

# The Influence of Financial Well-Being on Happiness and Financial Decision Making in Indonesia

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## ABSTRACT

Previous studies have investigated the effect of financial well-being on happiness, and emotions on financial decision making, but there were not many that have combined both. This research aims to reveal the effect of financial well-being on happiness, and the effect of happiness on financial decision-making among Indonesians. Source of financial well-being, province, and gender are included as moderating variables to the relationship between financial well-being and happiness. The analysis examined primary data from a sample of 152 respondents across the country with PLS-SEM and secondary data from World Happiness Report, GDP/capita, amount of saving in general bank and retirement saving for Indonesians with regression. Based on analysis on the primary and secondary data, financial well-being has positive correlation with happiness, and happiness has positive correlation with financial decisions. However, based on analysis from the primary data, there are no effect from all moderating variables. This research adds to the literature of financial well-being, happiness, and financial decision making, and its findings also provide opportunities for future research within the fieldst.

## ARTICLE INFO

### Article History:

Received : 14-06-2024

Revised : 01-10-2024

Accepted : 14-10-2024

Published : 31-10-2024

### Keywords:

Financial Well-Being

Happiness

Financial Decision Making

Personal Finance

JEL: D12, D14, I31

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## INTRODUCTION

Financial well-being is defined as “set of conditions that enable people to fulfil present and recurrent financial obligations, make consumption decisions without getting stressed financially,

prepare for facing economic contingencies, and pursue future financial goals” (García-Mata & Zerón-Felix, 2022). According to Sorgente, Totenhagen & Lanz (2021), the conceptualization of financial well-being is complex, but the main

themes of previous studies include (1) subjective and objective components, and (2) positive and negative components (ie, well-being and stress).

Happiness can affect productivity level. Research by DiMaria, Peroni & Sarracino (2020) in European countries shows that life satisfaction results in a significant increase in productivity. Research in Laos by Kadoya et al. (2020) also revealed that happiness is significantly related to productivity in a positive manner. Research in China that aimed to find the relationship between farmer happiness and agricultural productivity shows that higher levels of farmer happiness will result in increased productivity of maize (Ma et al., 2022).

There has been some research which show that in certain contexts and limits, money can buy happiness. Research in Bangladesh shows that there is a positive correlation between welfare and income. The lower below the poverty line, the more the negative significant effect on happiness (Tauseef, 2021). Research by Cimpoeru (2022) in eleven European countries shows that happiness is significantly impacted by income and unemployment. Higher income results in a greater level of happiness in the long term. Meanwhile, unemployment reduces a person's level of happiness both in the short and long term. According to article review by Volkos & Symvoulakis (2021) based on data from several countries, the economic downturn and its consequences can negatively affect the psychological state of both the population as a whole and certain sub-groups.

On the other hand, happiness can be also affected by social media usage. Literature review article from Verduyn et al. (2020) stated that because of the increase of social media sites, social comparisons are taking place at an unmatched level and scale. Social comparison usually has a negative impact on subjective well-being (Verduyn et al., 2020). Research from Lewin et al. (2022) also found that the greater the frequency with which a person compares their abilities with others, the greater their social media

use problems.

In addition, emotions could be inhibitor in making healthy financial decisions (Dibb et al., 2021). Research by Eberhardt, Bruine de Bruin, & Strough (2019) found that older age correlated with better scores in making financial decisions, knowledge gained from experience, and fewer negative emotions about financial decisions. Research by She et al. (2023) in Malaysia among working millennials found that too much use of social media sites is negatively related to financial well-being.

Indonesia is currently the largest economy in Southeast Asia, the world's fourth most populous nation and 10th largest economy in terms of purchasing power parity (World Bank, 2022). However, Based on World Happiness Report, Indonesia ranked 87 out of 146 countries for average happiness during 2019-2021 (Sustainable Development Solutions Network, 2012-2022). In addition, Badan Pusat Statistik (Statistics Indonesia) defined Poor Residents as residents who have an average per capita expenditure per month below the poverty line (BPS, n.d.). In September 2022, 9,57% of the Indonesian population lived below the national poverty line, which is Rp535.547,00/capita/month (BPS, 2023).

Based on the population census from BPS in 2020, the total population of Indonesia was 270.2 million people. The percentage of population in the productive age category (between 15-64 years) in Indonesia to the total population for that year was 70.72%. In addition, the most dominating generations in Indonesia are generation Z (1997-2012) and millennials (1981-1996), with the respective percentages of 27.94% and 25.87% of the total population (Antara & Widayastuti, 2021; Jayani, 2021). Currently, millennials, namely the generation born in 1981 - 1996, are within the productive age category. Furthermore, based on data from Statista as of February 2022, Indonesia has 191.4 million active social media users, ranking third after China and India in the Asia Pacific.

Based on the background above, this research is important since even though Indonesia is currently the country with the largest economy in Southeast Asia, in the 2022 World Happiness Report Indonesia was ranked 87th out of 146 countries. In addition, as of September 2022, 9.57% of Indonesia's population still lives below the poverty line while there has been study which found that financial well-being affects happiness. Based on the 2020 BPS census, 70.72% of Indonesia's populations were also within the productive age category, and research has found that happiness can positively affect productivity. Furthermore, research has also found that negative emotions can hinder a person from making healthy financial decisions. Excessive use of social media can also make someone make bad financial decisions, whereby as of February 2022, Indonesia has 191.4 million active social media users. Hence, this research was conducted with Indonesia as the geographical scope.

