

The Influence of Understanding E-Commerce Technological Advancements and Marketplace Knowledge on Students' Entrepreneurial Intentions

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Abstract: In 2018, the Central Statistics Agency (BPS) reported that Indonesia's unemployment rate reached 5.13%, representing approximately 6.7 million individuals from a total workforce of 36.8 million. To address this high unemployment rate, various strategies can be implemented, one of which is encouraging entrepreneurial interest among students. Graduates with a strong inclination toward entrepreneurship are expected to contribute to job creation, benefiting both themselves and others. This article presents research examining the factors that shape students' entrepreneurial aspirations, including socio-demographic, attitudinal, and contextual elements. Using descriptive and verification methods, the study analyzes primary and secondary data. The sampling process employed a purposive sampling technique. The findings indicate that attitudinal and contextual factors significantly influence students' interest in entrepreneurship.

Keywords: E-Commerce, Marketplace, Entrepreneurial Interest

1. Introduction

The rapid progress of science and technology development accompanied by large investments has an impact on increasing the value of many variables in a country and also has an impact on price factors. The real wage growth rate is directly proportional to the rate of technological development. This phenomenon occurs as a result of the squirming of entrepreneurial activities. There are many definitions of entrepreneurship, so it can be concluded that entrepreneurship is a dynamic thing. Indonesia's economy can be greater in the form of real economic growth in each province and catalyze the convergence process through entrepreneurial activities. This is because there is a knowledge spillover, namely the creation of a new product or service from the opportunities created by an entrepreneur so that economic growth can be realized. (Khamimah, 2021)

In recent years, the phenomenon of entrepreneurship among the younger generation has received more and more attention. In addition, the existence of motivational seminars, book readings, and news about the success of economic actors has encouraged their interest in trying the business world. The trend of doing business is now also increasingly popular among students, even becoming an elective course in various faculties. For some students, having their own business is considered a must to look cool. The types of businesses run are very diverse,

ranging from small scales such as selling credit to large business such as hotel construction. The motivation of students to do business also varies, some are serious about making it a source of income, some aim to learn to integrate, fill their free time, or other reasons.

In this case, it is undeniable that the presence and role of entrepreneurs will have an influence on economic progress and improvement in economic conditions in Indonesia, can create jobs, improve the quality of life of the community, increase income equity, utilize and mobilize resources to increase national productivity, and improve government welfare. Thus, increasing entrepreneurial development can improve the economy in Indonesia. In relation to entrepreneurship, this cannot be separated from the individuals involved in it. Individuals who are engaged in entrepreneurship are commonly referred to as entrepreneurs. According to the great dictionary of the Indonesian language, an entrepreneur is a person who is smart or talented at recognizing new products, determining new production methods, arranging operations to hold new products, managing their operating capital and marketing them. (Hendrawan & Sirine, 2017)

462. Literature Review

The definition of entrepreneurship is a process in which a person or a group of people uses organized efforts and means to pursue opportunities to create value and grow by meeting desires and needs through innovation and uniqueness. Meanwhile, entrepreneurs in general are people who are able to answer challenges and take advantage of existing opportunities. (Hanum, 2015)

According to Peter F. Drucker, entrepreneurship is the ability to create something new and distinct. The entrepreneurial spirit drives individuals to start and professionally manage their own businesses. This interest should be accompanied by thorough planning and careful calculations. Entrepreneurs must navigate numerous challenges across various facilities and services to achieve business success. This is particularly relevant in Indonesia, where rapid population growth during the current era of globalization and industrialization presents significant challenges. Engaging in entrepreneurship encourages individuals to seek out and capitalize on opportunities, leveraging their full potential to grow their businesses.

In today's developing economies, including Indonesia, entrepreneurship remains a significant challenge. The existence and role of entrepreneurs are pivotal in determining a nation's economic progress or decline. For this reason, entrepreneurship continues to attract interest and poses a challenge for younger generations to develop entrepreneurial attitudes and skills, fostering a desire to start businesses early in life. Many young entrepreneurs have emerged and achieved success with their ventures.

