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Property investment decision in Batam City

Yulfiswandi[1], Elissa Jocelynn[2], Robin[3]✉
Fakultas Bisnis dan Manajemen Universitas Internasional, Batam.

Abstract

The aim of this research is to find out factors affecting property investment decision in Batam. Investment decision is defined as how a person decides on investment to select the right alternative and type of business. The independent variables in this study are accounting information, self-image/firm-image coincidence, neutral information, advocate recommendations, and personal financial need. The object of this study is property investors in Batam. This study distributed 300 questionnaires and selected 250 questionnaires to be processed/analyzed. The results show that accounting information does not significantly affect the investment decision, meanwhile self-image/firm-image coincidence, neutral information, advocate recommendations, and personal financial need significantly affect investment decision in Batam.

Key words: Investment decision; accounting information; self-image/firm-image coincidence; neutral information; advocate recommendations; personal financial needs

✉ Corresponding Author
Email Address: robin@uib.ac.id
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INTRODUCTION

According to Koppa and Shalini (2012), behavioral finance recently plays important roles for investors to take a decision. Behavioral finance is a study in which the aim is to indicate how psychology affects the decision making on investment. Financial behavior assumes that individual market characteristics and information structure affects the investor decision on investment. An individual who has either same income or status surely has different investment behavior. Gnani, Ganesh, & Santhi (2012) found that five factors of self-image/firm-image, accounting information, neutral information, advocate recommendation, and personal financial needs affect the decision making of investors, but with different intensity. Ali and Tariq (2013) also studied that self-image/firm-image coincidence, neutral information, and advocate recommendation strongly affects the decision making on investment.

Studying the willingness of investors toward the decision making on property investment can benefit the investors, developers, and financial firms to increase their knowledge about investor preferences as well as to obtain ideas to make their assets as investment tools. Mutswenje and Jajongo (2014) stated that investors must analyze investment factors before taking an investment decision. Investors needs to analyze market and economic indicators. In their study, Gill and Biger (2012) claims that knowledge about neutral information tend to positively affect investors. Neutral information, such as price movements of real estate in market and economical condition, is one of essential factors to examine before investing. Investors typically take better decision on investment by growing knowledge and experience of investment. Investors are able to accurately assess the risks and profits from investment portfolios.

Head of Chamber of Commerce & Industry of Riau Islands Province stated that 40 foreign investors from China have already entered Batam since July 2018. Then, followed by the development of industries from Japan, namely PT Sapac Industries; a business of bulletproof glass whose values reach USD 10 million. It is the impact of trade war US-China which affects many entrepreneurs from East Asia choose Southeast Asia as investment locations; therefore, it will not intersect the trade interests of US and China. Consequently, property business in Batam is also increasing. CEO of Ciputra Group claimed that five issues to put into consideration for property investors in Batam are strategic location of Batam that is closer to Singapore and Malaysia, infrastructure growth of Batam that can be considered as a business and industrial center, low rental price and land price, and growth of market and industry potential in Batam. Based on the explanations, this study would like to examine to what extent the decision making of investors on property.

Akbar et al. (2016) conducted an analysis on factors affecting decision making on investment. This study employed an adapted questionnaire to collect primary data from 253 investors in stock exchange of Islamabad. Investment decision was the dependent variable in this study. A study of factors affecting investors decisions on stock market with special reference was conducted by Kishori and Kumar (2016). The object of this study was stock market in India. In addition, Arif (2015) studied about financial literacy and other factors that affect individual investment decision. This study took place in Pakistan and collected data from 154 respondents. Asab (2014) examined the impacts of financial behaviors and traditional finance on decision making. This study took place in Pakistan in which the sample is 125 respondents. In this study, investment decision was dependent variable, while accounting information, self-image or firm-image, neutral information, advocate recommendation, and wealth maximation were independent variables. Mutswenje and Jagongo (2014) studied factors affecting investment decisions. This study was conducted in stock market of Nairobi. This study collected 42 questionnaires out of 50 distributed questionnaires. The questionnaire consists of 28 questions.

According to Kasmir and Jakfar (2012), investment is an activity of capital investment on a company or firm for a relatively long period in various fields of business. Besides, investment is an activity to invest funds on one or some assets within a certain period of time to reach expected investment values. The objective of investment is either to reach as much profit as possible or to obtain investment return in the future (Puspitaningtyas & Kurniawan, 2012). Meanwhile, Martono & Agus (2010) defined investment decision as a decision on activities organized by a company or a firm. In other words, investment decision is activities related to expected investment selection of a company or a firm by selecting one or more alternatives of investment that result on more profits.

