

**FINANCIAL MANAGEMENT BEHAVIOR ON BUY NOW PAY
LATER USERS:
DOES EDUCATION LEVEL MEDIATES THE EFFECT?**

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Abstract

The advancement of digitalization in the modern world has expedited the shift from traditional economies to digital economies, offering both advantages and obstacles. The rapid growth of digital transactions, notably due to the emergence of Buy Now Pay Later (BNPL) services, has sparked worries about its impact on financial management behaviors. As the usage of digital platforms like Shopee PayLater, primarily by Generation Z, continues to increase, there is a critical need to enhance financial literacy and establish self-regulation mechanisms to mitigate the potential risks of excessive consumption. This study examines the relationship found between financial literacy and self-control in financial management behavior using education level as a mediating effect. Generation Z individuals who use Buy Now Pay Later service in Indonesia, namely Shopee PayLater, were targeted as research subjects. This research shows that financial literacy, self-control, and education level each have significantly influenced financial management behavior directly. On the other hand, education level could not mediate the relationship between financial literacy and self-control on financial management behavior since the impact is insignificant. Most Generation Z individuals in Malang, Indonesia who use Shopee PayLater have a high education level, good financial literacy, self-control, and financial management behavior.

Keywords: *Financial Management Behavior, Education Level, Buy Now Pay Later, Financial Literacy, Self-Control*

1. INTRODUCTION

Digitalization is something we face in our everyday lives in this modern society. This also affects the transformation of the traditional economy into a digital economy which, in turn, improves economic conditions (Limanseto, 2021). However, the consumptive behavior escalated due to this condition. An increase in the number of digital transactions has been recorded with a total increase of 155 times over 10 years to 2021 (Javier, 2002). Hence, the digitalization of the economy must be balanced with good financial management behavior so that individuals are able to practice managing their personal finances in a more mindful way.

According to OCBC Financial Fitness (2022) the current financial management behavior condition in Indonesia is still relatively low, which is shown in the financial fitness scored only 40.06 on a scale of 100, has increased by 2.34 points from the previous year that scored 37.72 points. From the study, 58% of respondents often pay the credit card's minimum payment only, which means that the remaining bills held on credit cards will continue to be charged along the interest for the following month. This shows that the financial management behavior of Indonesian people is still far from ideal. One of the

ideal numbers that can be used as a reference is from Singapore, which scored 62 on a scale of 100.

The use of credit cards has now shifted into a digital form, with the term Buy Now Pay Later (also refers to BNPL) commonly referred to as paylater. BNPL is a form of credit that can be used to pay for shopping items in cardless installments via applications and has been integrated with e-commerce which makes it easier for users (Guttman-Kenney et al., 2023; Novendra & Aulianisa, 2020). Paylater has grown rapidly from 28% to 38% by 2022 (Silawati, 2022). One of the platforms that offers Buy Now Pay Later services is Shopee, known as Shopee PayLater.

Shopee PayLater is the most widely used BNPL service in Indonesia, having reached 78.4% of those surveyed in 2021 (Annur, 2022). As the name implies, this service can only be used for transactions on the Shopee e-commerce platform. Most e-commerce users are from Generation Z with an age range of 18-25 years (Lidwina & Bayu, 2021). In addition, most Shopee users in particular are users aged 20-24 years, consisting of 24%, which is also the age range of Generation Z (Dianka & Zuhri, 2021). Meanwhile, one of the biggest users of BNPL services is Generation Z by 9.7% of the total 1,692 respondents or 164 people (Katadata Insight Center & Zigi, 2021).

Aside from the age range, the use of BNPL can also be viewed from a geographical perspective. The majority of BNPL users, approximately 77%, reside in Java (Hartanto, 2022). In this study, the city of Malang was chosen as the research site based on the dominance of Generation Z with a total of 25.44% of the 214,665 population of Malang which is considered capable of enhancing the economic growth of Malang City through digital infrastructure (Mahfud & Vanie, 2021).

Generation Z is a group of people who were born in 1997-2012 (BPS, 2021) or currently aged 11-26 years old. In accordance to their age, Generation Z is still in school and in their early working years. Moreover, 43.13% of Generation Z BNPL service users are still in school or college (Hartanto, 2022; Nadila, 2022). Generation Z is mentioned to have high curiosity and tends to engage with the digital world. Therefore, education must be an open platform that can provide accurate information for Generation Z so that they are not easily influenced by the media (Rakhmah & Kemendikbud, 2021). Higher education is considered capable of providing broader information and can improve the quality of graduates through various programs to be able to participate in the global market competition (Setiana et al., 2019).

In Indonesia, there is a compulsory school age limit described in the National Education System Bill (Rancangan Undang-Undang Sistem Pendidikan Nasional) of August 2022 article 7 paragraph 2, which states that Indonesian citizens are required to receive 13 years of education, with details of 10 years of basic education and 3 years of secondary education (CNN Indonesia, 2022). Education in Indonesia is divided into 3 types of education, which include formal, non-formal, and informal education. In this study, the education type chosen in accordance with the research objectives is the formal education type, which is structured and multistage and comprises of primary education, secondary education, and higher education (Sekretariat Negara Republik Indonesia, 2003).

Generation Z in Indonesia is known for its technological fluency, interactiveness, and expressiveness online, with as many as 97.7% of them connected to the internet,

which can trigger consumerism if not accompanied by a good financial literacy (Laturette et al., 2021). Indonesia's financial literacy level is relatively weak at 49.68% in 2022 and in East Java at 55.32% with the minimum figure set by the OECD is 60% (OECD, 2020; OJK, 2022). Although the provision of financial facilities in Indonesia is good (OJK, 2022), if it is not balanced with good financial literacy, then its use will not be optimal and can lead individuals to consumerism because financial literacy is proven to affect consumptive behavior negatively (Dewi & Rusdarti, 2017). In addition, financial literacy significantly influence individual's financial behavior (Herawati, 2015).

With regard to the impact of financial literacy on consumptive behavior, self-control appears to play an important part. The stronger a person's self-control, the more rational consumption patterns are likely to be (Gunawan & Andani, 2022). Self-control is the capability to regulate thoughts and a range of emotions, as well as to resist impulsive behavioral urges that can be seen when individuals struggle to maintain and achieve their goals or follow their desires (Anita et al., 2022; Davydenko et al., 2021). Self-control influencing financial behavior of BNPL service users significantly (Ningtyas, 2022).