This research provides several contributions to the disciplines of financial well-being, happiness, and financial decision making. First, plenty of research have been done to investigate the connection between financial well-being and happiness (Tauseef, 2021; Cimpoeru, 2022; Volkos & Symvoulakis, 2021). Many of previous studies also have shown that financial decision is affected by emotions (Dibb et al., 2021; Eberhardt, Bruine de Bruin, & Strough, 2019). However, few have combined both financial well-being and happiness, and happiness and financial decision making. Second, this research uses a set of primary data to examine the relationships above, and reconfirm the findings with a set of secondary data, whereby most of the previous researches use only either primary or secondary data. Third, this research also examines the role of sources of financial well-being, gender, and province as moderating variables in the relationship between financial well-being and happiness in the primary data. To the author's best knowledge, there haven't been many studies on the topics that include the above as moderating variables. This study intends to investigate the effect of financial well-being on happiness, and the effect of happiness on

financial decision making among Indonesians, with source of income, province, and gender as moderating variables.

## **LITERATURE REVIEW**

### **Financial Well-Being**

According to the United States Consumer Financial Protection Bureau, financial well-being can be defined as a state in which "a person can fully meet current and ongoing financial obligations, can feel secure about their financial future, and is able to make choices that allow them to enjoy life" (CFPB, 2015). Financial well-being means being financially healthy, happy and free from worries (Iramani & Lutfi, 2021). Sorgente, Totenhagen & Lanz (2021) also found that previous studies showed that (1) financial well-being changes every day, (2) changes over time can be modeled, and (3) it is possible to identify processes within the subject which describes this change.

According to Iramani & Lutfi (2021), financial well-being can be measured in objective and subjective manners. Objective indicators commonly used includes income, expenses, debt, assets, net worth, and debt-to-income ratio. Meanwhile, subjective indicators include financial satisfaction or satisfaction with certain financial aspects. In their research, apart from measuring financial well-being, Iramani & Lutfi (2021) also measure financial status through monthly income and net worth of respondents.

The United States Consumer Financial Protection Bureau created a parameter to measure financial well-being, namely CFPB FINANCIAL WELL-BEING SCALE which consists of 10 questions that can be answered on a 7-Likert scale. In his research, Butar, I. D. B., et al., (2020) measured the financial well-being of Indonesian millennials using a questionnaire with four questions adapted from the research by Collins & Urban (2020). Research from Collins & Urban (2020) itself also uses the questions from the 2016 CFPB National Financial Well-being Survey. Measurement of financial well-being with CFPB parameters is also the basis for a framework

for measuring financial well-being elaborated in García-Mata & Zerón-Felix's (2022) research.

Tauseef (2021) examined the correlation between subjective well-being and income, relative income, and financial and non-financial poverty in Bangladesh. This study used consumption expenditure per capita as a representative of income measurement at the household level. Meanwhile, Cimpoeru (2022) examined the influence of income and unemployment on happiness in 11 European countries. Income was obtained from GDP per capita during the period 1985 – 2020, while the unemployment rate was obtained from World Bank data.

### **Happiness**

There are several parameters to measure happiness that are commonly used. The Oxford Happiness Questionnaire consists of 29 questions that can be answered in 6-scale Likert (Hills & Argyle, 2002). Meanwhile, The Subjective Happiness Scale consists of four questions that can be answered on a 7-scale Likert (Lyubomirsky & Lepper, 1999). On the other hand, The Satisfaction with Life Scale consists of 5 questions that can be answered on a 7-scale Likert (Diener, E. et al., 1985).

Previous research has also utilized readily available data. Lakshmanasamy & Maya (2021) used India's World Values Survey (WVS) data for 24 years from 1990 to 2014. In the survey, the life satisfaction question section asked respondents to evaluate the while life through the question "All things considered, how satisfied are you with your life as a whole are these days?" where they rated themselves on a 10-point scale, ranging from dissatisfied to satisfied. Cimpoeru (2022) measures happiness as average life satisfaction where the data is obtained from the World Database of Happiness, Trend in Nations dataset which has been processed in another previous study.

In addition, there is an alternative measure of happiness, namely subjective well-being (SWB).

In research by Collins & Urban (2020), one of the questions to measure subjective well-being being used is "I am satisfied with my life". Tauseef (2021) also uses subjective well-being measurements in his research. This measurement is obtained from the answers of individuals to the life satisfaction question, "I am going to ask you a series of questions and I want you to tell me how you would rate your satisfaction on a scale of 1 to 10, where 1 means you are not satisfied and 10 means you are very satisfied. If you are neither satisfied or dissatisfied this would be in the middle or 5 on the scale. How would you rate your satisfaction with: Your satisfaction with your life overall?"

