

# Investment Decisions in The Era of The COVID 19 Pandemic

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## ABSTRACT

The purpose of this study was to obtain empirical evidence regarding investment decisions from students of the Faculty of Economics and Business (FEB) in 4 Universities in Jakarta during the COVID-19 pandemic era which was in a condition full of uncertainty. The test of this research is the Spearman's rho correlation test through SPSS version 20 because the data is not normal. The data processed by 160 respondents were distributed via google form during July – September 2020. Referring to the theory of investor behavior, the results of this study are expected to describe investment decisions in the era of the COVID-19 pandemic. The results of the Spearman's rho correlation test that are significant with regard to investment decisions are investment risk, investment returns, and general information, while financial information is not significantly related to investment decisions. This shows the behavior of investors not to make investment decisions using financial information that is considered as past data considering that future conditions will be much different from the past. The implications of this research are to motivate investors to keep investing in the era of the COVID-19 pandemic in order to stimulate the nation's economy. This research is expected to contribute to enliven investment in Indonesia.

**Keywords:** *investment, perception, FEB students, COVID-19 era*

## 1. INTRODUCTION

The current world economic crisis has been exacerbated by the era of the COVID-19 pandemic which prompted the implementation of large-scale social restrictions (PSBB) in DKI Jakarta until this research was conducted for the second time. This makes many business people slump and even many parties are very worried about the survival of their business. PA Auliani [1] in Kompas.com stated that in the first quarter of 2020 consumption grew 2.83% while the economy grew 2.97%, but in the second quarter of 2020 there was a consumption contraction of -5.51% and the economy -5.32%. Indonesia's economic growth since 1998 has not been in good condition, especially reflected in 2020 due to the COVID-19 pandemic. Various innovations were tried to be created, for example the increasing number of online transactions such as online shopping, online learning, and various fields trying to push the wheels of the economy online. The era of the industrial revolution 4.0 is increasingly impacting all aspects of business to change many conventional paradigms which ultimately change people's lifestyles. This study wants to obtain empirical evidence regarding the paradigm shift in investing where this study uses a sample of respondents from the students of the Faculty of Economics and Business (FEB) as the next generation who have been equipped with investment knowledge.

Investor behavior is driven by psychological principles that focus on investor interpretation and acting on information for decision making. Shefrin (2000) in T Zaleskiewicz [2] suggests that there are three topics that underlie financial behavior, namely: (1) heuristic-driven bias in predicting future market trends, (2) frame-dependent investor preferences, and (3) inefficient pricing. Standard financial models generally assume that rational investors are able to forecast prices in an unbiased

manner and who can make choices according to their stable preference for risk. On the other hand, behavioral finance portrays a picture of "normal" investors who are confused by cognitive errors, make mood- and influence-guided judgments, and are prone to different frames (Statman, 1999 in T Zeleskiewicz [2]. In line with the above, VS Mutswenje [3] also reveals that individual investment behavior is influenced by market characteristics, individual risk profiles, and accounting information. E Handriani and R Robiyanto [4] reveal the results of their research that the Investment Opportunity Set as measured by industrial growth in Indonesia can mediate the effect of profitability on firm value.

## **1.1. Research Motivation**

Many things that motivate investors to make decisions have been studied by previous studies, but the results are inconsistent considering that investors' decisions are based on the various interests and perceptions of these investors. Motivation of this research is to provide an overview of the factors related to investment decisions in the era of the COVID-19 pandemic which is ultimately expected to encourage investment motivation to stimulate the nation's economy.

### **1.1.1. Problem Formulation & Research Objectives**

The formulation of the research problem is whether the level of risk, rate of return (return), general information, and financial information is significantly related to investment decisions in this era of the COVID-19 pandemic.

The purpose of this study is to describe the significant factors related to investment decisions in the era of the COVID-19 pandemic. FEB students were chosen as respondents because they were considered to have sufficient knowledge regarding the nation's economy.

