Behavioral Finance: Hippocrates Personality and Behavioral of Islamic Finance on Investment Decision Gen Z

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Abstract: This study aims to analyze Hippocrates' personality and an investor's financial behavior in making investment decisions. A quantitative research design was used to test the research hypotheses. The respondents consisted of Muslim students from universities in Bandung who belong to the category of Generation Z. The data analysis technique used was the Structural Equation Model (SEM) AMOS. The Hippocrates personality has a significant effect on financial behavior, and financial behavior has a significant effect on investment decisions. However, the Hippocrates personality does not have a significant effect on investment decisions. The findings of this research indicate that financial behavior needs to be improved by applying Sharia financial concepts so that it can support investment activities that are in line with Sharia principles. Personality Hippocrates emphasized choosing investments that are in line with the student's personality characteristics. This personality type is more inclined towards the behavior of calculating the appropriate risks and benefits of the investments made. The novelty of this research is demonstrated by the Islamic financial perspective which examines the relationship between Hippocrates' personality and financial behavior on investment decision-making. The expected implication is that Islamic finance can increase investment by knowing the Hippocratic personality type and financial behavior among Gen Z Muslims.

Originality/Value: The originality of this research is found in studying personality types according to Hippocrates (129-200 BC) and the perspective of Islamic Finance in making investment decisions.

Introduction

Global investment is beginning to recover from the Covid 19 pandemic. Countries around the world continue to accelerate their efforts to achieve inclusive and quality investment for sustainable investment development. The top five countries of origin of foreign direct investment (FDI) are Singapore (US$3.6 billion, 34.8%), Hong Kong, China (US$1.5 billion, 15.0%), China (US$1.4 billion, 13.2%), Japan (US$0.8 billion, 8.0%) and the United States (US$0.6 billion, 6.1%). In the last quarter of 2022, the United States was listed as one of the top five countries of origin of FDI, indicating a diversification of sources of FDI from countries outside the East Asian region (BKPM, 2022). More massive global investment reflects a better economic recovery. However, not all countries can reap the maximum benefits of investment, especially in terms of gross domestic product (GDP). The literature

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shows that financial investment markets have advanced by increasing investment attractiveness through the maintenance of peace and positive macroeconomic indicators (Panjievich, 2023).On the other hand, investment decisions in the health, education, and business sectors can help people protect their assets from inflation, which reduces the purchasing power of their money. Investment decision-making behavior is also useful for facilitating emergency and future financial management and helping people escape poverty (Demirgüç-Kunt et al., 2020). Overall, investment decisions are influenced by skills, knowledge, and experience of financial markets and investment activities (Rajeshwaran, 2020).

When making an investment decision, several factors influence it. First, historical factors that look at past price movements (Menkhoff, 2002; Pandya & Sisombat, 2017; Stanković et al., 2015).Second, fundamental factors such as contingent claims pricing, CAPM, Fama & French with its factor model, Miller-Modigliani theory and its discussion with agency theory (Fama & French, 2015; Noah & Lingga, 2020; Sharpe, 2005; Yuwono et al., 2023). Third, external factors such as economic collapse, changes in government regulations, political instability, recession, or economic slowdown can significantly affect the stock market (Enoma & Mustapha, 2010; Kalsum et al., 2018; Kapoor, 2016; Masini & Menichetti, 2013; Morgan, 1987; Newell & Seabrook, 2006). Fourthly, there are internal factors, namely the decisions of individual investors, which can influence investors' investment decisions (Mittal, 2022). These internal factors are largely influenced by cognitive illusions and human errors that can cause investors to make illogical investment decisions (Antony & Joseph, 2017; Bakar & Yi, 2016; Shah et al., 2018). Essentially, investors choose or create their portfolios based on the risks and returns they expect when investing in the stock market. Mistakes in investment decisions will increase the risk of failure (Ahmad & Shah, 2020). These factors apply only if the market is efficient and everyone in the market is a rational investor or in a situation that fits the Efficient Market Hypothesis (EMH) (Fama, 1970).

The controversy regarding the EMH concept and the form of market efficiency has been the subject of a long debate since the concept was proposed. Various studies have been conducted with various testing models and until now there is no complete decision on whether or not there is an efficient market (Niroomand et al., 2020; Novak, 2019; Sabbaghi, 2022). The belief in the existence of efficient markets may affect the ability of financial models to make accurate predictions due to internal factors that can make investment decisions anomalous. To explain anomalies in the stock market such as bubbles or unexpected stock market bursts, one branch of Behavioural Economics, namely Behavioural Finance, can be used. Behavioral finance assumes that the characteristics of market participants and information structure will affect investors' investment decisions. Behavioral finance attempts to fill this gap by combining scientific insights into individual reasoning with traditional finance theory (Lintner, 1998). Behavioral finance signifies the role of psychological biases and the outcome of a person's decision-making behavior (Grabowski, 2015). George and Dane (2016) stated that proponents of behavioral finance strongly believe that psychological factors influence investors' investment decisions (George & Dane, 2016).

