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**Review Article**

**Student Entrepreneurship in Indonesia: A Descriptive Analysis based on the Global University Students' Spirit Survey (GUESSS) Research**

**Eko Suhartanto**

School of Business and Economics, Universitas Prasetya Mulya

\*Corresponding email: esuhartanto@pmbms.ac.id

**Abstract**

This study examines the entrepreneurial intentions and activities of Indonesian university students, drawing insights from the 2018, 2021, and 2023 GUESSS (Global University Entrepreneurial Spirit Students' Survey) reports. Using 5,000 students' quantitative data, this article shows the pattern of student entrepreneurship dynamics, which includes students' career choice intention, nascent and active entrepreneurship along with the influence of gender, family entrepreneurial background, and the academic environment. This finding shows an increase in students who prefer to become entrepreneurs five years after graduation than when they have just graduated. The study also highlights gender disparities in entrepreneurial career choice intention, with males consistently showing higher intention than females. Further, the study underscores the influence of family entrepreneurial background and university entrepreneurial environment. Students from entrepreneurial families show a stronger intention toward entrepreneurship, while entrepreneurship education and support systems in universities foster a more conducive environment for student entrepreneurship.

**Keywords:** student entrepreneurship, entrepreneurial intentions, university education

**INTRODUCTION**

The role of entrepreneurship in stimulating economic activity is undeniable. Studies clearly indicated the contribution of entrepreneurial ventures to national income and employment (Bosma et al., 2018; Urbano et al., 2018). Entrepreneurship encourages new products and services development, leading to competitiveness increased (Galindo & Méndez, 2014). In Indonesia, entrepreneurship has played significant role in driving economic growth and innovation (Gunawan et al., 2016; Qoriawan & Apriliyanti, 2022; Urbano et al., 2020). Having a growth university student, Indonesia is the right place for encouraging student entrepreneurship. Understanding the dynamics of student entrepreneurship is important to unlock its potential to contribute to both individual success and national development. The interaction between education institutions and entrepreneurship is pivotal in shaping the entrepreneurial landscape. Universities should provide the necessary supports and resources to facilitate entrepreneurial activities, resulting to sustainable economic growth (Bosma et al., 2018; Urbano et al., 2018).

As a motivation and willingness to engage in entrepreneurial activities, entrepreneurial intention is an important antecedent of entrepreneurial behavior among students. Previous research remarked education (Asimakopoulos et al., 2019; Hoang et al., 2020), self-efficacy (Pedrini et al., 2017), and environmental factors (Moussa &

Kerkeni, 2021; Solesvik et al., 2014) influenced students' entrepreneurial intentions significantly. Iwu et al. (2021) found that students who perceive their academic programs as supportive of entrepreneurship are more likely to engage in entrepreneurial activities. This suggests that the educational context can significantly influence the likelihood of students transitioning from intention to action. Especially, the experiential learning approach is helping convert students' intention to action, as it provides students with the necessary skills and confidence to pursue entrepreneurial ventures (Campos, 2017). Self-efficacy, as a belief in ability to perform in specific situations, is another aspect influencing entrepreneurial intention and behaviors. Students with higher self-efficacy are more likely to perceive themselves as capable of engaging in entrepreneurial actions, therefore, increasing their entrepreneurial intentions (Farrukh et al., 2017; Liu et al., 2019). It reinforces the notion that confidence in one's abilities is crucial for entrepreneurial success.

Contextual factors such as family background, academic support and social networks also contribute to entrepreneurial intentions (Tentama, 2018). A preliminary study indicated that students from entrepreneurial families were more likely to pursue entrepreneurship, due to unique insight they gather from family business experience which can either motivate or deter them from pursuing entrepreneurial careers (Zellweger et al., 2011). Similarly, the university environment is also critical in shaping entrepreneurial intentions. A supportive university environment, characterized by resources, mentorship, and encouragement, significantly enhances students' entrepreneurial intentions Hou et al. (2019). These findings are corroborated by Malebana and Swanepoel (2019), who emphasize the importance of perceived university support in fostering entrepreneurial self-efficacy and intentions.

