

Analyzing the Influence of Entrepreneurship Education and Ecosystem on Student Learning Outcomes at the Faculty of Industrial Technology, Trisakti University: A Structural Equation Modeling and Importance-Performance Map Analysis Approach

Bonifasius William Y. K.^{a*}, Didien Suhadini^a, Dadang Surjasa^b

^a Department of Industrial Engineering, Faculty of Industrial Engineering, Universitas Trisakti, 11440 West Jakarta, Indonesia

^b bonifasius063001800114@std.trisakti.ac.id, didien@trisakti.ac.id, dadang@trisakti.ac.id

ABSTRACT

Entrepreneurship Education is a crucial aspect in developing students' entrepreneurial mindset, skills, and motivation to become young entrepreneurs. However, at Trisakti University, Entrepreneurship Education still faces several challenges, such as the lack of integration between theory and practice, learning methods that are not yet application-oriented, and assessment approaches that predominantly focus on cognitive aspects while neglecting affective dimensions and practical skills. This study aims to develop and test an entrepreneurship learning model that has been implemented at the Faculty of Industrial Technology, Trisakti University, by specifically analyzing three main components: Entrepreneurship Education, Entrepreneurship Ecosystem, and Course Outcomes. The research also examines the role of the Entrepreneurship Ecosystem as a mediating variable that can enhance students' learning outcomes. A quantitative approach was used, employing Structural Equation Modeling (SEM-PLS) and Importance-Performance Map Analysis (IPMA). Data were collected through questionnaires distributed to students and lecturers involved in entrepreneurship courses at Trisakti University. The findings of this study are expected to result in an integrated entrepreneurship learning model and provide strategic recommendations for improving the Curriculum and teaching practices that optimally support the development of students' entrepreneurial competencies.

Keywords: entrepreneurship education, entrepreneurship ecosystem, course outcome, SEM-PLS, IPMA.

Introduction

Entrepreneurship education has become a primary priority in many countries, including Indonesia. According to the World Economic Forum (2019), 35.5% of Indonesian youth aspire to entrepreneurial careers. However, there remains a significant gap between the desire to become entrepreneurs and the capability to achieve this goal [1]. This gap highlights the need for a more effective, integrated, and practical entrepreneurship education system, particularly in the context of higher education. Universities, as academic institutions, hold a strategic role in shaping students' entrepreneurial mindset, motivation, and practical skills. Yet, in practice, entrepreneurship education in many Indonesian universities faces several challenges, such as insufficient integration of entrepreneurial theory and practice, teaching methods that are not fully experiential, curricula that fail to adequately foster creativity and innovation among students, and evaluation processes that overly emphasize cognitive aspects while neglecting motivation, intentions, and practical abilities.

This study also responds to the Sustainable Development Goals (SDGs), specifically SDG #4: Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all, and SDG #8: Promoting sustained economic growth and decent work opportunities for all. In this context, effective entrepreneurship education not only supports the achievement of SDGs but also addresses real-world challenges in employment and business sectors. Therefore, it is crucial to design an entrepreneurship learning model that is not merely theoretical but also contextual, participative, and integrated with the relevant entrepreneurship ecosystem.

Research Questions

This study is guided by several research questions aimed at exploring the state and improvement of entrepreneurship education at Universitas Trisakti. The main questions include: (1) What is the current condition of entrepreneurship education at Universitas Trisakti in terms of curriculum, instruction, and assessment? (2) Based on the quantitative analysis, what are the key challenges faced in delivering entrepreneurship education within the academic environment of the university? (3) How can pedagogical approaches enhance the effectiveness of entrepreneurship education? and (4) What type of instructional model can be effectively implemented at Universitas Trisakti?

Research Objectives

The objectives of this study are to identify the current condition of entrepreneurship education at Universitas Trisakti, to analyze the teaching methods and curriculum currently applied, to develop an applicable and contextually relevant instructional model for entrepreneurship education, and to evaluate the effectiveness of this model in improving students' entrepreneurial competencies.

Significance of the Study

This study offers both theoretical and practical contributions. Theoretically, it adds to the existing literature on entrepreneurship education and instructional design. Practically, it provides useful insights and guidelines for Universitas Trisakti in designing and implementing more effective entrepreneurship education programs that align with students' needs and institutional goals.

Scope and Limitations

To ensure the clarity and focus of the study, several limitations are set. The research is limited to data obtained from students of Universitas Trisakti. The data collection methods used include questionnaires and interviews, ensuring both breadth and depth of understanding. The data analysis is conducted using SmartPLS, a statistical tool suitable for evaluating structural equation models in social science research.

