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# Analyzing the Impact of Project-Based Learning on Student Entrepreneurship Readiness: A Structural Equation Modeling and Statistical Analysis in Higher Education

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Abstract— The study aimed to examine the influence of entrepreneurial passion, entrepreneurial literacy, role model inspiration, and self-efficacy on entrepreneurship readiness among higher education students and the role of the project-based learning model implementation as a moderator variable. The population in the study were students in higher education in Indonesia who had taken entrepreneurship courses. Data from 313 valid respondents were analyzed against the research model using the Partial Least Squares Structural Equation Modelling. The findings revealed that entrepreneurial passion, entrepreneurial literacy, and role model inspiration were found to positively influence self-efficacy as well as entrepreneurship readiness among students in higher education. Unpredictably, the moderator project-based learning models' implementation was shown to have an insignificant effect on the influence of entrepreneurial passion, entrepreneurial literacy, and role model inspiration toward entrepreneurship readiness among students in higher education. The findings of this study provide several important theoretical and practical implications for entrepreneurship readiness among students in higher education. higher education in Indonesia who had taken entrepreneurship courses. Data collected from 313 valid respondents were analyzed against the research model using the Partial Least Squares Structural Equation Modelling. The findings revealed that entrepreneurial passion, entrepreneurial literacy, and role model inspiration were found to positively influence self-efficacy as well as entrepreneurship readiness among students in higher education. Unpredictably, the moderator projectbased learning models' implementation was shown to have an insignificant effect on the influence of entrepreneurial passion, entrepreneurial literacy, and role model inspiration toward entrepreneurship readiness among students in higher education. The findings of this study provide several important theoretical and practical implications for entrepreneurship readiness among students in higher education.

Keywords- Entrepreneurial passion; entrepreneurial literacy; role models inspiring; self-efficacy; entrepreneurship readiness.

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#### I. INTRODUCTION

In today's era of globalization and rapid economic growth, entrepreneurship has become an important component in driving a country's economic growth [1]. In higher education policy, a major focus has been placed on entrepreneurship as higher education institutions are expected to actively participate in preparing the younger generation to become successful entrepreneurs [2]. Therefore, research on higher education students' readiness to become entrepreneurs is increasingly important [3]. Higher education is essential to prepare young people to succeed as entrepreneurs in a competitive business world [4]. Students must be prepared in the field of entrepreneurship to face the rapidly changing world of work in the modern era when economic challenges are increasingly complex [5]. Entrepreneurship is not just skills and knowledge; it also involves deep psychological aspects, such as passion, entrepreneurial literacy, inspiring role models, and self-efficacy.

The importance of entrepreneurial passion in the context of student entrepreneurial readiness cannot be ignored [6]. Passion creates a strong internal drive to pursue a business idea, overcome obstacles, and persevere in facing challenges [7], [8]. Entrepreneurship requires a prominent dedication and passion to succeed [9]. Therefore, understanding how passion affects students' entrepreneurial readiness is vital to improving their preparation [10], [11].

Entrepreneurial literacy is also a vital component of entrepreneurial readiness [10]. Entrepreneurial literacy includes an understanding of business concepts, planning, market analysis, finance and more [12]. Students who have strong entrepreneurial literacy are more likely to take the right steps in starting and managing their businesses [13]. Therefore, it is important to understand the effect of entrepreneurial literacy on college students' entrepreneurial readiness.

Role model inspiration also has a big impact on students' entrepreneurial readiness [14]. When students have inspiring role models in entrepreneurship, they tend to have additional motivation and a better understanding of what it takes to succeed in business [15]. Role models can be a source of inspiration, guidance and support for students who dream of becoming successful entrepreneurs [16]. In addition, a person's belief in their ability to achieve certain goals is known as self-efficacy. When it comes to entrepreneurship, self-efficacy is a person's level of belief that they could become a successful entrepreneur. In the face of entrepreneurial challenges, students with high levels of selfefficacy are more confident. They are more prepared to take risks and act proactively to achieve their business goals. Therefore, to understand how self-efficacy affects students' entrepreneurial readiness, this study will also focus on selfefficacy.