However, it is equally evident that numerous young entrepreneurs face failure, unable to build and sustain their businesses. Despite this, many members of the younger generation demonstrate remarkable potential. Creativity and innovation are essential skills that every entrepreneur must possess. These abilities allow entrepreneurs to introduce new ideas into their ventures, serving as critical sources of competitive advantage. Ultimately, entrepreneurs must focus on developing superior products in terms of quality, benefits, packaging, and other attributes to thrive in competitive markets.

E-Commerce

E-Commerce is a form of electronic business model that focuses on people utilizing digital technology as a way to exchange products and services through space and time (Romney, Marshall, Steinbart, 2018). Through e-commerce, companies can contact customers over longer distances and incur more operating costs, improving the effectiveness and efficiency of the buying and selling process. To ensure that the business decision-making process is conducted honestly, several factors must be kept in mind when using e-commerce. The first is to obtain information. Information is the key to running e-commerce

Marketplace

Marketplace is an information system between organizations where buyers and sellers in the market communicate information about prices, products and are able to complete transactions through electronic communication channels. An e-marketplace represents a social structure, the concept of a market economy, and the use of technology. Marketplaces can provide opportunities to conduct business and carry out transactions through electronic channels, usually on internet-based platforms (Marco & Ningrum, 2017)

The main difference between these two concepts lies in the platform used. E-commerce is an independent platform that focuses on selling goods through the company's own website or website. In contrast, a marketplace is a platform designed to sell items from various stores. Sellers on the marketplace must first register and join the platform. A marketplace functions as an online store that connects multiple sellers in one place, as opposed to a single online store. In a marketplace, the company that manages the platform does not provide goods or services, as the task is entirely the responsibility of the sellers.

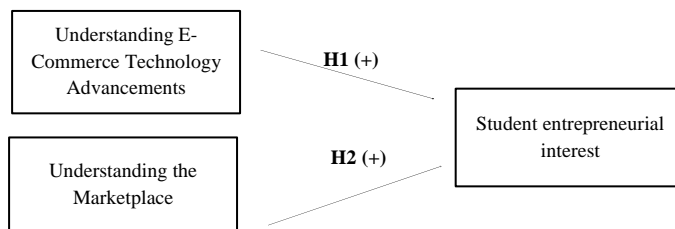
2.1. Hypotheses

H1: *There is a positive influence of understanding the advancement of E-Commerce technology on students' interest in entrepreneurship*

H2: *There is a positive influence of market understanding on students' interest in entrepreneurship*

H3: *There is a positive influence of understanding E-Commerce technology advances and Marketplace understanding on Student Entrepreneurial Interest*

2.2. General Formatting



3. Methodology

This study uses a qualitative method, which is a descriptive method and is more likely to use in-depth analysis. This approach focuses on observing in detail to gain a thorough understanding. The population in this study refers to a group or set of objects whose research results will be generalized. In the context of this study, the population in question is students. A sample is a subset of a population that has similar characteristics and can be representative of the entire population studied. Sampling was carried out using probability sampling techniques, which allowed each member of the population to have an equal chance of being selected as a sample.

4. Data Analysis

4.1. Normality Test

The normality test is a test carried out with the aim of assessing the distribution of data in a data group or variable. This normality test is useful for determining whether the data that has been collected is normally distributed or taken from a normal population. The classic method of testing the normality of a data is not so complicated. For tests with skewness and curtosis it gives its own advantage, namely that it will be known that the normality graph is tilted to the right or left. Therefore, normality tests with skewness and curtosis are also often

referred to as data slope measures (Fahmeyzan et al., 2018) The normality test in this study used Kolmogorov-Smirnov. Thus, the data tested will later be considered normal to represent the population.

Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		140
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.43074217
Most Extreme Differences	Absolute	.111
	Positive	.111
	Negative	-.079
Test Statistic		.111
Asymp. Sig. (2-tailed)		.072 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Based on the table above, the normality test using the Kolmogorov-Smirnov method yielded a significance value of $0.072 > 0.05$. Therefore, it can be concluded that the regression method in this study meets the assumption of normality.

