

Indonesian Students' Digital Entrepreneurial Intention from The Perspective of Self Determination Theory

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Article Information	Abstract
Article History: Received : August 2023 Accepted : September 2023 Published : September 2023	This study aims to analyze how personal motivational factors in Self-Determination Theory, both intrinsic and extrinsic motivation, influence digital entrepreneurial intentions among Indonesian students. Data was obtained online from 303 students from various Indonesian universities. The PLS-SEM approach to data analysis reveals that intrinsic motivation elements such as enjoyment and challenge motivation positively affect digital entrepreneurial intentions. On the extrinsic motivation factor, only compensation motivation has a positive effect on digital entrepreneurial intentions, while outward motivation does not affect digital entrepreneurial intentions. This finding differs from other research where outward motivation affects digital entrepreneurial intentions. In contrast, the compensation motivation factor does not positively affect digital entrepreneurial intentions. The findings emphasize the significance of challenge, enjoyment, and compensation motivations in shaping individuals to engage in digital entrepreneurship. Consequently, this research has several theoretical and practical implications for encouraging digital entrepreneurship.
Keywords: Digital, Entrepreneurial, Intention	

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Introduction

Unemployment among university graduates has long been a concern. According to Badan Pusat Statistik (BPS), an Indonesian Central Statistics Agency, as detailed in Table 1, the open unemployment rate according to the highest level of education completed, with the highest percentage from vocational high school graduates. However, if the total between Diploma, Bachelor, and graduates above it, university graduates contribute the most significant percentage to the open unemployment rate in Indonesia. The young workforce, especially graduates from university, hope to find promising jobs in the private and government sectors after graduation. This situation exists because the realistic belief that the aim of getting higher education is to make it easier to find work remains quite entrenched.

Table 1. Unemployment Rate in Indonesia

Education	2021	2022	2023
Primary School and under	3,13	3,09	3,02
Junior High School	5,87	5,61	5,41
Senior High School	8,55	8,35	7,69
Vocational High School	11,45	10,38	9,60
Diploma	6,61	6,09	5,91
Bachelor and above	6,97	6,17	5,52

Source: BPS Indonesia, 2023

Developing entrepreneurial intentions while still a student is one strategy to lower the high unemployment rate among university graduates. It is appropriate to encourage them to be a part of the Golden Indonesia 2045 target by creating appropriate career opportunities and supporting them to be entrepreneurs, particularly digital entrepreneurs, where the majority are Generation Z, who are closely related to the use of technology in various life activities. Many factors, both internal and external, influence digital entrepreneurial intentions. As a result, studies on digital entrepreneurial intentions are becoming increasingly important.

In recent years, research on digital entrepreneurship has grown in popularity, attracting the interest of academics, policymakers, and practitioners (Beliaeva et al., 2020; Jafari-Sadeghi et al., 2021). Digital entrepreneurship is growing in importance, but it is still in its early phases, and little is known about the factors that influence it (Nambisan, 2017; Yaghoubi Farani et al., 2017). Furthermore, the elements that inspire individuals to become digital entrepreneurs, as well as the factors that influence digital entrepreneurial intention, need to be thoroughly understood, as are the conditions for being a successful digital entrepreneur (Darmanto et al., 2022; Dutta et al., 2015; Kraus et al., 2019).

According to a study of past research, there needs to be more research on digital entrepreneurial intention. Several existing studies on digital entrepreneurial intention have indicated that studies on digital entrepreneurial intention have yet to be substantially

investigated, and few variables have been studied (Mir et al., 2022). Various theoretical frameworks may be antecedents of digital entrepreneurial intention, but only a few research have been able to confirm this (Huang et al., 2022). Self-determination theory is a theory that has yet to be widely investigated in order to investigate aspects that can influence digital entrepreneurial intention.