In psychology, a person has a diverse and unique personality. Personality psychology seeks to understand how personality develops and affects individuals with various variations (Rao & Lakkol, 2022). Fachrudin and Latifah (2022) said that indicators of personality traits affect financial behavior. Despite the benefits of knowing one's personality and financial behavior on investment decision-making, statistical studies on the influence of both variables from an Islamic finance perspective have received less academic and policy attention compared to other types of personality traits models, the Myers-Briggs Personality Model, Eysenck's Three-Factor Theory, Keirsey's Temperament Model, the Five-Factor Personality Model, the HEXACO Six-Factor Personality Model, and the Motivation and Personality Metateory Model (Adibulasyhar, 2019). These models identify personality traits in behavioral finance, business research domains, and psychological research. Personality according to Hippocrates (129-200 BC) who is the originator of a person's personality, has never been studied whether there is any influence on a person's financial behavior and investment decision-making. Personality also includes all thoughts, feelings, and behaviors (Adibulasyhar, 2019).

The originality of this research is found in studying personality types according to Hippocrates (129-200 BC) and the perspective of Islamic Finance in making investment decisions. This is the first research to analyze Hippocrates' personality and an investor's financial behavior in making investment decisions. This research has two objectives, the first objective is to analyze whether Hippocrates'

personality can influence financial behavior. The second objective is to analyze whether Hippocrates' personality and financial behavior can influence investment decisions.

Literatur Review

Hippocrates Personality

Each unique personality has its characteristics that cannot be compared with one another. Personality in Hippocrates' typology is divided into four, namely Sanguine the popular (Extrovert-Speaker-Optimistic), Choleric the leader (Extrovert - Actor- Optimist), Phlegmatic the peace lover (Introvert - Observer - Pessimist), and Melancholy the perfectionist (Introvert - thinkers – pessimists) (Littauer, 2004). Figure 1 is about the personality type of Hippocrates' personality typology.
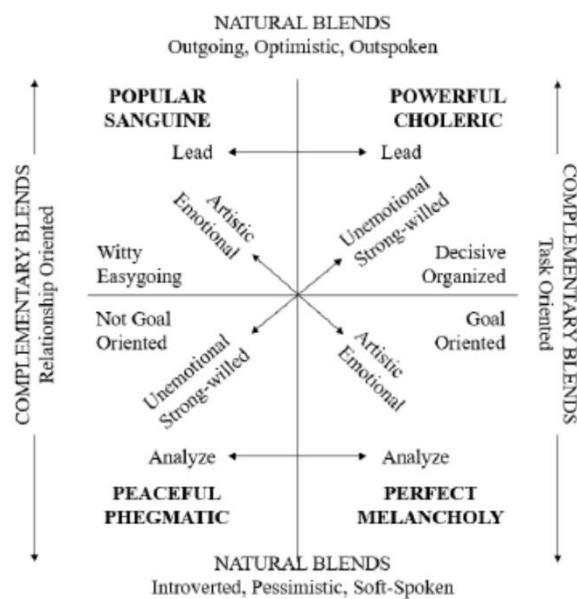

Figure 1. Hippocrates Personality

In Figure 1 there is a combination between personalities because no one has only one personality type 100%. There are 4 combinations, two natural combinations, and two complementary combinations. The first natural combination is the combination of popular sanguine and choleric leaders which is a natural combination of being interactive, optimistic, and open. This personality combination has the potential to produce a true leader but has a weakness for power, impulsivity, impatience, and censorship. The second nature's combination of perfect melancholy and peaceful phlegmatic personality results in a more serious personality, paying attention to the situation, but not wanting to stand out. A person with this personality combination will present material skillfully and happily but will have difficulty making decisions. The first complementary combination is between the leader's choleric personality and the perfect melancholic personality; other complementary combinations are the popular sanguine personality and the peaceful phlegmatic personality (Littauer, 2004). Each personality type choleric, phlegmatic, sanguine, and melancholic has good self-adaptation qualities (Howart, 1988).

Previous research found that Hippocrates divided personality into four categories with the names of fluids that affect human temperament: yellow bile (choleric), black bile (melancholic), mucus (phlegmatic), and blood (sanguine). These four personality types are then adopted in various areas of life (Fahey, 2008). The process of understanding Hippocrates' personality in making financial decisions is very important. This is related to awareness of rights and responsibilities and preventing the risk of financial anxiety in the future (Linciano & Soccorso, 2017). Other research investigates the relationship between Hippocrates' personality and decision-making for software engineering development. For

example, the technology the customer wants to use or the features the customer wants to implement (Hussain et al., 2016).

