Investigating the Role of Gender as Moderator in Relationship Between Financial Behaviour and Financial Risk Attitude Generation Z Students

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Abstract. This study aims to test the role of gender as a variable moderator in the relationship of financial behavior and financial risk attitude to financial satisfaction of generation Z students. The study received a total of 238 respondents confirmed according to research criteria. Research found that financial risk attitude and financial behavior had a positive effect on financial satisfaction. This study found that gender was able to moderate financial behavior relationships towards financial satisfaction. In contrast, the unique results found that gender did not moderate the financial risk attitude relationship to financial satisfaction. However, other variables consistently affected the relationships among variable toward financial satisfaction. The findings proved that the Generation Z had different characteristics, habits, and perspectives. On the other hand, the findings were able to enlarge literature studies related theory of satisfaction, behavior, and gender gaps.

Keywords: Financial Behavior · Financial Risk Attitude · Financial Satisfaction · Generation Z

1 Introduction

Financial satisfaction is a component of financial well-being felt by individuals concerning psychological well-being [1]. This satisfaction field has intensive practices in financial planning and public development [2]. In previous studies, financial satisfaction is considered as an essential factor to increase the life satisfaction. So that there are researchers concern to development specifics framework. In well-being theory, financial well-being is part of subjective well-being. It is a well-being approach that focuses on a personal assessment of a situation. The evaluation of the level of well-being refers to financial well-being comprehensively [1, 3, 4]. Generally, financial well-being measured in term of the overall financial satisfaction of the individual, it refers to subjective well-being concept. In addition, the satisfaction an individual perceives in subjective aspects such as financial situation, ability to manage the financial emergencies, and ability to manage the income needs [2].

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Provide that the 2019 Cigna 360 well-being survey states that Indonesia has experienced an increase in the level of welfare with a score of 65.4%, a significant increase compared to 2018. This increase means that financially the Indonesian people have relatively good interests and security. However, a global survey conducted by the Organization for Economic Co-operation and Development (OECD): International Survey of Adult Financial Literacy Indonesia has a financial well-being level of 9.0 (below average), proves that Indonesian society still has insecurity in finance. A survey from the [5] titled international survey of financial literacy stated that Indonesia's position is far below Malaysia and Thailand to care about financial expenditures. Indonesia scored 60.4%, Thailand 94.8%, and Malaysia 77.5%, with an average of 71.1%. According to the survey, Indonesia has a level of awareness in bill payment on time. The habit is a form of financially destructive behaviors that include overspending, paying bills late, and consuming emergency funds [3].

The perception of well-being in each individual has a difference. These differences can be male and female individual perceptions, which can be defined as a gender gap. Roles between genders are able to provide differences in the concept of well-being and satisfaction. Men and women have differences in several conditions, such as demographic, economic, education, and the level of life expection. Some previous studies have suggested that women have lower levels of financial knowledge than men [6, 7]. A study conducted by [8] stated that there are some evidences that women are more likely to engage in financial behaviors. They are harmful or less favorable comparing men. The habits such as timely bill payments, and avoid the risk of financial matter and so on.

Generation Z is a generation born between 1997–2010. According to Indonesian Millennial report 2019 from IDN.Times, Generation Z have characteristics such as freedom, multitasking, and tech-savvy. Although they have unique characteristics, that generation is inseparable from the level of stress. According The Deloitte Global Millennial Survey 2020, Resilient generations hold the key to creating a "better normal", 44% of generation Z admit to stress almost every time. Generation Z has the perception that are thinking more about the financial condition in the future so that tends to save behavior [9]. The report correlates with the tendency to hold with a level of confidence in personal finance.

The number of previous studies on financial behavior, financial risk attitude, and financial satisfaction has been researchers' concern. For instance, study from [4] who stated that financial behavior affected toward financial satisfaction in students college. Similarly, [2] also stated that financial behavior can influence financial satisfaction. Furthermore, positive behavior will increase the level of satisfaction [10]. On the other hand, the linked of financial risk attitude shows significant toward financial satisfaction [11] on student college [4]. In contrary, difference result has found that stated financial risk attitude did not affected on financial satisfaction [12].