The research aims to explore the relationship between financial literacy and self-control in individuals' financial management behavior. Additionally, it seeks to examine the role of education level as a mediating factor in this correlation.

2. LITERATURE REVIEW

2.1. Theory of Planned Behavior

Ajzen (1991) extended the Theory of Reasoned Action (TRA) by introducing the Theory of Planned Behavior. The TRA suggests that behavior is influenced by intention, while the Theory of Planned Behavior focuses on individuals' intention to engage in a specific behavior. This theory includes self-efficacy beliefs and proposes that behavioral outcomes can be predicted by perceived behavioral control and intention. Ajzen (2005) further refined the theory by incorporating background factors that impact attitudes and behavior. As follows is the form of the Theory of Planned Behavior model by Ajzen (Ajzen, 2005):

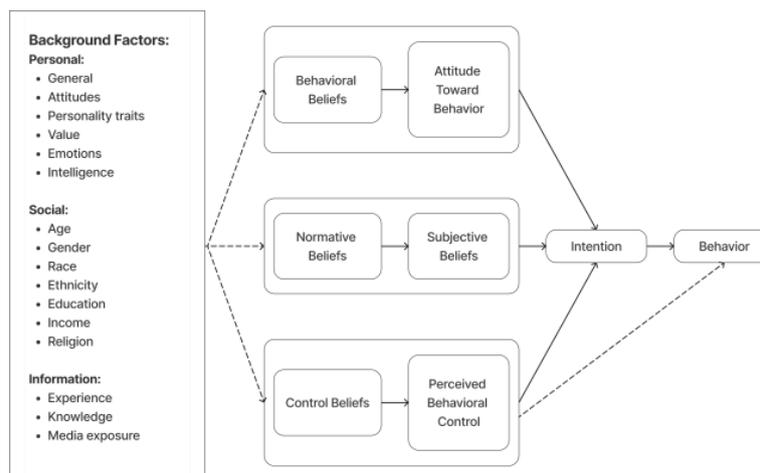


Figure 1. Theory of Planned Behavior

Source: Ajzen (2005)

2.2. Financial Literacy and Financial Management Behavior

People who are financially literate can make smarter decisions, save for old age, manage Investments better, and manage personal and household finances better (Andarsari & Ningtyas, 2019). Financial literacy is also strongly related to financial decision making. Financial literacy was found to have a negative relationship with long-term debt, and tends to be associated with better financial conditions. Strong financial literacy is crucial to ensure good application of financial management (Basha et al., 2023). Generally, individuals who have good financial literacy will have more ability on managing their finances and can meet the indicators of financial management behavior (consumption, cash flow management, saving and investment, credit management) more proportionally, along with allocating their funds into more important needs. Therefore, the hypotheses proposed for this study are:

H1: Financial literacy significantly influences financial management behavior.

2.3. Self-Control and Financial Management Behavior

People who possess greater self-control and are more likely to plan for in advance are more likely to handle their financial matters properly (Miotto & Parente, 2015). Self-control is associated with how strongly a person holds beliefs that can be used as a reference in doing things or making decisions. Self-control is needed by every individual when they are about to do things related to finances, especially in deciding to apply for a loan or get into debt (Siswanti & Halida, 2020). Therefore, the hypothesis proposed for this study is:

H2: Self-control significantly influences financial management behavior

2.4. Education Level and Financial Management Behavior

Education increases the abilities of individuals to process information and to decide on various matters, including financial management behavior. Education has a major role to play in financial management behavior, indicated by savings, retirement planning, money market activities, asset allocation, and credit management (Gray et al., 2021). Education is reported to have a causal relationship with financial outcomes, education also improves an individual's financial decision-making. Education also reduces the tendency for an individual to experience a terrible financial condition, or the decision to take out a second mortgage. This shows that education level affects an individual's financial decision-making (Cole et al., 2014). Education provides knowledge-based skills that influence a person's financial decisions (Cole et al., 2016). Education level appears to positively influence an individual's financial management behavior (Fahrizal et al., 2021; Susanti et al., 2018). Therefore, the hypothesis proposed for this study is:

H3: Education level significantly influences financial management behavior

2.5. Education Level as a Mediator

An individual's financial literacy plays an important role in creating wealth balance (Andarsari & Ningtyas, 2019). Individuals with low levels of financial literacy are associated with low income, low levels of education and low levels of wealth (Lusardi & Mitchell, 2014). Education level and the level of financial literacy are closely correlated, it means that the higher education level an individual has attained, the more financially literate they are likely to be (Baihaqqy & Sari, 2020). This study aims to find out whether there is a reverse correlation between financial literacy and education level. Moreover, education level is found to have an influence on financial management behavior as indicated by an increase in one's net worth, increase in money market participation and risk tolerance, as well as the decision of the best mortgage and credit (Black et al., 2018; Cole et al., 2016; Girshina, 2019). This is explained by an increase in one's ability to accept new information and financial decision-making skills as new beliefs and preferences are acquired along with the received education (Gray et al., 2021). Education level is essential to support an individual's financial literacy to develop better financial management behavior (Susanti et al., 2018). Therefore, the hypothesis proposed for this study is:

H4: Education level mediates the relationship between financial literacy and financial management behavior.

Self-control is essential for each individual to hold beliefs related to the decision-making processes that will be made, including loans, savings, and spending. People with higher self-control tend to be better at managing their finances and planning for the future (Miotto & Parente, 2015; Siswanti & Halida, 2020). Additionally, self-control can also be assessed from an education level perspective. Among high school students or those who take secondary education, 93% have low self-control scores (Khoirunnisaa & Johan, 2020). A different study reported that 51.6% of university students have moderate self-control (Islamia & Purnama, 2022). Education level influences financial management behavior significantly because an increase in decision-making capability affects the financial management behavior process and financial condition of individuals. As well as increasing individual's net worth (Black et al., 2018; Cole et al., 2016; Fahrizal et al., 2021; Girshina, 2019; Gray et al., 2021; Susanti et al., 2018).