### **Financial Well-Being and Happiness**

There have been many research that found correlation between financial well-being and happiness. Muresan, Fülöp & Ciumas (2021) found a positive correlation between salary and happiness, and also between salary and life satisfaction. The research was conducted in Romania with 376 respondents. Ugur (2021) found that in Turkey household income correlates positively and significantly with happiness. On the other hand, Lakshmanasamy (2022) found that in India, people are more susceptible to the effect of social comparison than to individual income. Aligned with Lakshmanasamy (2022), the research in Turkey by Ugur (2021) also found that relative position in society is more important than absolute income in predicting happiness.

Another research by Lakshmanasamy & Maya (2021) attempted to proof the Easterlin Paradox in India. Easterlin's paradox states that in the long run, there is no direct relationship between income and happiness at the overall level. Nevertheless, there is a positive relationship between a person's income and his/her life satisfaction. This might be due to the relative income effect, whereby people evaluate their life satisfaction relatively with reference to their past income or other reference income. Lakshmanasamy & Maya (2021) shows that life satisfaction decreases along with economic growth. Thus, it can be implied that in India

subjective welfare values are motivated by eagerness to earn more money and relative status in the environment, but not by the absolute income itself. If income increases for everyone in the reference group environment, then life satisfaction will remain the same because a person's relative position or ranking will remain the same.

On the other hand, the source of financial well-being could also affect the level of happiness. According to research by Jin & Li (2022), undergraduate students in China are happier when they spend money they earned themselves than when using money they got from their parents, regardless of whether the type of spending is for material purchases or experiential purchases). The mediation analysis in this study suggests that this is since spending money earned by oneself can meet the needs for autonomy and competence.

There also have been researches about the effect of genders on happiness. Bhutan is the first and only country currently to implement a Gross National Happiness (GNH) index measurement. Research in Bhutan by Verma & Ura (2022) based on the results of the GNH survey shows that in general, men are happier than women. Montgomery's research (2022) also shows that based on data from a Gallup World Poll involving 102 countries that have adjusted for anchoring vignettes, women are more unhappy than men. Indonesia itself, according to research from the United Nations Development Program, is a country ranked 110th in the Gender Inequality Index out of 170 countries.

### **Emotions and Financial Decision Making**

Dibb et al. (2021) shows that emotions can guide us to handle complex decision-making processes but can also hinder us from making healthy financial decisions. Emotions can sway individuals to purchase things that they don't need that suit their lifestyle and preferences, but in turn increase their financial susceptibility. To measure financial decision making, Dibb et al. (2021) conducted semi-structured interviews

with respondents from low to moderate income households who identified themselves as "financially squeezed". The interviews were conducted twice and covered the topic of participants' confidence in managing their money; their role in managing their household finances; financial behaviour (budgeting, saving, and financial resilience); attitude towards money; and financial priorities.

Eberhardt, Bruine de Bruin, & Strough (2019) shows that higher experience-based knowledge and lower levels of negative emotions also appear to benefit financial decision making in older adults (aged 60 years or older). Their research predicted financial decision-making behavior from various tests to determine resistance to sunk costs, credit card payment decisions, financial management, and inventory resulting from their financial decisions.

Study by She et al. (2023) in Malaysia found that over the top use of social media sites is negatively correlated to financial well-being. This is because excessive use of social media triggers troublesome financial behaviour that results in compulsive buying and poor financial conditions. In addition, when working millennials have an ingrained active digital lifestyle and are constantly exposed to various information, feelings of anxiety and insecurity about their financial condition trigger irrational responses and lead to bad financial well-being.

Based on the literature review above, below are the hypotheses for this research:

- H1: Financial well-being has a positive influence on happiness of Indonesians.
- H2: Sources of financial well-being from oneself has a positive influence on the relationship between financial well-being and the happiness of Indonesians.
- H3: Male gender has a positive influence on the relationship between financial well-being and the happiness of Indonesians.
- H4: The province of domicile has an influence on the relationship between financial well-being and the happiness of Indonesians.

- H5: Happiness has a positive influence on the financial decisions of Indonesians.

## **RESEARCH METHOD**

### **Primary Data**

For primary data, the method used to measure the financial well-being of the Indonesian population consists of subjective and objective indicators. Subjective measurements used the CFPB FINANCIAL WELL-BEING SCALE questionnaire which was adjusted to the research objectives and conditions in Indonesia. This is consistent with literature studies where this questionnaire and its modified versions have been widely used in previous similar studies such as by Butar, I. D. B., et al. (2020), Collins & Urban (2020), and García-Mata & Zerón-Felix (2022). Five questions were chosen from the total ten CFPB questions. In addition, objective measurement is also included through the measurement of individual income with the consideration that this study will use source of financial well-being as one of the moderating variables. In answering their sources of financial well-being, respondents were provided with options that could either come from oneself or other parties. Hence, we need the parameter to measure financial well-being to be at an individual level.

The question used to measure happiness is the questionnaire question "All things considered, how satisfied are you with your life as a whole are these days?" adapted from the World Values Survey (WVS) based on the research of Lakshmanasamy & Maya (2021). Life satisfaction as a measure of happiness was chosen in accordance with a literature study where research from Collins & Urban (2020) and Tauseef (2021) also used a questionnaire that contained components for measuring the life satisfaction of the respondents.

