a significant level of 0.05, H2 is not rejected. Grit has a positive effect on financial behavior. It means the persistence of effort or resilience to influence planning for emergency funds, pension funds, savings, and long-term planning funds for Generation Z and Millennials. Determining endurance in trying (persistence) is diligence, working hard to save and invest, achieving pre-planned goals, and overcoming financial obstacles and challenges. So, if grit is better, the financial behavior of Generation Z and Millennials will also be better. This aligns with (Jabbari et al., 2021) research that grit affects better financial behavior, not only for someone with a high income but also for someone with a low income. This is possible because persistent people will try to save even in small amounts. They also try to set aside their income for investment, hoping that this investment will provide benefits in the future. Generation Z and Millennials, who are persistent, will be able to achieve their financial goals. They can also overcome various financial obstacles and challenges in today's technological era. Generation Z and Millennials know very well how easy it is to shop online, buy tickets for holidays easily, get lots of online loan offers and discounts, purchase promos through various marketplaces, and pay later payment methods provided. However, they can restrain their consumptive behavior when they have resilience in trying to have savings, pension funds, emergency funds, and long-term financial planning. So that their financial goals to have savings, pension funds, emergency funds, and long-term financial planning will be achieved. Likewise (Bazley et al., 2022) research says that grit affects the quality of investment decisions. (Rochmawati et al., 2023) also found that individuals with high grit will set certain financial goals and try to achieve these goals.

The Influence of Financial Literacy on Grit

Financial knowledge is a driving factor for financial behavior, but it is not enough to make someone responsible for their financial behavior (I. A. K. Dewi & Rochmawati, 2020). This might have happened because financial literacy tends to focus on the assumption that the more savings, retirement funds, emergency funds, and long-term planning funds, the better one's financial behavior will be. The amount of savings, pension, and emergency funds is relatively different for everyone. Depends on their income level. For Generation Z and Millennials with high income and small dependents, it is possible to have good savings, pension funds, emergency funds, and long-term planning funds. However, if they have mediocre income to make ends meet, it is not possible to have good savings, emergency funds, pension funds, and good long-term financial planning. Because the majority of Generation Z and Millennials in this study have a mediocre income to make ends meet, their financial literacy is insufficient to influence financial behavior.
knowledge of inflation as a factor that must be considered in investing has an influence on diligence in saving, working hard to save and invest, achieving pre-planned goals, and overcoming financial obstacles and challenges. When financial literacy is higher, grit will be higher, too. This is because Generation Z and Millennials know that this inflation will reduce the currency value, so they prefer saving money, setting up emergency funds, investing in gold, deposits, or buying government bonds rather than using money lavishly. This can be seen from the very high average respondent's answers on savings, financial planning, consumption planning, emergency fund planning indicators, and respondents' answers about high investing activity.

**The Influence of Financial Literacy on Financial Behavior through Grit**

The t-statistics value in Table 5.12 shows that the indirect effect of financial literacy on financial behavior through grit is $5.658 \geq 1.967$ or a p-value of $0.000 \leq 0.05$. So, with a significance level of 0.05, $H_4$ is not rejected. Grit mediates the effect of financial literacy on financial behavior. It means that inflation as a factor that must be considered in investing influences planning emergency funds, pension funds, saving, and long-term planning through diligence in saving, working hard to save and invest, achieving pre-planned goals, and overcoming obstacles and financial challenges.

Initially, financial literacy did not affect financial behavior. However, after being presented with grit as a mediator, financial literacy influences financial behavior. This will likely happen because Generation Z and Millennials in Semarang have grit or resilience in doing good business. This is evident from the grit response rate, which shows a very high score. They diligently save, working hard to get more income to save some of it and use it to invest so that their financial condition in the future will be better. In addition to achieving the financial goals they had previously planned. Due to this persistence, they can overcome all financial obstacles and challenges such as the various benefits and conveniences of conducting financial transactions using marketplace gadgets (Amaliyah, 2020). And prefer to save more, plan emergency funds pension funds, and plan finances in the long term.

**CONCLUSION**

A part from measuring academic achievement and financial behavior, grit is also studied to measure resilience in entrepreneurship (Arco-Tirado et al., 2019). However, in this study, grit will be used to measure a person's persistence in good financial behavior. The results show that financial literacy does not affect financial behavior. Generation Z's and Millennials' understanding of inflation does not affect them in planning emergency funds, pension funds, saving, and long-term planning. Financial literacy measured by Generation Z and Millennials' understanding of inflation does not guarantee that their financial behavior will be good.

