# ANALYSIS OF FACTORS INFLUENCING ENTREPRENEURIAL SPIRIT AMONG STUDENTS OF THE FACULTY OF HEALTH SCIENCES, JENDERAL SOEDIRMAN UNIVERSITY

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**Abstract.** *Background: A high level of education does not guarantee employment, as evidenced by the unemployment rate among university graduates in Indonesia. To address this, students must be equipped with entrepreneurial soft skills so they can become not only job seekers but also job creators. This study aims to identify factors influencing the entrepreneurial spirit among students of the Faculty of Health Sciences (FIKes), Jenderal Soedirman University, Class of 2023. Methods: A cross-sectional study design was employed, involving 568 students selected using purposive sampling. Inclusion criteria were active FIKes students of the 2023 cohort who completed the questionnaire. Exclusion criteria included students who refused participation or submitted incomplete responses. Variables analyzed included gender, entrepreneurial history, innovation, family support, and decision-making speed. Data analysis included validity and reliability testing using Pearson's correlation and Cronbach's alpha, bivariate analysis using the Chi-square test, and multivariate analysis using logistic regression. Results: There was a significant relationship between entrepreneurial history, innovation, decision-making speed, family support, and entrepreneurial spirit ($p < 0.05$). Conclusion: Family support emerged as the most influential factor affecting the entrepreneurial spirit of FIKes students.*

**Keywords**: *Entrepreneurial History, Entrepreneurial Spirit, Family Support, Innovation, Students*

## 1. INTRODUCTION

According to the 2011 National Socioeconomic Survey conducted by Indonesia's Central Bureau of Statistics (BPS), approximately 29.89 million (13.46%) individuals lived in poverty out of a total population of 222 million (Hendarwan & Darma, 2018). One contributing factor to this high poverty rate is unemployment, which remains a persistent challenge in many developing countries, including Indonesia. Unemployment can lead to increased crime rates, economic hardship, and a decline in public health, thus requiring urgent and comprehensive interventions.

Despite increased access to higher education, university graduates still face significant unemployment. BPS data from 2018 revealed that the unemployment rate among university graduates was 7.92%, indicating a high level of joblessness among individuals with higher education (Astriani & Nooraeni, 2020). Therefore, strategies must be implemented during university education to prepare students to transition into the workforce, ideally as job creators rather than job seekers.

The Student Entrepreneurship Program (Program Mahasiswa Wirausaha/PMW), launched by the Ministry of Education, Culture, Research, and Technology through the Directorate General of Higher Education (DIKTI), is an initiative aimed at fostering entrepreneurial skills among university students. As part of the Key Performance Indicators (Indikator Kinerja Utama/IKU) of higher education institutions under the "Merdeka Belajar – Kampus Merdeka" policy framework, PMW seeks to transform graduates into entrepreneurs who can create employment opportunities. A previous study reported successful PMW implementation at Universitas Brawijaya, where clear and accessible procedures led to substantial student participation and entrepreneurial training (Ratnasari et al., n.d.).

An entrepreneurial spirit is essential for the success of such programs. It encompasses behaviors and attitudes such as innovation, risk-taking, self-confidence, opportunity recognition, and strong motivation for business development (Sukirman, 2017). Zahra et al. (2019) found that decision-making skills and family support significantly influenced entrepreneurial tendencies among students. Similarly, other studies have linked innovation and prior entrepreneurial experience with entrepreneurial motivation (Widyaningsih, 2017; Mantik et al., 2020).

Jenderal Soedirman University (UNSOED) has implemented PMW since 2010. In 2022, the Faculty of Health Sciences (FIKes) actively engaged in PMW activities. In September 2023, the FIKes PMW team conducted outreach to first-year students to increase participation and simultaneously collected data on entrepreneurial spirit and its associated factors, including gender, innovation, entrepreneurial history, decision-making speed, and family support.

This study aims to identify the factors that influence entrepreneurial spirit among FIKes students to enhance PMW outcomes and ultimately reduce graduate unemployment by fostering student entrepreneurship.

## 2. LITERATURE REVIEW

### *2.1 Entrepreneurial Spirit*

Entrepreneurial spirit refers to a psychological trait or behavioral tendency characterized by risk-taking, innovation, autonomy, and the drive to create and develop new ventures (Sukirman, 2017; Zahra et al., 2019). It is not merely about starting a business but encompasses a mindset that involves identifying opportunities, taking initiative, and adapting to uncertainty (Mitchelmore & Rowley, 2010). According to the Theory of Planned Behavior (Ajzen, 1991), entrepreneurial intention is formed by three main components: attitude toward the behavior, subjective norms, and perceived behavioral control—all of which have been consistently linked to entrepreneurial spirit in students.