However, it is important to consider how the implementation of project-based learning can moderate the influence of these factors on students' entrepreneurial readiness [17]. This learning model emphasizes real-life experiences in completing business projects, which may influence the way students develop their passion, literacy, role modelling and self-efficacy. Therefore, research on the role of project-based learning model implementation as a moderator variable in students' entrepreneurial readiness is very important [18].

In this article, we investigated the influence of entrepreneurial passion, entrepreneurial literacy, inspiring role models, and self-efficacy on higher education students' entrepreneurial readiness. We also explored how implementing a project-based learning model can moderate the influence of these factors. By better understanding the interaction between these factors, we can develop more effective approaches to preparing students to become successful entrepreneurs in a changing business environment. There is a lack of studies that focus on entrepreneurial passion, entrepreneurial literacy, inspiring role models, selfefficacy on entrepreneurship readiness among students in higher education, and the role of the implementation of project-based learning models as a moderator variable. preparing students to become successful entrepreneurs in a changing business environment. There is a lack of studies that focus on entrepreneurial passion, entrepreneurial literacy, role models inspiring and self-efficacy on entrepreneurship readiness among students in higher education and the roles of the project-based learning models implementation as a moderator variable.

## II. MATERIAL AND METHOD

Research of this nature is classified as causal research. The study is classified as cross-sectional research because it

gathered data from several occurrences at once. For this investigation, quantitative data was also acquired. Details on sample and data collection techniques, as well as research tools, are provided below.

## A. Samples and Data Collection

Details on sample and data collection, as well as research instruments, are provided below. Data were acquired through an online survey and purposive sampling. The online survey was distributed to all students who met the criteria and had taken entrepreneurship courses in higher education. A total of 313 responses were successfully collected. Table 1 summarizes the sample characteristics.

IABLE I Respondent profile						
Variable	Category	Proportion				
Gender	Male	103	32.90%			
Gender	Female	210				
	<18 years old 18-20 years old	15 146	4,79% 46,65%			
Age	21-23 years old	147	46,96%			
	>23 years old	5	1,60%			
Level of	Applied Bachelor/Bachelo r	241	77,00%			
Education	Diploma Postgraduate	69 3	22,04% 0.96%			

## B. Research Instrument

The items used to measure entrepreneurial passion in this study were as many as 7 items adapted from [19]. Entrepreneurial literacy as many as 9 items were adapted from [20], [21]. In role models inspiring, as many as 7 items were adapted from [22]. Furthermore, self-efficacy as many as 7 items were adapted from [23]. Project-based learning models' implementation as many as 8 were adapted from [24]. Lastly, entrepreneurship readiness among students in higher education also as many as 8 items were adapted from [25] and [26].

## C. Data analysis

PLS-SEM (Partial Least Squares Structural Equation Modelling) is a more effective method of statistical analysis in the context of the study's objectives than statistics or simple inferential regression, especially when there are many complex and insufficiently quantified variables. The data was analyzed using SmartPLS 3 [27]. Following the recommendation of [28], the PLS-SEM data were provided and mostly used two models. Examining the discriminant validity, convergent validity, and internal consistency reliability of the measurement model. Cronbach's alpha and composite reliability were used to assess the internal consistency reliability (CR). To support convergent validity, the Average Variance Extracted (AVE) values for each construct must be more than or equal to 0.50 [28]. According to [29], both the CR and Cronbach's alpha values must be higher than 0.7. Discriminant validity was examined using Heterotrait-Monotrait (HTMT) ratios.

After confirming the applicability of the measurement model, the structural model was tested using a nonparametric bootstrap methodology. In order to test the three moderation hypotheses (H11, H12, and H13), three relationships and one moderator were modelled to have an impact on entrepreneurial readiness. A two-stage strategy was used to create the interaction terms because all the components were reflective, and the aim was to determine whether the moderator had a substantial impact [28]. They claimed that 5000 was the chosen bootstrap sample size. Because each of the research hypotheses had a directional component, onetailed tests were utilized.

