The influence of financial literacy, digital literacy, and income on investment decisions with religiosity as an intervening variable among Muslim millennials in the Special Region of Yogyakarta

Amri Satria Nugraha; Sutrisno*
Magister Manajemen, Universitas Islam Indonesia
Coresponding author: sutrisno@uii.ac.id

Abstract

This research aims to examine the influence of digital literacy, financial literacy, and income variables on investment decisions with religiosity as an intervening in the Muslim millennial generation in Yogyakarta The approach used in this research is quantitative. The sample used in this research was 185 respondents. Research data was obtained from the results of filling out the questionnaire and then analyzed using SEM analysis techniques with the help of the SEM AMOS program. The results of this research show that: (1) Financial literacy directly has a positive and significant effect on investment decisions; (2) Digital literacy directly has a positive and significant effect on investment decisions; (3) Income directly has a positive and significant effect on investment decisions; (4) religiosity directly has a positive and significant effect on investment decisions; (5) Religiosity can mediate financial literacy on investment decisions; (6) Religiosity cannot mediate digital literacy on investment decisions; (7) Religiosity cannot mediate income on investment decisions.

Keywords: Financial Literacy, Digital Literacy, Income, Religiosity and Investment Decisions

INTRODUCTION

The population in Special Region of Yogyakarta (DIY) has been steadily increasing, with data from BPS (2023) indicating a total population of 4.02 million people. The majority of the population in DIY adheres to the Islamic faith. With the growing population, an increase in the well-being of the community is expected, measured by rising incomes. Typically, individuals allocate their money or income into various categories such as daily consumption, savings, and investments. The people in the Yogyakarta invest in gold, real estate, stocks, deposits, and other avenues. As of April 2023, PT Pegadaian in the Yogyakarta area reported approximately 68,600 gold savings accounts. According to Bank Indonesia, the growth of home loans (KPR) in DIY is estimated to reach 17.6% in 2021, surpassing the national KPR growth of 15.5%. This indicates an increasing demand for real estate in DIY in line with stable economic growth.

The millennial generation plays a crucial role in driving the development of the investment world, especially in the digital era. According to Salsabila (2021), millennials are increasingly aware of the importance of investment and market mastery, leading to an increase in the number of investors in the capital market. BPS reports that the millennial population in DIY is around 23.42%.

Investment planning through financial management is crucial for every individual today because investing involves a learning process to manage current and future finances (Pritazahara & Sriwidodo, 2015). According to Pajar & Pustikaingsih (2017), to avoid losses when investing in the capital market, one must have sufficient knowledge about the correct investment methods and possess investment knowledge as a basic foundation. With the support of a good understanding and practice of digital literacy, the chances of accessing financial information are increased, aiding in decision-making for investments. Based on this background, it is crucial to investigate the influence of financial literacy, digital literacy, income, and religiosity on investment decisions. Additionally, it is important

to explore whether religiosity can mediate financial literacy, digital literacy, and income on investment decisions among Muslim millennials in the Special Region of Yogyakarta.

LITERATURE REVIEW AND HYPHOTESIS DEVELOPMENT
Financial Literacy
OJK defines financial literacy as a series of processes or activities that enhance consumers' and the public's knowledge, skills, and confidence to better manage personal finances. According to Fauziah (2019), an individual's investment opportunities are influenced by their financial knowledge; if someone has good financial knowledge, their investment decisions will also be good. Having financial knowledge and planning in investment decision-making makes individuals more confident because their investment decisions are more mature and can avoid losses. Awais et al. (2016) and Ariyadi (2023) state that financial literacy has a positive and significant influence on investment decisions. Research by Husain et al. (2023) states that financial literacy has a positive influence on investment decisions.
H_1: Financial literacy has an influence on investment decisions.

Digital Literacy
Digital literacy is an ability to read, write, and interact with information using technology and formats available at the time (Ahmadi & Ibda, 2018). Based on previous research, the level of digital literacy index has a positive impact on investment decisions. The better someone's understanding and practice of digital literacy, the higher the likelihood of accessing financial information, thereby facilitating decision-making in investments. In his study, Ariyadi (2023) states that digital literacy has a positive and significant impact on investment decisions. A higher level of digital literacy will positively influence investment decisions. According to Ranatunga et al. (2020), digital literacy significantly affects minimizing uncertainty in business conditions, thereby enhancing the performance of SMEs in Sri Lanka. This is supported by the research of Kumar et al. (2023), which states that digital literacy affects financial decision-making.
H_2: Digital literacy has an influence on investment decisions.

Income
According to BPS (2023), income is defined as comprising wages for working hours, overtime pay, all bonuses and allowances, leave calculations, paid bonuses, and similar payment values from completed work. Income is one of the most crucial factors for individuals when making investments. A higher income level can facilitate an individual in meeting their needs or desires to invest according to their income amount (Maldini, 2020). According to Safryani et al. (2020) income has a positive and significant impact on investment decisions, with higher income leading to better and more responsible investment choices. This view is supported by Nara (2021) also Wati (2023), stating that income simultaneously significantly influences investment decisions.
H_3: Income has a positive influence on investment decisions.

Religiosity
According to Saputra et al. (2020), religiosity is an individual's understanding of a belief system they adhere to, leading to the formation of specific behaviors. The higher someone's level of religiosity, the better their decisions will be from a religious perspective. According to Hasanah (2019), religiosity is a form of belief system believed through an understanding of important values formed in religion, influencing an individual's actions and behaviors when making decisions with available alternatives. The higher an individual's level of religiosity, their investment decisions generally consider the religious regulations. Research by Ariyadi (2023) also Agustin and Hakim (2022) supports that religiosity has a significant positive influence on investment decisions.
H_4: Religiosity influences investment decisions.

The influence of financial literacy on investment decisions with religiosity as an intervening variable

According to Fauziah (2019), the level of investment opportunities for an individual is influenced by their financial knowledge. If someone has good financial knowledge, their investment decisions are also good. According to Christanti & Mahastanti (2011) also Sadiq & Ishaq (2014), financial decision-making by investors is influenced by psychological factors, and here, religiosity plays a role. Religion is considered the most important element in life; it significantly determines the psychological, spiritual, or mental aspects of human development. This aligns with the research of Hasanah (2019), which states that religiosity is a form of belief system believed through an understanding of important values formed in religion, influencing an individual's actions and behaviors when making decisions with available alternatives. The higher an individual's level of religiosity, their investment decisions generally consider the religious regulations. The research by Rahmania (2022) shares similarities in the variables used, concluding that financial literacy significantly influences customers' decisions, mediated by religiosity.

H5: Religiosity can mediate the influence of financial literacy on investment decisions.