The operational definitions of variables in this research are based on a literature review of several previous studies. The variable "Entrepreneurship Education" refers to the dimensions of curriculum, pedagogy, and assessment of learning outcomes [2] [3]. The variable "Entrepreneurship Ecosystem" refers to faculty support, mentor networks, and access to venture funding [4]. Meanwhile, "Course Outcome" is defined through dimensions of knowledge and skills, motivation and intention, and readiness for business startup [5] [6].

Entrepreneurship education is not merely about teaching business theories but also involves fostering practical skills and mindsets relevant to the business world, including risk-taking, innovation, and achievement orientation [7]. In a university context, this structured learning process can be implemented through classroom instruction, case studies, and field practice to provide students with hands-on experience. The effectiveness of entrepreneurship education heavily relies on the teaching approach and active student involvement, highlighting the importance of giving students opportunities to creatively explore business ideas and engage in entrepreneurial experiments within a safe environment [7]. This approach not only enhances individual capacities but also contributes to economic development by creating new entrepreneurs.

Learning model is a strategic framework used by educators to achieve specific instructional objectives [8]. This model serves as a guide for designing, implementing, and evaluating learning activities. In practice, learning models can be adapted to suit students' characteristics, learning goals, and the

learning environment to achieve optimal outcomes. The selection and application of an appropriate model play a vital role in ensuring that the teaching and learning process is structured, purposeful, and responsive to learners' needs. Furthermore, learning models reflect instructional leadership in managing an effective teaching and learning process. The importance of leadership in creating a learning environment that supports academic achievement and promotes the professional development of educators [8]. In the context of entrepreneurship education, applying an appropriate learning model can enhance student participation, foster reflective abilities, and facilitate more systematic experiential learning.

Methods

Research Design

This study adopts a quantitative research design using the Structural Equation Modelling-Partial Least Squares (SEM-PLS) approach and Importance-Performance Map Analysis (IPMA). The model developed consists of three latent variables: (1) **Entrepreneurship Education (EED)** as the independent variable, (2) **Entrepreneurship Ecosystem (EEC)** as the mediating variable, and (3) **Course Outcome (COO)** as the dependent variable. Each latent variable is measured using constructs and indicators derived from previous literature and empirical studies.