### III. RESULT AND DISCUSSION

#### A. Result

The structural relationships between the constructs may be estimated using Partial Least Squares Structural Equation Modelling (PLS-SEM) or Covariance-Based Structural Equation Modelling (CB-SEM), with PLS-SEM being preferred when the research goal is to find key determinants (Hair et al., 2017). In order to identify the entrepreneurial passion, entrepreneurial literacy, and role models inspiring as antecedent factors that influence self-efficacy as well as entrepreneurship readiness among students in higher education and project-based learning models implementation as a moderator variable, PLS-SEM was used for data analysis in this study. PLS-SEM is preferred when the stricter assumptions of standard multivariate techniques (CB-SEM) cannot be met.

Using SmartPLS 3, the data was analyzed. The PLS-SEM results, which primarily include two models, were presented following the standards set forth by [28]. The measuring model's convergent validity, discriminant validity, and internal consistency reliability were all assessed. Internal

consistency reliability was evaluated using Cronbach's alpha and composite reliability (CR). The values of CR and Cronbach's alpha must both be more than 0.7, according to Hair et al. [28]. If all item loadings are higher than 0.70 and the average variance estimator (AVE) values for each construct are greater than or equal to 0.50, convergent validity is also established Fornell and Larcker [29] Lastly, Heterotrait-Monotrait (HTMT) ratios were utilized, and it was shown that discriminant validity was supported when the upper bound for acceptable discriminant validity was 0.90 [30].

After confirming the applicability of the measurement model, the structural model was tested using a nonparametric bootstrap methodology. Hair et al. [28] that to test the moderation hypotheses (i.e., H11, H12, and H13), three independent factors and one moderator (i.e., project-based learning models implementation) were modelled to affect entrepreneurship readiness among students in higher education. A two-stage technique was used to create the interaction terms because the constructs were all reflective and the objective was to determine whether the moderator had a substantial impact [28]. According to [28], the bootstrap sample size was set at 5000. All the research hypotheses included a directional component, hence one-tailed tests were performed.

#### B. Measurement Model

Convergent validity is utilized to assess Cronbach's alpha, composite reliability, AVE, and factor loadings, claim [27]. The measurement model is presented in Figure 1, and the outer loading, Cronbach Alpha value, composite reliability, and AVE scores are included in Table 2's results report.



