

# Intention to Investment Among Economics and Business Students Based on Theory of Planned Behavior Framework

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## ABSTRACT

Investment behavior has become a daily lifestyle of modern society. Financial investments are also growing to be an alternative, like stocks, bonds, mutual funds, foreign exchange even cryptocurrency. However, not all elements of society can accept this pattern of financial investment, even though technological advances have provided various facilities so that the public can make investment decisions anytime and anywhere. This study seeks to analyze the investment behavior of students who have finished their investment and portfolio analysis courses. In particular, this study examines the effect of investment knowledge and entrepreneurial attitude on investment intentions of the Faculty of Economics, Unimed, students with normative belief and perceived behavioral control as mediating variables. This study was conducted using a survey method using a simple random sampling technique. Data were collected by online questionnaire, and the researchers have collected 87 responses. Furthermore, we used variance-based SEM to analyze the data. The results of this study indicate that entrepreneurial intention is a key variable in shaping investment intentions. Meanwhile, normative belief and perceived behavioral control are found to reduce this effect. Therefore, this study recommends inculcating an entrepreneurial attitude for students interested in becoming investors or traders.

**Keywords:** *Entrepreneurship, Investments, Business Students, Higher Education*

## 1. INTRODUCTION

Investment activity in the financial sector is relatively new in Indonesia compared to other countries [1]. Indonesia's financial investment inclusion rate is also relatively low at around 0.15%, while Malaysia is around 15%, Singapore 30%, and Australia 30% [2,3]. Based on data from the Financial Services Authority (OJK) in Indonesia, the current number of securities accounts is still less than 600,000 accounts compared to Thailand, which has reached 25 million accounts even though the Indonesia Stock Exchange (IDX) has recorded the number of investors through Single Investor Identification (SID) has reached 494 thousand as of August 22, 2016, which indicates an increase in the number of investors every month [3]. It means that although the investment intention is still relatively small, the trend shows a potential for growth in financial investment activities in Indonesia.

The low investment intention in Indonesia is generally due to the low literacy and motivation regarding investment in the capital market [1,3,4]. Sufficient knowledge, experience, and business sense are required to analyze which stocks will be invested in the capital market [5]. The business instinct here can be proxies by an entrepreneurial attitude. An entrepreneurial attitude is a creative personality, able to read opportunities, create unique alternative products, and generate added value from productive activities [6]. Entrepreneurial attitude plays an important role in making investment decisions [6,7]. Krisanti [8] proves that a high entrepreneurial attitude will affect accounting information in making investment decisions.

Fortunately, PT BEI has collaborated with various universities to establish an Investment Gallery as one of the steps to attract new investors from among students [9]. Besides that, the investment gallery is also intended as a learning tool for students to find

entrepreneurial attitudes that produce the courage to invest financially [5]. Related to this purpose, the Faculty of Economics Unimed already has an Investment Gallery as a learning tool and an investment corner in the Faculty of Economics Unimed academic community. However, considering the importance of entrepreneurship and financial literacy, the Faculty of Economics Unimed needs to get scientific justification, which is the basis for updating the portfolio theory lecture curriculum and investment analysis so that the direction of the lectures can specifically instill an investment culture an alternative to the alumni profession. Referring to the background of the problems above, this study formulates the following problems:

RQ: How is the model of the influence of entrepreneurial attitudes on investment intentions based on the framework of planned behavior?

The entrepreneurial attitude and investment knowledge in this study are integrated into the Theory of Planned Behavior (TPB) framework to obtain a pattern of student investment intentions. TPB explains that a person's behavioral intentions are actually formed due to a certain plan which is generally a productive plan because humans are rational creatures [10]. This study will use three constructs to predict behavioral intentions: behavioral beliefs, normative beliefs, and control beliefs. However, behavioral belief is proxied as personal attitude (entrepreneurial attitude), and control belief is perceived behavioral control [11]. Based on these conditions, this study examines the effect of investment knowledge and entrepreneurial attitude on investment intentions with normative belief and perceived behavioral control as mediating variables.

## **2. THEORETICAL FRAMEWORK**

### **2.1. Knowledge and Entrepreneurial Attitude**

To invest in the capital market, someone needs sufficient knowledge, experience, and business sense to analyze which stocks to buy [5]. In addition, adequate knowledge is needed to avoid losses when investing in the capital market, such as in-stock investment instruments [1]. Investment knowledge provides individuals with understanding and considerations before investing, including understanding how to work and business/investment objectives, understanding the risk of the return

obtained, learning about the business of the company where to invest, choosing a company that has strong business fundamentals, and the investment period [1]. With adequate investment knowledge, an investor or potential investor can estimate potential returns and risks accurately, allocate portfolios efficiently, be able to analyze stocks both technically and fundamentally, be disciplined and conservative [1].

