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EXAMINING ENTREPRENEURSHIP ECOSYSTEM IN HIGHER EDUCATION: A STUDY OF EXISTENCE IN WEST KALIMANTAN

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Abstract

Purpose – This research underscores the pivotal role of student awareness and perception in shaping the entrepreneurial ecosystem within higher education institutions. It offers valuable insights into the dynamics of entrepreneurship in educational settings and provides guidance on creating supportive environments that encourage entrepreneurship among students.

Method – The data analysis in the research proposal employs a structured approach using partial least squares structural equation modeling (PLS-SEM) to generate robust results. PLS-SEM is chosen for its suitability with models featuring collinear factors. The analysis consists of two components: the measurement model, assessing relationships between constructs and indicators, and the structural model, examining connections between independent and dependent variables. The analysis includes considerations like internal consistency, convergent validity, discriminant validity, collinearity, path coefficient significance, R2 values, effect size, and predictive relevance. Hypotheses are tested using significance testing with t-values and p-values, and additional hypotheses undergo bootstrapping computations of PLS-SEM path coefficients. This holistic approach ensures statistically sound results directly aligned with research objectives, effectively addressing the research question.

Result –This research explores the factors that contribute to the entrepreneurial ecosystem within higher education institutions, focusing on West Kalimantan. It reveals that student awareness and perception of entrepreneurship significantly impact the growth and sustainability of this ecosystem. The study emphasizes the importance of student-driven efforts in fostering entrepreneurship. Faculty involvement is less significant than student awareness and perception, suggesting a student-centered approach to entrepreneurship education. The availability of resources and support, as well as student participation in collective entrepreneurial activities, also positively impact student awareness and perception of entrepreneurship. Institutions should consider providing these resources and opportunities to foster a more entrepreneurial-friendly environment. However, a counterintuitive discovery emerged regarding asset development strategies' impact on student awareness and perception. The research suggests that an exclusive focus on asset development for startups may not significantly influence student awareness and perception.

Implication –The implications of these findings are significant, emphasizing the need for initiatives aimed at increasing student awareness and positive perceptions of entrepreneurship. Institutions should reevaluate faculty roles and prioritize student-driven endeavors that promote entrepreneurship. A tailored approach to entrepreneurship education and ecosystem development is crucial, considering the unique needs and preferences of students and being adapted to the local context.

Keywords: Entrepreneurship; Ecosystem; Higher Education

INTRODUCTION

Entrepreneurship is crucial for economic development as it generates new businesses, products, and services, contributing to a country's overall economic growth (Shwetzer et al., 2019). The term "entrepreneurial ecosystem" is commonly used to describe entrepreneurship as an economic development strategy (Isenberg, 2014). It is viewed as a strategy to build a socio-economic environment that shapes and fosters entrepreneurship at the local and regional levels, focusing on value addition and creation. The entrepreneurial ecosystem is associated with various knowledge sources, serving as networking opportunities and knowledge exchanges for businesses, especially startups (Decreton et al., 2021).

In Indonesia, the younger generation is targeted for entrepreneurship skill and knowledge development through training, mentoring, and networking opportunities. Policies such as the "Indonesia Next Startup Generation" have invested in the human resource components of Indonesia's entrepreneurial ecosystem, including education and workforce development (Hermanto & Suryanto, 2017). Universities are directed to play a role as incubators and accelerators for startups, providing support networks, reference norms, feasibility guidelines, and real-world entrepreneurial experiences (Malecki, 2018).

However, the effectiveness of formal entrepreneurship education in building regional entrepreneurial ecosystems is debated. Evidence suggests that formal entrepreneurship education alone may not significantly contribute to entrepreneurial success (Isenberg, 2014). Thus, it is essential to explore the role of universities, particularly their neutral leadership position, knowledge, and expertise, in regional entrepreneurial ecosystems (Thomas et al., 2021).

This research aims to investigate the existence of the entrepreneurial ecosystem in leading universities in West Kalimantan. The study is expected to provide insights into the entrepreneurial ecosystem's presence in these institutions, serving as a reference for development strategies prioritizing entrepreneurship as a long-term solution for national economic growth.