Previous research has inconsistent to determine the perspective of financial risk attitude, financial behavior, and financial satisfaction. The inconsistent refers to cause in different socio-demographics respondents. Several studies examine the perspective of satisfaction in adult person. But, limited studied carried out to examine in young generation. Even though, previous studies had been carried out about young generation [4, 13] but limited empicial examination through these factors especially on the generation

Z or students' college. In addition, the examination about gender gaps also brings differences perspective between women and men, however limited studies explain about strengthening role of gender in finance well-being. This understanding will help student manage their finance be better.

This research has three main contributions. First, this study will enlarge the literature on the welfare of life reviewed from financial well-being. Second, the result of this study will verify the previous research related of this topic. Lastly, this study tests the role of gender gaps in the process of interpreting or developing financial satisfaction. The contribution will identify the role of independent variables in shaping satisfaction so that discovery can be used to improve financial quality in Generation Z students' habits.

2 Literature Review

2.1 The Theory of Planned Behavior

Theory of Planned Behavior is a development of Theory of Reasoned Action. It is a conceptual thinking framework that aims to explain certain behaviors. The theory of Planned Behavior (TPB) previously [14] explains individual behavior based on the purpose and objectives to be achieved. The central factor of an individual's behavior is that is influenced by the individual's intention (behavior intention) to that particular behavior. The intention to behave is influenced by three components, namely (1) attitude, (2) subjective norm, and (3) perception of behavior control. Belief in behavior, but only a tiny part of that belief arises to influence the behavior when faced with a particular event. It is this little belief that stands out in influencing individual behavior [14]. This prominent belief can be distinguished into (1) behavior belief that is an individual's belief in the outcome of behavior and evaluation of the result. Behavior belief will later influence behavior, (2) normative belief that is individual in the normative expectations of others that become references and motivations to achieve these expectations. This normative expectation will later form subjective norm variables for a behavior, (3) control belief that is an individual's belief about the existence of things that support or inhibit his behavior and his perception of how strongly these things can affect his behavior. Control belief forms a variable perception control behavior (perceived behavior control).

In TPB, attitudes, subjective norms, and perceptions of behavioral control are determined through critical beliefs. The determinant of a behavior is the assessment of the individual's beliefs, both positively and negatively. TPB assumes that man is a rational being and uses information that may be for him systematically. People think about the implications of their actions before they decide whether or not to engage in certain behaviors. This theory explains independent variables in this study, including financial risk attitude and financial behavior.

2.2 The Linked of Financial Behavior Toward Financial Satisfaction

States that each individual's financial behavior leads to how their techniques in managing their finances [15]. Another statement from [16] states that financial behavior shows how each individual handle and regulates their income and financial condition, such as an orientation to everyday financial problems. Financial behavior is also expressed as a person's ability to manage finances so that they can prosper [4]. Financial behavior includes the management of cash, savings, credit, and investments. Each domain of financial behavior has its own consequences. Therefore, it is imperative to include all existing fields. Financial behavior also consists of all short-term planning to manage long-term planning.

Furthermore, financial behavior includes handling finances during crises. Previous research has shown that financial behavior is the primary determinant of financial satisfaction [4, 10]. Overall satisfaction is influenced by several factors, one of which is with daily habits. According to [2]financial behavior can affect financial satisfaction. This result is also supported by [17]who stated that the better the individual manages his finances, it will increase financial satisfaction to improve the quality of his life. Other research also revealed that financial behavior can improve financial satisfaction [4, 10]. These indicate that someone who has financial habits such as saving, investing, setting aside funds, and being aware of timely payments is able to provide financial satisfaction. Based on all argue can be hypothesized:

H1: Financial behavior positively influences toward financial satisfaction on Generation Z's students.