Meanwhile, financial decision was measured through questionnaire adapted from Eberhardt, Bruine de Bruin, & Strough (2019) and included components of financial management and inventory of the results of respondents' financial

decisions. Components of credit card payment decisions are not included considering that according to the Indonesian Credit Card Association in 2022, credit card users accounted for only around 6% of the total population (Assosiasi Kartu Kredit Indonesia, 2022). On the other hand, the resistance to sunk cost question was adapted from Bruine de Bruin, Parker & Fischhoff (2007).

The moderating variables used are sources of financial well-being (Jin & Li, 2022), gender (Verma & Ura, 2021); (Montgomery, 2022), and province. The province moderation variable is used because there are differences in Regional Minimum Wage in each province in Indonesia (Ahdiat, 2022). Thus, it can be assumed that the nominal salary value of the respondents will be different from the real salary value according to the province where they live.

In total, the questionnaire used in primary data collection in this research consist of 20 questions, with 5 questions related to general information, 7 questions related to financial well-being, 1 question related to happiness, and 7 questions related to financial decisions.

This study uses 95% confidence level and 8% margin of error, with total Indonesian population of 270,2 millions. Hence, based on the statistical formula to determine the sample needed, the Adjusted Sample Size for this study is:  $150.063 / [1 + ((150.063-1)/270.2 \text{ million})] = 150.062 \approx 151$  respondents (Cuemath, n.d.). The respondents in this research were collected by utilizing tSurvey, the survey platform from Telkomsel. Telkomsel is the largest cellular telecommunication carrier in Indonesia, whereby tSurvey uses the Telkomsel subscribers' database as a potential respondent pool to deliver survey to the respondents. The target respondents in this research were from all over Indonesia, with age range between 15 - 85.

The number of target respondents is also in accordance with the number of indicators used in the model. According to Barclay et al. (1995)

in F. Hair Jr. et al. (2014), the minimum sample size for the PLS model should be equal to the larger of the following: "Ten times the largest number of formative indicators used to measure one construct; or ten times the largest number of inner model paths directed at a particular construct in the inner model."

In this study, as seen in Figure 1. Primary Data Model - Initial, the highest number of formative indicators included in a construct is 6 indicators for Financial Well-being. Thus, the minimum number of samples according to the first point is  $6 \times 10 = 60$ . Meanwhile, the largest number of inner model paths directed at a particular construct in the inner model is one, so the minimum number of samples according to the second point is  $1 \times 10 = 10$ . Thus, the minimum target of 151 respondents has exceeded these two minimum requirements.

Then, the data is processed with Partial Least Square-Structural Equation Modelling (PLS-SEM) to look for the effect of independent, moderating, and mediating variables on the dependent variable.

### Secondary Data

For secondary data, adapting from Cimpoeru (2022), GDP per capita is used to measure income (World Bank, n.d.). Secondary data on the happiness of the Indonesian is obtained from Indonesia's ranking in the World Happiness Report (Sustainable Development Solutions Network, 2012-2022). On the other hand, secondary data to measure financial behaviour in this study was obtained by adapting some of the components of the financial decision

measurement questions in the study of Eberhardt, Bruine de Bruin, & Strough (2019) namely using data on the amount of savings of the Indonesian in general banks from BPS (BPS, 2022) and the amount of Indonesian pension funds from Indonesia Financial Services Authority (OJK) (OJK, 2014-2021). Secondary data is processed in Microsoft Excel for the data period of 2010 to 2021 to look for correlations between the variables.

## RESULT AND DISCUSSION

### Primary Data Pilot Test

Prior to the main data collection, two pilot tests were conducted to ensure the questionnaire used in primary data collection can be easily understood and is suitable for the contexts in Indonesia. The first pilot test was distributed to 44 respondents using Google Form. Out of 44 respondents, 14 respondents provided feedbacks which were used to revise the questionnaire. The second pilot test with revised questionnaire was distributed again with Google Form to 53 respondents, where 11 respondents provided feedbacks. The feedbacks received in the second pilot test were not substantial, hence upon minor revision the questionnaire was distributed to the main target respondents with tSurvey platform.

Main test result on Table 1 shows that out of 152 respondents, most of the respondents are male with 87 respondents (57%). In terms of domicile, most of the respondents are domiciled in West Java (16%). For marital status, Respondents participated in the survey mostly unmarried (47%) and was born between 1999 - 2000.