Numerous studies have revealed that entrepreneurial spirit can be cultivated through education and environment (Diandra, 2019; Wahyuningsih, 2019). In the context of university students, especially those in non-business faculties such as health sciences, fostering entrepreneurial spirit requires targeted interventions, such as the Student Entrepreneurship Program (Program Mahasiswa Wirausaha/PMW), to help them become job creators (Ratnasari et al., n.d.).

Moreover, previous exposure to entrepreneurial activities, such as family-run businesses or small-scale projects, has been shown to significantly enhance entrepreneurial motivation and mindset (Mantik, Tewal, & Dotulong, 2020). This reinforces the relevance of experiential learning models in higher education that go beyond theoretical instruction.

### *2.2 Innovation and Family Support*

Innovation is a fundamental aspect of entrepreneurship, as it reflects an individual's ability to generate novel ideas and translate them into actionable solutions (Alvian, 2021). In student entrepreneurship, innovation often manifests in the ability to identify market gaps, develop unique products, or adopt creative business strategies. Creative thinking is strongly correlated with entrepreneurial success, as individuals who exhibit higher levels of creativity tend to be more proactive in exploring and exploiting opportunities (Wahyuningsih, 2019; Widyaningsih, 2017).

Family support plays a crucial role as a form of social capital in influencing entrepreneurial behavior (Universitas Negeri Malang et al., 2021). It encompasses emotional encouragement, financial resources, and motivational backing from close relatives. According to Social Support Theory, individuals with strong support systems are more likely to take risks and persevere through entrepreneurial challenges (Henry & Loupias, 2025). The influence of family is especially pronounced in collectivist cultures such as Indonesia, where familial approval and involvement often shape career

decisions (Zahra et al., 2019).

Furthermore, family entrepreneurial background provides a modeling effect—students who grow up in entrepreneurial households often internalize the behaviors, values, and expectations associated with business ownership (Thomson, Coyne, & Davis, 2015). This exposure contributes to the development of entrepreneurial competencies and confidence.

## 3. RESEARCH METHODS

This study employed a quantitative cross-sectional design, in which data were collected at a single point in time. According to Creswell (2014), a cross-sectional approach is appropriate for identifying associations between variables without manipulating the study environment.

The research was conducted at the Faculty of Health Sciences (FIKes), Jenderal Soedirman University, Banyumas, Indonesia, in September 2023. This period was selected because it coincided with the orientation program for new students, enabling researchers to access a complete cohort of students from the 2023 academic year.

The study population comprised all undergraduate students enrolled in FIKes UNSOED in 2023. A total of 568 respondents were selected using purposive sampling, a non-probability sampling method that involves selecting participants based on predetermined inclusion and exclusion criteria. This method was chosen because it allows researchers to focus on individuals who are most relevant to the research objectives (Miles, Huberman, & Saldaña, 2014), particularly when the sample size exceeds 100 individuals.

The inclusion criteria were: (1) FIKes UNSOED students from the 2023 cohort and (2) those who fully completed the research questionnaire. The exclusion criteria included: (1) students who declined to participate and (2) students who submitted incomplete responses.

The dependent variable in this study was entrepreneurial spirit. The independent variables included gender, innovation, prior entrepreneurial experience, family support, and decision-making speed.

Data collection was carried out using a structured self-administered questionnaire. The questionnaire consisted of items measuring each of the variables mentioned above. The questionnaire was pre-tested for validity and reliability among 30 students from the same cohort who were not included in the main study sample but shared similar characteristics. Pearson's correlation was used for the validity test; items with correlation coefficients higher than the critical r-value were considered valid. Reliability was assessed using Cronbach's Alpha, with a threshold value of 0.6; values exceeding this threshold indicated acceptable internal consistency.

Data analysis consisted of univariate, bivariate, and multivariate procedures. Univariate analysis was used to describe the distribution of each variable, such as gender, innovation levels, entrepreneurial history, family support, and decision-making speed. Bivariate analysis was conducted using the Chi-square test to examine the association between each independent variable and the dependent variable. Variables with p-values less than 0.25 in the bivariate analysis were included in the multivariate analysis. The multivariate analysis employed logistic regression to identify the most influential factors associated with entrepreneurial spirit. A p-value < 0.05 was considered statistically significant. All statistical analyses were performed using SPSS version 21.

## 4. RESULTS AND DISCUSSION

This section presents the results of the research analysis and discusses their relevance in addressing the research questions and objectives. The discussion is organized into several sub-sections: instrument validity and reliability, descriptive analysis, bivariate relationships, and multivariate analysis. Each sub-section elaborates on how the findings contribute to understanding the entrepreneurial spirit among FIKes UNSOED students and their alignment with previous literature and theoretical

frameworks.