H5: Education level mediates the relationship between self-control and financial management behavior

3. RESEARCH METHODS

Shopee PayLater users residing in Malang, the second largest city in East Java, aged between 18 to 26 years old, also known as Generation Z, were selected as the study population. The study assumed an unknown population size due to the lack of exact numbers of Shopee PayLater users in Malang City. The research focused on their financial management practices in relation to Shopee PayLater usage. Data collection was primarily done through the Shopee PayLater Malang Facebook group, with additional distribution of questionnaires on various social media platforms like Twitter, WhatsApp,

and Instagram. Google Forms was utilized for questionnaire distribution, ensuring privacy and data security. The study employed purposive sampling and calculated the sample size using a formula by Jöreskog & Sörbom (1993). The questionnaire was divided into three sections, covering respondent screening, demographic characteristics, and discussions on financial literacy, self-control, and financial management behavior.

3.1. Participants

The study included 201 participants, with 105 males and 96 females aged between 18 and 26. Most participants (139) were in the 24-26 age range. They came from various professional backgrounds such as education, government, private sector, and entrepreneurship. 64% had pursued higher education, with 63% having a bachelor's degree. 36% were high school graduates, with 55% currently pursuing higher education. Income ranged from less than Rp500,000 to over Rp5,000,000, with the majority earning between Rp500,000 and Rp2,000,000. 72.14% earned income from salaries, and 56.22% were private workers.

3.2. Measurement

Based on the indicators of previously published and credible articles, the instrument used for this study was adapted. The items on the scale of the financial management behavior variable have been adapted from the indicators studied by (Siswanti & Halida, 2020) which are consumption, cash flow management, saving and investment, and credit management. The intervening variable, Education Level, was measured using the statement on Law on the National Education System Number. 20, 2003 (Secretariat of the Republic of Indonesia & International Institute for Educational Planning, 2003) which is formal education with the level: primary education, secondary education, and higher education that has also been stated in other articles (Butterworth, 2022; IGI Global, 2020; Lowry, 2022; Secretariat of the Republic of Indonesia & International Institute for Educational Planning, 2003). The financial literacy scale items were adapted from the indicators in a financial literacy study by (Chen & Volpe, 1998), they are general knowledge, savings and loans, insurance, and investment, which then also adopted and mentioned in (Laturette et al., 2021; OJK & Syawalia, 2022). In addition, the indicators from (Ghufron & Risnawita, 2010) study, which are behavior control, cognitive control, and decisional control have been used to adapt the self-control scale items; these indicators have also been adopted in (Siswanti & Halida, 2020).

4. RESULTS AND DISCUSSION

4.1. Research Results

The latest Smart-PLS software version 4.0.9.4 was used for analyzing the data statistically after dealing with the missing data. The primary data obtained are analyzed using the path analysis method to determine how each variable is influenced and related to each other. Path analysis is a statistical technique developed by Sewall Wright that allows users to examine the influence patterns within a system of variables (Hamilton, 2017).

4.1.1. Descriptive Statistic

Data presented in Table 1 is the MV Descriptive, a descriptive statistic that is carried out on multivariate variables or latent variables where the mean, the median and the standard deviation are mentioned. On a Likert scale of 1-5, a scale of 3.50-5.00 is classified as a positive attitude, which means that the occurring conditions are good baik (Wanjohi & Syokau, 2021). In this study, variable X (Financial Literacy/FL and Self-Control/SC) and variable Y (Financial Management Behavior) met these criteria. Meanwhile, variable Z/mediating variable uses a nominal scale of 1-3 and receives 2.63 out of 3.00.

4.1.2. Outer Model

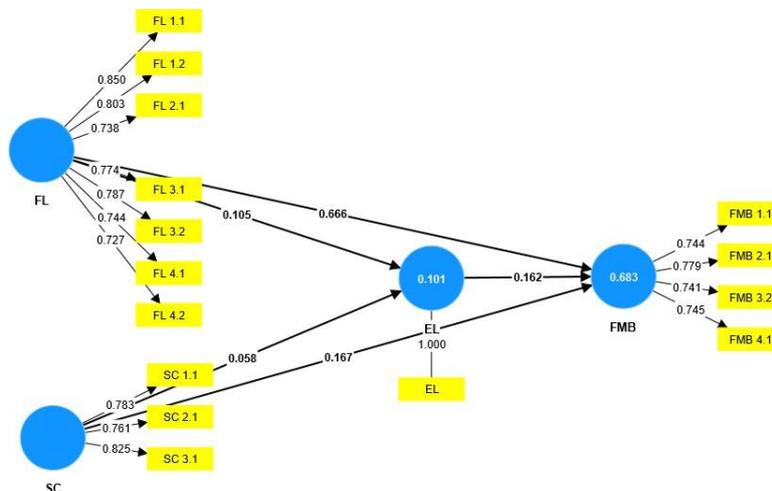


Figure 2. Structural Equation Model (PLS Algorithm)

Data shown in Figure 2. is the outer loadings score, which represents the convergent validity with minimum value of to indicate the validity is no lower than 0.7 (Hamid & Anwar, 2019). However, it is the final data after the elimination of several indicators identified as invalid. These data are not eliminated all at once but are examined one by one to see if there is an increase in the other indicators that were also previously invalid to finally reach current outer loadings score.

Table 1. MV Descriptives

	Mean	Median	Observed Min	Observed Max	Standard Deviation
EL	2.632	3.000	1.000	3.000	0.482
FL 1.1	3.965	4.000	1.000	5.000	0.610
FL 1.2	4.338	4.000	1.000	5.000	0.795
FL 2.1	4.378	4.000	1.000	5.000	0.789
FL 3.1	4.104	4.000	1.000	5.000	0.883
FL 3.2	4.338	4.000	1.000	5.000	0.878
FL 4.1	4.343	5.000	1.000	5.000	0.838
FL 4.2	4.149	4.000	1.000	5.000	0.986
FMB 1.1	4.438	5.000	1.000	5.000	0.777

FMB 2.1	4.259	4.000	1.000	5.000	0.793
FMB 3.2	4.179	4.000	1.000	5.000	0.851
FMB 4.1	4.348	5.000	1.000	5.000	0.880
SC 1.1	4.353	4.000	2.000	5.000	0.753
SC 2.1	4.154	4.000	1.000	5.000	0.829
SC 3.1	4.204	4.000	1.000	5.000	0.842

4.1.3. Discriminant Validity

Table 2. Discriminant Validity Result

	Education Level	Financial Literacy	Financial Management Behavior	Self-Control
EL	1.000			
FL 1.1		0.850		
FL 1.2		0.803		
FL 2.1		0.738		
FL 3.1		0.774		
FL 3.2		0.787		
FL 4.1		0.744		
FL 4.2		0.727		
FMB 1.1			0.744	
FMB 2.1			0.779	
FMB 3.2			0.741	
FMB 4.1			0.745	
SC 1.1				0.783
SC 2.1				0.761
SC 3.1				0.825

Data shown in Table 2. is the cross-loading score, which represents the discriminant validity. Discriminant validity is used to indicate that the latent variables are independent of each other and the value should not be less than 0.7 (Hair Jr et al., 2021).