Fig. 1 Structural Model

TABLE II
CONSTRUCT RELIABILITY AND CONVERGENT VALIDITY

Latent Variable	Code	Items	Outer Loadings	Cronbach Alpha	Composite Reliability	AVE
	EP1	It is exciting to find new ways to solve unmet market needs that can be commercialized.	0.837	0.947	0.957	0.760
	EP2	Finding new ideas for products/services is fun for me.	0.866			
	EP3	I am motivated to find out how to make existing	0.894			
Entreprene	EP4	Scanning the environment for new opportunities gets	0.881			
Passion	EP5	Finding new solutions to problems is an important part	0.867			
	EP6	I feel very enthusiastic and excited about running a business venture	0.861			
	EP7	I feel motivated to continue learning and developing myself in the field of entrepreneurship	0.896			
	EL1	I can capture business opportunities	0.833	0.950	0.957	0.715
	EL2	I have sufficient knowledge in marketing a	0.055	0.920	0.957	0.715
	222	product/service	0.853			
	EL3	I know how to find resources (e.g. finance) to set up a business.	0.846			
Entreprene	EL4	I can recognize existing entrepreneurial opportunities	0.892			
urial	EL5	I can develop innovative products	0.874			
Literacy	EL6	The product that I (will) sell is an item that is needed	0.010			
v		by many people.	0.819			
	EL7	I can access the necessary information about the business through various media	0.796			
	EL8	I know the practical details required to start a business	0.850			
	EL9	I know how to develop an entrepreneurial project	0.840			
	RMI1	I find inspiration from how entrepreneurial role models	0.784	0.951	0.960	0.775
	RMI2	overcome challenges Knowing the career journeys of entrepreneurial role	0.885			
		models inspires me to pursue my entrepreneurial dreams				
	RMI3	Inspiring stories from entrepreneurial role models	0.895			
		influence the way I view risks and opportunities in business.				
Role	RMI4	Knowledge of how entrepreneurial role models faced	0.918			
Models		failure and bounced back gives me confidence in				
Inspiring		overcoming challenges in business ventures.				
	RMI5	I believe that having inspiring entrepreneurial role models increases the likelihood of business success.	0.887			
	RMI6	Inspiring stories from entrepreneurial role models	0.904			
		provide concrete examples of how entrepreneurship				
		can bring about positive change.				
	RMI7	Based on my entrepreneurial role model's career	0.882			
		journey, I believe that abilities and skills can be				
Solf	SE1	Lam confident that Laga soirs new hypinges creation.	0.921	0.041	0.052	0.740
Sell- Efficacy	SEI	opportunities	0.651	0.941	0.932	0.740
Entracy	SE2	I am trying to start a husiness. I am likely to succeed	0.850			
	SE2 SE3	I believe starting a business and keeping it operating	0.830			
	515	will be easy for me.	0.051			
	SE4	I feel confident that I can develop a business idea into a concrete plan	0.875			
	SE5	I feel confident in my ability to overcome obstacles	0.866			
	SE6	I feel confident that I can manage resources effectively	0.893			
	SE7	In business. I feel confident that I can remain persistent and	0.871			
Project-	PiBL1	consistent in my business endeavors. I find project-based learning relevant to learning the	0.844	0.957	0.964	0,770
Based		concepts of entrepreneurship courses.		5.701	5.7 0 1	-,,,0
Learning Models	PjBL2	Project-based learning helps me to synthesize ideas and information presented in lectures.	0.885			

Latent Variable	Code	Items	Outer Loadings	Cronbach Alpha	Composite Reliability	AVE
Implement ation	PjBL3	Project-based learning allows me to remember more of the class lessons.	0.889			
	PjBL4	I get a better understanding of knowledge applied in real life when I work on entrepreneurship projects in lectures.	0.874			
	PjBL5	Project-based learning is fun.	0.877			
	PjBL6	Project-based learning encourages the practical application of the entrepreneurship theories taught.	0.892			
	PjBL7	Project-based learning helps in understanding entrepreneurial concepts better.	0.894			
	PjBL8	Through the project-based learning method, I feel more prepared to face real-world challenges in entrepreneurship.	0.861			
Entreprene	ER1	I will do my best to enter the entrepreneurial world.	0.839	0.898	0.922	0.666
urship Readiness	ER3	I am willing to face any challenges to become an entrepreneur in the future.	0.855			
	ER4	The spirit of entrepreneurship has never faded in me.	0.864			
	ER6	I can turn a business idea into a new start-up	0.747			
	ER7	I am ready to start my own business	0.855			
	ER8	I would rather own a business than work for someone else	0.725			

Item Removed: ER2, ER5

All the constructs had AVE values greater than 0.5 in Table 2, which demonstrated convergent validity [28]. While composite reliability ranged from 0.922 to 0.964, Cronbach's Alphas ranged from 0.898 to 0.957. These numbers are higher than the threshold of 0.70, which leads us to believe that all items have acquired convergent validity [28]. Discriminant validity, which measures how distinct a concept is from others, is achieved when the shared variance (AVE) inside a

concept is greater than the shared variance between concepts [31]. Henseler et al [30] recommend utilizing the Heterotrait-Monotrait Ratio of Correlations (HTMT) to assess discriminant validity. To demonstrate the discriminant validity, the HTMT value for each concept must be smaller than 0.9 [30]. Table 3 presents the HTMT value for each construct.