The entrepreneurial ecosystem represents a network of new business formation and other entrepreneurial activities in specific fields, varying significantly between countries due to factors such as technology, network intensity, organizational variations, and applicable legal frameworks (Deshpande et al., 2019). This research seeks to analyze the existence of the entrepreneurial ecosystem in leading universities in West Kalimantan.

The research questions are built upon a literature review of innovation and entrepreneurial ecosystems. The primary research question addresses the existence of elements and sub-elements of the entrepreneurial ecosystem compiled from various literature sources and opinions of competent experts. The main research problem formulated is "Does the existence of the Entrepreneurial Ecosystem grow in leading universities in West Kalimantan?"

This research aims to evaluate the existence of the entrepreneurial ecosystem in leading universities in West Kalimantan, involving the perspectives of both students and faculty members. By identifying elements and sub-elements of the entrepreneurial ecosystem from both groups' viewpoints, the study is expected to be a crucial reference in related scientific developments. The research results are anticipated to provide a better understanding of resource accessibility, information, and support in the entrepreneurial ecosystem, as well as the information flow among entities involved. This information will guide policymakers in developing initiatives supporting entrepreneurship and innovation and identifying potential improvements in existing policies based on the complex interactions within the entrepreneurial ecosystem.

The study aims to apply a model of the relationship between elements and sub-elements of the entrepreneurial ecosystem in universities, covering Actor elements, University Governance elements, Entrepreneurial Output elements, Entrepreneurial Activities, and Essential Support elements. The researchers argue that the existence of the entrepreneurial ecosystem in universities can be validated by the significance level of perspectives within the entrepreneurial ecosystem on the elements and sub-elements of the entrepreneurial ecosystem. The hypothesis suggests that:

H1: The entrepreneurial ecosystem exists through awareness and perception of entrepreneurship among students in leading universities in West Kalimantan.
H1.1: The availability of resources and support positively influences awareness and perception of entrepreneurship among students in leading universities in West Kalimantan.
H1.2: Involvement in collective activities positively influences awareness and perception of entrepreneurship among students in leading universities in West Kalimantan.
H1.3: Asset development strategies positively influence awareness and perception of entrepreneurship among students in leading universities in West Kalimantan.
H2: The entrepreneurial ecosystem's existence through awareness and perception of entrepreneurship among students is moderated by faculty involvement in leading universities in West Kalimantan.

RESEARCH METHOD

The research focuses on examining the relationship between student and faculty perspectives on the existence of elements in the entrepreneurial ecosystem, serving as an indication of the ecosystem's presence in university settings. To test the hypotheses, students and faculty are considered as key actors within the entrepreneurial ecosystem, and their perspectives are gathered through a survey using a questionnaire adapted from Novela et al. (2021). The analysis aims to identify the relationships between sub-elements and their influence on the existence of the entrepreneurial ecosystem in universities.

The research design involves a survey method utilizing a questionnaire to collect data on the perspectives of students and faculty, who are the target study participants. The questionnaire includes items validating the presence of elements and sub-elements

of the entrepreneurial ecosystem from the respondents' perspectives. The sub-elements serve as indicators of the strength or primary drivers of the entrepreneurial ecosystem, allowing the researchers to measure the existence of each main element in the university's entrepreneurial ecosystem.

The study aims to apply a model of relationships between elements and sub-elements of the entrepreneurial ecosystem in universities, encompassing Actors, University Governance, Entrepreneurial Outputs, Entrepreneurial Activities, and Essential Support. The researchers argue that the existence of the entrepreneurial ecosystem can be validated based on the significance level of the perspectives within the entrepreneurial ecosystem regarding these elements and sub-elements.

The research variables are categorized into five main elements: Awareness and Perception of Entrepreneurship (AWS), Resource Availability and Support (ROUS), Collective Activities (COLANT), Asset Development Strategies (ASSDEV), and Impact and Outputs (IMOUT). Each element includes specific sub-elements that reflect the core aspects of the entrepreneurial ecosystem in the university context.