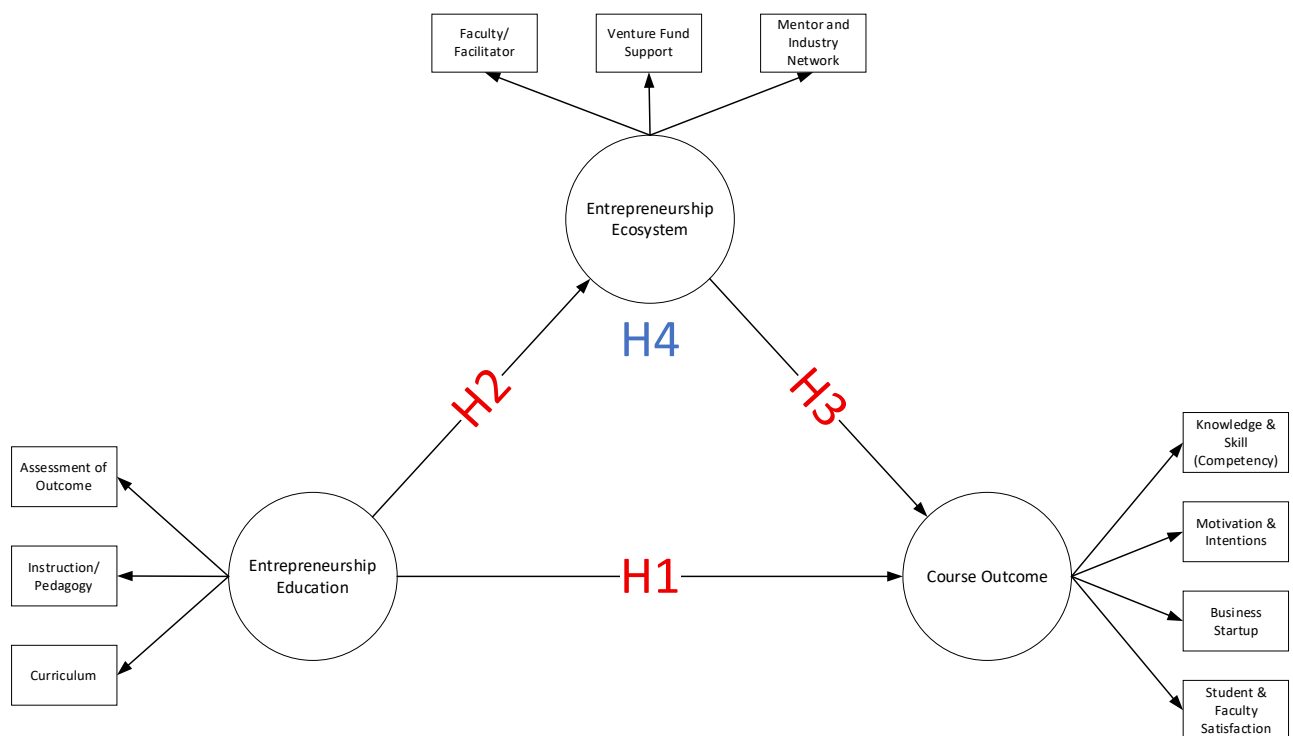


Figure 1. Conceptual Model

The independent variable, Entrepreneurship Education, is measured through three constructs: *Curriculum*, which includes the integration of theory and practice in entrepreneurship teaching; *Instruction/ Pedagogy*, which refers to innovative, digitally-supported, and experience-based teaching methods such as business simulation and incubation; and *Assessment of Outcome*, which involves evaluating learning outcomes in terms of cognitive, practical, and motivational aspects.

The mediating variable, Entrepreneurship Ecosystem, is represented by *Faculty/ Facilitator*, reflecting the role of lecturers and mentors in guiding and supporting students; *Venture Fund Support*, which captures access to startup funding from universities or industry partners; and *Mentor and Industry Network*, which includes business mentors, alumni networks, and university-industry linkages to promote student entrepreneurial development.

The dependent variable, Course Outcome, is assessed through four constructs: *Knowledge & Skill*, which refers to entrepreneurial competencies and problem-solving abilities; *Motivation & Intention*, which captures students' intrinsic drive and intention to start a business; *Business Startup*, representing actual startup implementation and innovation; and *Student & Faculty Satisfaction*, measuring satisfaction with entrepreneurship learning processes.

This conceptual model aims to explore how the quality of entrepreneurship education and the surrounding ecosystem contribute to students' learning outcomes. The model hypothesizes that effective entrepreneurship education can directly improve entrepreneurial competence and motivation, and that this effect is strengthened when supported by a conducive entrepreneurial ecosystem.

Research Hypotheses

Based on the conceptual framework, four research hypotheses are proposed:

- **H1:** Entrepreneurship Education has a significant effect on Course Outcome.
- **H2:** Entrepreneurship Education has a significant effect on the Entrepreneurship Ecosystem.
- **H3:** Entrepreneurship Ecosystem has a significant effect on Course Outcome.
- **H4:** Entrepreneurship Ecosystem mediates the relationship between Entrepreneurship Education and Course Outcome.

Sample Size Determination

This study uses purposive sampling, involving 51 respondents consisting of students and lecturers actively engaged in entrepreneurship courses at Universitas Trisakti. Although a minimum of ten times the number of indicators or constructs in SEM-PLS models, several justifications support the adequacy of the chosen sample size [9].

First, the exploratory nature of the study focuses on developing and validating a conceptual model in the context of entrepreneurship education, where smaller samples are acceptable for initial theory development. Second, SEM-PLS is a robust method for small samples and does not require strict assumptions of normality [10]. Third, the target population is limited to a specific group—students enrolled in entrepreneurship courses—thus constraining the sampling frame. Fourth, the instruments used in the study demonstrate high validity and reliability, as indicated by strong values for outer loadings, Average Variance Extracted (AVE), Cronbach's alpha, and Composite Reliability. Lastly, acknowledge that a sample size between 30 and 50 may be sufficient for exploratory SEM-PLS studies [9].

Data Collection Technique

Data were collected through surveys and classroom observations. The survey utilized a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) to assess responses to each indicator. The questionnaire was distributed to students at Universitas Trisakti who had taken entrepreneurship courses, ensuring the data reflects first-hand experience with the curriculum.

Data Analysis Technique

Data analysis was performed using Partial Least Squares – Structural Equation Modeling (PLS-SEM). This method was selected for its ability to handle small sample sizes, lack of normality requirements, and suitability for theory development and prediction—particularly relevant in exploratory studies of entrepreneurship education.