Table 1. Respondents' Profile

Category	Freq	%	Category	Freq	%
<b>Gender</b>			<b>Status</b>		
Male	87	57%	Unmarried	72	47%
Female	65	43%	Married - Not Having Children	11	7%
<b>Grand Total</b>	<b>152</b>		Married - Have up to 2 children	52	34%
			Married - Have More Than 2 Children	17	11%

<b>Domicile</b>	<b>Freq</b>	<b>%</b>	<b>Grand Total</b>	<b>152</b>
Bali	3	2%		
Banten	5	3%	<b>Year of Birth</b>	<b>Freq</b>
Bengkulu	2	1%	>=1980	10
DI Yogyakarta	1	1%	1981-1990	49
DKI Jakarta	19	13%	1991-2000	74
Jambi	3	2%	<=2001	19
West Java	24	16%	<b>Grand Total</b>	<b>152</b>
Central Java	16	11%		
East Java	19	13%		
West Kalimantan	5	3%		
South Kalimantan	4	3%		
Central Kalimantan	3	2%		
East Kalimantan	2	1%		
North Kalimantan	1	1%		
Riau Island	2	1%		
Riau	3	2%		
Lampung	7	5%		
Maluku	1	1%		
Nanggroe Aceh Darussalam	2	1%		
East Nusa Tenggara	2	1%		
West Sulawesi	1	1%		
South Sulawesi	3	2%		
Central Sulawesi	3	2%		
Southeast Sulawesi	1	1%		
North Sulawesi	3	2%		
West Sumatra	4	3%		
South Sumatra	7	5%		
North Sumatra	6	4%		
<b>Grand Total</b>	<b>152</b>			

Source: Questionnaire Result (2023)

**Primary and Secondary Data Results**

As mentioned above, the primary in this research is processed with PLS-SEM using SmartPLS4. The primary data model was assessed for outer model, reflective measurement model, formative measurement model, and structural model fits.

Below is the initial model result for primary data in this study:

According to Garson (2016), outer loading is the focus on the reflective model. Meanwhile, the outer weight is the focus on the formative model. For this research model, the reflective models are Happiness, Financial Decision, Gender, Province, and Source of Financial Well-Being. On the other hand, reflective model is Financial Well-Being. For a fit model, loadings path must be above 0.70. Meanwhile, there is a possibility



if the outer loading of an indicator is high and significant, while the outer weight is not significant. If an indicator has an outer weight that is not significant and the outer loading is not high (not > 0.50) and it is not the only indicator for a theoretically important dimension in a formative model, then the indicator is a candidate

to be excluded from the model even though the loading is significant.

Based on the assessment of outer model measurement loadings and weights, below is the final model for the primary data analysis in this research:

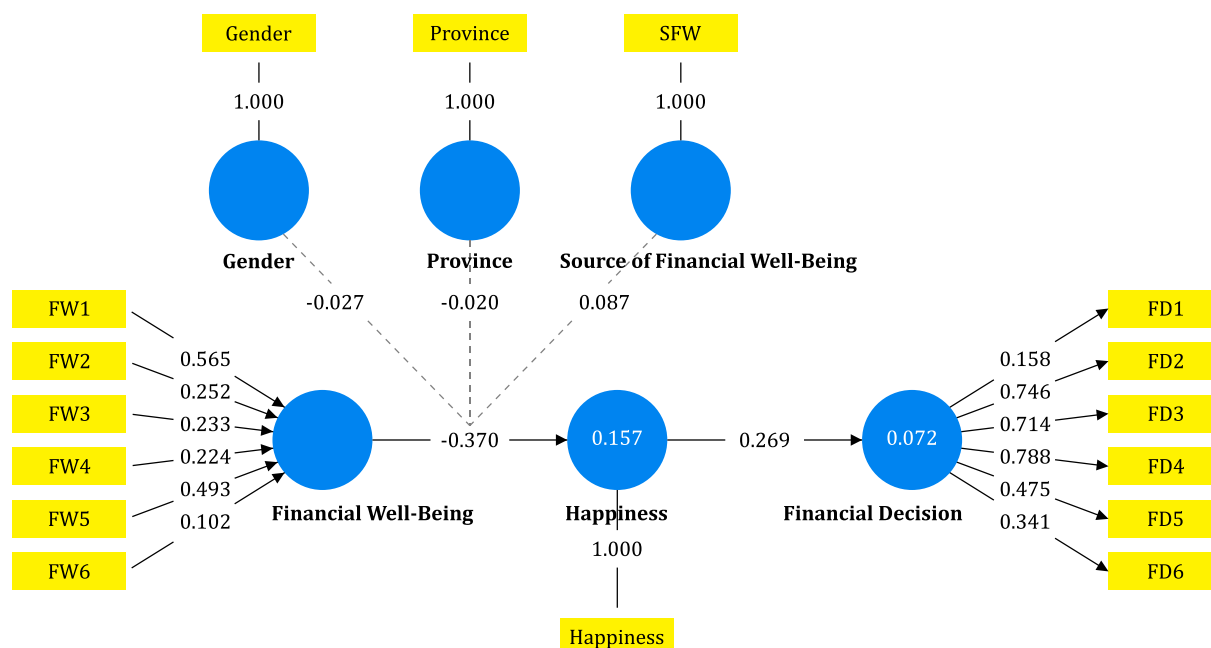


Figure 1: Primary Data Model - Initial

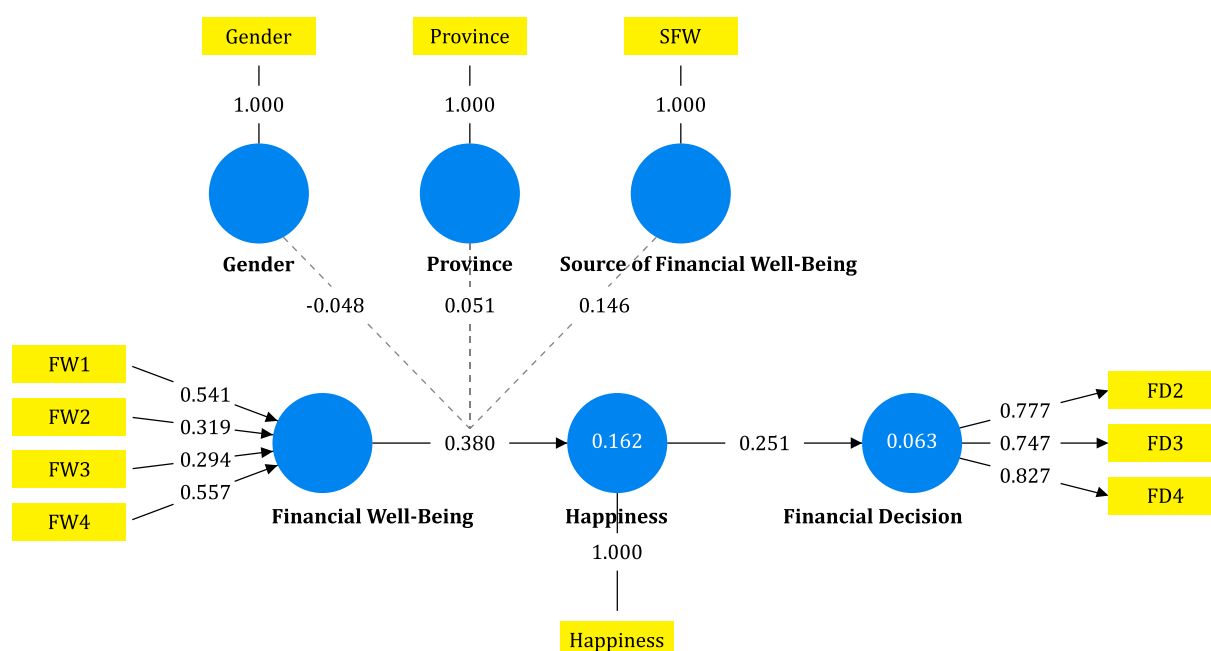


Figure 2: Primary Data Model - Final

We must assess the measurement fit of a reflective model in PLS-SEM through Composite Reliability (must be equal to or greater than 0.60 for exploratory purpose, equal to or greater than 0.70 for an adequate model for confirmatory purpose, and equal to or greater than 0.80 is considered good for confirmatory research), Cronbach's Alpha (same as Composite Reliability),  $\rho_A$  (same as Composite Reliability), Average Variance Extracted (AVE) (bigger than 0.50 and bigger than cross-loading values), and Heterotrait-Monotrait (HTMT) Ratio (below 1.0) (Garson, 2016; Hair et al. 2019).

Table 2 shows that in the final model, all the criteria for assessments above have been met, except for Cronbach's Alpha for Financial Well-Being which is below 0,7. However, because the Composite Reliability and  $\rho_A$  are above 0.70, and this research is considered exploratory in nature, these variables are retained. Meanwhile, the AVE

value for Financial Decision Making is above 0.50 and the HTMT below 1.0 as shown in Table 3.

Measurement fit for formative model is assessed through Path Loading Significance, Variance Inflation Factor (VIF) (below 3), and Indicator Weight Significance. The final model has also meet the criteria for formative model assessments.

For the structural model, Variance Inflation Factor (VIF) and  $R^2$  (0.75, 0.50 and 0.25 can be considered large, medium and weak, respectively) were assessed. In addition,  $R^2$  only exhibits explanatory power within the model range. However, the value of  $R^2$  does not explain the strength of the out-of-sample predictive model. This research also includes analysis of the model In PLSpredict, where value of  $Q^2_{predict} > 0$  indicates that the model outperforms the most naive prediction from the standard.. Then, if PLS-SEM analysis compared to LM results in higher

**Table 2.** Construct Reliability & Validity Test Result

Variable	Cronbach's Alpha	Composite Reliability (rho_a)	Composite reliability (rho_c)	AVE
<b>Financial Decision</b>	0,695	0,713	0.827	0,616

Source: Output SmartPLS (2023)

**Table 3.** Discriminant Validity Test Result

	Financial Decision	Gender	Happi-ness	Province	Source of Financial Well-Being	Source of Financial Well-Being x Financial Well-Being	Province x Financial Well-Being	Gender x Financi-al Well-Being
<b>Financial Decision</b>								
<b>Gender</b>	0.140							
<b>Happiness</b>	0.291	0.070						
<b>Province</b>	0.042	0.188	0.085					
<b>Source of Financial Well-Being</b>	0.141	0.293	0.120	0.065				
<b>Source of Financial Well-Being x Financial Well-Being</b>	0.132	0.006	0.012	0.163	0.180			
<b>Province x Financial Well-Being</b>	0.090	0.061	0.011	0.200	0.131	0.229		
<b>Gender x Financial Well-Being</b>	0.055	0.022	0.032	0.070	0.005	0.127	0.297	

Source: Output SmartPLS (2023)

prediction errors in terms of RMSE (or MAE) for majority of indicators then the model has low predictive power (Hair et al., 2019). In this research, the final model has outperformed the most naive predictions from the benchmark but has low predictive power for outside the sample.