4.1.4. Validity and Reliability

Table 3. Validity and Reliability Result

		Composite Reliability	Avg. Var. Extracted
<i>Financial Management Behavior</i>		0.839	0.566
1. Consumption	I budget regularly (monthly budgeting is the most common one).		
2. Cash flow management	My total income is higher than my expenses.		
3. Saving and investment	I invest regularly and planning to do so in the near future.		
4. Credit management	I have a fund budget allocated particularly for paying ShopeePayLater bills.		
<i>Financial Literacy</i>		0.913	0.602

		Composite Reliability	Avg. Var. Extracted
1. General knowledge	<ul style="list-style-type: none"> I have an understanding of managing my personal finances appropriately; I have an awareness on how to prevent and handle unfavourable financial conditions. 		
2. Savings and loans	I have an understanding of the proper allocation of savings and how to implement it in my everyday life.		
3. Insurance	<ul style="list-style-type: none"> I understand how insurance works and its types; I understand the benefits of having insurance. 		
4. Investment	<ul style="list-style-type: none"> I understand how an investment works & its types; I have an understanding of the importance of investment for my future. 		
Self-Control		0.833	0.624
1. Behavior control	I can resist buying things that I want but is not necessarily needed.		
2. Cognitive control	Whenever I feel tired of studying or working, I do not give up because I have a future goal, one of which is to upgrade my quality of life and economy.		
3. Decisional control	I am able to make financial decisions appropriately and in accordance with my condition.		

The data above indicates that the composite reliability values exceeded the minimum threshold, the data was therefore adequately reliable.

From a construct validity point of view, in addition to the outer loadings, it can also be assessed by the Average Variance Extracted (AVE), the grand mean of the squared loadings of each indicator with a minimum acceptable value of 0.5 (Hair Jr et al., 2021). The values of all constructs are higher than this acceptable value.

4.1.5. Inner Model

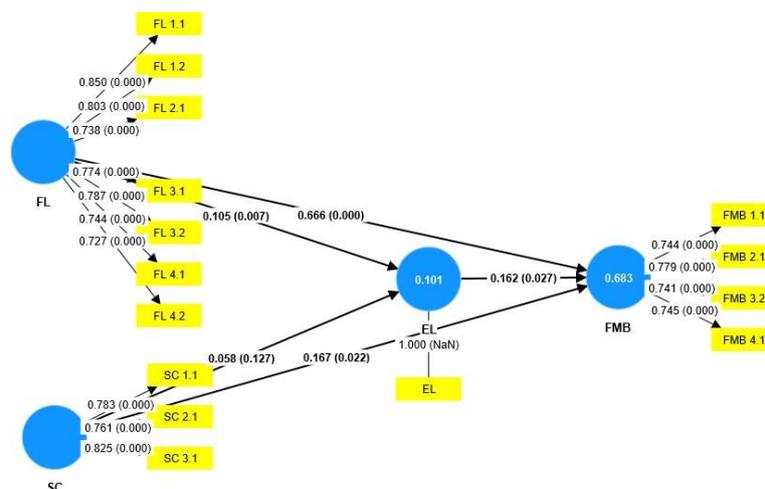


Figure 3. Structural Equation Model (Bootstrapping)

4.1.6. R-Square

Table 5. Fitness of The Model

	R Square (R ²)
<i>Education Level</i>	0.101
<i>Financial Management Behavior</i>	0.683

An R2 value of 0.75 is considered substantial and strong, whilst R2 value of 0.50 and 0.25 are considered moderate and weak respectively (Hair Jr et al., 2021). However, R2 value ranging from 0.3-0.7 are frequently reported and the R2 value of 0.6 is already considered a good model fit (Chin, 2009; Hulland et al., 2009; Vinzi et al., 2010) and the financial management behavior variable has fit the minimum requirement. In the other hand, the R2 value of education level is seemingly low with the value of 0.101. But the R2 for mediating effect may have different criteria. According to (Fairchild et al., 2009), even when the indirect effects of mediator to the dependent variable is high, the true values and mean sample size estimations of the R2 measure for none of the conditions exceeded 0.28. The low effect size measure reflects the size of the effects on paths in the mediation model. The low effect size reflects the magnitude of the effects on various paths in the mediation model.

4.1.7. Path Coefficient

Table 4. Hypotheses testing through Path Coefficient

	Original Sample (O)	T statistics (O/STDEV)	P Values
EL → FMB	0.162	1.919	0.027
FL → FMB	0.666	8.245	0.000
SC → FMB	0.167	2.012	0.022

As presented on Table 5. above, all variables has positive and significant effects on Financial Management Behavior. It has been explained with P- Value of 0.028 for Education Level, 0.000 for Financial Literacy, and 0.040 for Self-Control. These P- Values are all below the significance level of 5%, and therefore H1, H2, and H3 are accepted.

4.1.8. Indirect Effects

Table 5. Indirect Effects

	Original Sample (O)	T statistics (O/STDEV)	P Values
SC -> EL -> FMB	0.009	0.975	0.165
FL -> EL -> FMB	0.017	1.401	0.081

Table 5 above shows the positive effects in the mediating role for both construct. However, the mediating effect of education level resulted in the relationship between self-control and financial literacy to financial management behavior are appearing to not be

mediated in a significant way by the Shopee PayLater users' education level. Consequently, hypotheses H4 and H5 are rejected.