The influence of digital literacy on investment decisions with religiosity as an intervening variable

In his research, Ariyadi (2023) states that digital literacy has a positive and significant impact on investment decisions, and religiosity also has a significant positive effect on investment decisions. The level of someone's digital literacy index will positively influence investment decisions. The better someone's understanding and digital literacy skills, the higher the chances of accessing financial information, which aids in making investment decisions. According to Christanti & Mahastanti (2011) and Sadiq & Ishaq (2014), stating that financial decision-making by investors is influenced by psychological factors, and here, religiosity plays a role. In this context, religion is considered the most important element in life, significantly influencing the psychological, spiritual, or mental aspects of human development. This aligns with the research of Hasanah (2019), which states that religiosity is a form of belief system believed through an understanding of important values formed in religion, influencing an individual's actions and behaviors when making decisions with available alternatives. The higher an individual's level of religiosity, their investment decisions generally consider the religious regulations.

H6: Religiosity can mediate the relationship between digital literacy and investment decisions.

The influence of income on investment decisions with religiosity as an intervening variable

According to Nara (2021) and Wati (2023), income simultaneously has a significant influence on investment decisions. The results of this study align with previous research conducted by Kumar et al. (2023), which states that digital literacy influences financial decision-making. Income is one of the most important factors in making investments. Higher income can facilitate individuals in meeting their needs or desires to invest according to the amount of their income Maldini (2020). According to Christanti & Mahastanti (2011) also Sadiq & Ishaq (2014), stating that financial decision-making by investors is influenced by psychological factors, and here, religion plays a role, where religion is considered the most important element in life. Religion significantly influences the psychological, spiritual, or mental aspects of human development. This aligns with the research of Hasanah (2019), which states that religiosity is a form of belief system believed through an understanding of important values formed in religion, influencing an individual's actions and behaviors when making decisions with available alternatives. The higher an individual's level of religiosity, their investment decisions generally consider the religious regulations.

H7: Religiosity can mediate the relationship between income and investment decisions.

Investment Decision

According to Julita et al. (2014), the definition of an investment decision is the use of current funds while calculating the net cash flow in the future. This means that future cash flow or net cash flow is

something that cannot be certain. According to Rusdin (2006), investment decisions are individual and depend entirely on the person, who is completely free. Meanwhile, according to Christanti & Mahastanti (2011) an investment decision can be seen from two perspectives: the extent to which the decision will have a maximum impact on wealth (economic) and behavioral motivation, which is an investment decision influenced by the psychology of the investor.

The conceptual framework of this study can be observed from the depiction of the interconnection between variables on the path below:
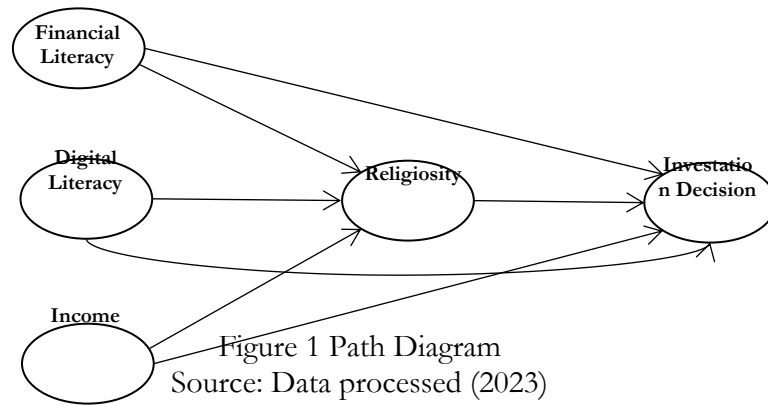
Figure 1 Path Diagram
Source: Data processed (2023)

METHODS

The population of this study comprises Islamic individuals residing in the DIY who belong to the millennial generation. The sampling method employed in this research is purposive sampling. The criteria for sample selection in this study encompass individuals in the DIY who are of Islamic faith, aged between 27 to 42 years, and engaged in investments. The sample size in this study adheres to the suggestion by Ferdinand (2014), where the number of samples equals the number of indicators multiplied by 5-10. With 37 indicators in this study, multiplying by 5 results in 185 samples.

The data collection method comprises primarily obtained data disseminated through questionnaires via google forms to selected respondents based on predetermined samples. The questionnaire instrument utilized Likert scales. Secondary data in this research was acquired through the collection of library materials, literature, and scholarly works, obtained either directly or through online data searches, necessary to acquire theoretical information.

The research variables consist of the dependent variable, investment decisions; independent variables encompass financial literacy, digital literacy, and income, alongside the intervening variable, religiosity, with the following indicators:

Table 1 Independent variables and indicator variables

Variable	Indicator	Code
Financial Literacy (LK)	Basic financial knowledge	LK1, LK2
	Savings and loans	LK3, LK4
	Insurance	LK5, LK6
	Investment	LK7, LK8
	Chen & Volpe (1998)	
Digital Literacy (LD)	Digital skills	LD1, LD2
	Digital culture	LD3, LD4
	Digital ethics	LD5, LD6
	Digital safety	LD7, LD8
	Kominfo (2022)	
Income (P)	We can measure total income from wages and salaries.	P1, P2, P3, P4, P5
	Ida dan Dwinta (2010)	

Table 2 Dependent Variable and Indicator Variable

Variable	Indicator	Code
Investation Decision (KI)	Expected rate of return	KI1, KI2,
	Risk level	KI3, KI4
	The relationship between returns and expectations	KI5, KI6
	Tandelilin (2010)	

Table 3 Intervening Variables and Indicator Variables

Variable	Indicator	Code
Religiosity (R)	Faith	R1, R2
	Religious practice	R3, R4
	Experience	R5, R6
	Religious knowledge	R7,R8
	Consequence	R9,R10
	Ancok & Suroso (2008)	

In this study, the data analysis method employed is quantitative analysis using Structural Equation Modeling (SEM) with AMOS 24 software. According to Ghozali (2014), SEM represents a combination of various statistical methods, including factor analysis and time-series analysis. SEM illustrates the relationships among multiple independent/exogenous and dependent/endogenous variables that form constructs constructed from several directly measured indicators.

RESULTS AND DISCUSSIONS
RESULTS
Measurement Model Testing (CFA Analysis)
The measurement model testing is used to examine the validity and reliability of indicators in measuring their constructs.
Exogenous Construct CFA Analysis
This research model comprises three exogenous constructs: financial literacy, digital literacy, and income. The estimation of the exogenous construct CFA model can be observed in the following diagram:
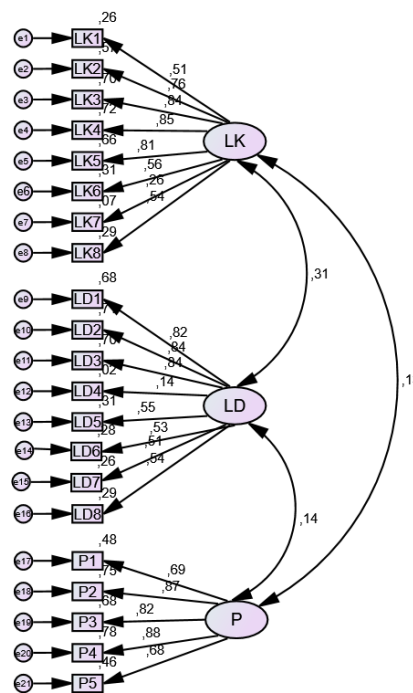