Financial investment knowledge is indispensable for potential investors in using financial information for making investment decisions [6]. Making investment decisions requires courage in realizing knowledge [7]. Previous research found that entrepreneurial attitudes generate a high sense of curiosity, which produces the courage to exploit their financial knowledge to make investment decisions [8, 12]. Investors are required to have a good entrepreneurial attitude in the form of a creative personality, read opportunities, and generate added value to assist in making investment decisions.

Various researchers reveal the urgency of entrepreneurial attitudes in business activities, including investing in the capital market [5, 13, 14]. [13] reveal that individuals with entrepreneurial attitudes will be innovative, take risks, and be proactive. Meanwhile, [14] revealed that individuals with entrepreneurial attitudes would have discipline, high commitment, honesty, creativity, innovation, and independence. Then [15] proposed a more complex attitude construction: honest in acting and behaving, diligent, punctual, always smiling, gentle and friendly, polite and respectful, always cheerful and sociable, flexible and helpful. In addition, customers, serious and have a sense of responsibility and a high sense of belonging to the company. With the ownership of the above attitudes, it is reasonable to expect that potential investors will have the courage to practice their knowledge to invest as proxied by investment intentions. Thus, this study formulates the following hypotheses.

H1a: Entrepreneurial attitude has a positive effect on investment intentions.

### **2.2. The Theory of Planned Behavior**

The TPB framework is built on the Theory of Reasoned Action (TRA) [16,17], which explains that behavioral intentions exist because individuals have reasons and intentions of their own accord. The birth of reason is based on the assumption that humans reasonably do things, consider various information, and explicitly or implicitly consider the implications of these actions [16, 17, 18]. Ajzen and Fishbein [19]

suggested that attitude and normative belief are factors that influence behavioral intention. A person's intention to take action is a function of his attitude towards the action he has and his beliefs about what other people expect of him [19]. From this view, two important constructs were proposed in TRA: attitudes representing behavioral beliefs and subjective norms representing normative beliefs [16, 17].

Furthermore, in 1991, [10] further developed TRA by adding one construct, namely perceived behavioral control, because perceived behavioral control is important. After all, it can control the limitations or lack of resources needed to act. [20]. TPB assumes that humans are rational creatures by systematically using a variety of available information [18]. A person will consider the impact of his actions before he decides to do or not perform certain behaviors [18]. Therefore, in the TPB, Ajzen [10] proposes a control measure that will evaluate the personal belief and the normative belief of his social environment. By adding control belief, the TPB model can identify the reasons for the birth of individual interest in carrying out certain behaviors more comprehensively [21].

With sufficient investment knowledge, someone will have a normative view of investment opportunities in generating economic benefits. This knowledge will strengthen information that shows how capital market investment factually has provided profitability for investors who invest in capital markets. Furthermore, the normative view will be stronger when the various information is confirmed in the social environment to form a normative belief. Thus, when one's social environment confirms the benefits of financial investments, it will lead someone to have investment intentions.

Furthermore, the existence of risk and market fluctuations necessitates careful prediction in making investment decisions. Therefore, Prudence is needed so that potential investors can avoid taking risky stocks and optimizing abnormal returns. In this case, potential investors need behavioral control to avoid making fault or unprofitable decisions. Therefore, the entrepreneurial attitude that has been owned will be controlled by the individual by considering the normative belief and knowledge. Although the entrepreneurial attitude itself has an important role in stimulating investment intentions, the variation in its influence will be reduced when mediated by control belief. This condition will result in more careful investment decision-making. Based on this view, this study formulates the following hypothesis:

H1b: Entrepreneurial attitude has a positive effect on normative belief

H1c: Entrepreneurial attitude has a positive effect on perceived behavioral control

H2: Knowledge of financial investment has a positive effect on normative belief

H3: Perceived behavioral control has a positive effect on normative belief

H4: Normative belief has a positive effect on investment intentions

### 3. METHOD

The population of this research is the final year students of the Faculty of Economics who have completed the portfolio theory and investment analysis courses. That category of the population is used as the proxy of the investment-literate community. Therefore, it is important to obtain specific data characteristics to achieve research objectives with a relatively small sample frame [22]. The sampling technique used is a simple random sampling of the population. The unit of analysis in this research is the individual. Data for all research variables in this study were collected using a questionnaire with a survey method [23]. The questionnaire in this study was designed with a 5 Likert scale and distributed online with the help of a google form [23]. With the technique, this study managed to collect 87 data with sample demographics presented in table 1.