TABLE III EXAMINING DISCRIMINANT VALIDITY

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	Entrepreneurial Passion	Entrepreneurial Literacy	Role Models Inspiring	Self- Efficacy	Entrepreneu Readine	urship ss	Project-Based Learning Models Implementation
Entrepreneurial Passion							
Entrepreneurial Literacy	0.777						
Role Models Inspiring	0.724	0.751					
Self-Efficacy	0.785	0.761	0.702	2			
Entrepreneurship Readiness	0.790	0.756	0.71	1	0.852		
Project-Based Learning	0.758	0.638	0.680	)	0.661	0.6	
Models Implementation						75	

As can be shown in Table 3, all the HTMT ratios fell below the cut-off value of 0.90 [30], [31], and the square root of AVE estimations exceeded the corresponding estimates of construct correlations in all pairs of constructs [32]. These results show discriminant validity. Structural Models and Hypotheses Testing. The coefficient and R2 values for each endogenous construct, along with their significance levels, are shown in Figure. 1. Entrepreneurial passion ( $\beta = 0.394$ , p < 0.05), entrepreneurial literacy ( $\beta = 0.310$ , p < 0.05) and role models inspiring ( $\beta = 0.172$ , p < 0.05) was found to positively influence self-efficacy. Next, entrepreneurial passion ( $\beta$  = 0.183, p < 0.05), entrepreneurial literacy ( $\beta = 0.140, p < 0.05$ ), role models inspiring ( $\beta = 0.105$ , p < 0.05), self-efficacy ( $\beta =$ 0.432, p < 0.05) was found to positively influence entrepreneurship readiness among students in higher education. In addition, self-efficacy mediates the influence of entrepreneurial passion ( $\beta = 0.171$ , p < 0.05), entrepreneurial literacy ( $\beta = 0.131$ , p < 0.05) and role models inspiring ( $\beta = 0.076$ , p < 0.05) toward entrepreneurship readiness among students in higher education. It can be concluded that the presence of self-efficacy will increase the effect of entrepreneurial passion, entrepreneurial literacy, and role models inspiring toward entrepreneurship readiness among students in higher education. Thus, H1-H10 were supported.

Concerning the results of the moderation analysis, the moderator project-based learning models' implementation was shown to have an insignificant effect on the influence of entrepreneurial passion ( $\beta = 0.004$ , p > 0.05), entrepreneurial literacy ( $\beta = -0.032$ , p > 0.05) and role models inspiring ( $\beta = -0.063$ , p > 0.05) toward entrepreneurship readiness among students in higher education. In other words, there is no increase in the influence of entrepreneurial passion,

entrepreneurial literacy, and role models inspiring entrepreneurship readiness among students in higher education in the presence of project-based learning model implementation. It can be explained that project-based learning model implementation in higher education has not been implemented optimally so it has not been able to improve entrepreneurship readiness among students in higher education.

To assess the study model's capacity for prediction, the R2 values for entrepreneurship readiness among students in higher education were presented. For endogenous constructs, R2 values of 0.25, 0.50, and 0.75 should be viewed as weak, moderate, and strong, respectively [28]. This study's calculations determined the R2 value of self-efficacy to be 0.630 and the R2 value of entrepreneurship readiness to be 0.687. The study model's ability to predict results from samples is measured by the Q2 value, which was also generated as a backup assessment. In this study, the Q2 value of entrepreneurship readiness was computed as 0.450 and self-efficacy as 0.459, which is significantly higher than the cutoff point [28].

### C. Discussion

In entrepreneurship, entrepreneurial passion can influence individual self-efficacy in running their business. A deep interest and enthusiasm for the business can individually increase self-efficacy to face the challenges and obstacles they may encounter. With high self-efficacy, entrepreneurs are more likely to achieve higher levels of success. This study in line with [33] and [34] an entrepreneurial passion can encourage individuals to become entrepreneurs' activities that are in line with their values and interests, thereby increasing entrepreneurial self-efficacy. A deep understanding of entrepreneurship, referred to as entrepreneurial literacy, has a significant positive impact on individual self-efficacy in running a business venture. Knowledge of business planning, financial management, and marketing strategies as well as the ability to spot business opportunities are part of entrepreneurial literacy. According to research conducted by [35], people who have strong entrepreneurial literacy are more confident in their ability to plan, execute, and manage their businesses well. This increases the likelihood of success in the world of entrepreneurship. Elements of inspiring business models have a major impact on an individual's selfefficacy in building their own firms. When someone has a successful company's role model or mentor, they will inevitably have greater key abilities to reach truly outstanding achievement. [22] revealed that role model inspiring can motivate people to overcome hurdles, manage risks, and be proactive in their businesses. This could lead to a large rise in self-efficacy, increasing the likelihood of business success.