Figure 2: CFA Model Estimation Results for Exogenous Constructs
Source: Data analysis (2023)

Based on the results of the CFA model estimation of exogenous constructs, the following data were obtained:

Table 4 Standardized Regression Weights Konstruk Eksogen

			Estimate
LK7	<---	LK	,255
LD4	<---	LD	,143

Source: Data analysis (2023)

Based on Figure 2, it can be observed that among all indicators for each exogenous construct, there are 2 indicators that are not valid in measuring their constructs because they have loading factor values <0.5. These indicators are LK7 (loading factor 0.255) and LD4 (loading factor 0.143). Therefore, both indicators must be excluded from the SEM model as they are deemed invalid. The measurement of the estimated results of the exogenous construct measurement model after excluding LK7 and LD4 can be seen in the following figure:
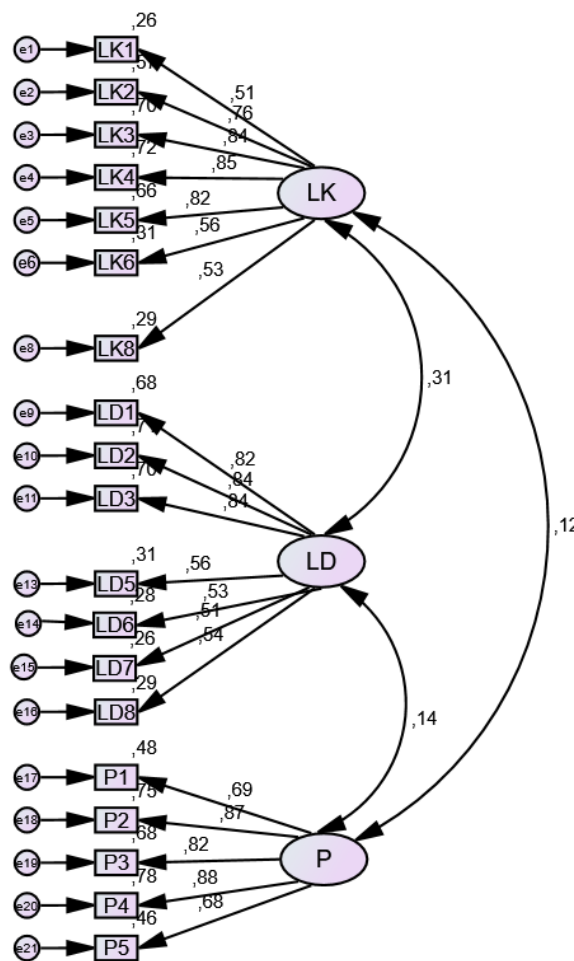

Figure 3 CFA Model Estimation Results for Valid Exogenous Constructs
Source: data analysis (2023)

The analysis results in table 4 above indicate that after excluding LK7 and LD4 from the model, all indicators within the model became valid. Therefore, the testing can proceed to further examination, namely the assessment of construct reliability, which will be conducted by examining the CR and AVE values for each construct. Employing the calculation formulas for CR and AVE according Hair et al. (2006) the computed CR and AVE values for the three exogenous constructs are as follows:

Table 5 Reliabilitas Konstruk Eksogen

Variable	Indicator	λ	Validity	e	AVE	CR	Information
Financial literacy	LK8	0,535	Valid	0,526			
	LK6	0,561	Valid	0,540			
	LK5	0,815	Valid	0,241			
	LK4	0,847	Valid	0,226	0,578	0,902	Reliable
	LK3	0,836	Valid	0,207			
	LK2	0,758	Valid	0,319			
	LK1	0,515	Valid	0,515			
Digital literacy	LD8	0,541	Valid	0,519			
	LD5	0,555	Valid	0,497			
	LD3	0,838	Valid	0,267			
	LD2	0,842	Valid	0,267	0,547	0,874	Reliable
	LD1	0,822	Valid	0,288			
	LD7	0,51	Valid	0,601			
	LD6	0,528	Valid	0,574			
Income	P 5	0,677	Valid	0,378			
	P 4	0,881	Valid	0,130			
	P 3	0,824	Valid	0,211	0,718	0,926	Reliable
	P 2	0,866	Valid	0,165			
	P 1	0,692	Valid	0,35			

Source : Data analysis (2023)

Based on the computed values of CR and AVE for the exogenous constructs, the CR values for the three exogenous constructs are 0.902, 0.874, and 0.926, while the AVE values for the three exogenous constructs are 0.578, 0.547, and 0.718. Since all CR values for the exogenous constructs are > 0.7 and all AVE values for the constructs are > 0.5, it can be concluded that all three exogenous constructs meet the required criteria for construct reliability.

CFA Analysis of Endogenous Constructs
    This research model comprises two endogenous constructs: investment decision construct and religiosity construct.
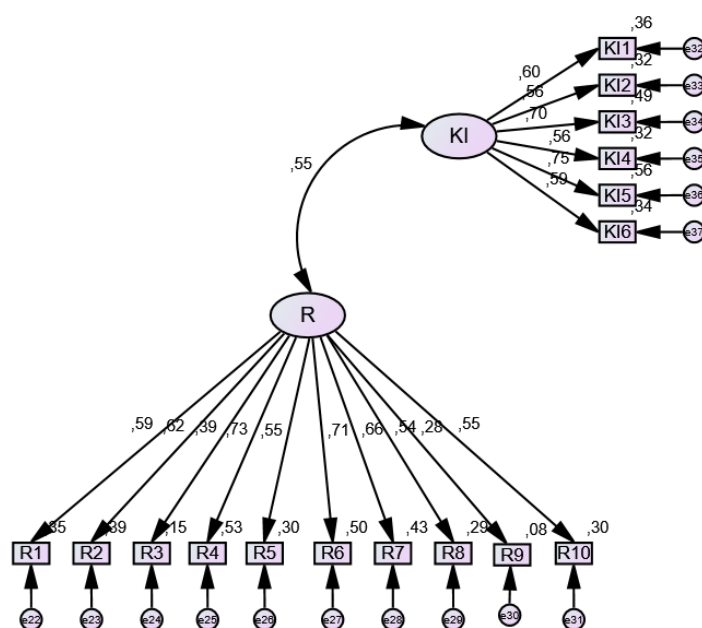

Figure 4 CFA Model Estimation Results for Valid Endogenous Constructs
Source: Data analysis (2023)

Based on the results of the CFA model estimation of endogenous constructs, the following data were obtained:

Table 6 Standardized Regression Weights Konstruk Endogen

Item			Estimate
R3	<---	R	,391
R9	<---	R	,277

Source : Data analysis (2023)