Islamic Finance

Islamic finance is finance that adheres to Sharia principles. There are many types of Islamic finance such as Islamic insurance, Islamic pension funds, Islamic financing, Islamic mutual funds, and Islamic capital market investment activities (Hussain et al., 2016). The implication of investment sharing in Islamic finance is influenced by supervision, regulatory policies, and capital adequacy (Archer et al., 2010; Wilson, 1997). There are two investment criteria, namely halal investment and haram investment (investment that is prohibited in Islam). Investment has a major contribution to the advancement of the economy. Therefore, investment is permissible as long as the investment of funds or capital for a particular business does not conflict with Sharia principles, both the object and the process (Hashem & Abdeljawad, 2018). In a household, management of Islamic financial management is certainly needed. The principles of Islamic financial management are; (a) hoping for the blessing of Allah SWT; (b) being free from maysir, gharar, usury, and extravagance; (c) applying the principle of profit sharing between banks and customers; (d) the sectors financed are not prohibited in Islam; (e) the investment is guaranteed to be halal; (f) the purpose of financial transactions is to help each other in doing good (tabarru') (Hashem & Abdeljawad, 2018). Islamic finance has financial institutions engaged in financial services and adhering to the three principles of sharia activity management. First, the acquisition of funds for the business carried out can be obtained from Islamic financial institutions using mudharabah, murabaha, musyarakah, salam, ijarah, and other contracts. Second, investment money is not considered a commodity that is traded. Investment funds must also go through financial institutions that use Sharia rules. Third, the use of funds has a clear purpose and does not deviate from the rules of Islamic law. Going deeper, Islamic finance innovation contributes to improving Sharia-compliant financial institutions including generating investment and risk management (Kammer et al., 2015). Islamic finance is very useful in financing investments in various economic activities and development projects for the welfare of society (Statman, 2014).

Behavioral Finance

Behavioral finance theory originates from criticism of previous theories, namely the efficiency market hypothesis (EMH). EMH assumes that all economic agents will maximize expected utility (satisfaction), while behavioral finance assumes that individuals will minimize regret. EMH is normative which tries to predict what has not yet happened. Meanwhile, behavioral finance is a positive theory that seeks to describe what has happened. EMH said that humans are risk-averse. Meanwhile, according to behavioral finance, they are not risk averse, but loss avers. EMH assumes that humans can make unbiased predictions, that is according to conditional probability theory, behavioral finance assumes that human predictions are often biased. EMH says investors are looking for optimal returns, and behavioral finance says investors are looking for satisfactory returns. EMH is finance that has rational people in it, while behavioral finance has rational people, but sometimes they are influenced by cognitive and emotional errors that make them irrational (Statman, 2014).

One of the early authors who researched the psychology and finance of companies was Simon (Cyert & March, 1963). Over the past few years, investments have usually been based on forecasting from historical data, company fundamental analysis, and market timing based on market conditions. It is used to generate common findings. The existence of a large discrepancy between the expected returns and the returns received is the main reason for solving this problem and finding its causes. It was found that psychological factors have a major influence on the decision-making of an investor and investors are irrational (Jahanzeb & Saif-ur-Rehman, 2012). This is where the subject of behavioral finance became popular in the world of investment decisions and the stock market.

Psychological factors are important factors currently in determining market behavior (Muneer, 2012). Another researcher who played a role in popularizing behavioral finance was Slovic (1972) who examined individual misconceptions about risk. Regarding heuristics and decision frameworks, Kahneman and Tversky' (1979) with their prospect theory, and Devenow and Welch, (1996) emphasized the herding effect. The definition of financial behavior is explained by Lintner (1998) who

says that behavioral finance is the study of how humans interpret and act on information to make informed investment decisions. And Olsen (1998) confirms that behavioral finance does not explain rational behavior or show wrong decisions, but rather attempts to understand and predict financial markets systematically. It tries to explain the 'what, why, and how' of investing from a human perspective (Ricciardi & Simon, 2000). Thus, it can be said that behavioral finance is the study of a person's behavior in interpreting information to make irrational investment decisions.

Previous research that examines the effect of financial behavior on decision-making is Antony and Joseph (2017) examines financial behavior from factors of overconfidence, Representative Bias, Regret Aversion, Mental Accounting, and Herding. Finding that overconfidence and regret aversion have a significant effect on investment decision-making. Ahmad and Shah (2020) examined the behavior of the heuristic factors, namely overconfidence, representativeness, availability, and anchoring, and found that these factors had a negative and significant effect on decision-making. Noah and Lingga (2020) examine financial behavior from heuristic theory factors (overconfidence, availability, and anchoring), and prospect theory. In this study, the behavioral finance indicators studied were the herding effect, heuristic theory, and prospect theory.