2.3 The Linked of Financial Risk Attitude Toward Financial Satisfaction

Financial risk attitude becomes a very subjective thing in terms of investment. Financial risk attitude leads to a person's understanding of things influenced by past experience and beliefs and attitudes towards certain situations [11]. In taking the financial risk, there is an indicator called financial risk tolerance. This can be defined as a measure of the uncertainty investors want to receive in decision-making [18]. The choice in investing is the result and intention of a person in achieving a specific goal. This goal is linked to financial satisfaction [11]. Perception of financial risk occurs due to the influence of several factors such as education level, income, or financial literacy level [19]–[21]. According to [2] financial risk attitude has an influence on financial satisfaction; according to him, increasingly behaving related to risk will increase financial satisfaction. These indicate that a person can think rationally about these risks to mitigate those risks to improve their financial well-being. This research is supported by [11, 19, 21] stated that financial risk is significant positive to financial satisfaction. However, it is not in line with the research conducted by [12] which says that financial attitude consisting of risk does not affect financial satisfaction. Based all argue, we hypothesis:

H2: Financial risk attitude positive significant toward financial satisfaction on Generation Z students.

2.4 Gender as Moderator

Gender is not only a demographic status but many factors involve gender in every decision. Gender is classified in men and women. Basically, men and women have different perspectives on the perception of financial well-being, perception of financial knowledge, and perception of life goals. According to [22] female gender has a worse level of knowledge and behavior than men. The study reinforced that women prefer financial behaviors that are detrimental or less favorable to men [23] This indicates that gender can strengthen overall levels of satisfaction and well-being.

Research on gender differences has grown widely, differences in characteristics make a difference in perspective that will contribute to expanding literature on gender gaps. Previous research has suggested that women are generally less tolerant of risk in their financial decisions [20, 24]. Research from [25] found that women's gender is more risk-averse, so it can be said that women are less at risk in long-term decision making. In addition, single women have a lower level of risk tolerance than men [25, 26] this is enough to prove that there is a difference between men and women in addressing their financial status. But another study revealed something different, [19] mentioned that there are no significant differences regarding gender in predicting risk attitude. From the arguments above, it can be hypothesized:

H3: Gender moderates the relationship between financial behavior and financial satisfaction on Generation Z students.

H4: Gender moderates the relationship between financial risk attitude and financial satisfaction on Generation Z students.

3 Research Methodology

3.1 Sample and Procedure

This study examined the structural relationship between financial Behavior, Financial Risk Attitude, and Financial Satisfaction of generation Z's students. Researchers used online questionnaire dissemination to respondents from November 21, 2020 to December 5, 2020. In determining samples, purposive sampling was used to define the sample. Researchers provided criteria in determining target respondents. The criteria were (1) Respondents had to 17–25 years old and (2) As students college. Questionnaire questions were made in Indonesian and adapted from several previous studies that were adapted based on research objects. This study used structural equation modeling (SEM) method in analyzing (Fig. 1).

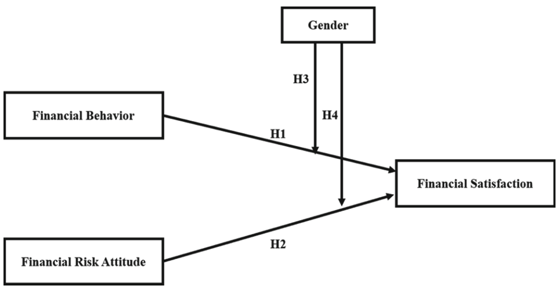

Fig. 1. Research Model

3.2 Measurement

All items and variables were adopted from previous research related to the topic of financial satisfaction. Following the previous study, researchers' financial behavior measurements used a scale developed by [19] with a sample of the question like "I set aside money for savings." For financial satisfaction researchers developed the scale of [27] and [28] used indicators such as (1) monetary savings, (2) current debt level, (3) family's current financial satisfaction, (4) ability to meet long term financial goals, (5) ability to meet financial emergencies, and (6) Money management skills. Furthermore, the measurement of 5 items from the Financial risk attitude adopted from [19] examples of items such as "I am more comfortable putting my money back in the bank than in the stock market." All items for this questionnaire used a six-point Likert scale from (1) "strongly disagree" to (5) "strongly agree."