## **2. BACKGROUND**

### **2.1. Theoretical Framework (Investor Behavior Theories)**

Prabowo (2000) in D Septyanto and MFA Adhikara [5] suggests that investors' responses to financial statement information depend on the cognitive ability to interpret the information received, so they can act naive, irrational, and unsophisticated. Sjahrir (1995) in D Septyanto and MFA Adhikara [5] revealed that investors tend to make decisions referring to rumors, issues, speculative, and mass behavior, impulsivity, loss-control, and impatience, which result in (a) making wrong decisions and often the market seems to be fooled by the interpreted information, (b) mislead investors on the expected values that have been determined by the interpretation of the information, (c) make investors follow their heart so that investment decisions are high risk, (d) investors take advantage of capital gains (short-term orientation), speculative behavior, and pays a lot of attention to macro factors such as issues, rumors, politics, conspiracies, insider trading, regulations, market anomalies, and others. The research results of D Septyanto and MFA Adhikara [5] show that financial statements do not have the benefit of changing investors' initial confidence to make investment decisions, so there is no benefit of financial information that affects investment intentions.

VS Mutswenje [3] suggests several theories of investor behavior, namely Regret Theory, Theory of Mental Accounting, Prospect/Loss Aversion Theory, Over/Under Reacting Theory, and Theory of Overconfidence. Regret theory states that someone reacts emotionally after realizing that they have given wrong consideration or made the wrong decision, so they will not sell the investment to avoid regretting the decision that has been made when buying a bad or unprofitable investment. Thaler (2001) in VS Mutswenje [3] suggests Theory of Mental Accounting that a person has a tendency to place certain events or events into mental compartments and differences between compartments affect the person's behavior more than the event or incident. This can be illustrated by someone's reluctance to sell an investment that was once profitable but is currently declining, and is just waiting for profits to increase again.

Kahneman and Tversky (1979) in VS Mutswenje [3] suggested Prospect Theory that people express different levels of emotion towards profit or loss, which are more depressed with future

losses, this explains why investors hold down stocks that lose, people often take more risk to avoiding losses rather than making gains and investors are willing to hold risky stocks in the hope that there will be an increase in stock prices in the future. The Loss Aversion Theory explains that investors prefer to hold losses in stocks and sell profitable stocks in the hope that stocks that are currently losing money can provide higher returns in the future. Kahneman and Tversky (1979) in H Bleichrodt and PP Wakker [6] are the first researchers to make a risk-based decision model that explicitly and intentionally deviates from the rationally expected benefits of homo economicus, but can still be recognized as economic modeling and predictions.

Hong and Stein (1999) in VS Mutswenje [3] suggest the Over/Under Reacting Theory which shows investor optimism when market conditions are good or increasing with the assumption that it will continue to increase, but on the other hand investors will be very pessimistic when market conditions are bad or declining. Therefore, investors make predictions with reference to current events and ignore historical data. When optimism peaks, investors often react by moving the stock price beyond its intrinsic value.

Tapia and Yermo (2007) in VS Mutswenje [3] explain the Theory of Overconfidence that a person generally judges himself above his average ability, overestimating the accuracy of his knowledge compared to other people. Many investors believe that they can trade consistently on time in the market, but the reality is the opposite. Overconfidence leads to excessive stock trading activity, resulting in stock trading costs that can reduce the investor's profits.

Sutrisno [2007] in <http://niconotes.blogspot.com/2017/11/decision-investment-is-modal.html> [7] suggests that the choice of investment considers several things such as: (a) the company's invested funds will be tied up in the long term, therefore the company must wait for a return. in the long term, (b) the company's funds invested are generally very large, (c) the company's investment decisions expect profits so that if a miscalculation occurs it can cause losses for the company, (d) investment decisions have a long-term impact on the company so that if an investment error occurs will be bad in the long run. Tandelilin [2005] in the Nichonotes blog [7] also suggests that the basis for investment decisions can be influenced by several factors, including: (1) return (rate of return), (2) risk (level of risk), and (3) the time factor (time factor). ).