The analysis results in Table 6 indicate that there are 2 religiosity indicators that are not valid in measuring their constructs because they have loading factor values <0.5, namely R3 (loading factor = 0.391) and R9 (loading factor = 0.277). The estimated results of the measurement model for the endogenous construct after excluding R3 and R9 can be seen in the following figure:
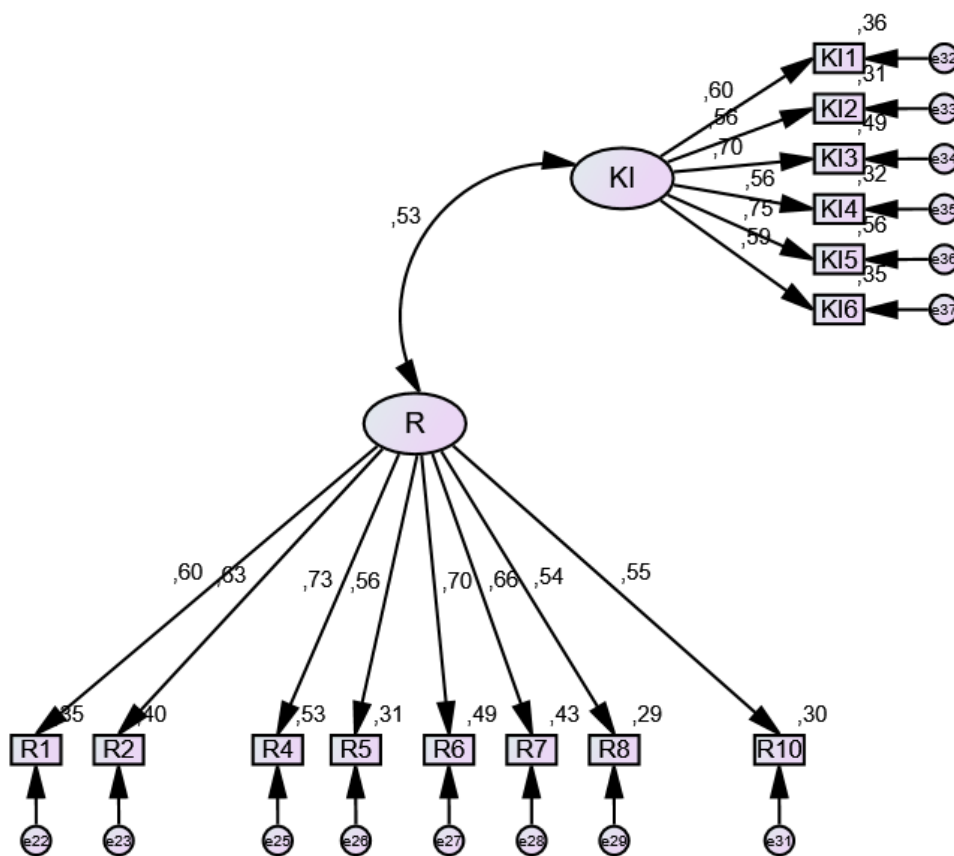

Figure 5 Results of CFA Model Estimation for Valid Endogenous Constructs
Source: Processed Data (2023)

Based on the estimation results of the CFA model for the endogenous constructs in the above figure, all indicators for the endogenous constructs are proven valid in measuring their constructs. Therefore, all indicators can be used, and testing can proceed to the construct reliability test, which is done by examining the CR and AVE values for each construct. Using the calculation formulas for CR and AVE (Hair et al., 2006), here are the calculation results for CR and AVE for the endogenous constructs:

Table 7 Endogenous Construct Reliability

Variable	Indicator	λ	Validy	e	AVE	CR	Information
Investation Decision	KI2	0,559	Valid	0,437	0,514	0,862	Reliabel
	KI3	0,698	Valid	0,359			
	KI4	0,564	Valid	0,387			
	KI5	0,749	Valid	0,284			
	KI6	0,590	Valid	0,392			
	KI1	0,596	Valid	0,396			
Religiosity	R8	0,538	Valid	0,376	0,515	0,870	Reliabel
	R7	0,658	Valid	0,392			
	R6	0,702	Valid	0,303			
	R4	0,729	Valid	0,271			
	R2	0,630	Valid	0,349			
	R1	0,596	Valid	0,384			
	R10	0,547	Valid	0,405			
	R5	0,555	Valid	0,448			

Source: Processed Data (2023)

Based on the calculation results of CR and AVE for the constructs in Table 7, the AVE values for all endogenous constructs are > 0.5, and the CR values for all constructs are > 0.7. This indicates that all endogenous constructs have met the required reliability criteria.

Structural Model Testing and SEM Assumption Tests
Sample Size Test
The minimum sample size for SEM analysis using maximum likelihood estimation method is 100-200 respondents (Ferdinand, 2014). With 185 respondents, the sample size in this study is considered sufficient and suitable for analysis using SEM, as the sample size meets the minimum requirements for SEM analysis.
Normality Test
Normality describes the shape of the data distribution, whether it is normal or not. If the data distribution is not normally distributed, the analysis results can be biased.

Table 8 Assessment of Normality

Variable	min	max	skew	c.r.	kurtosis	c.r.
LD7	2,000	5,000	-,337	-1,871	-,682	-1,894
Multivariate					15,096	2,136

Source: Processed Data (2023)

From Table 8, it can be observed that the normality test results indicate that the data in this study is normally distributed. This is because the multivariate c.r value of 2.136 falls within the interval $-2.58 < z < 2.58$.

Outlier Test
Outliers are observations that appear with extreme values either univariately or multivariately due to unique characteristics and appear significantly different from other observations.
Univariate Outlier
Univariate outliers can be detected by first converting data into Z-scores using the SPSS program. These scores have a mean of 0 and a standard deviation of 1.

Table 9 Univariate Outlier Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Zscore(KI5)	85	-2.49017	1.22500	.0000000	1.00000000
Zscore(KI6)	85	-2.70664	1.15502	.0000000	1.00000000
Valid N (listwise)	85				

Source: Processed Data (2023)

The univariate outlier test results show that all indicators of the research variables have a mean of zero (0) and a standard deviation of 1. The maximum values obtained for all indicators are not greater than 3 (Hair et al., 2006). Therefore, the research results indicate that there are no univariate outliers in the indicators of the research variables.

Multivariate Outlier
In SEM analysis, outliers can be detected by examining the Mahalanobis distance table.

Table 10 Multivariate Outlier Detection in SEM Data:

Observation number	Mahalanobis d-squared	p1	p2
123	58,997	,004	,484
7	54,551	,011	,582

Source: Processed Data (2023)

In Table 10, data is considered an outlier if it has a Mahalanobis d-squared value exceeding 63.87, which is the Chi-Square value at 33 degrees of freedom (as there are 33 valid indicators analyzed) and a significance level of 0.001. The outlier detection results show that out of 185 analyzed data, none has a Mahalanobis distance above 63.87. This indicates that there are no outliers in the analyzed data.

Multicollinearity Test
Multicollinearity test in SEM analysis is done by examining the correlation between exogenous variables. Multicollinearity can be detected by the determinant value of the covariance matrix.

Table11 Determinant of Sample Covariance Matrix:

Determinant of Sample Covariance Matrix	.000

Source: Processed Data (2023)

Based on Table 11, the determinant value of the sample covariance matrix is 0.000, approaching zero, indicating the presence of multicollinearity (Haryono, 2016). However, according to Ferdinand (2014), a model is considered good if each independent variable has a perfectly correlated relationship. There is no multicollinearity if the correlation value between each independent variable is < 0.85, as seen in Table 12.