Entrepreneurial passion significantly improves a student's readiness for entrepreneurship in higher education. Highspirited students who are passionate about entrepreneurship are more likely to be proactive in building their networks, searching out opportunities to gain experience, and coming up with business ideas. The findings of a study by [36] demonstrate how a student's love for entrepreneurship can spur them on to develop their entrepreneurial talents, broaden their understanding of business topics, and develop specific plans for starting their own company. In order to increase students' entrepreneurial preparedness in higher education and set them up for success in the field of entrepreneurship, entrepreneurial passion is crucial. Entrepreneurial literacy or having a thorough understanding of entrepreneurial concepts, principles, and abilities, significantly improves students' readiness for entrepreneurship in higher education. Strong entrepreneurial literacy helps students be more ready to take advantage of opportunities and overcome problems in the corporate environment. They have the practical understanding required to launch and run their own enterprises, are better at planning, and comprehend business risks and plans. According to [37], entrepreneurial literacy can aid students in acquiring the skills necessary for entrepreneurship, such as market analysis, financial management, and company planning. As a result, entrepreneurial literacy is essential to enhancing students' entrepreneurial preparedness in higher education and equipping them for success in the world of entrepreneurship.

Inspiring entrepreneurship role models, such as successful entrepreneurs or well-known entrepreneurial leaders, have a significant positive impact on college students' entrepreneurial readiness. Students who have inspirational role models or mentors are more likely to pursue entrepreneurial careers. This can boost their self-esteem in terms of their capacity to create, develop, and run their own business. Boldureanu et al. [38] found that students' views, motivation, and intentions to engage in entrepreneurship can be influenced by the role of inspiring models. As a result, having an inspiring model in entrepreneurship might help students feel more prepared to enter the world of entrepreneurship. Self-efficacy, which refers to an individual's belief in his or her ability to achieve in each situation, has a significant impact on college students' entrepreneurial readiness. Students who are confident in their capacity to plan, manage, and overcome business difficulties are more likely to be entrepreneurial. According to [26] and [39], high self-efficacy can drive students to take the initiative in starting their own business and accept the dangers that come with it. As a result, enhancing students' self-efficacy can be a major aspect in increasing their readiness to pursue entrepreneurial jobs in the future.

This study demonstrates that self-efficacy has a substantial mediation effect in the link between entrepreneurial passion and entrepreneurship readiness in higher education students. Entrepreneurial passion, which comprises a strong interest in and enthusiasm for entrepreneurship, has a favorable impact on students' entrepreneurial readiness. These data, however, demonstrate that most of the positive benefits of entrepreneurial passion on entrepreneurial readiness are routed through increased student self-efficacy. This suggests that students with higher levels of self-efficacy are more likely to be able to translate their interest in entrepreneurship into actual readiness to manage their own business. The findings of this study highlight the necessity of establishing self-efficacy in the context of entrepreneurship education to improve students' entrepreneurial readiness. This study in line with the [34] that entrepreneurial self-efficacy fully mediated the relationship between entrepreneurial passion and intention as well as student readiness.

This study found that self-efficacy has a substantial mediation effect in the association between entrepreneurial

literacy and entrepreneurial readiness in higher education students. Entrepreneurial literacy, which comprises a thorough understanding of entrepreneurship-related topics such as business planning, financial management, and market analysis, has a favorable impact on students' entrepreneurial readiness. These data suggest that most of the positive impact of entrepreneurial literacy on entrepreneurial readiness is achieved through increased student self-efficacy. This suggests that students who have strong self-confidence in their capacity to manage a firm are more entrepreneurially equipped. The findings of this study highlight the necessity of self-efficacy development in the context of entrepreneurship education in higher education to boost students' entrepreneurial readiness.