4.2. Autocorrelation Test

According to Ghazali (2006), autocorrelation arises as a result of observations that are sequential throughout time and related to each other. This test can be performed using Durbin-Watson with rejection criteria, namely if the Asymp value is available. Sig. (2-tailed) is less than 5%, then H_0 is rejected, or it can be interpreted that the residual data occurs non-randomly. The autocorrelation test is a statistical examination aimed at determining whether there is a correlation between residuals in a linear regression observation. It is a statistical analysis conducted to identify whether variables within the predictive model exhibit correlation over time.

Autocorrelation Test Results

		Model Summary^b			
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.696 ^a	.485	.477	2.44842	1.874

a. Predictors: (Constant), Understanding the Marketplace (X2), Understanding the E-Commerce (X1)

b. Dependent Variable: Entrepreneurial interest (Y)

From the table above, it can be observed that the DW value is 1.874. Based on the decision-making criteria, where a DW value between -2 and +2 indicates no autocorrelation, it can be concluded that this study is free from autocorrelation.

4.3. Multicollinearity Test

The multicollinearity test is crucial as it ensures that there is no correlation between one predictor variable and another. This test aims to determine whether the regression model exhibits any correlation among the independent variables. It addresses a condition where there is a strong correlation among the independent variables included in constructing the linear regression model. (Azizah et al., 2021)

Multicollinearity Test Results

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Understanding the E-Commerce (X1)	.363	2.758
	Understanding Marketplace (X2)	.363	2.758

a. Dependent Variable: Entrepreneurial interest (Y)

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From the table above, the analysis results indicate that the VIF values for each independent variable are less than 10, and the tolerance values are greater than 0.10. Therefore, it can be concluded that the regression model does not exhibit signs of multicollinearity.

4.4. Heteroscedasticity Test

The heteroscedasticity test is the non-uniformity of variance or conditional deviation in a regression model. In simple terms, heteroscedasticity occurs when the variation of data is uneven across the entire range of independent variables. Heteroscedasticity often appears in cross-sectional data, but can also occur in time series data. If the variation from the residual of one observation to another is fixed, it is called homokedasticity and if it is different, it is called heteroscedasticity. A good regression model is homokedasticity or no heteroscedasticity.

Heteroscedasticity Test Results

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.918	1.198		4.103	.000
	Understanding the E-Commerce (X1)	-.091	.060	-.211	-1.526	.129
	Understanding the Marketplace (X2)	-.005	.051	-.014	-.100	.920

a. Dependent Variable: Abs_RES

The results of the above test in table show that both variables have no symptoms of heteroscedasticity because Sig. > 0.05.

4.5. F Test

The F-test is a statistical testing technique conducted simultaneously with two or more objects for comparison. Its purpose is to evaluate hypotheses and assess the accuracy of the methods used.

F Test Results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	773.253	2	386.627	64.494	.000 ^b
	Residual	821.283	137	5.995		
	Total	1594.536	139			

a. Dependent Variable: Entrepreneurial interest (Y)

b. Predictors: (Constant), Understanding Marketplace (X2), Understanding the E-Commerce (X1)

Based on the calculations, the F-value (F count) is 64.494 at a 5% significance level. Since F count (64.494) exceeds the F table value (3.062), it can be concluded that the alternative hypothesis (Ha) is accepted. This indicates that the independent variables, E-Commerce Understanding and Marketplace Understanding, have a significant simultaneous effect on students' entrepreneurial interest.

4.6. T Test

The t-test is one of the most essential statistical approaches in research. It is used to examine differences between two samples or groups. By understanding the types and steps of the t-test before applying it, we can draw more accurate conclusions about our study.

T Test Results

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	14.265	1.768		.000
	Understanding E-Commerce (X1)	.280	.088	.324	.002
	Understanding the Marketplace (X2)	.302	.075	.410	.000

a. Dependent Variable: Entrepreneurial interest (Y)

Based on the calculations in the table, the results for each variable are as follows:

a. **E-Commerce Understanding and Entrepreneurial Interest:** The calculated t-value (3.184) exceeds the critical t-value (1.977), indicating that the hypothesis (H1) is accepted. This means that understanding e-commerce significantly influences entrepreneurial interest.

b. **Marketplace Understanding and Entrepreneurial Interest:** The calculated t-value (4.022) exceeds the critical t-value (1.977), indicating that the hypothesis (H2) is accepted. This shows that understanding the marketplace significantly influences entrepreneurial interest.