Table 12 Correlation of Independent Variables:

			Estimate
LK	<-->	LD	,309
LD	<-->	P	,138
LK	<-->	P	,125

Source: Processed Data (2023)

Goodness of Fit Model Test

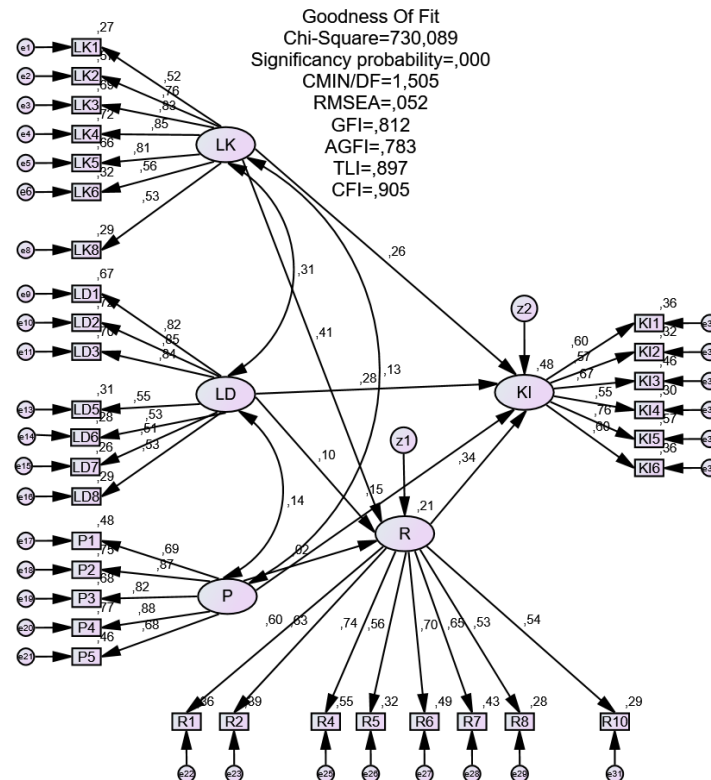The following are the results of the model estimation results from the goodness of fit model test:

Figure 6 Goodness of Fit Test Results of The Structural Model
Source: Data analylsis (2023)

In the Table 13 below are the results of the model fit based on the Goodness of Fit analysis test in this research.

Table 13 Goodness of fit model results

Goodness of Fit Indexs	Cut off Value	Results	Model evaluation
Chi-Square	Smaller is better	730,089	Not Fit
Significancy probability	≥ 0,05	0,00	Not Fit
RMSEA	≤ 0,08	0,52	Good Fit
GFI	≥ 0,90	0,812	Marginal Fit
AGFI	≥ 0,90	0,783	Marginal Fit
CMIN/DF	≤ 2,00	1,505	Good Fit
TLI	≥ 0,90	0,897	Marginal Fit
CFI	≥ 0,90	0,905	Good Fit

Source: Data analysis (2023)

Based on the estimation results of the structural model in Table 13, it is evident that the SEM model exhibits relatively good goodness of fit criteria, especially noted by the values of CMIN/DFI, CFI, and RMSEA falling within the category of good fit. However, other parameters such as GFI, AGFI, and TLI fall within the criteria of marginal fit. Notably, the chi-square value and significance probability fall under the category of not fit.

Before conducting direct and indirect influence tests, the next step is to examine the residual values. These values should be small or close to zero, and the distribution of residual covariances should be symmetrical. A good model exhibits small standardized residual variances. The required standard residual limit is ±2.58, indicating statistical significance at $\alpha = 5\%$. The standardized residual

covariance results indicate the presence of residuals: P4-K2 (-2.946), P5-R2 (2.655), and P5-P1 (3.246), suggesting that the model is not yet optimal.

According in Ferdinand (2014), the following actions can be taken to improve the model:
1. Modifying the model by adding or removing connections.
2. Adding variables (if data is available).
3. Reducing variables (elimination of indicators).

After implementing the first point, residuals were still found in the standardized residual covariance table. Consequently, the decision was made to remove indicator P4, resulting in no further residuals found at the required standardized residual value limit of ±2.58. This indicates the model's statistical significance and improvement. The estimation results of the model's goodness of fit test after removing indicator P4 are as follows:
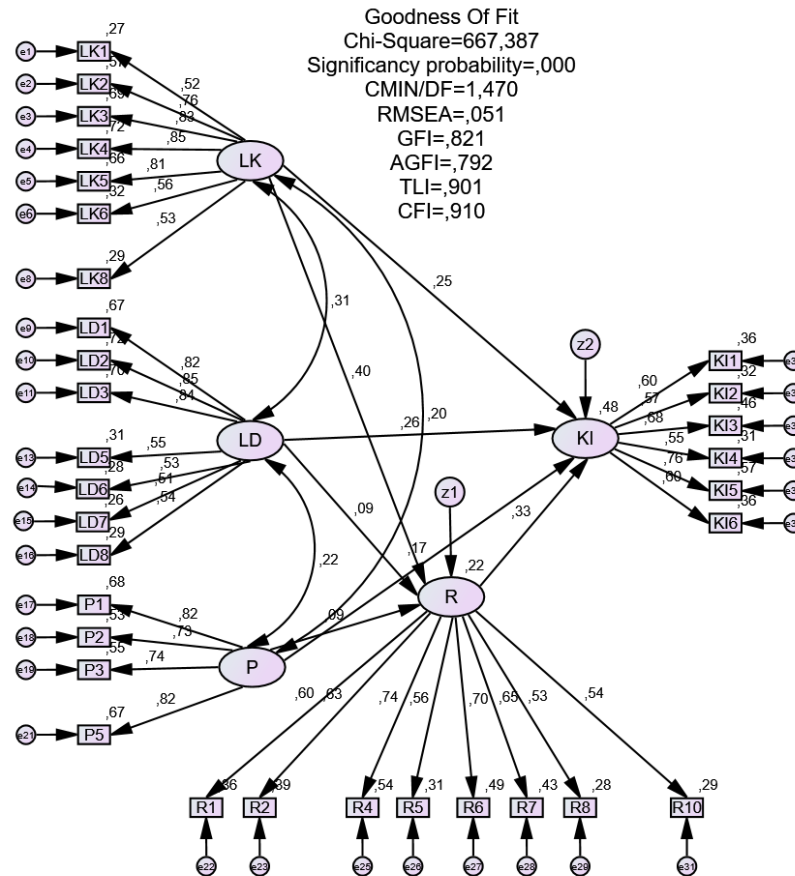

Figure 7 Goodness of Fit Test Results of Valid Structural Model
Source: Data analysis (2023)

In table 14 below are the results of the model fit based on the Goodness of Fit analysis test which looks fitter than before.