Many studies claimed that accounting information significantly effect on investment decisions, namely studies of Joshi (2009), Sultana & Pardhasaradhi (2012), and Rizvi & Abrar (2015). Study of

Christanti & Mahastanti (2011) found that accounting information affects the investment decision since accounting information is considered able to reflect the expected profit rate; thus, motivation to maximize the property achieves. Similarly, Usmani (2012) stated that accounting information affects investment decision in terms of previous and today stock performance. Meanwhile, Ali and Tariq (2013) claimed that accounting information does not significantly affect investment decision. It is because Pakistanis choose to follow recommendations from broker/colleagues than accounting information. hat rational theories cannot explain the investors' reasons on decision making. Ali and Tariq (2012) stated that self-image and firm-image significantly affect investment decision. Likewise, Arif (2015), Rizvi and Abrar (2015), and Bashir et al. (2013) found that self-image or personal image coincidence affect investment decision. If a company/firm shows a good self-image, it will surely attract investors' trust on products offered. As a conclusion, firm-image is crucial for investors. Arif (2015) concluded that neutral information has significant effect on investment decision. Also, Easley, Hvidkjaer, and O'hara (2010) claimed that neutral information significantly affect investment decision since neutral information may predict the potential of investment profits.

Information from media is mostly used when making decision on investment (Kadariya, 2012). The result of this study was as same as the studies of Ali and Tariq (2013). Kaleem et al. (2009) studied that advocate recommendation significantly affects investment decision. Study of Sultana and Pardhasaradhi (2012) showed that investors in Indonesia typically trust recommendations from broker since the investors believe that brokers are able to predict the economic situations of an investment. When selecting investment, investors needs professionals to minimize the anxiety, especially in the market off situation. The result was in accordance with the result of studies of Sultana and Pardhasaradhi (2012) and Ali and Tariq (2013). Some studies claimed that personal financial needs affect investment decision, In addition, that personal needs play important roles when making decision on investment. On the other hand, Ali and Tariq (2013) found that personal financial needs do not have positive correlation with investment.

METHODS

This study focuses on factors affecting investment decision. The objectives of this study are used for theory development and limited to academic interests. Therefore, this study is defined as basic research (Indriantoro & Supomo, 2013). Variables in this study are dependent and independent variables. Dependent variable in this study is investment decision, while independent variables are accounting information, advocate recommendations, personal financial needs, self-image/firm-image, and neutral information.

The object of this study only focuses on property investors in Batam City. It is due to studied variables, namely property variables and limitation of reach the objects widely. To collect the data, this study employed purposive sampling in which the sample must fulfil certain criteria or requirements to obtain the expected information to answer the research questions. Since this study cannot decide the total number of property investors in Batam, the minimum number of samples is in comparison of one in five (Hair et al., 2010) in which every one question represents five respondents. Total questions of the questionnaire are 30; therefore, the minimum total of respondents is 150. This study used primary as well as secondary data. The primary data was collected from questionnaires, while the secondary data was taken from journals, articles, and books. The data collection technique of this study is using field research, in which observing the field of object of study as well as collecting primary data. To collect the primary data, this study distributed questionnaires to fill in by the respondents. The results of questionnaires were used to answer the research questions.

To analyze the data, this study employed multiple regression. Data from questionnaires was processed by SPSS (Statistical Package for the Social Sciences) version 22. The steps of data processing include descriptive statistical test, classical assumption test (normality test, multi-collinearity test, and heteroscedasticity test), and hypothesis test (F-test, t-Test, and coefficient of determination test (R2)).

Descriptive Statistics is used to collect and provide beneficial information to find the value of standard of deviation, mean, minimum, and maximum (Indriantoro & Supomo, 2013).

Outlier test is used to examine the values of data whose deviation is far from the mean, so the data became unnormal. According to Hair et al. (2010), the criteria of outlier are determined by the number of samples. If the samples are less than 80, the outlier in z score is > 2.5 or < -2.5. Meanwhile, if the

samples are more than 80, the outlier in z score is > 3.0 or < -3.0. If the z score is within that range, the data is considered deviated and cannot be processed.

This test is one of the tests that must be processed in a study which uses questionnaires to collect the data. This is to ensure the trustworthiness of the data. This test is divided into two, namely validity test and reliability test.

Validity Test

This test is to examine the accuracy of questionnaires to obtain primary data. This study employed construct validity test, in which factor analysis was conducted. To see whether the data is valid, this study analyzed the factor loading. The factor loading must be above or equal to 0.5 to be stated as valid.

Reliability Test

Reliability test is to measure the reliability of the data. To find the reliability, this study sees value of Cronbach's alpha. Cronbach's alpha is to find out the relations between one variable with other variables. If the value of Cronbach's alpha is above or equal to 0.6, the variables are stated as reliable.
Classical assumption test

Multi-collinearity Test

Ghozali (2016) mentioned that this test is used as regression model test to find out the correlation between independent variables. If there is correlation between variables, it can be processed to next testing. To see the multi-collinearity, this study analyzed the value of VIF. The value of VIG must be less than 10 to be stated as multi-collinear.