## **2.2. Previous Research**

VS Mutswenje [3] revealed the results of his research that the structure of information, market factors, and the rate of return systematically affect individual investment choices. The results of his research also reveal important factors that influence investment decisions, namely: company reputation, company status in the industry, company profit expectations, earnings and reporting conditions, past stock performance, price per share, feelings on economic conditions, and dividend expectations. E Handriani and R Robiyanto [4] put forward their research findings that the Investment Opportunity Set based on industrial growth in Indonesia can mediate profitability on firm value.

PV Durga Rao, et al [8] explained that stock investment provides a higher return than other forms of investment. PV Durga Rao, et al [9] argues that investors have various ways of investing with features that suit their needs, by maximizing the rate of return and minimizing investment risk. PV Durga Rao, et al [10] also argues that investment evaluation is important for retail investors whose success is highly dependent on investor satisfaction during the post-investment period which has a lasting impact on investment thinking or ideas and depends also on investor confidence to determine the quantity of investment. The basic factor that results in satisfaction and investment confidence is the prospect of a return on the investment.

IO Fridana and N Asandimitra [11] stated that the results of their research on 230 female students who invested in Surabaya showed that financial literacy, overconfidence, herding, tolerance for risk and perception of risk had a positive effect on investment choices. The focus of the research is on women because in the last four years female investors have experienced a significant increase compared to male investors, even though the level of financial knowledge of women is lower than that of men.

MM Abdeldayem [12] stated the results of his research that portfolio risk is not only influenced by the quantitative aspects of potential losses or gains, but is also influenced by evidence of its qualitative manifestations. Worry & anxiety, liquidity; and the high level of confidence in the

economy and the burden on the stock market are risk factors associated with portfolio management in the Kingdom of Bahrain.

U Bajaj and R Kalra [13] suggest that the aim of their research is to examine the effect of several factors such as demographics (i.e., gender, age, education and marital status), investment decision criteria (i.e., risk, payback, trends), and level of financial literacy. . The study also compared studies of employers with college students, full-time employees and retired employees, citing the factors most likely to influence investment decisions. His research findings provide an understanding of the various factors that influence investment decisions, the motives behind investments, the common problems an entrepreneur faces with regard to investment decisions, an awareness of all opportunities and a study of most of the investment avenues commonly available in the market.

A Lathief, dan S Aktharsa [14] stated the results of their research that the accuracy of investment decisions needs to understand the behavioral factors of individuals who make decisions. Individual behavioral factors, namely, Investor Optimism, Investment Ability, Investor Effort, Risk Appetite and its influence on Investment Decision Making. His research with a sample of 264 investors from a population of 300 investors used a structured questionnaire from investment sites in the Karur district of Tamil Nadu. The results of his research show that of the four behavioral factors, it is illustrated that there are three factors, namely, Investment Ability, Investor Effort and Risk Appetite which are significant predictors of investment decision behavior.

SA Qureshi, et al [15] suggest that traditional financial theory assumes that investors use all available information and make rational investment decisions, but in reality this assumption is not proven. His research seeks to investigate the influence of behavioral factors such as heuristics, risk aversion, use of financial tools and corporate governance on the decision making of equity fund managers in Pakistan. Based on the responses from 327 equity fund managers of insurance companies, commercial banks, and equity participation companies using stratified random sampling technique, the results of the research show that there is a positive and significant relationship between heuristics, use of financial tools, risk aversion, corporate governance at the corporate level, and investment decision making. It is also illustrated that corporate governance plays an important role in influencing investment decisions. Managers of institutional equity funds apply heuristics and financial tools when formulating decisions, it is also found that respondents tend to avoid risk. The results of his research are expected to create investor awareness about the importance of behavioral factors and corporate governance and increase investor confidence.

Z Puspitaningtyas [16] who revealed that decision making in complex situations is strongly influenced by the information received, the level of ability and level of knowledge of investors about investment. The results of her research show that investors consider accounting information, but investor psychology factors that are reflected as personal signals dominate. Although the results of empirical analysis show that the effect of accounting information is inconsistent, investors state that the accounting information presented by the company remains an important consideration in investment decisions and private signals dominate investors, because investors have a psychological tendency to consider private signals more than public signals. Based on this, it can be illustrated that psychological phenomena cause stock prices to not reflect their fair price (value). Investors think that the Indonesian capital market is in an inefficient condition, and managers can choose the right time to issue shares, namely when the price is quite high above its fair value, so it is illustrated that market value does not reflect the availability of information.