Table 14 Goodness of fit model results (final)

Goodness of Fit Indexs	Cut off Value	Result	Model evaluation
Chi-Square	Smaller is better	667,387	Not Fit
Significancy probability	≥ 0,05	0,00	Not Fit
RMSEA	≤ 0,08	0,51	Good Fit
GFI	≥ 0,90	0,821	Marginal Fit
AGFI	≥ 0,90	0,792	Marginal Fit
CMIN/DF	≤ 2,00	1,470	Good Fit
TLI	≥ 0,90	0,901	Good Fit
CFI	≥ 0,90	0,910	Good Fit

Source: Data analysis (2023)

Based on the results of the structural model estimation in Table 14 above, it can be seen that the SEM model meets the criteria for a better goodness of fit model, especially considering the values of CMIN/DFI, CFI, RMSEA, and TLI (falling into the good fit category). Meanwhile, other parameters like GFI and AGFI are in the marginal fit criteria. The chi-square value and significance probability are categorized as not fit. According to Ghozali (2014), if a model meets one or two goodness of fit criteria, it is considered good. The overall goodness of fit testing results lead to the conclusion that the SEM model's fitness is satisfactory for acceptance.

Hypothesis Testing
Direct Influence Testing

Assessing the influence between variables in the SEM model is performed by examining the p-value and CR, followed by a review of the path coefficient values. With a significance level of 5%, a variable is deemed to have a significant impact on another variable if, along that path, the p-value < 0.05 or CR > 1.96. Conversely, if the p-value > 0.05 and CR < 1.96, the influence between those variables is considered not significant.

Table 15 Results of Influence Tests Between Variables

			Estimate	S.E.	C.R.	P	Information	Hypothesis
KI	<---	P	,114	,051	2,244	,025	Positif and signifikan	Accepted
KI	<---	LD	,258	,089	2,905	,004	Positif and signifikan	Accepted
KI	<---	LK	,248	,092	2,703	,007	Positif and signifikan	Accepted
KI	<---	R	,387	,122	3,188	,001	Positif and signifikan	Accepted

Source: Data analysis (2023)

Based on the analysis results presented in the above table, the direct influence testing between variables yields the following findings:

Financial Literacy → Investment Decision

On the path indicating the impact of financial literacy on investment decisions, a significant p-value (0.007) is obtained with a CR of 2.244 and a positively signed path coefficient of 0.248. Consequently, as the p-value < 0.05 and CR > 1.96 with a positively signed path coefficient, it is concluded that financial literacy has a positive and significant influence on investment decisions, this means that the hypothesis accepted.

Digital Literacy → Investment Decision

On the path illustrating the influence of digital literacy on investment decisions, a significant p-value (0.004) is observed with a CR of 2.905 and a positively signed path coefficient of 0.258. Therefore, with a p-value < 0.05 and CR > 1.96 alongside a positively signed path coefficient, it can be concluded that digital literacy has a positive and significant impact on investment decisions, the hypothesis is accepted.

Income → Investment Decision

On the path demonstrating the impact of income on investment decisions, a significant p-value (0.025) is obtained with a CR of 2.244 and a positively signed path coefficient of 0.114. Since the p-value < 0.05 and CR > 1.96 with a positively signed path coefficient, it is concluded that income has a positive and significant influence on investment decisions, the hypothesis is accepted.

Religiosity → Investment Decision

On the path indicating the influence of religiosity on investment decisions, a significant p-value (0.001) is observed with a CR of 3.188 and a positively signed path coefficient of 0.387. As the p-value < 0.05 and CR > 1.96 with a positively signed path coefficient, it is concluded that religiosity has a positive and significant impact on investment decisions, the hypothesis is accepted.

Indirect Influence Testing

To determine indirect effects/mediation, the Sobel test is utilized. The Sobel test evaluates the strength of the indirect influence of exogenous variables on endogenous variables through mediating variables. This test assumes a large sample size and normally distributed coefficient values (Ghozali, 2014). To conduct the Sobel test for indirect effects, calculations for the Sobel test using the estimates and standard errors (S.E.) on the regression weights can be done through the Sobel test calculator in the following table

Table 16 Regression Weights

			Estimate	S.E.	C.R.	P
R	<---	LD	,075	,072	1,051	,293
R	<---	P	,048	,047	1,024	,306
R	<---	LK	,338	,090	3,747	***
KI	<---	R	,387	,122	3,188	,001

Source: Data analysis (2023)

The results of the Sobel test calculator to determine indirect effects are as follows:

Sobel test result (LK - R - KI)

Input:		Test statistic:	Std. Error:	p-value:
a	0.338	Sobel test: 2.42335716	0.05397719	0.0153778
b	0.387	Aroian test: 2.37472287	0.05508264	0.01756213
s_a	0.090	Goodman test: 2.4751074	0.05284862	0.01331961
s_b	0.122	Reset all	Calculate	

Figure 8 Sobel Test Results (LK - R - KI)
Source: Data analysis (2023)

The results of the Sobel calculator calculations obtained a Sobel statistical test value of 2.42335716 > 1.96 or a p-value of 0.0153778 < 0.05, so the R variable influences the KI variable through R, the hypothesis is accepted.

.

Sobel test results (LD - R - KI)

Input:		Test statistic:	Std. Error:	p-value:
a	0.075	Sobel test: 0.98967237	0.02932789	0.32233428
b	0.387	Aroian test: 0.94806193	0.03061509	0.34309793
s_a	0.072	Goodman test: 1.03729117	0.02798154	0.29960018
s_b	0.122	Reset all	Calculate	

Gambar 9 Hasil Uji Sobel (LD - R - KI)
Source: Data analysis (2023)

The results of the Sobel calculator calculations obtained a Sobel statistical test value of 0.98967237 < 1.96 or a p-value of 0.32233428 > 0.05, so the LD variable has no effect on the KI variable through R, this means that the hypothesis is rejected.

Sobel test results (P - R - KI)

	Input:		Test statistic:	Std. Error:	p-value:
a	0.048	Sobel test:	0.9721359	0.01910844	0.33098294
b	0.387	Aroian test:	0.93111763	0.01995022	0.35179272
s_a	0.047	Goodman test:	1.01910114	0.01822783	0.30815495
s_b	0.122	Reset all		Calculate	

Figure 10 Sobel Test Results (P - R - KI)
Source: Data analysis (2023)

The results of the Sobel calculator calculations obtained a Sobel statistical test value of 0.9721359 < 1.96 or a p-value of 0.33098294 > 0.05, so the P variable has no effect on the KI variable through R, this means that the hypothesis is rejected.

DISCUSSION
The Impact of Financial Literacy on Investment Decisions
The results of the SEM testing on the variables of financial literacy and investment decisions indicate that the hypotheses in the study are accepted, meaning that financial literacy has a positive and significant impact on investment decisions among millennial Muslims in DIY. This implies that the higher an individual's financial literacy, the greater their contribution to investment decisions. The findings suggest that the financial literacy of the community in DIY is quite good, with people having basic financial knowledge, understanding how to manage their income and expenses, enabling them to set aside their earnings for savings or investments. The study indicates that the community is aware of the importance of insurance for protecting their assets. These results align with previous research conducted by Awais et al. (2016) and Ariyadi (2023), stating that financial literacy has a positive and significant influence on investment decisions. Additionally, the research by Husain et al. (2023) asserts that financial literacy has a positive impact on investment decisions.