Data collection involves primary data in the form of responses to the questionnaire. The respondents are individuals comprising students and faculty from various universities affiliated with the Indonesian Business Incubator Association in West Kalimantan. The data collection technique employs a well-structured questionnaire targeting demographic information such as age, gender, and university affiliation, along with items assessing the perspectives on the entrepreneurial ecosystem.

The operational definitions of research variables are outlined for each variable, specifying the key components and aspects considered in measuring them. For instance, the variables include indicators such as active promotion of entrepreneurship, provision of physical spaces, financial support, collaborative opportunities, and motivational impact on academic communities.

The analysis technique involves tabulating and analyzing the questionnaire responses, combining the processed data with a literature review encompassing relevant books, journals, papers, and other sources related to the research. The research aims to provide valuable insights into the entrepreneurial ecosystem in leading universities, contributing to the development of knowledge in this field and offering practical implications for policymakers and stakeholders in fostering entrepreneurship in higher education.

The research employs a robust analytical approach using Partial Least Squares Structural Equation Modeling (PLS-SEM), a method well-suited for models with multiple collinear factors. This analytical method is crucial for estimating R2 values and assessing the significance of relationships between constructs. The analysis consists of two key components: the measurement model and the structural model.

In the measurement model, the research investigates the relationships between constructs and their respective indicator variables. This phase assesses internal

consistency, convergent validity, and discriminant validity, ensuring the reliability and validity of the measurement instruments. The structural model, on the other hand, delves into the connections between independent and dependent variables. This involves evaluating criteria such as collinearity, path coefficient significance, R2 values, effect size, and predictive relevance, providing a comprehensive understanding of the interrelationships within the model.

To test the hypotheses, the research employs significance testing with t-values and p-values. Additionally, certain hypotheses will undergo assessment through bootstrapping computations of PLS-SEM path coefficients. This holistic data analysis approach ensures that the results are rigorous, statistically sound, and directly aligned with the research objectives. The utilization of PLS-SEM enables an effective and nuanced answer to the research question, contributing to the robustness and reliability of the study's findings.

RESULTS AND DISCUSSION

Measurement Model

The evaluation stages of consistency, reliability, and validity of the model involve three key steps: measuring internal consistency, assessing convergent validity, and evaluating discriminant validity. The interpretation of internal consistency, utilizing Cronbach's alpha and composite reliability from Smart PLS output, is a crucial step in assessing the quality of measurement for latent constructs (dependent variables) in the research model.

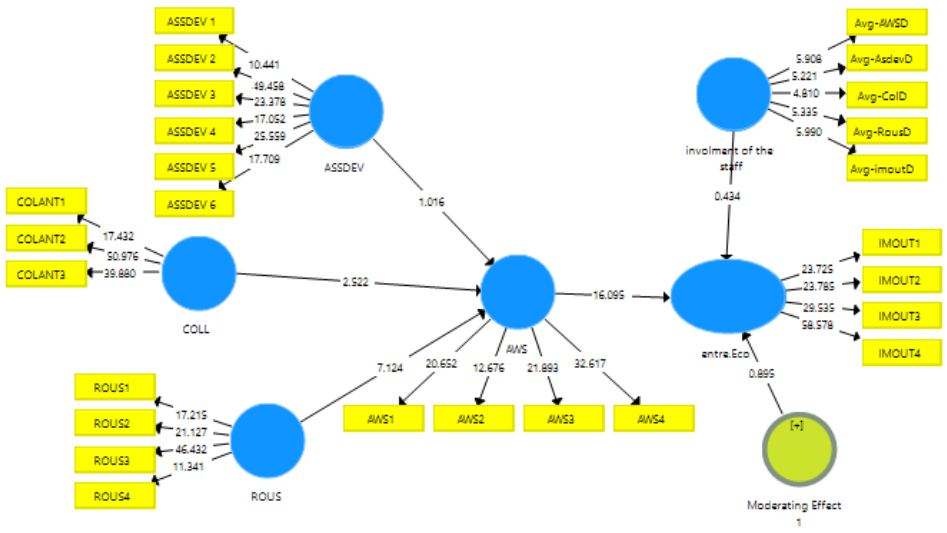

Image 1. Research Model

Cronbach's alpha, ranging from 0 to 1, provides insights into how consistently the items in the measurement instrument measure the construct. A Cronbach's alpha value above 0.7 is considered acceptable, with values above 0.8 preferred, indicating higher consistency. Values below 0.7 suggest potential inconsistencies, necessitating revisions.