Herding Effect

Herding behavior is one of the behavioral phenomena seen among investors in almost all asset classes associated with financial markets (Mand et al., 2023). As such it has become the subject of strong attention from researchers. The influence of this behavior was particularly visible during the financial crisis of the 1990s. The study by Devenow and Welch (1996) confirms the origins of herding behavior, finding that investors feel more secure if investors imitate and follow other investors. In contrast, professional investors' investment decisions are not influenced by herding (Venezia et al., 2011). Demirer et al. (2010) and Yao and He (2014) suggest that herding behavior is often found in several sectors. In this phenomenon, investors sell stocks whose prices are rising and hold on to stocks whose value has fallen (Lin & Lin, 2014). This grazing will be more widespread during periods of market stress. Therefore, the existence of herding behavior among investors will cause market imbalances by maneuvering the price of securities from their default value (Kataria & Choudhary, 2015). Therefore, the herding effect refers to the phenomenon that individuals give up their own opinions, change their original attitudes, and adopt behaviors consistent with the choices of most people under market pressure (Liu et al., 2019). It can be concluded that herding behavior refers to situations where people follow trends without thinking further about the situation due to insufficient information. In this case, investor information is often observed from the behavior of the crowd, and this information will be reinforced continuously, which will eventually result in herding behavior. Previous research on the herding effect is the (Hayat & Anwar, 2016; Khairunizam & Isbanah, 2019; Mahanthe & Sugathadasa, 2018; Nareswari et al., 2021; Novianggie & Asandimitra, 2019; Tamara et al., 2022) found that the herding effect affected positive effect on stock investment decision making.

Heuristic Theory

The term heuristic comes from the Greek and means serving to find (Ayaa et al., 2022). Heuristics provide solutions by guiding investors in searching for information and modifying the description of the problem (Ahmad, 2021). In contrast, Skagerlund et al. (2020) emphasized that heuristics become an obstacle for investors to find the right solution to the problems posed by probability theory. In essence, all heuristic techniques are a form of effort reduction (Ahmad, 2021). However, on the other hand, heuristics are also information-gathering tactics that change the representation of an issue to make it easier to solve (Ahmad & Shah, 2020). Kahneman and Tversky (1981) argue that the heuristic has three aspects: restraint, availability bias, and representativeness. In previous research on the heuristic theory of investment decisions, Shah et al. (2018) found that heuristic bias hurts investment decisions. Meanwhile, Chhapra et al. (2018) specifically regarding heuristics on overconfidence found that there was a positive influence on investment decision-making. Rasheed et al. (2018) show that heuristic factors are directly related to investment decisions. Saeed et al. (2019) found that anchoring is the most important factor influencing investors in making investment decisions. Jain et al., (2020) also found the

effect of overconfidence on investment decision-making. Thus, this study used indicators from heuristic theory, namely Anchoring and Overconfidence.

Anchoring was introduced by Tversky and Kahneman (1974), where investors use irrelevant information to project the future value of financial instruments. According to Parveen and Siddiqui, (2018), investors are expected to be able to make decisions based on preliminary information. According to Rossiter (2019), anchoring is an estimate of the possibility of an uncertain event. Jain et al. (2020) argue that anchoring is an investor's decision-making behavior that is irrelevant by only considering an increase in stock prices. According to Trejos et al. (2019), investors have a tendency to set buying and selling prices for shares based on past information. According to Kartini and Nahda (2021), anchoring is the human tendency to make decisions by relying on the first information obtained. Cao et al. (2021) found that anchoring has a significant effect on making investment decisions.

Overconfidence tends to arise when uncertainty is high and correct judgments are difficult to form Hirshleifer et al. (2019). Overconfidence is excessive belief in intuitive reasoning, judgment, and cognitive abilities (Baker et al., 2018). In investing, the ability to recognize profitable investments may be misunderstood by investors who have an overconfidence bias (Javed et al., 2017). According to Barno (2020) overconfidence is when investors believe that they have more knowledge than others. Over-estimation, over-placement, and over-precision are three attributes of people who show overconfidence (Dangol & Manandhar, 2020). Previous research in this area has shown how the overconfidence bias affects rational decision-making. According to Agarwal et al. (2020), investors with discount brokerage accounts develop overconfidence and indulge in excessive trading. According to Ayaa et al., (2022), overconfident investors are known to trade more often and have negative anomalous returns on the stock market.