The growth of entrepreneurship theory must consider the existence of individual motivating variables in making entrepreneurial decisions that will influence the business running process (Shane et al., 2003). According to the Self-Determination Theory, a person's actions are influenced by both intrinsic and extrinsic motivation (Teo et al., 1999). This approach defines intrinsic motivation as a challenge and enjoyment. Extrinsic motivation is both compensation and outward. When a person is willing to take on a challenge and believes that entrepreneurship can provide satisfaction, cash rewards, appreciation, and recognition of others, they will have a higher entrepreneurial intention. Several hypotheses, depicted in Figure 1, can be presented as a result of this discussion.

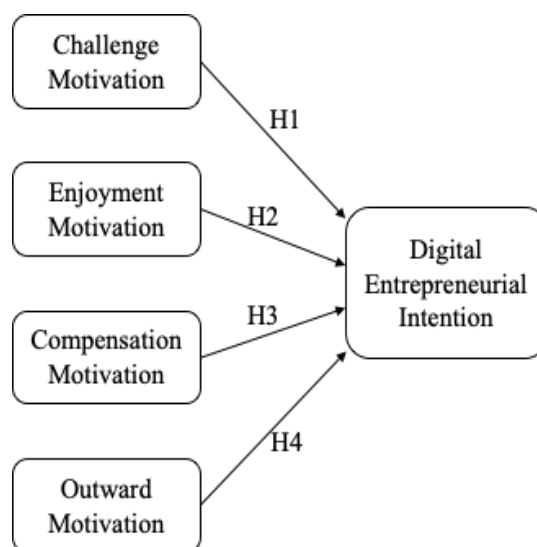


Figure 1. Research Model
Source: Author's Processing, 2023

H1: Challenge motivation has a positive and significant effect on digital entrepreneurial intentions.

H2: Enjoyment motivation has a positive and significant effect on digital entrepreneurial intentions.

H3: Compensation motivation has a positive and significant effect on digital entrepreneurial intentions.

H4: Outward motivation has a positive and significant effect on digital entrepreneurial intention.

As a result of the current literature study, it is important to create a contextual model of digital entrepreneurial intention that can explain the factors that contribute to digital entrepreneurial intention from the standpoint of Self-Determination Theory.

Research Method

The purpose of this study is to examine the effect of challenges and enjoyment as intrinsic motivation, as well as compensation and outward as extrinsic motivation, on digital

entrepreneurial intention using a quantitative technique. An online survey was employed to collect data. The research sample was drawn using a purposive sampling technique to determine respondents. Respondents in this survey were Indonesian students at various levels of education. The survey was completed by 305 respondents, two of whom were not current students. As a result, the remaining 303 respondents met the data processing criteria for this study. This sample size has met the minimum number of samples required, which should be at least ten times larger than the number of variables being considered (Roscoe, 1975).

Table 2. Operational Definition and Measurement

Operational Definition of Variables	Measurement
Digital Entrepreneurial Intention is the intention to start digital entrepreneurship in the future.	Six items adapted from Liñán & Chen (2009)
Challenge Motivation in digital entrepreneurship refers to people wanting to look for something complicated, complex, and challenging in running digital entrepreneurship.	Five items adapted from Amabile et al. (1994)
Enjoyment Motivation in digital entrepreneurship is	Five items adapted from

determined by how much people like the pleasure, curiosity, and fulfillment in running digital entrepreneurship.	Amabile et al. (1994)
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Compensation Motivation in digital entrepreneurship refers to the degree to which people value material or monetary incentives in running digital entrepreneurship.	Five items adapted from Amabile et al. (1994)
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Outward Motivation in digital entrepreneurship refers to the degree that people value praise and validation from others in running digital entrepreneurship.	Seven items adapted from Amabile et al. (1994)
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Source: Author's Processing, 2023

All variables in this study were measured using pre-existing measuring instruments; hence translation into Indonesian was done utilizing the back translation process. A 5-point Likert scale was used to measure the variable in this study. Respondents were asked to complete a questionnaire on a Likert scale of 1 to 5, with 1 being strongly disagree, 2 being disagree, 3 being neutral, 4 being agree, and 5 being highly agree. Table 2 contains complete definitions and measurements for the variables.