For robustness, based on Hair et al. (2017a) in Hair et al. (2019), the primary method to determine whether a construct is formative or reflective is theoretical reasoning. In the final model used in this research, there is no indication of nonlinear effect and endogeneity. However, there is indication of unobserved heterogeneity with 3 possible segments in the primary data.

**Table 4.** R<sup>2</sup> Test Results

Variable	R-Square	R Square Adjusted
<b>Happiness</b>	0,162	0,121
<b>Financial Decision</b>	0,063	0,057

Source: Output SmartPLS (2023)

Finally, as shown in Table 4, the model can explain weakly (R<sup>2</sup> 0.162. and 0.063) and has low predictive power outside the sample, it can be concluded that Financial Well-Being positively and significantly influences Happiness, and Happiness influences Financial Decision positively and significantly:

Where Financial Well-Being -> Happiness has a Path Coefficient of 0.380 and a P-value of 0.000

(positive and significant). Happiness -> Financial Decision has a Path Coefficient of 0.251 and a P-value of 0.000 (positive and significant). In addition, the moderating variable Province x Financial Well-Being -> Happiness has a Path Coefficient of -0.051 but is not statistically significant (P-value 0.226). Meanwhile, Sources of Financial Well-Being x Financial Well-Being -> Happiness has a Path Coefficient of 0.146 and a P-value of 0.080, and Gender x Financial Well-Being -> Happiness -> has a Path Coefficient of -0.048 and a P-value of 0.285. Thus, all of the three moderating variables used in this study do not have significant effect on the relationship between financial well-being and happiness.

Based on the discussion above, for primary data processing, then:

- H1: Financial well-being has a positive influence on happiness of Indonesians.
- H2: Sources of financial well-being from oneself has no influence on the relationship between financial well-being and the happiness of Indonesians.
- H3: Male gender has no influence on the relationship between financial well-being and the happiness of Indonesians.
- H4: The province of domicile has no influence on the relationship between financial well-being and the happiness of Indonesians.
- H5: Happiness has a positive influence on the financial decisions of Indonesians.

**Table 5.** Primary Data Path Coefficients with P-values - Final Model

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Financial Well-Being -> Happiness	0.380	0.396	0.081	4.688	0.000
Gender -> Happiness	-0.047	-0.041	0.083	0.569	0.285
Happiness -> Financial Decision	0.251	0.268	0.073	3.464	0.000
Province -> Happiness	0.099	0.095	0.071	1.396	0.081
Source of Financial Well-Being -> Happiness	0.073	0.067	0.081	0.907	0.182
Source of Financial Well-Being x Financial Well-Being -> Happiness	0.146	0.125	0.104	1.404	0.080
Province x Financial Well-Being -> Happiness	-0.051	-0.052	0.068	0.751	0.226
Gender x Financial Well-Being -> Happiness	-0.048	-0.037	0.085	0.568	0.285

Source: Output SmartPLS (2023)

Whereby:

- FW1: I could handle a major unexpected expense (e.g. have fund that will cover my expenses for 3 months if I or someone in my family loses their job, gets sick or has other emergency?)
- FW3: I am concerned that the money I have or will save won't last
- FW4: I have money left over at the end of the month
- FW5: My life is controlled by my finances
- FD2: My expenses are always within budget and/or reasonable within the limits of my financial condition.
- FD3: I tend to make sure I save for the short to mid-term e.g. to go on holiday, to purchase a house, etc.
- FD4: I tend to make sure I save for the long term so I can retire comfortably.

Following are the results of secondary data processing using the 'Regression' feature in Microsoft Excel, where if the P-value <0.05 then the results are statistically significant:

1. Financial Well-Being, represented by GDP/capita has a significant positive correlation with Happiness, represented by Indonesia's ranking in the World Happiness Report (Multiple R value = 0.59929094, with P-value = 0.03945641)
2. Happiness, represented by Indonesia's ranking in the World Happiness Report, has a significant positive correlation with Financial Decision, represented by the amount of Indonesian people's savings at general banks (Multiple R value = 0.66726711, with P-value = 0.017759766) and the amount of Indonesian pension funds from OJK (Multiple R value = 0.71176386 with P-value = 0.00942193).

Based on secondary data processing, then:

- H1: Financial well-being has a positive influence on happiness of Indonesians.
- H5: Happiness has a positive influence on the financial decisions of Indonesians.

## **Discussion**

Both primary and secondary data analysis results

for H1 and H5 in this research are consistent with previous studies where financial well-being does have a positive significant effect on happiness (Tauseef, 2021; Cimpoeru, 2022; Volkos & Symvoulakis, 2021; Muresan, Fülöp & Ciumas, 2021; Ugur, 2021), and positive emotions, particularly happiness, has positive significant effect on financial decision making which is also aligned with previous findings (Dibb et al., 2021; Eberhardt, Bruine de Bruin, & Strough, 2019).