4.2. Discussion

As presented on Table 5 above, all variables has positive and significant effects on Financial Management Behavior. It has been explained with P- Value of 0.028 for Education Level, 0.000 for Financial Literacy, and 0.040 for Self-Control. These P-Values are all below the significance level of 5%, and therefore H1, H2, and H3 are accepted.

Our previous hypothesis that education level mediates the relationship between financial literacy, self-control, and financial management behavior was not supported by the results. While education level does have a positive impact on the connection between financial literacy and self-control in terms of financial management behavior, the effect is not statistically significant. This suggests that increasing financial literacy and education can lead to improved financial management behavior, but the impact may not be significant. Similarly, increasing self-control and education level may also improve financial management behavior, but the effect is either not significant or only minor. This could be due to the limited indicators used to measure education level, such as non-formal education, informal education, and financial courses. Gray et al. (2021) once stated that specific education is required to acquire more skills and knowledge such as numerical ability, in order to achieve more favourable financial management behavior.

In addition, the formal education indicator in the education level variable in this study is measured by the latest education degree that was successfully completed by the subject, or in other words, the degree that the subject completed (Butterworth, 2022; IGI Global, 2020). This research does not take into account the respondents' current education. This can also be seen in the "Methods" section, where it has been mentioned that 20% of the total respondents with the education level background of high school currently pursuing their undergraduate education, while there were only 16% of respondents who graduated from high school/equivalent who did not continue to higher education. This shows that even though the respondents are high school graduates, the advanced education currently being pursued may improve the knowledge and skills of individuals. Higher education supports personal growth, especially in the social and economic aspects, and increases the knowledge and skills possessed by individuals so that they can have higher adaptation abilities, as well as being a path to economic stability, especially for individuals with economically weak circumstances (UNESCO, 2023).

Moreover, the "Methods" section also shows that the occupation and income of the respondents are varied. In the lowest income level (<Rp500,000), all of them were high school graduates with a percentage of 2.49%. In the next income level (Rp500,000-Rp2,000,000 and Rp2,000,000-Rp3,500,000), the majority of respondents have a Bachelor's degree. Meanwhile, at the next income level (Rp3,500,000-Rp5,000,000), there is an equal distribution between respondents with a Bachelor's degree and high school graduates. The highest income level in this study (>Rp5,000,000) is only owned by 1% of respondents and all of them are respondents with the education level background of high school. (Lusardi & Mitchell, 2014) has also stated that individuals with lower financial literacy levels are generally associated with lower income, education, and

wealth levels. This means that education level may mediate the relationship between financial literacy and financial management behavior if it is related to the level of income and wealth of each individual. In (Girshina, 2019), it is also mentioned that unexamined family background can also be related to education level and financial management behavior. Financial incentives also round out research related to financial education and financial literacy (Carpena et al., 2019). Thus, education level on its own does not necessarily mediate the relationship between financial literacy and self-control on financial management behavior. Rather, other aspects are still needed to mediate the relationship.

However, this study indicates that all variable, i.e. financial literacy, self-control, and education level each significantly positively affect financial management behavior directly. This implies that an increase in financial literacy, self-control, and education levels each significantly increases financial management behavior respectively. These findings have furthermore been supported by several studies. Higher education results in a better financial condition because individuals will have more experience and can make well financial decisions that will also increase financial wealth, and even affects the household financial decisions (Baihaqqy & Sari, 2020; Black et al., 2018; Cooper & Zhu, 2016). This is in line with the Theory of Planned Behavior which has also been mentioned in previous studies that education level is an essential factor that can influence financial behavior (Shih et al., 2022; Woodyard & Robb, 2012).

A good financial literacy is said to improve the ability of understanding important financial information to make good financial decision making and utilize financial products to the fullest, that will also improve the financial well-being (Basha et al., 2023; Paiella, 2016; Philippas & Avdoulas, 2021). This is also in line with the Theory of Planned Behavior which prior research mentions that financial literacy improves individual processes in handling financial information and enhances the ability to decide matters related to personal finance, as well as helping individuals manage their finances (Hapsari, 2021; Shih et al., 2022).

According to previous studies, it has been found that higher self-control significantly associated to higher financial management behavior, as individuals are able to postpone present satisfaction for the better future. These individuals are also save money regularly compared to those with lower self-control (Maison & Maison, 2019; Putri & Andarini, 2022; Strömbäck et al., 2017). This is in line with other research which has found that families with self-control problems because of little to no adequate planning, monitoring and committing are less likely to accumulate wealth. Those with low level of self-control have also been found to be more likely to behave compulsively when they purchase goods (Achtziger et al., n.d.; Biljanovska & Palligkinis, 2018). This is also in line with the Theory of Planned Behavior mentioned in previous research that self-control can influence a person's behavior in using their funds cautiously, not purchasing spontaneously and postponing purchases by considering various things to avoid consumptive behavior (Haning, 2012; Sumiarni, 2019).

Education level may not mediate the relationship of financial literacy and self-control on financial management behavior However, the Theory of Planned Behavior contains various background factors other than education that can influence financial management behavior, this is also supported by statements from previous studies showing

that there are other factors that can also influence this relationship such as gender, lifestyle, pocket money or income, as well as other relevant factors such as financial attitude and financial socialization (Anita et al., 2022; Khoirunnisaa & Johan, 2020). This study does not investigate other factors related to the mediating effect of education level on the influence between financial literacy and self-control on financial management behavior. Other previous studies also mentioned that there are other factors such as the level of income and wealth, as well as other backgrounds of individuals that are not examined that can influence the relationship between the variables in this study (Carpena et al., 2019; Girshina, 2019; Lusardi & Mitchell, 2014). From these findings, future research can consider some other factors that have been mentioned to explain the relationship between financial literacy and self-control on financial management behavior, or similar relationships.