The data from this research was quantitatively analyzed using the Partial Least Square - Structural Equation Modeling (PLS-SEM) method. SmartPLS 3.0 data analysis software

was used to examine the instrument's reliability and validity as well as the relationship between variables in the proposed hypothesis.

Results and Discussion

Entrepreneurial intention is the intention to start a business in the future (Thompson, 2009). Entrepreneurial intention is the foundation for understanding entrepreneurial processes and behavior, so it is essential to understand how this entrepreneurial intention can be formed (Fitzsimmons & Douglas, 2011; Shane & Venkataraman, 2000). This study highlights the significance of internal motivation, such as challenge and enjoyment, as well as external motivation, such as compensation and outward, as variables that influence digital entrepreneurial intention. The data for this study was analyzed using SmartPLS software using the PLS Algorithm, Blindfolding, and Bootstrapping.

The PLS Algorithm analysis findings in Table 3 demonstrate that the majority of the indicators for each variable obtain an outer loading score greater than 0.5.

Table 3. Value of OL (Outer Loading), CL (Cross Loading), and VIF (Variance Inflation Factor)

Variables & Indicators	OL	CL	VIF
Digital Entrepreneurial Intention			
DEI1	0,748	0,295-0,460	1,811
DEI2	0,744	0,261-0,465	1,701
DEI3	0,807	0,337-0,488	2,107
DEI4	0,778	0,190-0,472	1,853
DEI5	0,823	0,260-0,487	2,246
DEI6	0,798	0,203-0,511	2,090

Challenge Motivation			
CHM1	0,725	0,275-0,576	1,460
CHM2	0,792	0,365-0,539	1,610
CHM3	0,674	0,382-0,435	1,402
CHM4	0,638	0,208-0,519	1,364
CHM5	0,778	0,274-0,521	1,602
Enjoyment Motivation			
ENM1	0,769	0,383-0,617	1,501
ENM2	0,576	0,275-0,419	1,302
ENM3	0,819	0,284-0,620	1,779
ENM4	0,701	0,330-0,462	1,529
ENM5	0,746	0,336-0,550	1,666
Compensation Motivation			
CPM1	0,685	0,364-0,476	1,337
CPM2	0,787	0,469-0,555	1,667
CPM3	0,796	0,385-0,556	1,809
CPM4	0,745	0,388-0,466	1,682
CPM5	0,758	0,415-0,509	1,648
Outward Motivation			
OWM1	0,787	0,272-0,476	1,623
OWM2	0,847	0,332-0,500	1,716
OWM3	0,712	0,228-0,358	1,505
OWM4	0,628	0,117-0,309	1,552
OWM5		eliminated	
OWM6	0,622	0,111-0,329	1,477
OWM7		eliminated	

Source: Processed Primary Data, 2023

The OWM5 and OWM7 indicators were eliminated or deleted because their outer loading score was lower than the standard. To maintain the meaning of the construct, indicators CHM3 (0.674), CHM4 (0.678), ENM2 (0.576), CPM1 (0.685), OWM4 (0.628), and OWM6 (0.622) were not eliminated, and these exceptions did not conflict with other assessment criteria.

Table 4. Value of FL (Fornell-Larcker Criterion), CA (Cronbach's Alpha), CR (Composite Reliability), and AVE (Average Variance Extracted)

Variables	FL	CA	CR	AVE
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Digital Entrepreneurial Intention	0,327-0,784	0,874	0,905	0,614
Challenge Motivation	0,430-0,724	0,771	0,845	0,524
Enjoyment Motivation	0,450-0,727	0,778	0,847	0,528
Compensation Motivation	0,562-0,755	0,811	0,869	0,571
Outward Motivation	0,327-0,725	0,788	0,845	0,525