However, the result of this study also presents several further discussion points. First, this research has relatively low R2. For H1, one factor that might explain the R2 result is the existence of social comparison in Indonesia such as what happened in Bangladesh (Lakshmanasamy & Maya, 2021) and Turkey (Ugur, 2021). Other factor that can be considered is how Indonesians tend to spend their money. According to previous research, the way a person spends their money can also influence the level of happiness they get (Dunn, Gilbert, & Wilson, 2011). In addition, according to an article from Brooks (2021) which graphed income data from Killingsworth's (2021) research, happiness levels off significantly after USD 100,000 in the United States, and a person can reduce their level of unhappiness with money, but this does not necessarily increase their happiness. It is possible that in Indonesia, the increase in happiness will also level off after a certain income point, so that after that point, a person's happiness is more influenced by non-financial factors. Hence, this research reveals the possibility that there might be other indicator (s) in measuring happiness whether through financial well-being or non-financial well-being aspects other than those already used in this research. Low R2 for H5 also indicates possibility that there are other indicator(s) in measuring financial decision whether through happiness or non-happiness aspects other than those already used in this research. One factor other than happiness that may influence financial decision is financial education (Butar, I. D. B., et al., 2020) whereby someone may still make poor financial decision if he does not have adequate financial

education. These provide opportunities for further research.

Second, following the primary data analysis, the moderating variables, namely sources of financial well-being, gender, and province are shown to have no significant effect on the relationship between financial well-being and happiness. Based on data processing, H2, namely sources of financial well-being from oneself has a positive influence on the relationship between financial well-being and the happiness is not supported. H3, namely male gender has a positive influence on the relationship between financial well-being and happiness, are also not proven. One factor that might cause these two results is the fairly high heterogeneity in Indonesia, supported by the results of the unobserved heterogeneity test on primary data which indicates the existence of segmentation within respondents. Thus, there may be other divisions that moderate the relationship between financial well-being and happiness. For H4, there was also no influence of province of residence on the relationship between financial well-being and happiness. One of the reasons for this is the mobility of the Indonesian population. For example, if someone has a high income relative to the minimum wage where they live, that person can still travel to and/or buy goods from more expensive places outside their province of residence. In addition, with the increased use of social media, a person can more easily compare himself with other people, including those outside his place of residence. One other explanation is the determination of the Regional Minimum Wage is already according to and reflecting the income of majority of residences in that province. Hence, future research needs to consider finding other moderating factors aside from sources of financial well-being, gender, and province. Noted that since the primary data was collected among Indonesian respondents, there is possibility that replication in other countries or regions using the same moderating variables might produce different results due to differences in geographical, cultural, and/or socioeconomic conditions. Again, this also provide opportunities

for future studies.

Third, the two pilot tests done before the main data collection show that questionnaires adapted from other countries need to be adjusted before being distributed. This is to ensure the questions are aligned with local contexts and culture when conducting the research. During the first and second pilot test, it was found that CFPB questionnaires to measure subjective financial well-being which was originally intended to be used in United States need to be modified since several respondents stated that they did not understand the purpose or intention of the question.

## **CONCLUSION**

The objective of this research is to reveal the effect of financial well-being on happiness, and the effect of happiness on financial decision making in Indonesia. The research which combined financial well-being, happiness, and financial decision are limited. Sources of financial well-being, gender, and province were used as moderating variables when examining the relationship of financial well-being and happiness.

The results show that financial well-being has positive correlation with happiness. However, the moderating variables sources of financial well-being, gender, and province have no significant effect in moderating the relationship between financial well-being and happiness. In addition, this research also show that happiness has positive effect on financial decision making.

For future studies, further plausible explanations on why financial well-being, gender, and province have no significant effect towards correlation between financial well-being and happiness could be explored and confirmed. It might also be interesting to conduct similar studies across different countries or regions to compare whether the same moderating variables above will have different impact in moderating the relationship between financial well-being and happiness. In addition, following the literature review, other moderating variables, such as social

comparison or amount of social media usage could be used (Lakshmanasamy & Maya, 2021; Lakshmanasamy, 2022; Ugur, 2021; Verduyn et al., 2020; Lewin et al., 2022; She et al., 2023).

Last, this research also has several significant implications. First, this research confirms the relationship between financial well-being, happiness, and financial well-being in Indonesia, where the result from relatively low R2 and insignificance of moderating variables assessments provide several opportunities for future research. Second, on the country-level, it is important for the governments to consider the findings from this research in policy making. Governments should aim to issue policies that support financial well-being and happiness of

its citizens, to support the citizens in making sound financial decisions, which expectedly would create upward cycle of continuous financial well-being improvement. Third, specifically for Indonesia context, the indication of unobserved heterogeneity might be caused by the profile of Indonesian citizens that are very heterogeneous, whether from difference in age, socioeconomic status, geographical location, ethnicity, religion, race, or intergroup. Hence, in countries where the population are heterogenous, including in Indonesia, the governments need to consider this heterogeneity factor when designing their policies to ensure the financial well-being development could occur evenly and inclusively throughout their countries.

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