The analysis included several key stages. First, **validity and reliability tests** were conducted. Validity was assessed using Confirmatory Factor Analysis (CFA) and AVE values, with an acceptable AVE threshold of ≥ 0.5 [9]. Reliability was evaluated through Cronbach's alpha and Composite Reliability, both of which should exceed 0.7 to indicate internal consistency.

Second, **hypothesis testing** was conducted by examining the structural (inner) model through bootstrapping with 5,000 resamples. Relationships between latent variables were assessed using path coefficients, with significance determined by T-statistics (≥ 1.96) and P-values (≤ 0.05). Path analysis was also employed to examine both direct and indirect effects, and the mediating role of the Entrepreneurship Ecosystem was tested using bootstrapping. A significant indirect effect ($P \leq 0.05$) indicates either partial or full mediation.

Finally, **Importance-Performance Map Analysis (IPMA)** was used to determine the importance (based on total effects) and performance (based on average latent scores) of each construct. This analysis helps identify high-importance but low-performance variables that should be prioritized for improvement. As outlined results are displayed in a two-dimensional matrix with four quadrants: High Importance–High Performance, High Importance–Low Performance, Low Importance–High Performance, and Low Importance–Low Performance [11]. The IPMA results offer strategic insights for improving entrepreneurship education programs and enhancing students' entrepreneurial intentions.

Results and Discussion

Respondent Profile

The data in this study were obtained from 51 students at Universitas Trisakti who had participated in entrepreneurship-related courses. All respondents (100%) were students actively enrolled in relevant academic programs. This homogeneous respondent profile ensured a focused perspective on entrepreneurship education experiences within the university.

Descriptive Analysis of Entrepreneurship Education Assessment Variables

This study employed 43 questionnaire items to measure three main latent variables: **Entrepreneurship Education (EED)**, **Entrepreneurship Ecosystem (EEC)**, and **Course Outcome (COO)**, which were further broken down into 10 constructs. The results of the descriptive analysis provide insights into student perceptions of entrepreneurship learning at Universitas Trisakti.

Entrepreneurship Education

Entrepreneurship Education comprises three constructs: *Curriculum*, *Instruction/Pedagogy*, and *Assessment of Outcomes*. The Curriculum construct received an average score of 4.188, classified as "Good", with some items like MA2 and MA3 rated "Very Good". Instruction/Pedagogy had an average score of 4.044, also falling into the "Good" category, though several indicators such as IN1 and IN3 performed slightly better. Assessment of Outcomes achieved the highest average score among the three constructs at 4.206, indicating "Very Good" performance in evaluating student learning outcomes. These results suggest that the curriculum is well-aligned with entrepreneurship learning goals, especially in terms of content delivery and learning assessment methods.

Entrepreneurship Ecosystem

This variable is measured through three constructs: *Faculty/Facilitator*, *Venture Fund Support*, and *Mentor and Industry Networks*. The Faculty/Facilitator construct had a mean score of 4.177 ("Good"), indicating strong guidance from lecturers and lab assistants. Venture Fund Support averaged 4.01, while Mentors and Industry Networks scored 4.165. These findings suggest that while support systems are in place, there is room for improving student awareness and engagement with entrepreneurial ecosystems, particularly in funding and mentorship opportunities.

Course Outcome

Course Outcome is assessed through four constructs: *Knowledge & Skill*, *Motivation & Intention*, *Business Startup*, and *Student & Faculty Satisfaction*. Knowledge & Skill scored 4.116, Motivation & Intention 4.24, Business Startup 4.31, and Satisfaction 4.165. These results reflect students' strong entrepreneurial competence, motivation, and satisfaction with the learning process, with the Business Startup construct indicating growing student engagement in real-world entrepreneurial activities.

SEM-PLS Model Analysis Using SmartPLS

The model was analyzed using Partial Least Squares–Structural Equation Modelling (PLS-SEM) through SmartPLS software. Model evaluation includes assessment of the measurement model (outer model), the structural model (inner model), and overall model fit.