Source: Processed Primary Data, 2023

The results of the PLS Algorithm analysis confirm the measurement model's reliability, convergent validity, and discriminant validity. All constructs in Table 4 show scores above the standard reference value, namely the Cronbach Alpha (CA) score in the range of 0.771 to 0.874 and has reached a threshold of 0.7 (Fornell & Larcker, 1981). The Composite Reliability (CR) score also exceeded the 0.7 threshold, which is between 0.845 and 0.905, which indicates that each variable has good reliability (Fornell & Larcker, 1981). Convergent validity is indicated by the Average Variance Extracted (AVE) score in the range of 0.524-0.614 (see Table 4), where all constructs have exceeded the 0.5 threshold (Fornell & Larcker, 1981). Meanwhile, the discriminant validity test was carried out using the Cross Loadings (CL) and Fornell-Larcker Criterion (FL) criteria. All indicators in Table 3 show a higher CL score in the original construct than the other constructs in the model. Likewise, with the FL score in Table 4, the AVE square root in each construct has a higher value when compared to the correlation with other constructs. Thus, it can be concluded that all constructs have met convergent validity and discriminant validity.

Multicollinearity is assessed using the Variance Inflation Factor (VIF) to detect whether or not there is an intercorrelation between exogenous variables that impact the inability to predict the model. The VIF value generated in this analysis, as shown in Table 3, is between 1.302 and 2.246, which is below the standard limit of 5 (Sarstedt et al., 2017). This indicates that there is no strong intercorrelation between exogenous variables.

Utilizing the R-Square value, the structural model's robustness is assessed to determine what percentage of exogenous variables can affect endogenous variables. The R-Square score of 0.440 is found in this PLS Algorithm analysis, indicating that 44% of digital entrepreneurial intention may be described by intrinsic motivation in the form of challenge and enjoyment, as well as extrinsic motivation in the form of compensation and outward. The R-Square value is above the criterion 0,10, indicating that the proposed model adequately explains variance in exogenous and endogenous variables (Falk & Miller, 1992). In addition, the results of the Blindfolding analysis also show Q-Square value is 0.262, which means that the constructed model used is relevant through the use of exogenous variables to predict endogenous variables as its values are greater than zero (Sarstedt et al., 2017).

The significance level of numerous assessments is evaluated using the bootstrapping approach, and the results are in the form of Path Coefficients values as a basis for hypothesis testing. The three criteria for testing this hypothesis are the Original Sample, T-Statistics, and P-Value. The original sample is the value of the regression

coefficient. When it has a positive value, the relationship between variables has a positive effect and the opposite. T-Statistics is the level of significance expected from exogenous to endogenous variables with a value of more than 1.96. Meanwhile, the P-Value has a standard value of less than 0.05 for an acceptable hypothesis. The results of the bootstrapping analysis in this study are shown in Figure 2 below:

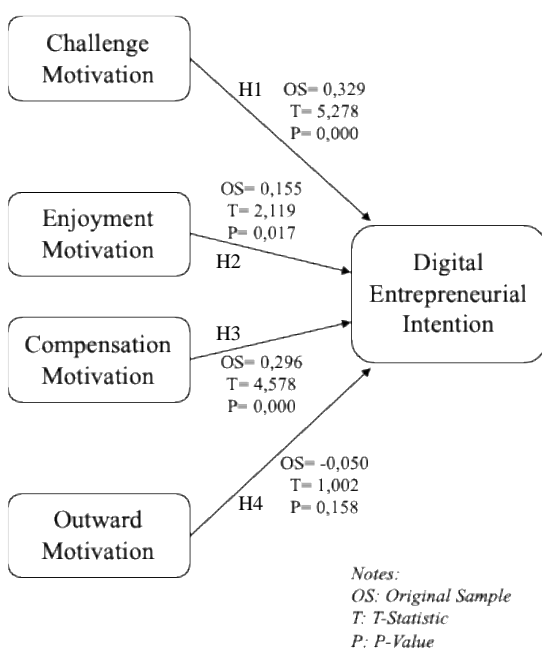


Figure 2. Results of Bootstrapping Analysis

Source: Processed Primary Data, 2023

In order to test Hypothesis 1, there is a correlation between the variable challenge motivation and digital entrepreneurial intention with a positive coefficient of 0.329. The T-Statistics value is greater than 1.96 (5.278), and the P-Value is less than 0.05 (0.000). It shows that hypothesis 1 is accepted in that challenge motivation positively and significantly increases digital entrepreneurial intention.