Table 1. Measurement Model Evaluation.

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
ASSDEV	0.914	0.918	0.933	0.699
AWS	0.837	0.848	0.891	0.672
COLL	0.841	0.845	0.904	0.760
Moderating Effect 1	1.000	1.000	1.000	1.000
ROUS	0.809	0.820	0.876	0.640
entre.Eco	0.889	0.897	0.923	0.749
involvement of the staff	0.956	0.996	0.963	0.838

Composite reliability offers a similar estimate of reliability but accommodates imperfect item correlations. Higher composite reliability values, generally above 0.7 or even 0.8, are considered better. These interpretations are crucial to ensuring the reliability of measurement instruments, supporting the overall validity and quality of research findings in Structural Equation Modeling (SEM) analysis.

The evaluation continues by measuring validity through convergent validity, based on the Average Variance Extracted (AVE), and discriminant validity using Fornell & Larcker criteria. The AVE, measured through Smart PLS analysis, gauges the amount of variance captured by latent constructs relative to measurement errors, typically ranging from 0 to 1. In the SEM context, an AVE above 0.5 is often deemed acceptable for convergent validity, indicating strong convergence validity.

Discriminant validity evaluation involves testing the Heterotrait-Monotrait Ratio (HTMT). The criterion is that the resulting HTMT ratio in the test should not exceed 0.90 within the 95% confidence interval. Results are deemed acceptable if the HTMT value significantly differs from 1, suggesting statistically significant and non-zero parameter estimates, indicating the likely presence of the represented relationships.

Table 2. Heterotrait-monotrait ratio Testing (HTMT).

	Original Sample (O)	Sample Mean (M)	2.5%	97.5%
ASSDEV -> AWS	0.084	0.093	-0.092	0.246
AWS -> entre.Eco	0.756	0.761	0.641	0.827
COLL -> AWS	0.228	0.220	0.065	0.414
Moderating Effect 1 -> entre.Eco	0.057	0.056	-0.094	0.152
ROUS -> AWS	0.604	0.607	0.430	0.766
involment of the staff -> entre.Eco	-0.031	-0.034	-0.151	0.147

In conclusion, the evaluation of the Outer Model (indicator variables) presents the following findings:

1. Internal consistency tests on variables yield reliable and valid results.
2. Convergent validity tests on all used indicators demonstrate positive relationships among them, representing the researched variables. Further testing will proceed using data from these indicators.
3. Discriminant validity tests ensure that each indicator from each variable is truly distinct from the others used concurrently to reflect the researched variable.

These conclusions indicate that the utilized data can explain the theoretical basis of the research. Thus, the predictive capability of the measurement model can be relied upon, meeting the criteria to advance to the next stages of the analysis.

Structural model

The structural model of the research is evaluated using various criteria, including the coefficient of determination (R2), collinearity concerns (VIF), path coefficients, and effect sizes (f2), as recommended by Hair et al. (2014). The coefficient of determination, R Squared (R2), quantifies the variance of the dependent variable concerning changes in the independent variable. R2 values range from 0 to 1, with larger values indicating greater precision. In this study, the R square values for the research variables are reported as 0.721 and 0.564, signifying small to moderate shared variance.

Table 3. R Square (R2) values of research model.

	R Square	R Square Adjusted
AWS	0.721	0.713
entre.Eco	0.564	0.551

The second criterion for evaluating the structural model is the path coefficient, indicating the relationship between two variables and ranging from -1.00 to 1.00. The table indicates that the aspect of Awareness and Perception of Entrepreneurship has a substantial influence on the existence of the entrepreneurial ecosystem with a path coefficient of 0.756, while the Availability of Resources and Support (ROUS) has a significant impact with a path coefficient of 0.604 in influencing Awareness and Perception of Entrepreneurship. The smallest path coefficient is observed for the influence of Asset Development Strategy (ASSDEV) with a path coefficient of 0.084.