This study finds that self-efficacy has a strong mediation influence on the relationship between the function of role model inspiring and entrepreneurial readiness in higher education students. Entrepreneurial role models inspiring, such as successful entrepreneurs or well-known entrepreneurs, have a positive impact on students' entrepreneurial readiness. According to the findings of this study, most of the positive benefits of inspirational models in entrepreneurship on entrepreneurial readiness are channeled through increased student self-efficacy. This suggests that students who have strong self-efficacy in their ability to succeed in entrepreneurship are more entrepreneurially equipped. This study underlines the significance of inspirational models in growing students' self-efficacy and, as a result, increasing their future entrepreneurial readiness.

Unexpectedly, this study demonstrates that the implementation of a project-based learning model does not mitigate the impact of entrepreneurial passion on students' readiness for entrepreneurship. Although the project-based learning model has been considered as a potential strategy to encourage students' entrepreneurial interest and readiness, the findings of this study show that this model's use has little impact on the positive relationship between entrepreneurial passion and readiness. Furthermore, there is no significant moderating effect of the project-based learning model on the link between students' entrepreneurial readiness and their knowledge about entrepreneurship in higher education. Even though the project-based learning model is regarded as a strategy that can help students develop their entrepreneurial knowledge and abilities, the findings of this study indicate that using this learning model does not significantly alter the positive effect of entrepreneurial literacy on entrepreneurial readiness. Lastly, there is no substantial moderating effect of project-based learning model implementation on the relationship between students' entrepreneurial readiness in higher education and role models who inspire them. Although inspirational role models have been acknowledged as a source of inspiration and motivation for students to pursue entrepreneurial careers, the findings of this study suggest that whether the project-based learning model is implemented, the positive impact of inspirational role models on entrepreneurial readiness does not change significantly.

## D. Implications

The findings are significant in two ways. From a scholarly standpoint, this study implies the significance of entrepreneurial passion, entrepreneur literacy, role model inspiration and self-efficacy in influencing students' entrepreneurial readiness in higher education. entrepreneurial passion, entrepreneur literacy, role model inspiring related insights that influence self-efficacy as well as students' entrepreneurial readiness to become entrepreneurs will add to the body of knowledge and have practical applications. This discovery also offers a solid foundation for future study, particularly that focusing on entrepreneurship readiness among higher education students.

This research contributes to the scientific understanding of passion, entrepreneurship readiness. Entrepreneurial entrepreneur literacy, role model inspiration and self-efficacy act as precursors or predictors of students' digital entrepreneurship readiness. Entrepreneurial passion, entrepreneur literacy, role model inspiring and self-efficacy students in higher education as well as increase their readiness to become entrepreneurs. Another important thing is that in higher education, project-based learning model implementation does not mitigate the impact of entrepreneurial passion, entrepreneurial literacy and role model inspiring on students' readiness for entrepreneurship.

For higher education institutions and governments in Indonesia, the study's findings also offer important insights and have several practical ramifications. First, higher education institutions can take practical steps such as reevaluating the suitability of the project-based learning model implementation targets and making improvements to this model following the desired learning objectives, encouraging positive student self-efficacy, identifying each student's passion for entrepreneurship, increasing entrepreneurial literacy and providing examples of role models who have been successful entrepreneurs to inspire students, so that paying attention to this can help students' readiness in entrepreneurship. The government must also evaluate the existing curriculum and see to what extent the project-based learning model implementation is implemented well to encourage targeted learning so that it can help reduce educated unemployment in Indonesia.

#### IV. CONCLUSION

This study indicates that entrepreneurial passion, entrepreneurial literacy, and role model inspiration were found to positively influence self-efficacy as well as entrepreneurship readiness among students in higher education. With this perception, the management of higher education must improve project-based learning model implementation, so that this learning model is right on target to encourage students' entrepreneurial readiness. Future researchers should overcome the limitations of the current research. The sample only looks at students who have taken entrepreneurship courses, future research is expected to conduct longitudinal research by conducting research on students before and after taking entrepreneurship courses.

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