### **2.3. Hypothesis Development**

This research model is inspired by several studies by Durga Rao, et al [8,9,10], this study wants to describe the factors related to investment decisions during the COVID-19 pandemic. The related factors are described from the respondent's perception of the level of investment risk, the rate of return on investment, general information, and financial information. The first alternative hypothesis uses investment risk indicators Durga Rao, et al [10] on stocks, bonds, stock futures and options, mutual funds, ORI & Sukuk, insurance policies, property, gold, foreign exchange and others. Perceptions of investment risk refer to prospect theory and loss aversion theory from Kahneman and Tversky (1979) in VS Mutswenje [3]. This first alternative hypothesis also refers to IO Fridana and N Asandimitra

[11], U Bajaj and R Kalra [13], A Lathief, et al [14] , and SA Qureshi, et al [15]. Thus, the first alternative hypothesis is:

Ha1: The level of risk is significantly negatively related to investment decisions.

The second alternative hypothesis uses an indicator of the rate of return of PV Durga Rao, et al [10] on stocks, bonds, stock futures and options, mutual funds, ORI & Sukuk, insurance policies, property, gold, foreign exchange and others. The rate of return on investment also refers to Sutrisno (2007) and Tandelilin (2005) in <http://niconotes.blogspot.com/2017/11/decision-investment-is-modal.html> [7]. This second alternative hypothesis also refers to VS Mutswenje [3]. Thus the second alternative hypothesis is:

Ha2: The rate of return is significantly positively related to investment decisions.

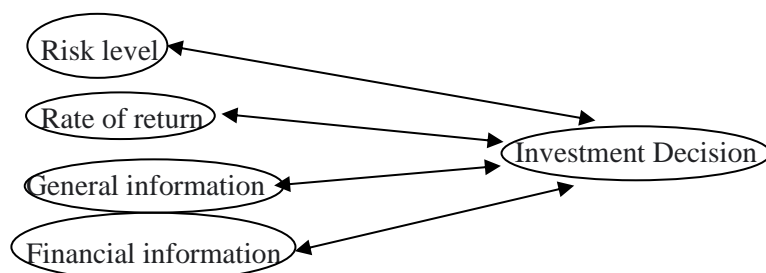
The third alternative hypothesis related to general information refers to PV Durga Rao, et al [10] using indicators of stock exchange information, risk factors, manager leadership, credit rating, and brokerage/media securities advice. General information also refers to SA Qureshi, et al [15] who put forward the theory of traditional finance. This third alternative hypothesis also refers to VS Mutswenje [3]. Thus, the third alternative hypothesis is:

Ha3. General information is significantly positively related to investment decisions.

The fourth alternative hypothesis related to financial information refers to PV Durga Rao, et al [10]. with indicators of EPS/PER, dividend policy, book building methods, and trading volume. Financial information also refers to D Septyanto and MFA Adhikara [5] and this fourth alternative hypothesis also refers to VS Mutswenje [3]. Thus, the fourth alternative hypothesis is:

Ha4: Financial information is significantly positively related to investment decisions.

Based on the description of the development of the hypothesis above, the research model used can be described as follows:



**Figure 1 Research Model Ha1 and Ha4**

### 3. METHODS

The population in this study were FEB students in Jakarta. The sample of this study was convenience sampling by taking samples from FEB students at several universities, especially Tarumanagara University, Trisakti School of Management, Krida Wacana University, and Pelita Harapan Semanggi University. The distribution of questionnaires distributed via google form in July - September 2020. The instrument in this research questionnaire came from the article of PV Durga Rao, et al VS Mutswenje [10].

The research variables for testing Ha1 to Ha4 are related to the variables of the level of investment decisions, the level of investment risk, the rate of return on investment, general information, and financial information. All of these variables were revealed from respondents' responses to investment decisions in 2020 when the COVID-19 pandemic occurred with the operationalization of the variables in Table 1 below.