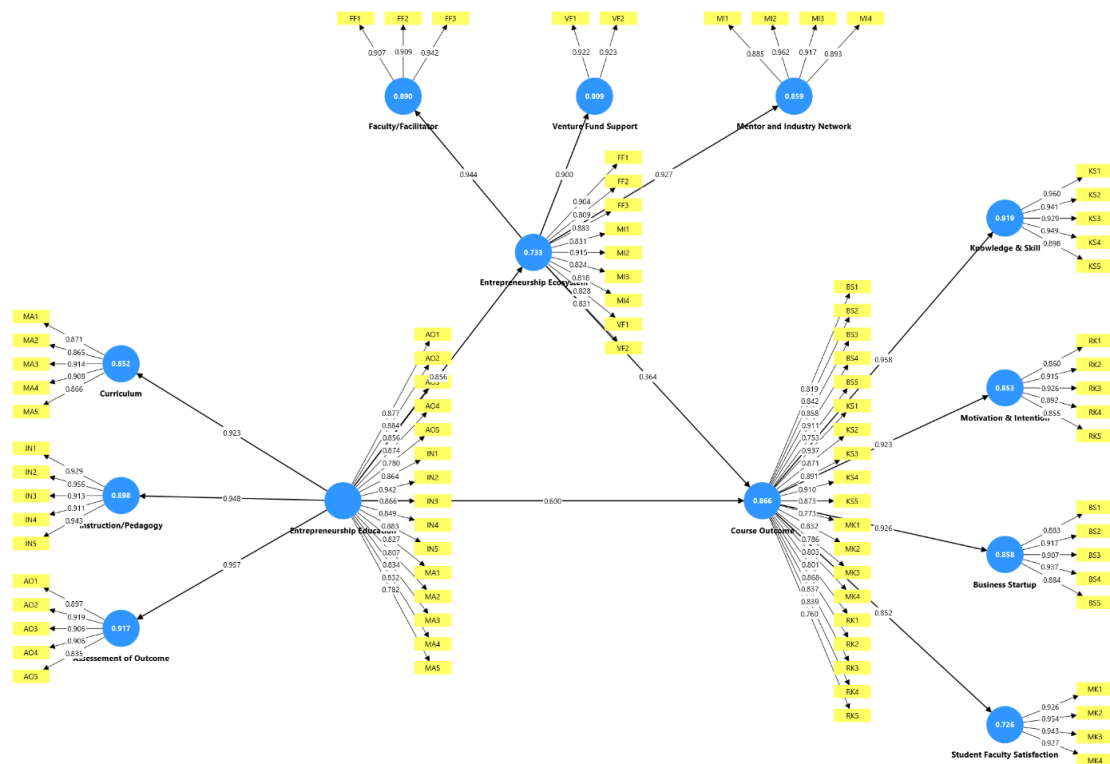


Figure 2. Running Model on SmartPLS

Measurement Model Evaluation (Outer Model)

The reliability and validity of the constructs were assessed using Composite Reliability (CR), Cronbach's Alpha, and Average Variance Extracted (AVE). All three latent variables—Entrepreneurship Education, Entrepreneurship Ecosystem, and Course Outcome—met the thresholds for **convergent validity (AVE > 0.5)** and **internal consistency (CR and Alpha > 0.7)**, confirming that the measurement model is robust.

Table 1. Cross Loading

Construct	EED	EEC	COO	Desc.
Assessment of Outcome	0.959			Valid
Instruction/Pedagogy	0.943			Valid
Curriculum	0.926			Valid
Mentor and Industry Network		0.898		Valid

Venture Fund Support	0.928	Valid
Faculty/Facilitator	0.954	Valid
Student Faculty Satisfaction	0.868	Valid
Business Startup	0.918	Valid
Motivation & Intention	0.923	Valid
Knowledge & Skill	0.952	Valid

Convergent validity was confirmed through Outer Loadings, where all indicator values exceeded 0.7, demonstrating that the indicators adequately represent their respective constructs. Discriminant validity was verified via Cross Loadings, where indicators showed higher loadings on their assigned constructs than on others. Additionally, AVE values for each construct exceeded 0.5, affirming convergent validity across all variables.

Table 2. Average Variance Extracted

Latent Variable	Average Variance Extracted (AVE)	Desc.
Entrepreneurship Education (EED)	0.889	Valid
Entrepreneurship Ecosystem (EEC)	0.859	Valid
Course Outcome (COO)	0.839	Valid

Reliability Testing

Reliability was assessed using Cronbach's Alpha and Composite Reliability. All constructs demonstrated excellent reliability, with alpha values above 0.90. Composite Reliability further supported these results, affirming that the measurement instruments consistently captured the latent variables they were intended to measure.