Prospect Theory

Prospect theory is an important theory for the decision-making process under uncertainty and risk (Erdougan, 2020). This theory was first proposed by Kahneman and Tversky' (1979) and provides strong evidence that people do not display rational thinking. Investors show risk-averse behavior if they are profitable and show risk-taking behavior if they lose (Durukan, 2002; Kahneman & Tversky, 1981). Chang (2011) and Loughran and Ritter (2002) find that severe underpricing of initial public offerings (IPOs) can be explained using prospect theory. Similarly, Ljungqvist et al. (2006) find that prospect theory explains IPO market behavior. Wen (2010) examines the prospect theory of corporate capital investment and corporate governance. According to Kahneman and Tversky' (1979), Prospect theory illustrates that investors prefer to avoid risk compared than take high profits, which is also called loss aversion. The emotional impact of the loss is proven to be 2.5 times the impact of the profits obtained (Sairafi et al., 2008). Barberis and Thaler (2002) found that investors focus on loss avoidance rather than expected gains. Risk aversion is considered a common behavior among investors. However, an excessive focus on loss avoidance can affect investors' wealth and investment decisions (Barber & Odean, 2000). Based on the explanation above, this research can be described in the framework of thinking below.
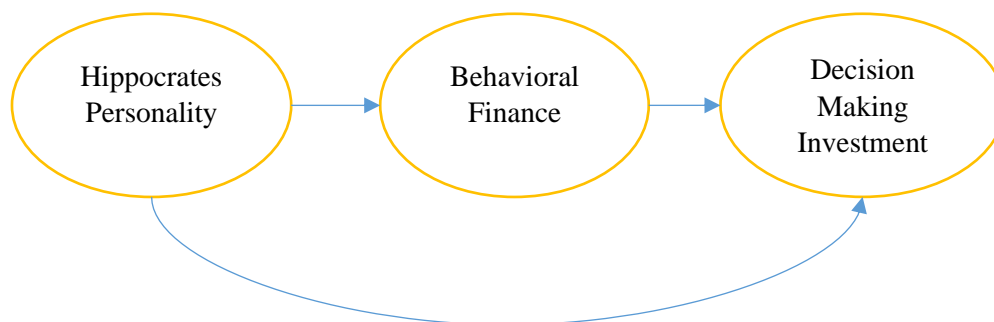

Figure 2. Framework

Research Method

This research is quantitative research because the data obtained is in the form of numbers and the processing uses statistical analysis. According to the problem, this research is causal-associative research, i.e. research with problem characteristics in the form of influence between two or more variables.

Data

The population of this research is all university students in Bandung who fall into the age category of Generation Z. The reason why the sample only uses the city of Bandung is because Bandung is one of the educational cities in Indonesia and the age of Generation Z is in the age range of current students, namely 1997 - 2012. In terms of sample selection, this research uses the convenience sampling technique, which is the random selection of members of the population so that each member of the population has the same probability of being selected as a sample. The sample is part of the number of characteristics that the population has, and the sample selected must be truly representative of the existing population. Given the large number of Generation Z students in Bandung, the size of the population cannot be known with certainty. Therefore, the formula from Archer et al. (2007) was used to determine the number of samples in this study:

$$n = \frac{z^2 p \, (1-p)}{e^2} \tag{1}$$

n : The required sample size
z : The standard value corresponds to a significance level of 95% = 1.960
e : The maximum acceptable error is not more than 10 %
p : Estimating the proportion of the unknown population using the assumption that the value of p = 0.5

Thus the sample size used in this study was 96 students in Bandung who fall into the Z generation category.

Data Collection Techniques

The data needed in this research is primary data. Primary data is data collected directly by the researchers themselves by applying survey techniques, namely by giving many questions or questionnaires to respondents. The questionnaire given is composed of 3 variables, namely Hippocrates Personality, Financial Behavior, and Investment Decision Making. Data was measured using a modified Likert scale questionnaire, namely 5 to 1. A value of 5 indicates "strongly agree" and a value of 1 indicates "strongly disagree".

Data Analysis Techniques

Data processing and data analysis were carried out using the SEM (Structural Equation Modeling) method assisted by AMOS 24 software. SEM is a multivariate statistical technique which is a combination of analysis and regression analysis (correlation), which aims to examine the relationship between variables in a model. , both indicators and constructs or relationships between constructs (Awang et al., 2015). According to Mueller and Hancock (2019) said that SEM has 4 main tests. First, test the quality of data instruments. In this test, 2 analyses were carried out, namely validity and reliability. Where validity is used to measure indicators in reflecting on their theoretical latent constructs. The minimum value of the validity test for each indicator is 0.5. The reliability test was carried out to determine the consistency of the indicators of a variable by looking at the construct reliability value of at least 0.7 (Ghozali, 2016). Second, evaluation of the structural model. Evaluation of the model performs 2 tests, namely the normality of the data. Where the normality test is carried out to identify the data distribution of each variable. This is done to avoid biased research results. This test is based on the critical ratio (CR) value of the multivariate with a significance level of 0.01 if the critical ratio value of the multivariate, skewness, or kurtosis is in the range of ± 2.58. The next test is outliers, this aims to identify extreme data that occurs when collecting data where the criteria used are at the p-

level <0.001. This distance is evaluated using X2 in degrees of freedom equal to the number of measured variables used in the study. Third, the Model Feasibility Test was conducted to identify the suitability of the model used in the study. The suitability index that can be used to test the feasibility of a research model is as follows:

1. Absolute fit index - The absolute fit index measures the fit model as a whole, both the structural model and the measurement model together. The measure underlying the overall measurement is the likelihood-ratio chi-square (X2). The relatively high value of X2 to the degrees of freedom indicates that the observed and predicted covariance or correlation matrices are significantly different and this results in a probability smaller than the level of significance. The absolute match index that is often used is;

   a. Goodness of Fit Index (GFI) - GFI is a non-statistical measure whose values range from 0 (poor fit) to 1.0 (perfect fit). The GFI fit index is used to calculate the weighted proportion of the variance in the sample covariance matrix that is explained by the estimated population covariance matrix. where X2model is the value of the X2 model test statistic being analyzed and X2null is the value of the X2 model test statistic zero/independent. A GFI value above 90% is recommended for a good fit. The formula for GFI is as follows:

   $$\text{GFI} = 1 - \frac{x2\ model}{X2\ null} \tag{2}$$

   b. Root Mean Square Error of Approximation (RMSEA) - This test is used to compensate for the statistical chi-square error in a large sample. An RMSEA value between 0.05 and 0.08 is an acceptable measure. where the df model is the degree of freedom of the analyzed model and n is the number of samples. The formula for RMSEA is as follows:

   $$\text{RMSEA} = \sqrt{max\left(\left(\frac{X2\ model - df\ model}{ndfmodel}\right),\right)} \tag{3}$$

2. Incremental fit measure (fit index based on model comparison). The incremental fit measure compares the estimated model with the basic model which is often called the null model or the independence model. The most frequently used incremental fit measures are:

   a. Adjusted goodness-of-fit (AGFI). The recommended value is greater than or equal to 0.90. with df null is the degree of freedom of independent model testing. The formula of AGFI is as follows:

   $$\text{AGFI} = 1 - \frac{df null}{df\ model}\ (1 - GFI) \tag{4}$$

   b. Tucker-Lewis Index (TLI). This test is an alternative incremental fit index that compares a model tested against the baseline model. TLI values range from 0 to 1.0. The recommended TLI value is greater than or equal to 0.90. To obtain the TLI value, the formula below can be used:

   $$\text{TLI} = \frac{\left(\frac{X2\ null}{df null}\right) - \left(\frac{X2model}{df\ model}\right)}{\left(\frac{x2null}{df null}\right) - 1} \tag{5}$$

3. Parsimony Fit Measure. Parsimony is defined as obtaining the highest degree of fit for each degree of freedom. Thus the higher the parsimony the better. The parsimony fit measure that is often used is:

   a. Parsimonious Normal Fit Index (PNFI). PNFI is a modification of NFI. PNFI takes into account the number of degrees of freedom to achieve a match level. The recommended PNFI value is 0.6 to 1. The PNFI formula is as follows:

   $$\text{PNFI} = \frac{df\ model}{df null}\ \text{NFI} \tag{6}$$

   b. Partimonious Goodness of Fit Index (PGFI). PGFI modifies GFI based on the parsimony of the estimated model. PGFI values range between 0 and 1, with higher values indicating better parsimony. PGFI makes adjustments to GFI with the following formula:

$$\text{PGFI} = \frac{df\ model}{df\ null}\ \text{GFI} \tag{7}$$

Hypothesis Testing

Hypothesis testing is carried out to identify hypotheses that are theoretically prepared to have similarities with the results given by the AMOS application program. Hypothesis testing is done by looking at the CR value and the p-value. The hypothesis is said to have an influence when the resulting CR value is > 1.96. Then the p-value is said to have an influence when the resulting p-value is ≤ 0.05 (Mueller & Hancock, 2019).

Results and Discussion

Validity and Reliability Test Results

The validity test can be seen from the value of the corrected item - Total Correlation and Reliability can be seen from Cronbach's Alpha if the item is deleted. An indicator is said to be valid if the coefficient of the indicator has a critical ratio that is greater than twice the standard error. Critical value or t-value criteria is an indicator > 1.96, so the indicator is said to be valid (Heale & Twycross, 2015).

Table 1. Validity and Reliability Test

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
HP1	35.60	26.875	.269	.143	.746
HP2	35.04	25.979	.455	.245	.716
HP3	36.30	27.452	.195	.195	.761
BF1	35.38	26.573	.382	.186	.727
BF2	35.20	25.041	.576	.413	.700
BF3	35.10	26.326	.568	.380	.706
BF4	34.99	26.149	.444	.240	.718
DMI1	34.40	27.247	.420	.549	.723
DMI2	34.51	27.779	.361	.455	.729
DMI3	34.97	28.241	.292	.161	.737
DMI4	34.51	26.574	.502	.487	.713

The results of the validity and reliability tests in Table 1 show that the data obtained are valid and reliable, so this research can continue with the data obtained.