**Table 1 The Operationalization of Research Variables**

<b>No.</b>	<b>Variables</b>	<b>Indicator</b>	<b>Scale</b>
<b>1</b>	<b>Investment Decision</b>	Share Bond Stock Futures and Options Mutal Funds ORI & Sukuk Insurance policy Real Estate (Property) Gold Foreign exchange Other	Ordinal
<b>2</b>	<b>Risk Level</b>	Share Bond Stock Futures and Options Mutal Funds ORI & Sukuk Insurance policy Real Estate (Property) Gold Foreign exchange Other	Ordinal
<b>3</b>	<b>Rate of Return</b>	Share Bond Stock Futures and Options Mutal Funds ORI & Sukuk Insurance policy Real Estate (Property) Gold Foreign exchange Other	Ordinal
<b>4</b>	<b>General Information</b>	a. Stock Exchange Information b. Risk factors c. Chief Manager d. Credit Rating e. Broker Suggestions / media effects	Ordinal
<b>5</b>	<b>Financial Information</b>	a. EPS/PE Ratio b. Dividend Policy c. Book building methods d. Trading volume	Ordinal

The hypothesis testing technique in this study uses Spearman's rho correlation considering the data is not normal. Previously, validity and reliability test were carried out as well as normality test. This research was conducted using primary data to reveal FEB students' perceptions of investment decisions by distributing questionnaires via google form to FEB students.

#### **4. FINDINGS AND DISCUSSION**

The subjects of this research are students of the Faculty of Economics and Business who are currently taking the S1, S2, and Professional Path levels such as PPAk. Data collection through google form during July - September 2020. The data received from this research respondent amounted to 171 respondents but there were 11 data that did not fill in the investment decision variables so that

the total data processed was 160 data. The object of this research consists of respondents' perceptions of investment decisions and various factors that influence them. The results of the validity and reliability tests of all questionnaire questions have been tested and passed. An overview of the research data can be seen in Table 2 below.

**Table 2 Research Data Overview**

<b>Variables</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>
Investment Decision	160	1.00	40.00	15.6625
Risk Level	160	0.00	44.00	18.3750
Rate of Return	160	0.00	39.00	13.7125
General Information	160	5.00	20.00	14.1562
Financial Information	160	4.00	16.00	11.7812

Source: Results by SPSS version 20.

From Table 2 by looking at the mean value, it can be analyzed by dividing the mean value by the number of indicators in that variable. Investment Decision Variables in this study average 15.6625 divided by 10 indicators to produce 1.566. The average of Risk Level of 18,3750 divided by 10 indicators means 1,837. The average Rate of Return is 13.7125 divided by 10 indicators means 1.371. Average General Information is 14.1562 divided by 5 indicators to 2.831. The average Financial Information is 11.7812 divided by 4 indicators to 2.945. Thus, it can be seen that the average value above 2 which indicates high is general information and financial information.

The results of the Normality Test with Kolmogorov-Smirnov, the significance value of the unstandardized residual showed a value of 0.006 so it was declared abnormal.

Ha1 to Ha4 testing was carried out with the Spearman's rho correlation test. Below table 3 presents the correlation results for testing hypothesis 1 – hypothesis 4.

**Table 3 Spearman's Rho Correlation Summary Results for Ha1 – Ha4**

<b>Variables</b>	<b>Predict</b>	<b>Coefficient</b>	<b>Sig (2-tailed)</b>
Risk Level	-	0.629	0,000
Rate of Return	+	0.729	0,000
General Information	+	0.216	0,006
Financial Information	+	0.130	0,101
Correlation result with Investment Decisions			

Source: Results by SPSS version 20.