Table 3. Cronbach's alpha

Latent Variable	Cronbach's alpha	Desc.
Entrepreneurship Education	0.937	Reliable
Entrepreneurship Ecosystem	0.918	Reliable
Course Outcome	0.936	Reliable

Multicollinearity and Inner Model Evaluation

Multicollinearity was assessed using the Variance Inflation Factor (VIF). Most indicators had VIF values below the critical threshold of 5, indicating no severe multicollinearity. The Variance Inflation Factor (VIF) is used to detect multicollinearity among variables. A VIF value of < 3.3 indicates no signs of multicollinearity and is considered safe. If the VIF value falls $3.3 \leq \text{VIF} < 5$, it suggests moderate correlation among variables. However, a VIF value of ≥ 5 indicates a strong presence of multicollinearity, which requires careful attention in model analysis [9]. However, **the construct Knowledge & Skill had a VIF of 7.094**, suggesting potential redundancy that should be reviewed in future studies.

Table 4. Variance Inflation Factor

Variable	Construct	VIF	Interpretation
<i>Entrepreneurship Education (EED)</i>	Assessment of Outcome	5.42	High Multicollinearity
	<i>Instruction/Pedagogy</i>	4.571	Moderate
	<i>Curriculum</i>	3.423	Moderate
<i>Entrepreneurship Ecosystem (EEC)</i>	<i>Faculty/Facilitator</i>	5.384	High Multicollinearity
	<i>Venture Fund Support</i>	4.416	Moderate
	<i>Mentor and Industry Network</i>	2.524	Good
<i>Course Outcome (COO)</i>	<i>Knowledge & Skill</i>	7.094	Very high, need attention
	<i>Motivation & Intention</i>	3.932	Moderate
	<i>Business Startup</i>	5.156	High Multicollinearity
	Student Faculty Satisfaction	2.53	Good

The inner model was evaluated through the R^2 value for Course Outcome, which reached 0.866, classified as "strong" [9]. This indicates that 86.6% of the variance in Course Outcome is explained by the independent variables, supporting the predictive relevance of the model.

Hypothesis Testing

The results of the SEM-PLS analysis demonstrate that **Entrepreneurship Education** has a **significant positive effect** on **Course Outcome** (Path Coefficient = 0.600; $p = 0.001$), indicating that improvements in curriculum, pedagogy, and assessment methods directly enhance students' entrepreneurial learning outcomes. Additionally, the **Entrepreneurship Ecosystem** also shows a **significant effect** on **Course Outcome** (Path Coefficient = 0.364; $p = 0.035$), highlighting the importance of environmental factors such as faculty support, mentorship, and funding access in fostering successful entrepreneurship education.

Furthermore, the ecosystem plays a **mediating role** between **Entrepreneurship Education** and **Course Outcome**, with a **mediated path coefficient** of 0.312 and a **marginal p -value** of 0.051. Although this value slightly exceeds the conventional significance threshold of 0.05, it still indicates a **partial mediation effect**, especially in exploratory research contexts (Hair et al., 2017). This finding suggests that the effectiveness of entrepreneurship education is further strengthened when supported by a conducive entrepreneurial ecosystem.

Table 5. Hypothesis

Hypothesis	Path Model	<i>Path Coefficient (O)</i>	T-Statistic	<i>P-Value</i>	Conclusion
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H1	<i>Entrepreneurship Education → Course Outcome</i>	0.6	3.236	0.001	Accepted
H2	<i>Entrepreneurship Education → Entrepreneurship Ecosystem</i>	0.856	11.744	0	Accepted
H3	<i>Entrepreneurship Ecosystem → Course Outcome</i>	0.364	2.105	0.035	Accepted
H4	<i>Entrepreneurship Education → Entrepreneurship Ecosystem → Course Outcome</i>	0.312	1.95	0.051	Denied

Hypothesis testing was conducted using the bootstrapping technique in SmartPLS. The following results were obtained:

- **H1:** Entrepreneurship Education significantly affects Course Outcome ($\beta = 0.6$, $T = 3.236$, $p = 0.001$), supporting a strong direct relationship.
- **H2:** Entrepreneurship Education significantly influences the Entrepreneurship Ecosystem ($\beta = 0.856$, $T = 11.744$, $p < 0.001$), suggesting that educational quality enhances ecosystem development.
- **H3:** Entrepreneurship Ecosystem positively impacts Course Outcome ($\beta = 0.364$, $T = 2.105$, $p = 0.035$), indicating a direct role of environmental support on learning success.
- **H4:** The mediating role of the Entrepreneurship Ecosystem between Education and Outcome was marginally insignificant ($\beta = 0.312$, $T = 1.950$, $p = 0.051$), suggesting a potential indirect effect that warrants further exploration.