4.7. Descriptive Statistic

Descriptive statistics is a statistical analysis process focused on managing, presenting, and classifying data. This approach makes the data more engaging, easier to understand, and potentially more meaningful for those who utilize it.

Descriptive Statistical Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Understanding E-Commerce (X1)	140	20.00	40.00	33.1000	3.91878
Understanding Marketplace (X2)	140	20.00	40.00	31.8929	4.59073
Entrepreneurial interest (Y)	140	19.00	40.00	33.1786	3.38696
Valid N (listwise)	140				

Based on descriptive analysis table 4.6, the study includes 140 data points. The results are as follows:

a. **E-Commerce Understanding:** The minimum value is 20.00, and the maximum is 40.00, with a mean of 33.10 and a standard deviation of 3.92. This indicates that higher scores reflect greater e-commerce understanding among students.

b. **Marketplace Understanding:** The minimum value is 20.00, the maximum is 40.00, with a mean of 31.89 and a standard deviation of 4.59.

c. **Entrepreneurial Interest:** The minimum value is 19.00, and the maximum is 40.00, with a mean of 33.18 and a standard deviation of 3.39, indicating an average entrepreneurial interest level of 33.18.

5. Discussion

a. The Effect of Understanding E-Commerce Technology Advances on Student Entrepreneurial Interest

This study demonstrates that understanding e-commerce has a significant positive impact on students' entrepreneurial interest. A higher level of comprehension of e-commerce technology increases students' motivation to engage in entrepreneurship. The rapid development of the internet has made accessing e-commerce information easier, which is highly appealing to millennials as a platform for online shopping and trading.

E-commerce understanding involves connecting previously stored information in the brain with new insights. Students respond positively to the advancement of e-commerce technology and are drawn to entrepreneurship using widely available online platforms. This understanding includes effective communication with customers, consumer behavior analysis, and improving product quality. By mastering e-commerce, students develop entrepreneurial skills early, fostering creativity and innovation to succeed in the market and earn incremental income.

b. The Influence of Marketplace Understanding on Student Entrepreneurial Interest

This study shows that understanding marketplaces has a significant positive impact on students' entrepreneurial interest. The higher the students' comprehension of marketplaces, the greater their motivation to pursue entrepreneurship.

Marketplace understanding involves utilizing electronic data and applications for planning and executing concepts, pricing, and distributing goods and services to facilitate beneficial exchanges. According to Davis's TAM theory (2018), perceptions of marketplace understanding positively influence entrepreneurial interest, enhancing performance when using marketplaces. Key factors such as attitude, behavioral intention, and behavior are significantly shaped by perceived benefits, making it a crucial construct in improving marketplace comprehension.

6. Conclusions

The research method employed is a survey method with a quantitative approach. According to Masri Singarimbun (2019), survey research involves selecting a sample from a population and using questionnaires as the primary data collection tool. In this study, the author distributed questionnaires to a sample of 140 respondents. Before distribution, the instruments underwent validity and reliability tests as well as an initial hypothesis analysis. The validity and reliability tests were conducted using SPSS 21.0 with the Cronbach's alpha statistical method.

Data collection involved distributing questionnaires containing 10 questions for variable X1 (E-Commerce Understanding), 10 questions for variable X2 (Marketplace Understanding), and 10 questions for variable Y (Entrepreneurial Interest). A 5% significance level was applied, where an instrument is deemed valid if the calculated R-value (R count) exceeds the R-table value. With $n=137$ and a 5% significance level, the Pearson R-table value is 1.977. Since the R count > R table, the instrument is considered reliable. Based on SPSS calculations, it was concluded that the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. This indicates a relationship between e-commerce understanding and marketplace understanding with students' entrepreneurial interest.

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