The results of the Ha1 t test show a significance value of 0.000 and a coefficient of 0.629 so that it is stated that Ha1 is rejected because Investment Risk has a significant but positive relationship to Investment Decisions. This can be caused because respondents who invest tend to consider high risk high return so that the relationship is positive. This is in accordance with the prospect theory proposed by Kahneman and Tversky (1979) in VS Mutswenje [3]. which suggests that investors express different levels of emotion and often take more risks to avoid losses than to gain profits. The results of this study are in line with IO Fridana and N Asandimitra [11] which state that the perception of risk has a positive effect on investment decisions. The results of this study support the research results of U Bajaj and R Kalra [13], and A Lathief et al [14] which state that the level of risk is a significant predictor of investment decision making. The results of this study do not support SA Qureshi et al [15]. which states that respondents tend to avoid risk, while the results of this study show a positive correlation.

The results of the t-test Ha2 show a significance value of 0.000 and a coefficient of 0.729 so that it is stated that Ha2 is accepted because Investment Return has a significant and positive effect on Investment Decisions. This is in line with several studies, including Tandelilin (2005)) in <http://niconotes.blogspot.com/2017/11/decision-investment-is-modal.html> [7] and VS Mutswenje [3] which suggest that returns affect investment decisions.

The results of the t-test Ha3 show a significant value of 0.006 and a coefficient of 0.216 so that it is stated that Ha3 is accepted because General Information has a significant and positive effect on investment decisions. This is also revealed by VS Mutswenje [3] which states that the structure of information affects investment decisions. The results of this study are not in accordance with the findings of SA Qureshi et al [15] which states that the use of all information by investors is not realized to make investment decisions.

The results of the t-test Ha4 show a significance value of 0.101 and a coefficient of 0.130 so that Ha4 is rejected because Financial Information has no significant effect on investment decisions even though the coefficient is positive. This is not in accordance with VS Mutswenje [3] which states that earnings and reporting conditions, past performance, and price per share are important factors influencing investment decisions. On the other hand, the results of this study are in accordance with the findings of D Septyanto and MFA Adhikara [5] whose findings also reveal that financial statements cannot change investor confidence in making investment decisions, and the study shows that financial information has no effect on investment intentions.

## **5. CONCLUSIONS**

The results of testing the first alternative hypothesis (Ha1) are rejected because even though investment risk has a significant effect, it is positively related to investment decisions. This is in accordance with the prospect theory proposed by Kahneman and Tversky (1979) in VS Mutswenje [3], also in line with IO Fridana and N Asandimitra [11], U Bajaj and R Kalra [13], and A Lathief and S Aktharsa [14], however the results of this study do not support SA Qureshi et al [15] research results.

The results of the t-test Ha2 are accepted because the return on investment has a significant and positive effect on investment decisions. This is in line with several studies, including Tandelilin (2005) in <http://niconotes.blogspot.com/2017/11/decision-investment-is-modal.html> [7] and VS Mutswenje [3] which suggest that returns affect investment decisions. The results of the Ha3 t test are accepted because General Information has a significant and positive effect on investment decisions. This is in line with VS Mutswenje [3]. On the other hand, the results of this study are not in accordance with the findings of SA Qureshi et al [15]. The result of the t test Ha4 is rejected because financial information has no significant effect on investment decisions even though the coefficient is positive. This is not in accordance with VS Mutswenje [3]. On the other hand, the results of this study are in accordance with the findings of D Septyanto and MFA Adhikara [5].

The implications of this research are expected to motivate investors to keep investing in the era of the COVID-19 pandemic in order to stimulate the nation's economy. In addition to motivating investors, this research is expected to open the horizons of potential investors and the public to always monitor the factors that significantly affect the level of investment confidence. This research is expected to contribute to enliven investment in Indonesia.

The limitations of this study are the respondents both in terms of the number of respondents, the consistency of respondents' perceptions, and the psychological factors of the respondents. In addition, the observation period is also short because it is only in the second semester of 2020. Given the impact and duration of COVID-19, it is still quite long (long) so that the consistency of the results of this research may change in the future due to economic and political crises.

Future research should use a wider range of respondents without being limited by FEB students and carry out research on an ongoing basis in order to provide an updated picture. Continuous research on the topic of investment decisions is needed to provide a sign of investment volatility that describes the nation's economic condition.

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