The Influence of Digital Literacy on Investment Decisions
The SEM testing results on the variable of digital literacy concerning investment decisions state that the hypothesis in the study is accepted, meaning that digital literacy has a positive and significant impact on investment decisions among millennial Muslims in DIY. This suggests that the higher someone's digital literacy, the greater their contribution to investment decisions. The study reveals that the majority of the DIY community already possesses good digital literacy, with most having digital media skills. In applying digital literacy, the DIY community adheres to ethics and cultural values while paying attention to safety in social media interactions. The community in DIY has a high level of digital literacy, and it is evident that digital literacy has a positive and significant impact on investment decisions. These findings align with previous research by Kumar et al. (2023), stating that digital literacy influences financial decision-making. In his study, Ariyadi (2023) also asserts that digital literacy has a positive and significant impact on investment decisions.

The Influence of Income on Investment Decisions
The SEM testing results on the variable of income concerning investment decisions state that the hypothesis in the study is accepted, meaning that income has a positive and significant impact on investment decisions among millennial Muslims in DIY. This implies that the higher someone's income, the greater their contribution to investment decisions. The study finds that some members of the DIY community have high incomes, enabling them to set aside earnings for investments. The types of investments vary, with those earning less than IDR 4,500,000 opting for gold investments, as it can be purchased in small, affordable amounts. Individuals with higher incomes have more flexibility in investments, such as in properties, stocks, mutual funds, and deposits, making them popular choices for the DIY community. These investments have become more accessible through smartphones and other digital devices. The DIY community has sufficient income for investment, and it is evident that

income has a positive and significant impact on investment decisions. These results align with previous research by Safryani et al. (2020), Nara (2021), and Wati (2023), stating that income simultaneously has a significant impact on investment decisions.

The Influence of Religiosity on Investment Decisions
The SEM testing results on the variable of religiosity concerning investment decisions state that the hypothesis in the study is accepted, meaning that religiosity has a positive and significant impact on investment decisions among millennial Muslims in DIY. This suggests that the higher someone's religiosity, the greater their contribution to investment decisions. The study finds that the majority of the DIY community has a good level of religiosity. The DIY community, primarily composed of Muslims, is known for its strong adherence to religious values. Aspects of religiosity, including belief dimensions, religious practices, experiences, religious knowledge, and consequences, are followed by most community members. In general, the higher an individual's level of religiosity, the more they consider religious obedience when making investment decisions. For instance, a Muslim will ensure that a company they invest in complies with Islamic Sharia. Muslims have specific limitations on certain types of investments, avoiding those considered haram, such as alcohol or usury. The DIY community has high religiosity, and it is evident that religiosity has a positive and significant impact on investment decisions. This aligns with research conducted by Ariyadi (2023) and Agustin & Hakim (2022), stating that religiosity has a positive and significant impact on investment decisions.

The Influence of Financial Literacy on Investment Decisions with Religiosity as an Intervening Variable
In the study by Awais et al. (2016) and Ariyadi (2023), it is stated that financial literacy has a positive and significant impact on investment decisions. According to Christanti & Mahastanti (2011), investment decisions are influenced by the psychology of investors, where religiosity plays a role. The Sobel test results for the indirect influence of financial literacy on investment decisions with religiosity as an intervening variable state that the hypothesis in this study is accepted. This means that religiosity can mediate between financial literacy and investment decisions among millennial Muslims in DIY. The DIY community has a high level of financial literacy and religiosity, and it is evident that religiosity can mediate between financial literacy and investment decisions. This implies that, when mediated by religiosity, the influence of financial literacy on investment decisions is greater, making religiosity a good mediator in the impact of financial literacy on investment decisions. This aligns with the research results of Rahmania (2022), concluding that financial literacy affects customer decisions, mediated by religiosity.

The Influence of Digital Literacy on Investment Decisions with Religiosity as an Intervening Variable
In Ariyadi's study (2023), it is stated that digital literacy has a positive and significant impact on investment decisions. According to Christanti & Mahastanti (2011) investment decisions are influenced by the psychology of investors, where religiosity plays a role. The Sobel test results for the indirect influence of digital literacy on investment decisions with religiosity as an intervening variable state that the hypothesis in this study is rejected. This means that religiosity cannot mediate between digital literacy and investment decisions among millennial Muslims in DIY. Despite the DIY community having high levels of digital literacy and religiosity, it is not yet proven that religiosity can mediate between digital literacy and investment decisions. In this case, the DIY community tends to be more cautious in making investment decisions by considering the religious aspect.

The Influence of Income on Investment Decisions with Religiosity as an Intervening Variable
According to Safryani et al. (2020), income has a positive and significant impact on investment decisions. The higher the income, the better and more responsible investment decisions can be made. According to Christanti & Mahastanti (2011), investment decisions are influenced by the psychology of investors, where religiosity plays a role. The Sobel test results for the indirect influence of income

on investment decisions with religiosity as an intervening variable state that the hypothesis in this study is rejected. This means that religiosity cannot mediate between income and investment decisions among millennial Muslims in DIY. Despite the DIY community having sufficient income for investment and having high religiosity, it is not yet proven that religiosity can mediate between income and investment decisions. In this case, the DIY community tends to be more cautious in making investment decisions by considering the religious aspect.

Conclusion and Suggestion
Conclusion
Financial literacy directly has a positive and significant impact on investment decisions. This means that better financial literacy leads to higher investment decisions, while poor financial literacy has the potential to decrease investment decisions.

Digital literacy directly has a positive and significant impact on investment decisions. This implies that higher digital literacy results in increased investment decisions, and conversely, poor digital literacy has the potential to decrease investment decisions.

Income directly has a positive and significant impact on investment decisions. This indicates that higher income leads to increased investment decisions, while poor income has the potential to decrease investment decisions.

Religiosity directly has a positive and significant impact on investment decisions. This suggests that higher religiosity leads to increased investment decisions, while poor religiosity has the potential to decrease investment decisions.

Religiosity can mediate the influence of financial literacy on investment decisions. This means that when mediated by religiosity, the impact of financial literacy on investment decisions is greater, making religiosity a good mediator in the impact of financial literacy on investment decisions.

Religiosity is proven unable to mediate the influence of digital literacy on investment decisions. This indicates that when mediated by religiosity, the impact of digital literacy on investment decisions does not increase, meaning that religiosity is not a mediator in the impact of digital literacy on investment decisions.

Religiosity is proven unable to mediate the influence of income on investment decisions. This indicates that when mediated by religiosity, the impact of income on investment decisions does not increase, meaning that religiosity is not a mediator in the impact of income on investment decisions.

Suggestion
In the data processing process using SEM AMOS, caution should be exercised in making statements about indicators to obtain valid results.

REFERENCES

Agustin, D., & Hakim, L. (2022). Peran Religiusitas Sebagai Variabel Moderating Pengetahuan, Persepsi Produk Bank Syariah dan Literasi Keuangan Tehadap Minat Investasi Syariah. *Jurnal Pendidikan Akuntansi,* 10(2), 106-116.