Normality Test

Normality can be tested using the Critical Ratio or CR value. If the CR is greater than the critical value, it can be assumed that the data distribution is not normal. The critical value based on a 1% significance level can be determined as ±2.58 (Mueller & Hancock, 2019).

Based on the normality test results (see Table 2), the univariate critical ratio value for each skewness and kurtosis variable is > - 2.58 and < 2.58. Multivariate, the kurtosis value is 2.044 with CR 1.682. It can be concluded that the data is normally distributed both univariate and multivariate.

Test of Goodness of Fit

To determine the suitability of the model used in this study, the results of the model feasibility test are shown in Figure 3. A good model is one in which the population covariance matrix is the same as the sample covariance matrix, based on the chi-squared criterion, which measures whether there is a difference between the population and sample covariance matrices. Table 3 shows that the chi-squared value is low and the p-value is 0.145 or> 0.05, which indicates that this research model is good. The CMIN / df value is the result of dividing the chi-squared and the degrees of freedom (df) with a value

of 1.234 or < 2. This is also supported by the results of other model fits of absolute, incremental, and parsimony. Therefore, this research model is fit (has a good model fit) based on the goodness of fit results.

Table 2. Normality Test

Variable	min	Max	skew	c.r.	kurtosis	c.r.
DMI4	1.00	5.00	-.555	-2.383	-.089	-.230
DMI3	1.00	5.00	-.224	-1.163	.099	.258
DMI2	1.00	5.00	-.719	-2.374	.453	1.176
DMI1	1.00	5.00	-.789	-2.098	.247	.641
BF4	1.00	5.00	-.552	-2.266	.024	.064
BF3	2.00	5.00	.152	.788	-.432	-1.122
BF2	1.00	5.00	-.090	-.468	-.524	-1.362
BF1	1.00	5.00	-.259	-1.347	-.200	-.520
HP3	1.00	5.00	.725	2.379	-.460	-1.194
HP2	1.00	5.00	-.212	-1.103	-.212	-.552
HP1	1.00	5,00	-.046	-.237	-.805	-2.090
Multivariate					2.044	1.682
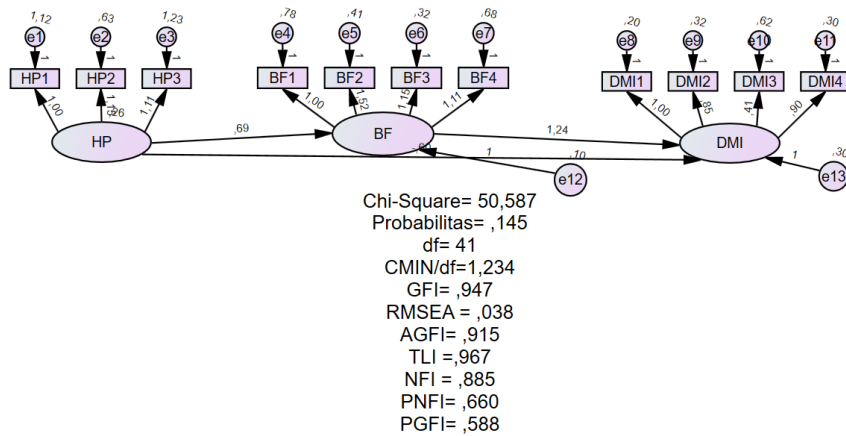
Figure 3. SEM Estimation Results using AMOS

Table 3. Goodness of Fit Result

Fit Type	Value Fit Model	Fitness
Absolute	Chi-square = 50.587	Perfect Fit
	P value = 0.145	Perfect Fit
	CMIN/Df = 1.234	Perfect Fit
	RMSEA = 0.38	Perfect Fit
	GFI = 0.947	Perfect Fit
Incremental	TLI = 0.967	Perfect Fit
	AGFI = 0.915	Perfect Fit
	NFI = 0.885	Middle Fit
Parsimony	PNFI = 0.660	Perfect Fit
	PGFI = 0.588	Middle Fit

Hypothesis

The hypothesis is tested by looking at the CR value and the p-value. The hypothesis is accepted if the resulting CR value is > 1.96. Then the p-value is said to have an influence when the resulting p-value is ≤ 0.05 (Mueller & Hancock, 2019).