Normality Test

According to Ghozali (2016), normality test is used to decide whether the data distribution is normal. This test aims to determine other variables tests by assuming that residual value follow a normal distribution. In this test, normal plot graph is used to see whether the data distribution is normal. Ghozali (2016) explained that the criteria to decide the normal distribution is if the data are scattered following the diagonal line.

Heteroscedasticity test

According to Ghozali (2016), the heteroscedasticity test is used to decide whether the model regression shows inequality of the residual from one observation to another. A test in multiple linear regression model is by looking at the scatter plot graph or predicted value of related variable, namely SRESID with residual error of ZPRED. A good model will not show heteroscedasticity in which it does not form any patterns as well as scatter above or below 0 on y axis.

Hypothesis test

According to Ghazali (2016), hypothesis test is used to decide whether a statistical statement is accepted or not as well as its truth. The data testing in this study can be examined by the result of F-Test, T-Test, and coefficient of determination test (R2).

F-Test

F-Test is used to see whether the independent variable in the model significantly affects dependent variables. A regression model can be used to predict the dependent variable if the probability is less than 0.05. Also, on the contrary, if the probability is above or equal to 0.05, so the data cannot be used (Ghozali, 2016).

t-Test

t-Test is used to measure how significant an independent variable affects a dependent variable. If the significance value is less than 0.05, it means that the independent variable does not significantly affect a dependent variable, and vice versa (Ghozali, 2016).

Coefficient of Determination Test (Adjusted R2)

This test is used to test how well an independent variable explain variation of a dependent variable. The range of coefficient of determination value is between 0 and 1. The bigger the value of coefficient of determination value, the better the independent variable can explain the dependent variable and vice versa (Ghozali, 2016).

RESULT AND DISCUSSION

Descriptive statistics

The total number of questionnaires distributed was 300 questionnaires. Then, the questionnaires were selected into 258 questionnaires in which 42 questionnaires were not returned, 3 questionnaires are invalid, and 5 questionnaires is incomplete. Next, 250 questionnaires were stated valid to use for next analysis steps. Population of this study is property investors in Batam cITY. Based on gender division, there are 157 male respondents (62.8%) and 93 female respondents (37.2%). Meanwhile, based on age division, there are 39 respondents (15.6%) who age below 25, 48 respondents (19.2%) who age between 25 – 30, 95 respondents (38%) who age between 31-35, 39 respondents (15.6%) who age between 36-40, and 29 respondents (11.6%) who age above 40.

In addition, based on education level, there are 3 respondents (1.2%) graduated from elementary or secondary, 51 respondents (20.4%) graduated from high school, 174 respondents (69.6%) graduate from bachelor's degree, 18 respondents (7.2%) graduated from master degree, and 4 respondents (1.6%) graduate from doctoral degree. Further, based on the income level, there are 28 respondents (11.2%) whose income is less than 10 million rupiahs, 64 respondents (25.6) whose income is between 10 – 15 million rupiahs, 50 respondents (20%) whose income is 15 – 20 million rupiahs, 79 respondents (31.6%) whose income is between 20 – 25 million rupiahs, and 29 respondents (11.6%) whose income is above 25 million rupiahs.

Result of data quality test

Validity Test

The validity test shows that all statements is valid since all factor loading fulfil the criteria of Hair et al. (2010) in which the factor loading must be above 0.5.

Reliability Test

The reliability test shows that all variables are reliable since the value Cronbach's Alpha is above 0.6 and fulfil the criteria of Hair et al. (2010: 92). If the value of Cronbach's Alpha is above or equal to 0.6, the variables are reliable.

Result of outlier test

According to Hair et al. (2010), criteria to determine the outlier is if the sample is above 80. If the sample is above 80, the outlier of z score is > 3 or <-3. The result shows that the respondent data is not included to outlier data or deviated data.

Result of normality test

Picture 1 is data with good regression model since the data distribution is normal. Picture 1 prove the normality test of the effect of independent variable on dependent variable of investment decision. If the data are scattered near the diagonal line, it means the distribution of data is normal.

Result of heteroscedasticity test

Heteroscedasticity test is to decide whether there are inequality and residual value in model regression between one observation to another. The result of heteroscedasticity test in Picture 2 shows that scatter plots spread above and below 0 in Y axis disorderedly; therefore, it means the data fulfil the heteroscedasticity test.