Table 4. Structural model evaluation of Research Model.

Path	Path coefficient (β)	VIF	f^2
ASSDEV -> AWS	0.084	1.711	0.015
AWS -> entre.Eco	0.756	1.032	1.269
COLL -> AWS	0.228	2.704	0.069
Moderating Effect 1 -> entre.Eco	0.057	1.043	0.006
ROUS -> AWS	0.604	2.651	0.495
involment of the staff -> entre.Eco	-0.031	1.016	0.002

The third criterion in structural model evaluation is multicollinearity. The results in Table 5 show no issues of collinearity in the research model, as all VIF values are below 5 (Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014).

The fourth criterion in evaluating the structural model is the f^2 value, assessing the comparative influence of predictor variables on the independent variable (Hair et al., 2014). F^2 values, ranging from 0.02, 0.15, to 0.35, respectively, indicate small, medium, and large effect sizes (Cohen, 1988). The table demonstrates that the model's significant effect size is evident in the relationship between the existence of the entrepreneurial ecosystem and Awareness and Perception of Entrepreneurship and Availability of Resources and Support (ROUS).

Hypothesis Testing

The final stage of data analysis involves using SmartPLS3 to validate the hypothesized relationships by calculating the significance of path coefficients through bootstrapping. The bootstrapping procedure determines the significance of path coefficients by calculating t-values, which, if greater than the critical value, are considered significant at an acceptable error level (t distribution values). Critical values used in this study for one-tailed tests are 1.65 (significance level = 5%) (Hair et al., 2014). The hypotheses are as follows:

H1: The entrepreneurial ecosystem exists through Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan
H1.1: Availability of Resources and Support positively influences Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan.
H1.2: Involvement in collective activities positively influences Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan.
H1.3: Asset development strategy positively influences Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan.
H2: The entrepreneurial ecosystem exists through Awareness and Perception of Entrepreneurship among students moderated by the involvement of faculty members in the main universities in West Kalimantan.

The findings are presented as follows:

Table 5. Hypothesis testing result of research model.

	Path coefficient (β).	T Statistics	P Values	
AWS -> entre.Eco	0.756	16.095	0.000	H1 supported
ASSDEV -> AWS	0.084	1.016	0.310	H2 unsupported
COLL -> AWS	0.228	2.522	0.012	H1 supported
ROUS -> AWS	0.604	7.124	0.000	H1 supported
Moderating Effect 1 -> entre.Eco	0.057	0.895	0.371	H2 unsupported

The entrepreneurial ecosystem exists through Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan, showing a high/strong influence (0.756), with a t-value of 16.095 (>1.65) and a p-value (0.000) less than 0.05 (α = 5%). According to Joseph F Hair Jr. et al. (2016), the influence is significant, supporting H1 and indicating that Awareness and Perception of Entrepreneurship among students significantly affect the existence of the entrepreneurial ecosystem in the main universities in West Kalimantan.

The moderating effect of faculty involvement on the influence between Awareness and Perception of Entrepreneurship among students on the existence of the entrepreneurial ecosystem is less significant (0.057) with a t-value of 0.895 (<1.65) and a p-value of 0.371 larger than 0.05 (α = 5%), providing indications not supporting H2.

H1.1: Availability of Resources and Support positively influences Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan, is accepted with a high/strong level of influence (0.602), as indicated by the t-value of 7.214 (>1.65) and a p-value (0.000) less than 0.05 (α = 5%).

H1.2: Involvement in collective activities positively influences Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan, is accepted based on a path coefficient of 0.228, a t-value of 2.522 (>1.65), and a p-value (0.012) less than 0.05 (α = 5%).

H1.3: Asset development strategy positively influences Awareness and Perception of Entrepreneurship among students in the main universities in West Kalimantan, is rejected due to a less significant coefficient (0.084), a t-value of 1.016 (<1.65), and a p-value (0.310) larger than 0.05 (α = 5%).

Discussion on Findings

The research findings underscore the significance of the entrepreneurial ecosystem within higher education institutions, particularly in West Kalimantan. This ecosystem plays a crucial role in creating a conducive environment for entrepreneurship among students. The strong influence of Awareness and Perception of Entrepreneurship (H1) on the existence of the entrepreneurial ecosystem in this region is a significant discovery. It indicates that when students are aware and have a positive perception of entrepreneurship, it significantly contributes to the development and sustainability of the entrepreneurial ecosystem in universities.