**Table 1.** Demography of Sample

Variable	n	%
<b>Gender</b>		
Male	15	17%
Female	72	83%
<b>Major</b>		
Accounting	76	87%
Economics	11	13%
<b>Age</b>		
20	19	22%
21	45	52%
22	23	26%
<b>Investment Experience</b>		
Yes	16	18%
No	71	82%

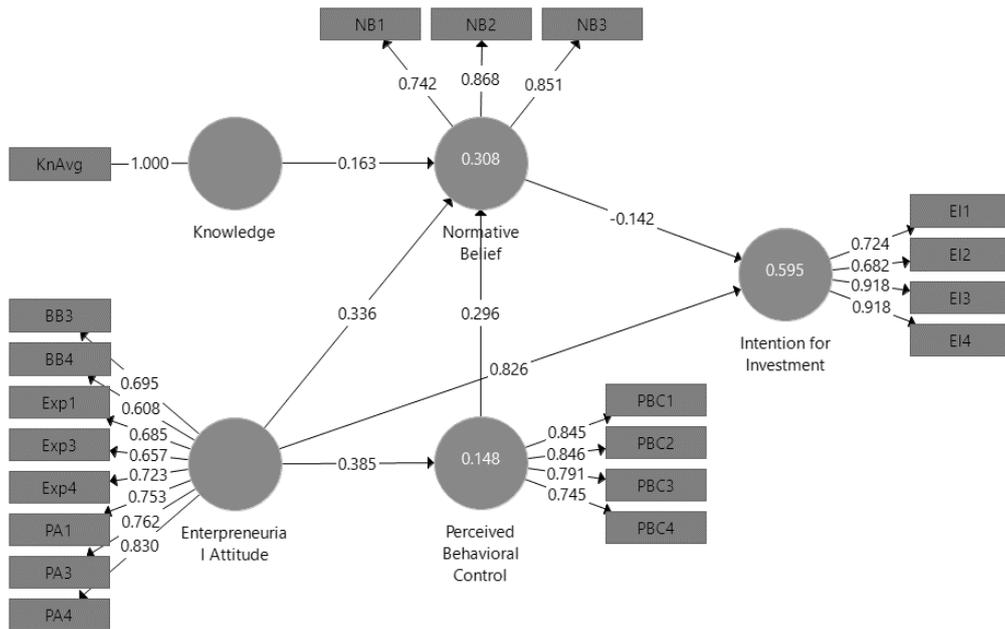
The research instrument was adapted from [24] to measure the investment knowledge variable, Schmidt et al. [25] to measure the entrepreneurial attitude variable, and [11] to measure normative belief,

behavioral control, and investment intention. Before the data is used to test the hypothesis, the researcher conducts validity and reliability tests to assess the instrument's ability to capture the phenomena that the researcher expects [23,26]. The validity test was carried out with convergent and discriminant validity, while the reliability test was carried out with Cronbach's alpha and composite reliability tests. Furthermore, the hypothesis is tested with a variance-based structural equation model [27,28]. The entire data analysis was carried out with the help of smatPLS 3.0 software.

that the five constructs have met the criteria for convergent validity with a critical value of >0.5 [27]. Furthermore, in the discriminant validity test, each construct has met the criteria with the coefficient number in the correlation matrix lower than the AVE root value, inputted diagonally [27]. Finally, the results of Cronbach's Alpha and Composite Reliability tests show that each construct has met the reliability criteria with a critical number > 0.8. The test results of construct validity and reliability can be observed in table 2 below.

**Table 2.** Discriminant Validity and Reliability

Variable	Reliability		AVE	Discriminant Validity				
	CA	CR		EI	Inv	Kn	NB	PBC
Entrepreneurial Attitude	0,864	0,894	0,514	0,717				
Intention to Investment	0,843	0,888	0,669	0,761	0,818			
Knowledge	1,000	1,000	1,000	0,039	-0,009	1,000		
Normative Belief	0,764	0,862	0,676	0,456	0,234	0,177	0,822	
Perceived Behavioral Control	0,824	0,882	0,653	0,385	0,255	0,000	0,425	0,808



**Figure 1.** Research Model

## 4. RESULT AND DISCUSSION

### 4.1. Construct Validity and Reliability

Convergent validity in this study uses a critical value of 0.6 on the loading factor as a valid criterion [27]. Based on these criteria, four items on the entrepreneurial intention construct (BB1, BB2, Exp2, PA2) and one item on the normative belief construct (NB4) are dropped from the data analysis. Then, the Average Variance Extracted (AVE) number shows

### 4.2. Hypothesis Testing and Discussion

The results of hypothesis testing indicate that Entrepreneurial Attitude has a significant positive effect on Intention to Investment with a p-value equal to 0.000 ( $\alpha$ . 5%) and t-stat equal to 15.620 (> 1.96). Therefore H1a is supported. This finding reinforces the views of [7], [8], and [12], who reveal that investment decisions require courage and curiosity.