1. Instrument Validity and Reliability

Prior to data collection from the main sample of 568 students, instrument testing was conducted involving 30 students from the same academic cohort who were not included as respondents. The variables tested for construct validity and internal reliability included innovation, family support, decision-making speed, and entrepreneurial spirit.

Validity testing used Pearson's product-moment correlation. Items with an r-value greater than the r-table (0.08 for n = 30) were deemed valid. The results indicated that all items across the four constructs surpassed the threshold value, suggesting strong content validity.

**Table 1.**

| Item | Statement | r-value |
|---|---|---|
| 1 | I have the ability to innovate | 0.703 |
| 2 | I have creative ideas | 0.615 |
| 3 | I generate unique ideas | 0.512 |
| 4 | I strive for continuous improvement | 0.503 |
| 5 | I have the desire to create new products | 0.857 |

These results confirmed that the innovation items reliably captured the intended construct. Similar patterns were found in the remaining variables, such as family support (r-values ranged 0.632–0.963), decision-making speed (0.505–0.806), and entrepreneurial spirit (0.642–0.803). All constructs demonstrated high internal consistency, with Cronbach's Alpha = 0.792, exceeding the reliability threshold of 0.6.

2. Descriptive Analysis of Respondents

Univariate analysis was conducted to understand the characteristics of the respondents:

Gender: 80.6% female, 19.4% male
Innovation: 65% showed high innovation, 35% low
Entrepreneurial history: 40.1% had prior entrepreneurial experience
Family support: 73.4% reported strong support
Decision-making speed: 63% demonstrated fast decision-making

These descriptive insights provided an initial picture of the population, aligning with the hypothesis that exposure to entrepreneurial environments and individual attributes could shape entrepreneurial spirit.

3. Bivariate Analysis

To test associations between independent variables and entrepreneurial spirit, Chi-square tests were used. The results revealed statistically significant relationships for four variables:

**Table 2.**

| Variable | p-value | Relationship |
|---|---|---|
| Entrepreneurial History | 0.043 | Significant |
| Innovation | < 0.001 | Significant |
| Family Support | < 0.001 | Significant |
| Decision-making Speed | < 0.001 | Significant |
| Gender | 0.987 | Not Significant |

(Source: SPSS 2023)

These findings support the idea that entrepreneurial experience, innovation, support systems, and decisiveness are correlated with stronger entrepreneurial attitudes. Notably, gender was not a significant factor, suggesting that entrepreneurial spirit transcends gender in this context.

4. Multivariate Analysis

To identify the most influential factors, all variables with $p < 0.25$ in bivariate analysis were included in logistic regression analysis. The final step of the model highlighted two variables with the strongest influence:

**Table 3.**

| Variable | p-value | Odds Ratio | Interpretation |
|---|---|---|---|
| Family Support | 0.003 | 0.511 | Students with strong family support were 2x more likely to have a high entrepreneurial spirit |
| Decision-making Speed | < 0.001 | 0.439 | Students with faster decision-making had significantly stronger entrepreneurial tendencies |

This result reinforces the Theory of Planned Behavior (Ajzen, 1991), where subjective norms (e.g., family support) and perceived behavioral control (e.g., decision-making skills) play a critical role in shaping entrepreneurial intentions.

5. Alignment with Previous Studies

The findings corroborate those of Zahra et al. (2019), who emphasized decision-making and family support as pivotal elements in entrepreneurial development. Similarly, Wahyuningsih (2019) and Alvian (2021) found that creativity and innovation strongly predict entrepreneurial interest.

Additionally, the role of family as a social support system, highlighted by Universitas Negeri Malang et al. (2021), was confirmed in this study. Emotional and practical backing from family not only provides psychological comfort but also shapes students' confidence in starting business ventures.

6. Implications and Contribution to Theory

This study contributes to the growing literature on entrepreneurship in health science education, an area that has traditionally focused more on service-oriented skills than entrepreneurial competencies. The results underscore the importance of holistic educational strategies, incorporating innovation training and family engagement to nurture entrepreneurial potential.

From a theoretical perspective, the findings validate and extend the application of Ajzen's Theory of Planned Behavior and Human Capital Theory, which emphasize the role of background factors, attitudes, and social contexts in entrepreneurial development.

## CONCLUSION

This study concludes that entrepreneurial history, innovation, decision-making speed, and family support are significantly associated with the entrepreneurial spirit of FIKes UNSOED students. Among these, family support emerged as the most influential factor. Future research should explore additional factors such as risk-taking ability, infrastructure, interpersonal relationships, self-confidence, and leadership.

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