Meanwhile, grit has a positive effect on financial behavior. Diligence in saving, working hard to save and invest, achieving planned goals, and overcoming financial obstacles and challenges affect planning for emergency funds, retirement funds, savings, and long-term planning for Generation Z and Millennials. Then, financial literacy has a positive effect on grit. Generation Z and Millennials' knowledge of inflation as one of the factors that must be considered in investing has an influence on diligence in saving, working hard to save and invest, achieving pre-planned goals, and overcoming financial obstacles and challenges. Grit mediates the effect of financial literacy on financial behavior. Initially, financial literacy had no effect on financial behavior. However, after being presented grit as a mediator, financial literacy has an influence on financial behavior. Inflation as a factor that must be considered in investing, influences planning emergency funds, pension funds, saving, and long-term planning through diligence in saving, working hard to save and invest, achieving pre-planned goals, and overcoming financial obstacles and challenges.

Based on the findings, several models can be made to improve Generation Z's and Millennials' financial behavior. They are: (1) Improving financial behavior through grit or resilience in managing finances, i.e., with increasing diligence in saving, working hard to save and invest, planning and achieving pre-planned financial goals, and overcoming various existing financial obstacles and challenges. (2) Improving financial behavior through financial literacy with grit as a mediator. Grit or resilience has an important role in mediating the effect of financial literacy on financial behavior. Thus, Generation Z and Millennials should have good financial literacy and grit to achieve good financial behavior.

This research is still limited to Generation Z and Millennials in Semarang. Therefore, for future research, the researcher suggests expanding the research (Rohmahwati et al., 2023), for example, throughout Central Java, Java island, as well as to various provinces in Indonesia. Future research also can add various factors that influence financial behavior such as age, gender, spiritual intelligence, financial technology (Amaliyah & Nugroho, 2022), macroeconomic factors (Amaliyah et al., 2023), digital marketing (Amaliyah & Prabasari, 2021) (Nugroho et al., 2022), level of education (Kaiser et al., 2022), lifestyle (Zahra & Anoraga, 2021), or financial inclusion (Morgan & Long, 2020).

**REFERENCES**


**Conflict of Interest Statement:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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# TABLE 1 | Factor Loading (Outer Loading)

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Grit</th>
<th>Financial Literacy</th>
<th>Financial Behavior</th>
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* > 0.70 or valid

Source: Data processed, 2023
### Table 2: Cross Loading (Discriminant Validity)

<table>
<thead>
<tr>
<th>Indicator No.</th>
<th>Grit</th>
<th>Financial Literacy</th>
<th>Financial Behavior</th>
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<tbody>
<tr>
<td>8</td>
<td>0.450</td>
<td>0.333</td>
<td>0.775</td>
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<tr>
<td>9</td>
<td>0.675</td>
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<td>10</td>
<td>0.618</td>
<td>0.292</td>
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<td>11</td>
<td>0.561</td>
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<td>22</td>
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<tr>
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<tr>
<td>35</td>
<td>0.764</td>
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<td>0.455</td>
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Source: Data processed, 2023
### TABLE 3 | Construct Reliability and Validity

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<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
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<tbody>
<tr>
<td>Grit</td>
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<td>0.824</td>
<td>0.878</td>
<td>0.643</td>
</tr>
<tr>
<td>Financial Literacy</td>
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<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
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<tr>
<td>Financial Behavior</td>
<td>0.854</td>
<td>0.867</td>
<td>0.901</td>
<td>0.695</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023
TABLE 4 | Path Coefficient

|                             | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|-----------------------------|---------------------|-----------------|-----------------------------|-----------------------------|-----------|
| Grit → Financial Behavior   | 0.642               | 0.645           | 0.061                       | 10.595                      | 0.000*    |
| Financial Literacy → Grit   | 0.435               | 0.437           | 0.064                       | 6.836                       | 0.000*    |
| Financial Literacy → Financial Behavior | 0.134 | 0.128 | 0.070 | 1.905 | 0.057 |

*Significance level 5%

Source: Data processed, 2023
### TABLE 5 | Indirect Effect

| Indirect Effect                                      | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|------------------------------------------------------|----------------------------|-----------------|----------|
| Financial Literacy → Grit → Financial Behavior       | 0.049                      | 5.658           | 0.000*   |

*Significance level 5%

Source: Data processed, 2023
### TABLE 6 | Total Effect

|                      | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|----------------------|-----------------------------|---------------------|---------|
| Grit → Financial Behavior | 0.061                       | 10.595              | 0.000*  |
| Financial Literacy → Grit | 0.064                       | 6.836               | 0.000*  |
| Financial Literacy → Financial Behavior | 0.072                       | 5.720               | 0.000*  |

*Significance level 5%

Source: Data processed, 2023
### TABLE 7 | Total Effect

<table>
<thead>
<tr>
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<th>R Square</th>
<th>R Square Adjusted</th>
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</thead>
<tbody>
<tr>
<td>Grit</td>
<td>0.189</td>
<td>0.182</td>
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<tr>
<td>Perilaku keuangan</td>
<td>0.505</td>
<td>0.497</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023
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FIGURE 2 | Average Variance Extracted (AVE)