The main aim of this study is to analyze the current phenomenon in society, particularly among Generation Z, who are often labeled as internet addicts spending over 7 hours online daily (Data Indonesia, n.d.). Therefore, this research can be used as part of the information for decision-making by Generation Z individually and by the government to plan more appropriate policies according to the current situation. This study shows that education level does not significantly mediate the relationship between financial literacy and self-control on financial management behavior. Whereas in a direct relationship, education level has a positive and significant effect on financial management behavior, the majority of respondents who have a portion of income greater than expenses, make regular budgeting, regularly invest, and have a special allocation of savings to pay Shopee PayLater bills are respondents with a higher education level background or have a Bachelor's degree. This is supported by previous studies stating that education level has a positive effect on financial management behavior (Fahrizal et al., 2021; Susanti et al., 2018). The majority of individuals with higher education levels and have a Bachelor's degree are known to understand how to manage good finances and prevent bad financial conditions; know about proper savings allocation, how insurance and investment work, and understand the importance of having insurance and investment for the future. In line with previous research which states that high education levels also increase individual financial literacy (Baihaqqy & Sari, 2020; Tóth et al., 2015), particularly courses related to finance which can also increase financial literacy (Morris & Koffi, 2015). The majority of individuals with higher education levels have the ability to control behavior related to finance and spending, can make prevention attempts against possible bad future conditions, and tend to make financial decisions appropriately. This is supported by previous research which states that 93% of high-school students have low self-control (Khoirunnisaa & Johan, 2020) and 51.6% of university students have moderate self-control (Islamia & Purnama, 2022).

The condition of education level, financial literacy, self-control, and financial management behavior in Generation Z Shopee PayLater users in Malang, Indonesia is generally good. This can be seen from the lowest and highest mean values on the education level mediation variable, which is 2.63 with a nominal scale of 1-3. Meanwhile, the lowest and highest means on the financial literacy variable are 3.96 and 4.37 (FL 1.1 and FL 2.1) respectively; on the self-control variable are 4.15 and 4.35 (SC 2.1 and SC 1.1) respectively; and on the financial management behavior variable are 4.17 and 4.43

(FMB 3.2 and FMB 1.1) respectively, measured using a Likert scale of 1-5 so that the maximum value for these variables is 5.

This study concludes that education level can not mediate the relationship between financial literacy and self-control on financial management behavior, which means that education level alone cannot be a mediator or an intervener in this relationship. However, good financial literacy, self-control, and education level are important for individuals to possess in order to enhance financial management behavior, which is necessary to better manage one's finances, make more well-informed decisions, and plan one's finances for a better future.

5. CONCLUSION

Our findings indicate that without a good level of financial literacy and a decent amount of self-control, combined with a higher level of education, Generation Z is less likely to have adequately managed financial behavior. However, we have also found that education level does not mediate the relationship between the independent and dependent variables. Hence, financial literacy, self-control, and education level all have a positive and significant influence on financial management behavior. This supports our hypotheses H1, H2, and H3. On the other hand, we have found that financial literacy and self-control do not significantly affect financial management behavior through education level. Therefore, we reject hypotheses H4 and H5.

The study focused on Generation Z individuals in Malang, Indonesia who use Shopee PayLater. Future research should expand the scope to gain more insights. The study measured financial literacy and self-control, with education level as a mediating factor, but other factors like financial decision-making, family background, social environment, social media exposure, and credit risk management should be considered. Future studies could also explore the impact of education level on Buy Now Pay Later credit decisions by adding indicators for non-formal education. A comparative study between students and workers could provide broader results. Additionally, studying different generations in various economic conditions could help distinguish differences. Using interviews in future studies may enhance data quality compared to using only questionnaires.

REFERENCES

- Ajzen, I. (2005). *Attitudes, personality and behavior. Mapping social psychology*. Maidenhead: Open University Press.
- Andarsari, P. R., & Ningtyas, M. N. (2019). The role of financial literacy on financial behavior. *Journal of Accounting and Business Education*, 4(1), 24–33. <https://doi.org/10.26675/jabe.v4i1.8524>
- Anita, A., Njotoprajitno, R. S., & Hadianto, B. (2022). Self-control, financial literacy, and behavior in organizing money. *Economics and Business Quarterly Reviews*, 5(3).
- Annur, C. M. (2022). *Shopee Paylater, Layanan Paylater Paling Banyak Digunakan pada 2021*. Databoks.

- Baihaqqy, M. R. I., & Sari, M. (2020). The Correlation between Education Level and Understanding of Financial Literacy and Its Effect on Investment Decisions in Capital Markets. *Journal of Education and E-Learning Research*, 7(3), 303–313. <https://doi.org/10.20448/journal.509.2020.73.306.3>
- Basha, S. A., Bennis, H., & Goaid, M. (2023). Financial literacy, financial development, and leverage of small firms. *International Review of Financial Analysis*, 86, 102510.
- Biljanovska, N., & Palligkinis, S. (2018). Control thyself: Self-control failure and household wealth. *Journal of Banking & Finance*, 92, 280–294. <https://doi.org/10.2139/ssrn.2341701>
- Black, S. E., Devereux, P. J., Lundborg, P., & Majlesi, K. (2018). Learning to take risks? The effect of education on risk-taking in financial markets. *Review of Finance*, 22(3), 951–975. <https://doi.org/10.1093/rof/rfy005>
- Butterworth, W. (2022). *What Does Level Of Education Mean? The Cold Wire*.
- Carpena, F., Cole, S., Shapiro, J., & Zia, B. (2019). The ABCs of financial education: Experimental evidence on attitudes, behavior, and cognitive biases. *Management Science*, 65(1), 346–369. <https://doi.org/10.1287/mnsc.2017.2>
- Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2), 107–128.
- Chin, W. W. (2009). How to write up and report PLS analyses. In *Handbook of partial least squares: Concepts, methods and applications* (pp. 655–690). Springer. https://doi.org/10.1007/978-3-540-32827-8_29
- CNN Indonesia. (2022). *Aturan Lengkap Wajib Belajar 13 Tahun di RUU Sisdiknas*.
- Cole, S., Paulson, A., & Shastry, G. K. (2014). Smart money? The effect of education on financial outcomes. *The Review of Financial Studies*, 27(7), 2022–2051. <https://doi.org/10.1093/rfs/hhu012>
- Cole, S., Paulson, A., & Shastry, G. K. (2016). High school curriculum and financial outcomes: The impact of mandated personal finance and mathematics courses. *Journal of Human Resources*, 51(3), 656–698. <https://doi.org/10.3368/jhr.51.3.0113-5410R1>
- Cooper, R., & Zhu, G. (2016). Household finance over the life-cycle: What does education contribute? *Review of Economic Dynamics*, 20, 63–89. <https://doi.org/10.1016/j.red.2015.12.001>
- Data Indonesia. (n.d.). *Durasi Penggunaan Internet Antargenerasi di Indonesia. 2022*.
- Davydenko, M., Kolbuszewska, M., & Peetz, J. (2021). A meta-analysis of financial self-control strategies: Comparing empirical findings with online media and lay person perspectives on what helps individuals curb spending and start saving. *PLoS One*, 16(7), e0253938. <https://doi.org/10.1371/journal.pone.0253938>
- Dewi, N., & Rusdarti, R. (2017). Pengaruh Lingkungan Keluarga, Teman Sebaya, Pengendalian Diri dan Literasi Keuangan Terhadap Perilaku Konsumtif Mahasiswa. *Journal of Economic Education*, 6(1), 29–35.
- Dianka, A. A., & Zuhri, A. (2021). *Performa eCommerce: Shopee, Si Paling Laris Tahun Ini*. TrenAsia.
- Fahrizal, I., Fuad, M., & Setianingsih, D. (2021). Pengaruh Literasi Keuangan, Tingkat Pendidikan, Bantuan Pemerintah, Perencanaan Keuangan Terhadap Perilaku