The study also examines the moderating role of faculty involvement in the relationship between Awareness and Perception of Entrepreneurship and the entrepreneurial ecosystem. The results show that this moderating effect is less significant (H2). This suggests that while faculty involvement may play a role, it might not be as crucial as students' awareness and perception. This finding highlights the need

for a student-centered approach to developing the entrepreneurial ecosystem in higher education, where student awareness and perception take the forefront.

Moving on to supporting hypotheses (H1.1 and H1.2), the research reveals that the Availability of Resources and Support and Involvement in Collective Activities positively influence Awareness and Perception of Entrepreneurship among students. This indicates that providing resources and support, as well as encouraging participation in collective entrepreneurial activities, is crucial for enhancing students' awareness and perception of entrepreneurship. This information can guide educational institutions in their efforts to create a more entrepreneurship-friendly environment for students.

In contrast to the positive findings of the two supporting hypotheses above, H1.3 states that "Asset Development Strategy" has a less significant influence on Awareness and Perception of Entrepreneurship. This suggests that solely focusing on the development of assets in startups may not be sufficient to significantly impact students' awareness and perception of entrepreneurship. This finding prompts a discussion on the effectiveness of specific strategies and the need for institutions to carefully evaluate their approaches in fostering entrepreneurial mindsets among students.

The findings related to personal awareness and its role in the entrepreneurial ecosystem can be associated with references available to expand the meaning of personal awareness in the context of entrepreneurship. The research findings indicate that personal awareness among students in West Kalimantan significantly influences the entrepreneurial ecosystem. This observation aligns with Nielsen's statement that personal awareness is a valuable attribute that individuals can develop to enhance their human resources. In this context, personal awareness is seen as a factor influencing industry choices and business performance, as the research shows its impact on the entrepreneurial ecosystem.

The role of personal awareness in the success of a startup, as highlighted by Salamzadeh and Kawamorita (2015), aligns with the research findings. This study supports the idea that personal awareness is crucial for the success of starting a business, as it helps founders make informed decisions and navigate challenges effectively. By being aware of their limitations and seeking complementary skills, students can build a strong team, fostering effective leadership and communication in their ventures.

Furthermore, the research can convey the role of institutions in enhancing entrepreneurial awareness, as discussed by Baraldi and Ingemansson Havenvid (2016). Institutions in the form of incubators provide resources, guidance, and networking opportunities, contributing to the development of awareness among entrepreneurs. By facilitating knowledge transfer and encouraging strategic perspectives, incubators align with the research emphasis on the importance of personal awareness in the entrepreneurial ecosystem.

Moreover, the concept of personal growth and decision-making, as highlighted by van Weele et al. (2017), is reflected in the research findings. This research illustrates how

personal awareness is crucial not only for personal growth but also for the growth of the entrepreneurial ecosystem. (van Weele et al., 2017)

Additionally, the research findings are in line with the idea that personal awareness is crucial in entrepreneurial dynamics, as stated by Xiao (2018). Entrepreneurs who understand their abilities and limitations can make strategic and informed choices aligned with their visions and aspirations. (Xiao, 2018)

The research also associates with the role of institutions as accelerators in enhancing awareness among young entrepreneurs, as discussed by Uhm et al. (2018). Accelerators provide resources, guidance, and networks, contributing to the overall development and success of young entrepreneurs. These findings support the assumption that personal awareness plays a role in the effectiveness of accelerator programs. (Uhm et al., 2018)

Furthermore, the role of business incubators in enhancing awareness among young entrepreneurs, as outlined by Wang et al. (2020), aligns with the research findings. Effective knowledge sharing in business incubators contributes to increased awareness and knowledge utilization, crucial for entrepreneurial success. (Wang et al., 2020)