Where courage and curiosity are indicators of entrepreneurial attitude. Investment is a business activity carried out independently by the perpetrator. Decision-making in investment is done with various considerations to get a profit. The investment environment has similarities in business actions, so entrepreneurial attitude is also an important antecedent in investment and starting a business.

The entrepreneurial attitude was also found to significantly affect normative belief and perceived behavioral control with p-value <0.05 and t-stat equal to 3.646 and 3.972, respectively. These results support H1b and H1c. Thus, the entrepreneurial attitude that represents personal belief gives confidence in his ability to do business or invest [11,19]. In turn, this personal belief will make a person able to form beliefs in his social environment so that a perception of support for the investment activity will emerge. Meanwhile, confidence in his ability to invest will certainly allow him to control risks in business activities because humans are rational creatures.

The knowledge was found to affect normative belief positively, but with a significance level of 10%. This path has a p-value of 0.073 and a t-statistic of 1.796. Then H2 is supported at 10%. Based on previous studies, investment knowledge is an essential aspect for potential investors in helping make decisions [6]. However, in this study, knowledge does not show a powerful influence in forming normative beliefs. This condition indicates that investment knowledge is not a determining factor but a supporting factor in generating investment intentions in potential investors.

**Table 3.** Hypothesis Testing

H.	Path	Coef.	t-stat	p-value	Status
H1a	Entrepreneurial Attitude → Intention to Investment	0,826	15,620	0,000**	Supported
H1b	Entrepreneurial Attitude → Normative Belief	0,336	3,646	0,000**	Supported
H1c	Entrepreneurial Attitude → Perceived Behavioral Control	0,385	3,972	0,000**	Supported
H2	Knowledge → Normative Belief	0,163	1,796	0,073*	Supported
H3	Perceived Behavioral Control → Normative Belief	0,296	2,269	0,024**	Supported
H4	Normative Belief → Intention to Investment	-0,142	1,975	0,049*	Not Supported

Furthermore, perceived behavioral control was found to have a significant positive effect on normative belief, and normative belief had a significant negative effect on the intention to invest. Both paths have p-value <0.05 and t-stat > 1.96. However, the effect of normative belief on intention to invest has a negative coefficient. Therefore H3 is supported while H4 is not supported. Perceived behavioral control makes a person's behavioral intentions more controlled because of rational considerations in dealing with risk. This caution is very likely to require confirmation of the perception that the social environment has. So that considerations arose based on his personal rationale and confirmed with the people's opinions around him to produce a conclusion. However, the results of this study indicate that normative belief has a significant negative effect on investment intentions. Several previous studies have found inconsistencies in this pathway of influence. [29] and [30] found that social norms or normative beliefs did not affect entrepreneurial intentions. Although, initially, [19] argued that normative belief is a function of behavioral intentions. Likewise, the results of testing a theory depend on the conditions of the social environment where the empirical data is taken. Theories that apply in one area may not necessarily apply in other areas. In this context, investment intentions may still be considered a high-risk activity. Perceived behavioral control and normative belief tend to reduce the influence of entrepreneurial attitude on investment intentions. The results of the complete hypothesis testing can be seen in table 3, while the structural model is presented in figure 1.

## 5. CONCLUSION

This study examines the effect of investment knowledge and entrepreneurial attitude on investment intentions of Faculty of Economics students with normative belief and perceived behavioral control as mediating variables. The result shows that entrepreneurial attitude is a key antecedent of students' investment intentions in the capital market. Meanwhile, normative belief and perceived behavioral control reduce the positive influence of entrepreneurial attitude on investment intentions. It is conceivable that control belief and normative belief produce conservative views on students so that it results in a reluctance to invest. However, personal attitude is an important variable in maintaining one's motivation to invest. Furthermore, knowledge is found only as a supporting variable that does not significantly generate investment intentions among students.

The findings of this study have implications for improving learning strategies and content to the course that including financial investment inclusion as the learning outcomes. In courses targeting financial investment inclusion, such as portfolio theory and investment analysis, learning must emphasize entrepreneurial attitude and inculcating knowledge. The teacher must construct students' mindsets with a business mindset also belief and skill in making decisions. Furthermore, in cultivating an entrepreneurial attitude, lectures must be designed to be practice-oriented by using an investment gallery as an open learning space. In this way, students can get actual learning experiences and find out more about their interest in financial investment. Therefore, this study recommends improving the learning of portfolio theory and investment analysis to increase investment inclusion from the formal education pathway.

Furthermore, this study contributes to generating additional knowledge regarding the investment stimulus framework from the point of view of planned behavior. In this case, personal belief is the key to generating investment intentions in the capital market. This study also produces a conceptual framework that bridges entrepreneurship courses and investment analysis to be a reason to build research and learning synergies in the future. The further researcher is conducting an experimental study to find a reliable learning method in generating financial investment inclusion among students of the Faculty of Economics.

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