The moderation analysis used Multigroup Analysis with Gaskin approach with Z-score value for explaining the significant level of moderation effect. The analysis used statistical tool by gaskin statistica package. Gender gaps showed the differences of women and men perspectives. The differences of group was coded, women coded 1 and men coded 2.

4 Result and Discussion

4.1 Data Analysis

Structural equation modeling tested in this study using AMOS 23 software using two steps in testing a model [13]. The first step was validity test by using confirmatory factor analysis (CFA). The second was reliability to measure reliable data. The third step was identified model-fit construct that used Goodness of fit Model (GoF). Lastly, structural and path analysis tested in this structural model for measuring the hypothesis.

The demographics of respondents received 450 total respondents and only 238 respondents were confirmed as research criteria. The average respondent was 68.5% female while the male was 31.5%. 52% of respondents are 18–20 years old, 48% of respondents are 21–23 years old. Respondents in this study spread in several regions in Indonesia but dominated by East Java by 86.3% followed by Kalimantan as much as 4.7%. Respondents consisted generation Z students with a percentage of 54.6% were Management students, 25.2% were Accounting students and 20.2% were economics students.

Table 1 illustrated the result of a descriptive statistical test. Descriptive statistics consisted of mean, maximum, minimum, and standard deviation of all variables. Based on the analysis results, it appears that financial risk attitude had the highest standard deviation value (SD = 0.73429) followed by financial behavior (SD = 0.72647). In contrast to the mean value, financial behavior had the highest mean value (X = 3.6344), followed by financial satisfaction (X = 3.6120).

Table 2 illustrated a validity and reliability were used by Confirmatory Factor Analysis (CFA). According to [29], an item is significant if the loading factor is more than 0.5. Assess validity by testing indicators of loading. The loading factor of items were statistically significant value (>0.5), but items FS2, FS3, FB2, FB5, FB6 and FR5 in

Table 1. Descriptive statistics

	Mean	Max	Min	Stand. Dev
Financial Satisfaction	3.6120	5.00	1.33	0.64680
Financial Behavior	3.6344	5.00	1.67	0.72647
Financial Risk Attitude	3.4292	5.00	1.00	0.73429

Table 2. Confirmatory Factor Analysis

Construct/Item	standardized solution (>0,50)	Variance Error (Unstandardized solution)	Construct reliability	Variance Extracted
FS1	0.51	0.74	0.79	0.59
FS4	0.71	0.50		
FS5	0.86	0.26		
FS6	0.73	0.47		
FB1	0.60	0.40	0.80	0.58
FB3	0.88	0.12		
FB4	0.53	0.47		
FR1	0.62	0.61	0.71	0.39
FR2	0.68	0.54		
FR3	0.59	0.65		
FR4	0.60	0.64		

Table 3. Direct Effect Test

Path	Estimate	Critical Ratio	P-Value	Decision
FB-FS	0,671	5.347	****	Supported
FR-FS	0,104	1.997	0,046	Supported

Note: P > 0,05; c.r > 1.645

this construct were removed because they did not meet the minimum requirement of 0.5 [29]. In this test, the reliability (Construct Reliability and Variance Extracted) all variables had met the construct reliability (>0.7) [29]. However, variable financial risk attitude had VE value below 0.5. However, this condition was acceptable and could still be said to be reliable because the construct reliability value was above 0.7 and adequately represented the reliability of a data.