Finally, the research findings reinforce the idea that personal awareness is crucial for personal and professional growth, as expressed by Marcon and Ribeiro (2021). Awareness of one's abilities and limitations allows for choices based on information and alignment with values and aspirations, contributing to personal and professional growth. Moreover, these findings also connect the impact of incubators on the awareness of startup founders, as explained by Vaz et al. (2022). Institutions can enhance founders' awareness through reputation, visibility, networking, and access to resources, aligning with the research focus on the role of personal awareness in the entrepreneurial ecosystem. (Marcon & Ribeiro, 2021) (Vaz et al., 2022)

In summary, the research findings highlight the importance of personal awareness in shaping the entrepreneurial ecosystem, and the referenced literature supports the idea that personal awareness contributes to the success and growth of entrepreneurs and startups. This connection deepens the discussion about the role of personal awareness in entrepreneurship, emphasizing its importance in various aspects of the entrepreneurial journey.

The research findings have several policy and educational implications. They emphasize the importance of cultivating an entrepreneurial culture within higher education institutions. This might include initiatives to increase students' awareness and perception of entrepreneurship. Additionally, the research highlights the need to reconsider the role of faculty in supporting these initiatives. It suggests that while faculty involvement is valuable, greater attention should be given to student-driven efforts.

It's essential to acknowledge the limitations of this research. The study was conducted in a specific region, West Kalimantan, and its findings may not be universally applicable. Future research could explore how these findings translate into different cultural and geographical contexts. Moreover, further investigation could be conducted

to identify more effective strategies for increasing students' awareness and perception of entrepreneurship. In conclusion, this research provides valuable insights into the dynamics of the entrepreneurial ecosystem in higher education, offering guidance on how to better develop an entrepreneurial environment.

CONCLUSION

Summary of Research Findings

The research emphasizes the crucial role of the entrepreneurial ecosystem in higher education, particularly in West Kalimantan. The strong influence of Awareness and Perception of Entrepreneurship (H1) on the existence of the entrepreneurial ecosystem indicates that students' positive awareness and perception significantly contribute to the development and sustainability of this ecosystem. While faculty involvement moderates this relationship, it is found to be less significant compared to students' awareness and perception.

Supporting hypotheses (H1.1 and H1.2) reveal that the Availability of Resources and Support and Involvement in Collective Activities positively influence students' Awareness and Perception of Entrepreneurship. However, H1.3 suggests that the "Asset Development Strategy" has a less significant impact. This implies that focusing solely on asset development in startups may not be sufficient to significantly impact students' awareness and perception of entrepreneurship.

The findings underscore the need for a student-centered approach in developing the entrepreneurial ecosystem, with a focus on enhancing student awareness and perception. While faculty involvement is valuable, the study suggests that efforts should prioritize student-driven initiatives. The research highlights the importance of providing resources, support, and encouraging participation in collective entrepreneurial activities to boost awareness and perception among students.

The role of personal awareness emerges as a critical factor in the success of the entrepreneurial ecosystem. The study associates personal awareness with various aspects, including personal growth, decision-making, and the effectiveness of entrepreneurial programs and institutions like accelerators and incubators.

Research Limitations:

The limitations of the research include its regional focus on West Kalimantan, which may limit the generalizability of findings to other cultural and geographical contexts. Additionally, the study acknowledges the need for further exploration of more effective strategies for increasing students' awareness and perception of entrepreneurship.

Suggestions for Further Research:

1. Cross-Cultural Analysis: Conduct research in diverse cultural contexts to understand how findings may vary across regions.

2. Effective Strategies: Investigate and identify more effective strategies for increasing students' awareness and perception of entrepreneurship.
3. Comparative Studies: Compare the impact of different entrepreneurial strategies, such as asset development, on students' awareness and perception.
4. Institutional Role: Explore the specific role of institutions, such as accelerators and incubators, in enhancing personal awareness and its impact on the entrepreneurial ecosystem.
5. Longitudinal Studies: Conduct longitudinal studies to track the evolution of students' awareness and perception throughout their academic journey.

In conclusion, the research provides valuable insights into the dynamics of the entrepreneurial ecosystem within higher education. While emphasizing the importance of personal awareness, it also acknowledges the need for further research to broaden the understanding of effective strategies and the applicability of findings across different contexts.

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