Overall, the hypotheses confirm the theoretical model that effective entrepreneurship education and ecosystem support contribute significantly to student learning outcomes, with most paths statistically supported.

Importance-Performance Map Analysis (IPMA)

After validating the model with SEM-PLS, IPMA was conducted to determine priority areas for improvement based on the importance (total effect) and performance (average latent score) of each indicator. As shown on table Most indicators (75%) were in the "High Importance-High Performance" quadrant, indicating strong implementation and high relevance, especially in curriculum design, pedagogy, and learning assessment.

Table 6. Importance-Performance Map Analysis Value

Variable	Code	Importance	Performance	Quadrant
Entrepreneurship Education (EED)	MA1	3.8	3.63	High Importance - High Performance
	MA2	3.7	3.59	High Importance - High Performance
	MA3	3.65	4	High Importance - High Performance
	MA4	3.7	3.89	High Importance - High Performance
	MA5	3.25	3.59	High Importance - High Performance

	IN1	2.55	3.66	High Importance - High Performance
	IN2	2.3	3.46	High Importance - High Performance
	IN3	2.5	3.76	High Importance - High Performance
	IN4	3.6	3.59	High Importance - High Performance
	IN5	3.9	3.9	High Importance - High Performance
	A01	3.55	3.37	High Importance - High Performance
	A02	3.5	3.24	High Importance - High Performance
	A03	3.6	3.73	High Importance - High Performance
	A04	3.6	3.56	High Importance - High Performance
	A05	3.3	3.79	High Importance - High Performance
Entrepreneurship Ecosystem (EED)	FF1	3.55	3.79	High Importance - High Performance
	FF2	3.4	3.69	Low Importance - High Performance
	FF3	3.25	3.4	High Importance - High Performance
	VF1	2.3	3.5	Low Importance - High Performance
	VF2	2.55	4.02	Low Importance - High Performance
	MI1	2.25	3.56	Low Importance - High Performance
	MI2	2.25	3.66	High Importance - High Performance
	MI3	2.35	3.85	Low Importance - High Performance
	MI4	2.35	3.24	Low Importance - High Performance