Table 4. Multigroup Test

	Men		Women			Decision
	Est	P	Est	P	Z-score	
FB-FS	0,407	0,004	0,847	***	1,806*	Supported
FR-FS	0,115	0,177	0,122	0,073	0,062	Rejected

Table 5. Goodness of fit model

	Goodness of fit Index	Cut-off value	Result	Ket
Absolute fit measures	$\chi 2$ – Chi-square (df = 39, p = 0,133)	≤ 48,902	48,883	Fit
	Sig. Probability	≥ 0,05	0,133	Fit
	df	> 0	39	Fit
	RMSEA	≤ 0,08	0,033	Fit
	GFI	≥ 0,90	0,965	Fit
Incremental fit measure	AGFI	≥ 0,90	0,941	Fit
	TLI/NNFI	≥ 0,90	0,980	Fit
	NFI	≥ 0.90	0,934	Fit
	IFI	≥ 0.90	0,986	Fit
	CFI	≥ 0,90	0,986	Fit
Parsimonious fit measure	PNFI	Suggestion in high score	0,662	Fit
	PGFI	Suggestion in high score	0,570	Fit

4.2 Results

The Path analysis result shown in Table 3 which described the value of this research, statistical testing of structural models as a whole obtained results chi-square = 48.883, p-value = 0.133, CFI = 0.986, GFI = 0.965; TLI = 0.980, so that the full model had met the criteria of goodness of fit model. Hypotheses could be accepted if P-value less than 0.05 and t-value more than 1.645. The Relationship of Financial behavior ($\beta = 0.671$, t-value (5,347) ≥ 1.645; $p < 0.05$) and financial risk attitude ($\beta = 0.104$, t-value (1.997) ≥ 1.645; $p < 0.05$) has significant positive effect toward financial satisfaction. Thus, H1 and H2 are accepted (Fig. 2)

Furthermore, to test H3 and H4 as the moderation hypothesis, researchers used the multigroup analysis approach. This moderation approach was adopted from Gaskin who used statistica tool. Table 4 is the result of moderation effect.

The results of this multigroup test stated that gender is able to moderate the relationship of financial behavior to financial satisfaction with a value of Z-score (1,806) > 1,645. Thus, H3 is accepted. In contrast, different results found that gender is not able

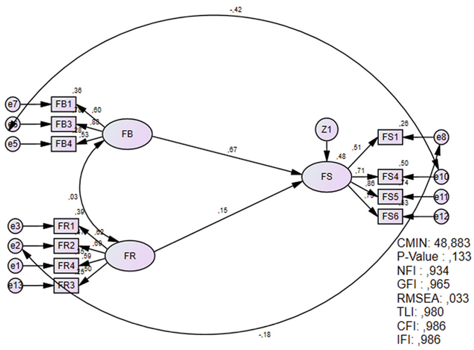

Fig. 2. Full Model Financial Satisfaction

to moderate the relationship of financial risk attitude to financial satisfaction. Thus, H4 was rejected.

4.3 Goodness of Fit Model

This study uses structural equation modeling. Essentially, the use of SEM looked at the value of Goodness of Fit models (GoF) for estimating fit models in a construct. SEM has criteria in GoF as a condition that a model is said to be fit. Table 8 presented the results from Goodness of Fit model in this construct, a model can be said to be fit if it meets at least 4–5 indicators of goodness of fit. According to GoF result, all indicator consists of absolute fit, incremental fit, and parsimonious fit looked fit. Likewise, the goodness of fit is accepted.

4.4 Discussion

This study was conducted to test the structural relationship between financial risk attitude, financial behavior, and financial satisfaction in Generation Z students. The results of this study were in line with several theories such as the theory of planned behavior which made the role of financial satisfaction was able to determine the quality of life and perception of the welfare of generation Z students.

This study found that financial behavior has a positive effect on financial satisfaction, this finding indicates that the behavior of generation Z students such as saving, financial management, and investment is able to provide financial satisfaction. This is in line with the theory of planned behavior that refers to attitudes that will affect intentions so as to provide positive behavior. It is this positive behavior that determines the quality of one's life [4]. This finding is reinforced by the subjective well-being theory which refers to a positive influence that emphasizes enjoyable experiences thus improving satisfaction and quality of life.