Table 4. Regression Weights

			Estimate	S.E.	C.R.	P	Label
BF	<---	HP	.687	.238	2.883	.004	par_9
DMI	<---	BF	1.238	.438	2.829	.005	par_10
DMI	<---	HP	-.596	.417	-1.429	.153	par_11
HP1	<---	HP	1.000				
HP2	<---	HP	1.150	.371	3.098	.002	par_1
HP3	<---	HP	1.105	.319	3.470	***	par_2
BF1	<---	BF	1.000				
BF2	<---	BF	1.520	.295	5.151	***	par_3
BF3	<---	BF	1.147	.227	5.064	***	par_4
BF4	<---	BF	1.110	.248	4.480	***	par_5
DMI1	<---	DMI	1.000				
DMI2	<---	DMI	.855	.094	9.099	***	par_6
DMI3	<---	DMI	.412	.106	3.895	***	par_7
DMI4	<---	DMI	.897	.100	8.968	***	par_8

The results of the calculations using the AMOS program show that the probability value between the influence of Hippocrates' personality on behavioral finance and behavioral finance on investment decision-making has a probability significance level (p-value) <0.05 and a CR value > 1.96. It can therefore be said to have a significant impact. On the other hand, the Hippocrates personality variable does not affect investment decisions, as the probability is 0.153 or greater than 0.05. Based on these statistical results, it can be understood that Hippocrates' personality and financial behavior, by applying the concept of Islamic finance, make a significant contribution to efforts to increase investment. To support Shari'ah-compliant investment activities, individuals must be able to plan, budget, manage, and control their finances and be guaranteed to be halal. Previous research shows that good Muslim financial citizens are those who can manage their finances responsibly, control themselves, avoid consumerism, and have a good understanding of financial literacy (Puteri et al., 2022; Nurlaili & Swastika, 2021). A Muslim who makes financial investments can enjoy a better quality of life in the future (Kassim et al., 2019). In contrast, potential investors who lack an understanding of investment management have higher potential investment risks (Irton et al., 2021). It can be understood that this means that Gen Z students need to be able to set financial goals by Islamic Sharia; be able to allocate some funds for the benefit of the community through zakat, infaq, and sadaqah; as well as use Islamic financial products and implement a lifestyle that is not wasteful.

Theoretically, this personality type is more likely to behave in a way that calculates the right risk and return on investment. Previous research explains that personality can be used to see whether a person's personality can influence financial behavior and investment decisions (Littauer, 2004). Previous research on the herding effect, namely Nareswari et al. (2021) and Tamara et al. (2022), found that the herding effect has a positive effect on stock investment decisions. This finding differs from previous studies because Gen Z students are still in the process of finding their identity. This means that their personality is still unstable when it comes to making investment decisions, especially long-term investments. This is in contrast to previous studies that have shown the existence of the herding effect phenomenon among financial investors Mand et al., (2023) and in the decision-making of professional investors (Venezia et al., 2011). In investing, the ability to identify profitable investments can be misunderstood by investors who have an excessive trust bias (Javed et al., 2017). Previous research in this area has shown how overconfidence bias affects rational decision-making. Overconfident investors are known to trade more frequently and have negative abnormal returns in the stock market (Ayaa et

al., 2022). Barberis and Thaler (2002) found that investors focus more on loss aversion than on expected returns. Risk aversion is considered to be a common behavior among investors. However, an excessive focus on loss aversion can affect investors' wealth and investment decisions (Barber & Odean, 2000). This research reveals novelty through the perspective of Islamic financial behavior in the investment decision-making process of Generation Z.

Finally, these findings explain the Hippocrates' personality of Gen Z students who are still in the process of personality formation toward divinity. The natural reaction of Generation Z as the youngest generation can be seen in their less communicative personality, lack of interest in political matters, and sometimes a tendency to be lazy. Gen Z needs time to form a positive personality (Scholz & Vyugina, 2019). Understandably, Gen Z tends to make simple financial investment decisions. They are not yet able to manage investment risk in the same way as professional investors in the stock market. Hopefully, when Gen Z has gone through the perfect personality formation process, their personality and financial behavior can reflect the behavior of a good Muslim who can manage finances in an Islamic way.

Conclusion

The goodness of fit of this research model is shown based on the statistical results and discussion. The first finding is that Hippocrates' personality has a significant effect on financial behavior. The second finding is that financial behavior has a significant effect on investment decisions. The third finding, Hippocrates' personality has no significant effect on investment decision-making. It can be concluded that Gen Z needs financial education and Shari'ah-compliant personality development. In the process of personality formation, the Hippocrates personality theory emphasizes the selection of investments that align with the student's personality character. The hope is that Gen Z will be able to calculate the right risks and rewards of future investments. The expected implication is that the Hippocrates personality type and the financial behavior of Gen Z Muslims require special attention from stakeholders. In this case, the government has an important role in creating a more responsible and coherent regulatory framework for sustainable financial investment.

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