- Keuangan Ukm Kota Langsa. *JIM: Manajerial Terapan*, 1(1), 11–19.
- Fairchild, A. J., MacKinnon, D. P., Taborga, M. P., & Taylor, A. B. (2009). R 2 effect-size measures for mediation analysis. *Behavior Research Methods*, 41(2), 486–498. <https://doi.org/10.3758/BRM.41.2.486>
- Ghufron, M. N., & Risnawita, R. S. (2010). *Teoriteori Psikologis*.
- Girshina, A. (2019). Wealth, savings, and returns over the life cycle: the role of education. *Swedish House of Finance Research Paper*, 19–10.
- Gray, D., Montagnoli, A., & Moro, M. (2021). Does education improve financial behaviors? Quasi-experimental evidence from Britain. *Journal of Economic Behavior & Organization*, 183, 481–507.
- Gunawan, A., & Andani, T. F. (2022). The Influence Of Parents' Socioeconomic Status And Self-Control On The Consumptive Behavior Of Management Study Program Students, Faculty Of Economics And Business, Universitas Muhammadiyah Sumatera Utara. *International Journal of Science, Technology & Management*, 3(4), 819–830. <https://doi.org/2722 - 4015>
- Guttman-Kenney, B., Firth, C., & Gathergood, J. (2023). Buy now, pay later (BNPL)... on your credit card. *Journal of Behavioral and Experimental Finance*, 37, 100788. <https://doi.org/10.1016/j.jbef.2023.100788>
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer Nature. <https://doi.org/10.1007/978-3-030-80519-7>
- Hamid, R. S., & Anwar, S. M. (2019). *Structural Equation Modeling (SEM) Berbasis Varian : Konsep Dasar dan Aplikasi dengan Program SmartPLS 3.2.8 dalam Riset Bisnis*. Dictionary of Statistics & Methodology. PT. Inkubator Penulis Indonesia.
- Hamilton, C. (2017). *Defiant earth: The fate of humans in the Anthropocene*. John Wiley & Sons.
- Haning, V. H. (2012). *Perilaku Self-Control dalam Mengelola Keuangan Pribadi: Berdasarkan Theory of Planned Behavior dan Conscientiousness*. Magister Manajemen Program Pascasarjana UKSW.
- Hapsari, S. A. (2021). The theory of planned behavior and financial literacy to analyze intention in mutual fund product investment. *5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)*, 136–141. <https://doi.org/10.2991/aebmr.k.210831.028>
- Hartanto, A. Y. (2022). *Apakah Gen Z Terlalu Boros dalam Menggunakan Paylater*. Tirto.Id.
- Herawati, N. T. (2015). Kontribusi pembelajaran di perguruan tinggi dan literasi keuangan terhadap perilaku keuangan mahasiswa. *Jurnal Pendidikan Dan Pengajaran*, 48(1–3). <https://doi.org/10.23887/jppundiksha.v48i1-3.6919>
- Hulland, J., Ryan, M. J., & Rayner, R. K. (2009). Modeling customer satisfaction: A comparative performance evaluation of covariance structure analysis versus partial least squares. In *Handbook of partial least squares: Concepts, methods and applications* (V. Esposito Vinzi, W. W. Chin, J. Henseler, & H. Wang (eds.) (pp. 307–325). Springer. https://doi.org/10.1007/978-3-540-32827-8_15
- IGI Global. (2020). *What is Educational Level*. IGI Global Publisher of Timely Knowledge.