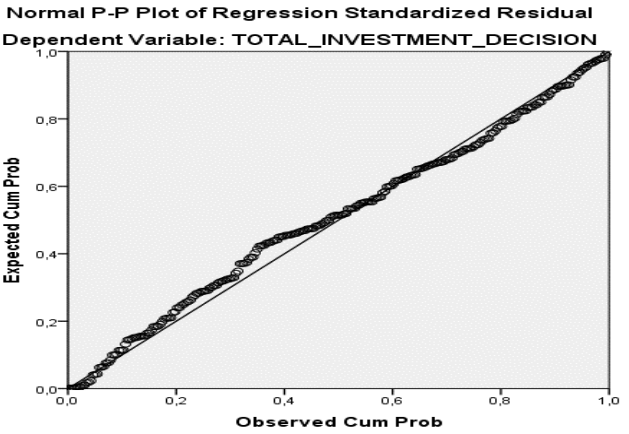

Figure 1. Result of Normality Test

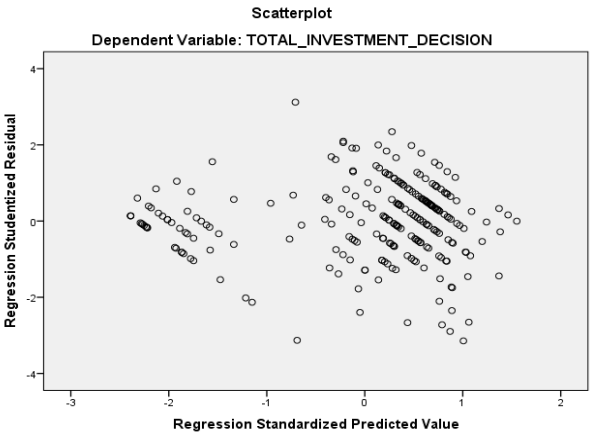

Figure 2. Result of Heteroscedasticity Test

Result of multicollinearity test

The independent variable is not multi-collinear if the variable has correlation of VIF value below 10. Table 1 shows that all variables are not multi-collinear because the VIF value is below 10.

Table 1.
Result of MultiCollinearity Test

Model	Collinearity statistics		Conclusion
	Tolerance	VIF	
Accounting Information	0,182	5,505	No multi-collinearity
Neutral Information	0,139	7,200	No multi-collinearity
Advocate Recommendation	0,343	2,912	No multi-collinearity
Self-Image/Firm-Image Coindence	0,389	2,573	No multi-collinearity
Personal Financial Needs	0,130	7,694	No multi-collinearity

Result of F-test

F-Test is used to see the effect of independent variable on dependent variable. The result of F-Test in Table 2 shows significance value of 0.000; therefore, it can be stated significant, and the regression model can be processed to predict investment decision.

Table 2.
Result of F-Test

Model	Sig	Keterangan
Regression	0,000	Signifikan

Result of t-test

t-test is used to test whether the independent variable significantly affects the dependent variable. If the significance value is below 0.05, it means than the independent variable significantly affects the dependent variable. The result of t-test in Table 3 indicates that 1 out of 5 independent variables does not significantly affect the dependent variable because the significance value is 0.331.

Table 3.
Result of T-Test

Model	Sig	Unstandardized Coefficient	Description	Hypothesis
		B		
Accounting Information	0,331	0,061	Not Significant	Rejected
Neutral Information	0,005	0,210	Significant	Accepted
Advocate Recommendation	0,000	0,285	Significant	Accepted
Self-Image/Firm Image Coincidence	0,044	0,092	Significant	Accepted
Personal Financial Needs	0,010	0,155	Significant	Accepted

Result of coefficient of determination test (adjusted R2)

Based on the result of coefficient of correlation test (R), the R value is 0.878; hence, it means 5 independent variables have positive correlation with dependent variable of investment decision with the percentage of 87.8%. The result of adjusted R square has the value of 0.766 which means that dependent variable of investment decision can be explained by 5 independent variables with the percentage of 76.6%. Meanwhile, another percentage of 23.4% is affected by other variables or factors.

Table 4.
Result of Determination Test

Model	R	Adjusted R Square
1	0,878	0,766

CONCLUSION

From the results of analysis, this study concludes that accounting information does not positively affect the investment decision. This result was also like studies by Ali & Tariq (2013). Self-image/firm-image coincidence positively affects investment decision. The similar result was also found by Arif (2015), Rizvi & Abrar (2015), Bashir et al. (2013), and Ali & Tariq (2013). Neutral information also positively affects investment decision. The result was supported by the studies of Arif (2015). Advocate recommendation also positively affects investment decision. Some studies also found similar results, namely studies of Sultana & Pardhasaradhi (2012), Ali & Tariq (2013) and Kaleem et al. (2009). Personal financial needs also significantly affect investment decision. The similar result was found in studies of Hosain & Nasrin (2012).

This study would like to recommend this study for future research, namely (1) Taking samples of investors outside Batam to get richer data. (2) The duration of the study should be longer to get deeper analysis, such as addition of variables to enrich the study. (3) for property developers, this study can be beneficial to study the investor behavior for setting up sales strategy.

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