In testing Hypothesis 2, there is a correlation between enjoyment

motivation and digital entrepreneurial intention with a positive coefficient value of 0.155. While the T-Statistics value is greater than 1.96 (2.119) and the P-Value is less than 0.05 (0.017). This shows that hypothesis 2 is accepted in that enjoyment motivation has a positive and significant effect on increasing digital entrepreneurial intention.

Hypothesis testing 3, there is a correlation between compensation motivation and digital entrepreneurial intention with a positive coefficient value of 0.296. Meanwhile, the T-Statistics value is greater than 1.96 (4.578), and the P-Value is less than 0.05 (0.000). It shows that hypothesis 3 is accepted in that compensation motivation has a positive and significant effect on increasing digital entrepreneurial intention.

Testing on Hypothesis 4 shows no correlation between outward motivation and digital entrepreneurial intention, with a negative coefficient value of -0.050. The T-Statistics value is less than 1.96 (1.002), and the P-Value is more than 0.05 (0.158). This shows that hypothesis 4 is rejected where outward motivation has no positive and significant effect on increasing digital entrepreneurial intention.

The results of the study show that intrinsic motivation, namely challenge, and enjoyment, has a positive effect on digital entrepreneurship intentions. This finding is consistent with a study by Wang et al. (2016) where intrinsic motivation positively affects entrepreneurial intentions in cyberspace. Likewise, the research results from Huang et al. (2022) state that challenge and enjoyment motivation positively affect internet

entrepreneurial intentions to use technology products.

The findings on extrinsic motivation show that compensation positively affects digital entrepreneurship intentions, while outward has no positive effect on digital entrepreneurship intentions. This finding contradicts a study by Huang et al. (2022) that compensation motivation has no positive effect, while outward motivation positively affects internet entrepreneurial intentions to use technology products. These results are also different from the results of Wang et al. (2016) where extrinsic motivation positively affects entrepreneurial intentions in cyberspace. The rationale is that there is a tendency in Indonesia, particularly among students, for social and environmental settings that make them less interested in recognition and affirmation from others in digital entrepreneurship. Most students in Indonesia today are Generation Z, who grew up in an era of advanced digital technology. Digital connection, mainly through social media, might make Generation Z aware of mental health issues, allowing them to create genuine self-acceptance and appreciation without relying on external validation.

Conclusion

Because of the rapid development of technology, research on digital entrepreneurial intention is crucial, particularly for the younger generation or students who have grown up with numerous technological conveniences. The most present research focuses on general entrepreneurial intention, while studies on digital entrepreneurial intention have yet to be thoroughly investigated. The advancement of

digital technologies has facilitated changes in digital business models. As a result, knowing digital entrepreneurial intention is critical. A prospective entrepreneur's behavior in digital entrepreneurship greatly depends on internal and external factors.

This work advances the knowledge of digital entrepreneurial intention theoretically, explicitly supporting the development of the Self-Determination Theory in terms of intrinsic and extrinsic motivation. The findings highlight the importance of challenge, enjoyment, and compensation motivations in shaping individuals to engage in digital entrepreneurship. As a result, educational institutions, particularly universities, must improve engagement with government agencies and other private institutions in providing technical support linked to increasing digital entrepreneurial abilities. Furthermore, various digital entrepreneurial competition schemes require financial help and continuous assistance. Through this, the younger generation, particularly students, will be more motivated to pursue digital entrepreneurial ideas.

This study has various limitations, including the fact that the data was collected from respondents who are still active students in Indonesia. Therefore, the findings may not be generalizable to other generations or countries. Testing this model in the context of young people in various countries will be fascinating. Furthermore, this study focuses on developing individual intentions rather than actual business establishment so that future studies might investigate how intrinsic and extrinsic motivation affect starting a real business.

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