- Islamia, I., & Purnama, M. P. (2022). Kontrol Diri Dan Perilaku Konsumtif Mahasiswa Pada Masa Pandemi Covid-19. *Jurnal Psikologi Malahayati*, 4(1), 95–103. <https://doi.org/10.33024/jpm.v4i1.6026>
- Javier, F. (2002). *Transaksi Digital Naik Lebih dari 100 Kali Lipat dalam 10 Tahun*. Data Tempo.
- Katadata Insight Center, & Zigi. (2021). *Perilaku Keuangan Generasi Z & Y. (Issue September, pp. 1–51)*. Katadata Dan Zigi.Id.
- Khoirunnisaa, J., & Johan, I. R. (2020). The effects of financial literacy and self-control towards financial behavior among high school students in Bogor. *Journal of Consumer Sciences*, 5(2), 73–86. <https://doi.org/10.29244/jcs.5.2.73-86>
- Laturette, K., Widianingsih, L. P., & Subandi, L. (2021). Literasi Keuangan Pada Generasi Z. *Jurnal Pendidikan Akutansi (JPAK)*, 9(1), 131–139.
- Lidwina, A., & Bayu, D. J. (2021). *Gaji Generasi Z dan Milenial Banyak Dibelanjakan di ECommerce*. Databoks Katadata.
- Limanseto, H. (2021). *Digitalisasi Mengakselerasi Transformasi Menuju Ekonomi Baru dengan Nilai Tambah dan Daya Saing yang Lebih Tinggi*. Kementerian Koordinator Bidang Perekonomian Republik Indonesia.
- Lowry, G. A. (2022). *What Are The Different Levels Of Education System? In Education Portal for Students in India (Sarada School)*. *Education Portal for Students in India (Sarada School)*.
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- Mahfud, L., & Vanie, E. (2021). *Dominasi Milenial dan Gen Z Bisa Gairahkan Ekonomi Kota Malang _ Radar Malang Online*. In *Radar Malang*. Radar Malang.
- Maison, D., & Maison, D. (2019). Saving and investing. *The Psychology of Financial Consumer Behavior*, 105–141. https://doi.org/10.1007/978-3-030-10570-9_4
- Miotto, A. P. S. C., & Parente, J. (2015). Antecedents and consequences of household financial management in Brazilian lower-middle-class. *Revista de Administração de Empresas*, 55, 50–64. <https://doi.org/10.1590/S0034-75902015010>
- Morris, T., & Koffi, V. (2015). The link between financial literacy and education of Canadian university students. *International Journal of Innovation and Research in Educational Sciences*, 2(3), 160–170.
- Nadila, S. M. (2022). *Generasi Z: Si Paling Healing vs Si Pembawa Perubahan - Pusat Riset Masyarakat dan Budaya*. Pusat Riset Masyarakat Dan Budaya. Badan Riset Dan Inovasi Nasional (BRIN).
- Ningtyas, H. I. R. (2022). *Pengaruh Financial Attitude dan Self Control terhadap Financial Management Behavior dalam Memanfaatkan Pelayanan Buy Now Pay Later*.
- Novendra, B., & Aulianisa, S. S. (2020). Konsep Dan Perbandingan Buy Now, Pay Later Dengan Kredit Perbankan Di Indonesia: Sebuah Keniscayaan Di Era Digital Dan Teknologi. *Jurnal Rechts Vinding: Media Pembinaan Hukum Nasional*, 9(2), 183. <https://doi.org/10.33331/rechtsvinding.v9i2.444>
- OCBC. (2022). *OCBC NISP Financial Fitness Index 2022*. *OCBC Financial Index*.
- OECD. (2020). *OECD/INFE 2020 International Survey of Adult Financial Literacy*.

- OECD/INFE.
- OJK. (2022). *Hasil Survei Nasional Literasi dan Inklusi Keuangan (SNLIK) Tahun 2022*.
- OJK, & Syawalia, R. (2022). *Literasi Keuangan Adalah: Definisi, Indikator & Manfaatnya*. Land X. LandX by OJK.
- Paiella, M. (2016). Financial literacy and subjective expectations questions: A validation exercise. *Research in Economics*, 70(2), 360–374. <https://doi.org/10.1016/j.rie.2015.11.004>
- Philippas, N. D., & Avdoulas, C. (2021). Financial literacy and financial well-being among generation-Z university students: Evidence from Greece. In *Financial Literacy and Responsible Finance in the FinTech Era* (pp. 64–85). Routledge.
- Putri, N. M. E., & Andarini, S. (2022). Pengaruh Self Control dan Financial Attitude terhadap Financial Management Behavior pengguna Layanan Buy Now Pay Later. *Jurnal Ekonomi Akuntansi Dan Manajemen*, 21(1), 60–74.
- Rakhmah, D. N., & Kemendikbud, P. (2021). *Gen Z Dominan, Apa Maknanya bagi Pendidikan Kita? Pusat Standar Dan Kebijakan Pendidikan Badan Standar, Kurikulum, Dan Asesmen Pendidikan Kementerian Pendidikan, Kebudayaan, Riset, Dan Teknologi*.
- Secretariat of the Republic of Indonesia, & International Institute for Educational Planning. (2003). *Law on the National Education System (No. 20/2003)*.
- Sekretariat Negara Republik Indonesia. (2003). Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional. *Pemerintahan Republik Indonesia*, 49(0).
- Setiana, S. M., Setiawati, L., & Mustaqim, M. (2019). Hard skills versus soft skills: How do they affect different job types of Japanese language graduates? *International Journal of Learning, Teaching and Educational Research*, 18(11), 176–192. <https://doi.org/10.26803/ijlter.18.11.10>
- Shih, H.-M., Chen, B. H., Chen, M.-H., Wang, C.-H., & Wang, L.-F. (2022). A study of the financial behavior based on the theory of planned behavior. *International Journal of Marketing Studies*, 14(2), 1. <https://doi.org/10.5539/ijms.v14n2p1>
- Silawati. (2022). *Riset Kredivo: Penggunaan Paylater di E-commerce Meningkatkan 38% di 2022*. Swa.Co.Id.
- Siswanti, I., & Halida, A. M. (2020). Financial knowledge, financial attitude, and financial management behavior: Self-control as mediating. *The International Journal of Accounting and Business Society*, 28(1), 105–132. <https://doi.org/10.21776/ub.ijabs.2020.28.1.5>
- Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance*, 14, 30–38. <https://doi.org/10.1016/j.jbef.2017.04.002>
- Sumiarni, L. (2019). Perilaku Self-Control dalam Mengelola Keuangan Pribadi (Berdasarkan Theory Of Planned Behavior dan Conscientiousness) di STIKes Merangin. *Ekonomis: Journal of Economics and Business*, 3(2), 105–112. <https://doi.org/10.33087/ekonomis.v3i2.69>
- Susanti, A., Ismunawan, Pardi, & Ardyan, E. (2018). Tingkat Pendidikan, Literasi Keuangan, dan Perencanaan Keuangan terhadap Perilaku Keuangan UMKM di Surakarta. *Telaah Bisnis*, 18(1). <https://doi.org/10.35917/tb.v18i1.93>

- Tóth, M., Lančarič, D., & Savov, R. (2015). *Impact of education on the financial literacy: a case of Slovakia*.
- UNESCO. (2023). *What you need to know about higher education*.
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (2010). *Handbook of partial least squares* (Vol. 201, Issue 0). Springer. https://doi.org/10.1007/978-3-540-32827-8_29
- Wanjohi, A. M., & Syokau, P. (2021). *How to Conduct Likert Scale Analysis*. Kenpro. Kenya Projects Organization.
- Woodyard, A., & Robb, C. (2012). Financial knowledge and the gender gap. *Journal of Financial Therapy*, 3(1), 1. <https://doi.org/10.4148/jft.v3i1.1453>

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