Ahmadi, F., & Ibda, H. (2018). *Media Literasi Sekolah*. Semarang: CV. Pilar Nusantara.

Ariyadi, I.E. (2023). *Pengaruh Literasi Digital, Religiusitas dan Literasi Keuangan Terhadap Keputusan Investasi Saham Generasi Z Dalam Perspektif Ekonomi Islam*. Thesis, UIN Raden Intan Lampung.

Ancok, D., & Suroso, F.N. (2008). *Psikologi Islami*. Yogyakarta:Pustaka Belajar

Awais, M., Laber, M. F., Rasheed, N., Khursheed, A. (2016). Impact of Financial Literacy and Investment Experience on Risk Tolerance and Investment Decisions: Empirical Evidence from Pakistan. *International Journal of Economics and Financial Issues,* 6(1), 73-79.

Chen, H., & Volpe, R. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7, 107-128. [DOI: 10.1016/S1057-0810(99)80006-7].

Christanti, N., & Mahastanty, L. A. (2011). Faktor-faktor yang dipertimbangkan investor dalam melakukan investasi. *Jurnal Manajemen Teori dan Terapan,* (4)3, 37-51.

Fauziah, N.L. (2019). *Analisis Pengaruh Tingkat Literasi Keuangan dan Religiusitas terhadap Keputusan Investasi: Studi pada mahasiswa Fakultas Ekonomi UIN Maulana Malik Ibrahim Malang.* Thesis, Universitas Islam Negeri Maulana Malik Ibrahim.

Ferdinand, A. (2014). *Structural Equation Modeling: Dalam Penelitian Manajemen.* Semarang: Badan Penerbit Universitas Negeri Semarang.

Ghozali, I. (2014). *Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS).* Edisi 4. Semarang: Badan Penerbit Universitas Diponegoro.

Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate Data Analysis* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Haryono, S. (2016). *Metode SEM Untuk Penelitian Manajemen AMOS, LIsrel, PLS.* In: Jakarta: PT. Intermedia Personalia Utama, 226.

Hasanah, F. (2019). Pengaruh Tingkat Religiusitas, Pengetahuan, Kualitas Produk dan Kualitas Pelayanan terhadap Preferensi Menabung Mahasiswa Universitas Muhammadiyah Palembang pada Bank Syariah. *Jurnal Akuntansi dan Bisnis*, 4(1).

Husain, F., Ali, A., Malik, N., & Javed, S. (2023). Investment Behaviour of Individual Investors Regarding Sharia Stock Investment: A Systematic Review. *Journal of Southwest Jiaotong University,* 58(3), 411-428. https://doi.org/10.35741/issn.0258-2724.58.3.35

Ida, I., & Dwinta, C. Y. (2018). Pengaruh Locus of Control, Financial Knowledge, Income Terhadap Financial Management Behavior. *Jurnal Bisnis Dan Akuntansi,* 12(3), 131 - 144. https://doi.org/10.34208/jba.v12i3.202.

Julita, J., Jufrizen J, Rambe, M. F., Parlindungan, R. & Wahyuni, S. F. (2014). *Penganggaran Perusahaan Pedoman, Pengkoordinasian dan Pengawasan Kerja.* Perdana Mulya Sarana.

Kumar, P., Pillai, R., Kumar, N., & Tabash, M.I. (2023). The interplay of skills, digital financial literacy, capability, and autonomy in financial decision making and well-being. *Borsa Istanbul Review,* 23(1), 169-183. https://doi.org/10.1016/j.bir.2022.09.012

Maldini, R. (2020). *Pengaruh Literasi Keuangan dan Pendapatan Terhadap Keputusan Investasi* (Studi Kasus Karyawan PT. Pertamina Mor I Medan). Universitas Muhammadiyah Sumatera Utara.

Nara, R. (2021). *Pengaruh Literasi Keuangan Perilaku Keuangan Dan Pendapatan Terhadap Keputusan Berinvestasi.* Skrisi, Universitas Muhammadiyah Sumatera Utara Fakultas Ekonomi dan Bisnis Medan.

Pajar, R. C., & Pustikaningsih, A. (2017). Pengaruh Motivasi Investasi dan Pengetahuan Investasi Terhadap Minat Investasi di Pasar Modal Pada Mahasiswa Fakultas Ekonomi UNY. *Profita,* 1(2), 1–16.

Pritazahara, R., & Sriwidodo, U. (2015). Pengaruh Pengetahuan Keuangan dan Pengalaman Keuangan Terhadap Perilaku Perencanaan Investasi Dengan Self Control Sebagai Variabel Moderating. *Jurnal Ekonomi dan Kewirausahaan,* 15(1), 28–37.

Rahmania, A. (2022). *Pengaruh Literasi Keuangan Syariah dan Pengetahuan terhadap Keputusan Nasabah Menabung pada Bank Syariah dengan Religiusitas sebagai Variabel Intervening.* UIN Raden Fatah Palembang.

Ranatunga, R., Priyanath, H., & Megama, R. (2020). Digital Literacy, Business Uncertainty & Economic Performance: An Empirical Study of Small Businesses in Sri Lanka. *International Journal of Academic Research in Business and Social Sciences,* 10(5). https://doi.org/10.6007/ijarbss/v10-i5/7171

Rusdin. (2006). *Pasar Modal:Teori, Masalah dan Kebijakan Dalam Praktik*. Bandung: Alfabeta.

Salsabila, N. H. (2021). Analisis Faktor Motivasi, Kemajuan Teknologi, dan Literasi Keuangan Terhadap Minat Generasi Milenial dalam Berinvestasi Saham. *Prosiding Bisma: Jurnal Manajemen*, 8(2).

Sadiq, M.N., & Ishaq, H.M. (2014). The effect of demographic factors on the behavior of investors during the choice of investment: evidence from Twin Cities of Pakistan. *Global Journal of Management and Business Research (C)*, 14(3), 47-55.

Safryani, U., Aziz, A., & Triwahyuningtyas, N. (2020). Analisis Literasi Keuangan, Perilaku Keuangan, Dan Pendapatan Terhadap Keputusan Investasi. *Jurnal Ilmiah Akuntansi Kesatuan*, 8(3), 319–332. https://doi.org/10.37641/jiakes.v8i3.384

Saputra, S. E., Natassia, R., & Utami, Y. (2020). The Effect of Religiosity Moderation with Loss Aversion on the Investment Decision of Personal Investors Kind of Stock Security in Padang City. *Andalas Management Review,* 4(1), 40–55.

Tan, I. (2009). *Mengenal Peluang Dibalik Permainan Saham Derivatif*. Yogyakarta: Andi.

Tandelilin, D. E. (2010). *Portofolio dan Investasi Teori dan Aplikasi*. Yogyakarta: Kanisius.

Wati, S. (2023). *Analisis Literasi Keuangan, Sikap Keuangan, dan Pendapatan terhadap Keputusan Investasi Mahasiswa Kota Batam*. Prodi Akuntansi, Universitas Putra Batam.