In addition, the findings are in line with previous research that states that the more positive behavior of a person, the more able to influence overall financial satisfaction [2, 4, 17, 19]. The findings are also supported by a survey conducted by Deloitte that states that generation Z tends to save behavior to increase trust in personal finance [9].

According to [4], student financial behavior has an impact on financial practices in the future, good financial behavior is able to contribute to the financial management system. Financial activities including saving, investing, organizing emergency funds, will increase satisfaction in financial behavior. This research shows that generation Z students have good behavior in financial management so that there is a feeling of satisfaction and safety in them. Thus, the encouragement of positive financial behavior is an effective way to increase subjective satisfaction [13].

Undeniable that something related to finances as well as the perception of financial satisfaction has a close relationship with the perception of risk that will occur. This study found that financial risk attitude positively affects the financial satisfaction of generation Z students. This indicates that generation Z students can think rationally about the risks of investing to control the quality of financial management to increase financial satisfaction. Some things make generation Z tend to avoid risk, based on a survey from [9] Generasi Z are very careful with allocating money because they tend not to have enough money always to be wise and avoid such risks [9]. These results are supported by studies conducted [2, 19] but not in line with the study conducted by [12].

The welfare standards of each individual certainly have differences. These differences are based on several factors and urgency and priorities. Priorities make the perspective well-being of each individual to experience differences, as does Gender. Gender plays a pretty important role in a well-being perspective. Gender gaps can provide differences in priorities and satisfaction levels. This research shows that Gender is able to moderate the relationship between financial behavior toward financial satisfaction of generation Z students. More specifically, the study found that female Gender has a greater role than male Gender in moderating financial behavior relationships to financial satisfaction. The implication is women have a tendency to make decisions and responsibilities in the future [5, 30].

Based on The Planning, Attention, Simultaneous, and Successive (PASS) cognitive process, women significantly have better PASS scores than men. This process works in producing habits and improving executive function in terms of control, organized practices, choosing and strategizing, and controlling performance. Previous research mentioned that women could plan, execute, and self-control, which plays an essential role in fostering financial behavior [8]. The findings can increase our opinion about behavior in gender differences.

Uniquely found in this study, these findings are beyond the researchers' expectations. The results showed that gender does not moderate or strengthen the relationship of financial risk attitude to financial satisfaction. The finding was supported by [20] who stated that gender did not affect risk attitude levels. This can happen because the characteristics of respondents have a financial attitude that is not aware of the risks, the financial attitude of generation Z both men and women who are still in the "comfort zone" so fear in risk taking. Besides, this can happen because students are still not independently financial so still rely on their finances to parents or parental income. The reason related to respondent demographics who shows most of our research respondents are still being students.

This research contributes to enlarge the literature on behavior especially in financial behavior. First, the results of this study will confirm the theory and discoveries become more recent with the current condition with the object of generation Z students. Second, this study found contradictory results from previous studies such as results that state that gender is not able to moderate the relationship of financial risk attitude and financial satisfaction this will be a picture of the characteristics of generation Z that tends to avoid risk and better secure the assets owned. Third, this study provides a different overview to describe financial well-being from the perspective of Generation Z Students (Table 5).

5 Conclusion

Generation Z has unique characteristics over other generations (Y generation, X generation, and baby boomers) a generation filled with technological and cultural changes. The findings proved that the Generation Z has different characteristics and behavior. The study found that the financial practices of millennials does not change the perspective of financial risk. On the contrary, the research revealed that the rules in managing finances is able to increase financial satisfaction in Generation Z. This also happened that generation Z was able to think rationally about the risks of financial decisions. Generation Z students mitigate those risks as a result of being able to control finances that can increase satisfaction in their finances. Financial behavior and financial risk attitude can increase financial satisfaction in Generation Z. This study also tested the influence of gender as a variable moderator. Surprisingly, the results were obtained that gender does not moderate the relationship between financial risk attitude and financial satisfaction. However, gender roles can strengthen financial behavior relationships to financial satisfaction.

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