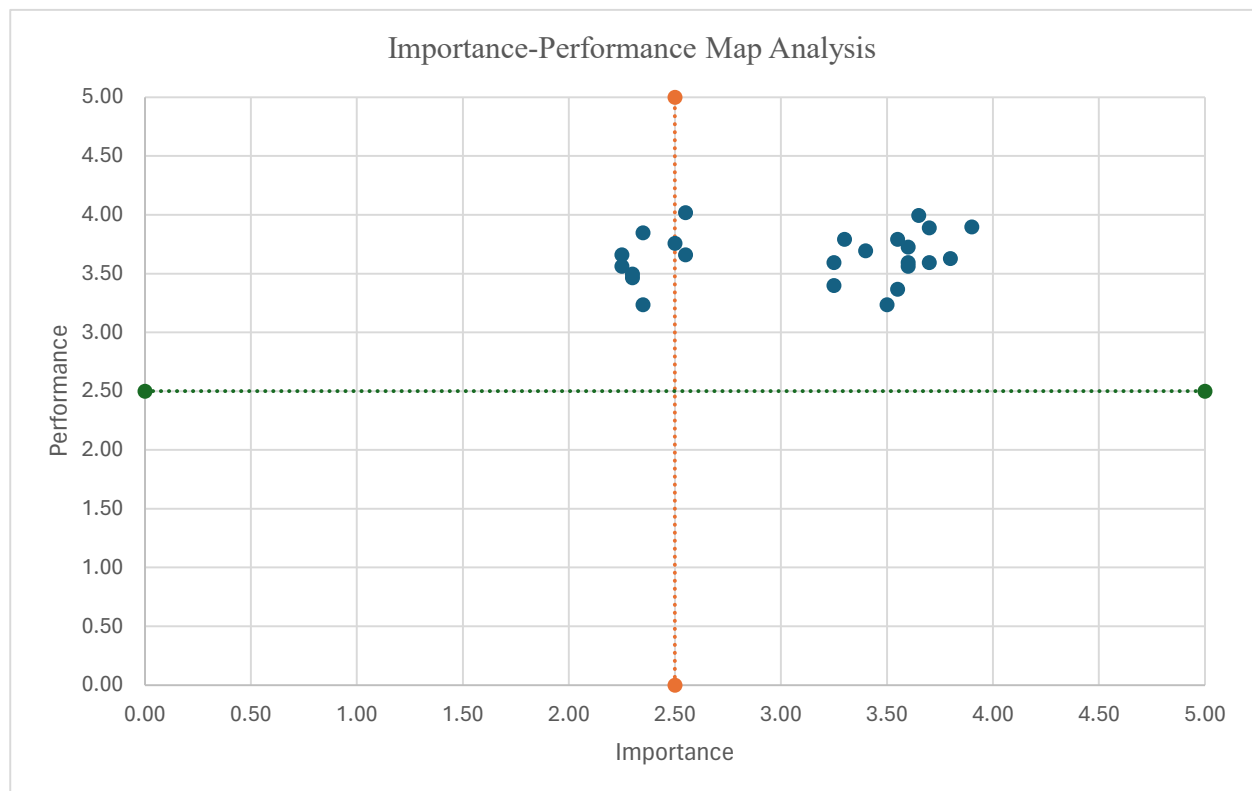


Figure 3. Importance-Performance Map Analysis Chart

Indicators such as *MA1–MA5* (Curriculum), *IN1–IN5* (Instruction), and *A01–A05* (Assessment) performed well, suggesting that these components are effectively supporting entrepreneurial learning at Universitas Trisakti. However, several items—especially those related to mentoring and funding support (e.g., *VF1*, *VF2*, *MI1*, *MI3*, *FF2*)—were in the "Low Importance–High Performance" quadrant.

This may reflect a gap in student awareness regarding the strategic value of these supports, pointing to a need for greater exposure and integration of these elements into the learning process.

Conclusion

Summary and Evaluation of the Study's Primary Outcomes

This study presents a comprehensive analysis of entrepreneurship education at Universitas Trisakti through the lens of Structural Equation Modelling using the PLS-SEM approach. The results show that the current state of entrepreneurship education is perceived as “Good” by students (mean score of 4.146), with the entrepreneurship ecosystem also rated as “Good”, and the course outcome rated “Very Good” (mean score of 4.208). These findings are well supported by descriptive analyses and frequency tables. The study further analyses the effectiveness and relevance of teaching methods and curriculum, particularly within the constructs of **Curriculum** and **Instruction/Pedagogy**, both scoring consistently above 4.0, indicating their alignment with the needs of entrepreneurial learning.

The conceptual model developed in this study demonstrates strong structural validity, incorporating both direct effects of **Entrepreneurship Education** on **Entrepreneurship Ecosystem** and **Course Outcome**, as well as a mediating pathway through the **Entrepreneurship Ecosystem**. The SEM-PLS model evaluation, supported by outer and inner model assessments, confirms its reliability and construct validity. Hypothesis testing (H1–H4) shows that three of the four hypotheses (H1, H2, and H3) are statistically significant ($p < 0.05$), while H4, although not meeting the conventional threshold ($p = 0.051$), is marginally acceptable for exploratory research. These outcomes are consistent with prior research by Hair et al. (2017) and Gatchalian (2010) And contribute empirical evidence supporting the theoretical link between entrepreneurial education, supportive ecosystems, and learning outcomes.

The conclusions are clearly written and logically derived from the data, with findings that align with earlier literature and strengthen the argument for integrating experiential and ecosystem-based approaches in entrepreneurship education. The manuscript flows well across sections, from conceptual grounding to empirical testing, and provides meaningful insights for academic institutions aiming to enhance their entrepreneurship programs. Importantly, the study adds value by empirically validating a structural model that connects pedagogical design to student competency development in entrepreneurial contexts.

Suggestions for Improvement

Despite the positive findings, the relatively modest path coefficients for **Entrepreneurship Ecosystem** → **Course Outcome** ($\beta = 0.364$) and the mediated path **Entrepreneurship Education** → **Ecosystem** → **Course Outcome** ($\beta = 0.312$) suggest that further integration between educational content and ecosystem support structures is needed. Additionally, the highest contributing constructs from each latent variable—**Assessment of Outcome** (EED), **Faculty/Facilitator** (EEC), and **Knowledge & Skill** (COO)—should be prioritized for enhancement, as they show the greatest impact in strengthening inter-variable relationships.

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