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) has been instrumental in studying these dynamics. The GUESSS initiative, which began in 2003, is a global research project aimed at investigating the entrepreneurial intentions and activities of university students (Sieger et al., 2019, 2021). The GUESSS Indonesian reports provide valuable data on how students perceive entrepreneurship, their intentions, and the factors influencing their entrepreneurial journeys (see [www.guesssurvey.org](http://www.guesssurvey.org)). These reports have become essential tools for understanding the entrepreneurial landscape among students and the role of universities, government policies, and societal factors in shaping the entrepreneurial spirit of students. Indonesia joined the GUESSS project in 2018, with Universitas Prasetiya Mulya and Perkumpulan Pendidik Kewirausahaan (PERWIRA) Indonesia leading the effort in collaboration with various other universities (Suhartanto, 2018).

This comprehensive article explores the landscape of student entrepreneurship in Indonesia by analyzing insights from the 2018, 2021, and 2023 GUESSS Indonesian reports. This article tries to answer the research questions, i.e., how do entrepreneurial intentions of Indonesian university students change over time? How do gender differences influence entrepreneurial intentions among students? What role does family entrepreneurial background influence students' entrepreneurial intentions? How does the university environment, including entrepreneurship education, impact students' entrepreneurial intentions and activities?. This study contributes to the students' entrepreneurship research in these ways. It highlights the factors influencing students' entrepreneurial intentions, such as gender, family entrepreneurial background and the university environment. It also underscores the importance of entrepreneurship education and support within universities in fostering student entrepreneurship. These results can

inform policymakers and educational institutions to enhance entrepreneurship curricula and create more supportive environments for aspiring student entrepreneurs.

The rest of paper is provided the methodology used to deal with the study's purpose. The next section deals with result and followed by comprehensive discussion. Later, the conclusion, limitation, implication, and future direction are presented in the last section.

## METHOD

The 2018, 2021, and 2023 GUESSS Indonesian reports from Indonesia involved 1,279, 2,544, and 1,665 students from six, sixteen, and eight universities severally, representing a diverse range of study fields and personal backgrounds. The sample consists of undergraduate students (exceeding 82%), with the majority studying in business, management, and economics programs (almost 75%). The female students are account to almost 60% of the sample, while the age range is around 75% in between 19 to 23 years old. This demographic insight is critical in understanding the different motivations and barriers that students face when engaging in entrepreneurial activities. Surprisingly, more than 55% of the respondents come from families with entrepreneurial backgrounds, which own a business or are self-employed.

This article descriptively compares 2018, 2021, and 2023 GUESSS Indonesian reports from Indonesia involved 1,279, 2,544, and 1,665 students from six, sixteen, and eight universities severally, representing a diverse range of study fields and personal backgrounds. The analysis focuses on career choice intentions, entrepreneurial intentions, entrepreneurial activities, and the influence of gender, family background, and university environment. The comparisons highlight changes over time in students' entrepreneurial intention along with the impact of gender and family background on students' career choices intention.

## RESULT

GUESSS Reports for Indonesia in 2018, 2021, and 2023 provides a comprehensive view of how students' intentions evolve from immediate post-graduation to five years after completing their studies (Suhartanto, 2018, 2021, 2023). In all three reports, a considerable number of students expressed an intention to become entrepreneurs directly after their studies. In 2023, 44.26% of students planned to start their businesses immediately after graduation, an increase from 2021 and 2018, which were 38.90% and 26.19%, respectively. Conversely, the students' intention to work in established businesses (small, medium, or large) decreased. In 2023, only 27.51% of them prefer to work in established firm right after graduation, compared to 27.98% in 2021 and 51.92% in 2018. The students' preference to be business owners increases five years after graduation. By 2023, 2021, and 2018, 62.22%, 60.22%, and 64.27% of students aimed to be business founders severally. These numbers are an aplenty increase compares to the students' entrepreneurial career intention just after graduation. On the other hand, the intention to work in established businesses decreases as time progresses, with only 15.37%, 14.54%, and 12.04% intending to do so five years post-graduation in 2023, 2021, and 2018 severally. This data confirms a central pattern "first employee, then entrepreneur" (Sieger et al., 2019).

**Table 1***Proportion of students who prefer to be business owner*

GUESSS Periods		2018	2021	2023
Number of Respondent		1,279	2,544	1,665
Intention to be a business founder	Just after studies	26.19%	38.29%	44.26%
	Five years after studies	64.27%	60.22%	62.22%
Intention to be an employee	Just after studies	51.92%	27.98%	27.51%
	Five years after studies	12.04%	14.54%	15.37%
Intention to be a business successor	Just after studies	8.60%	3.58%	8.89%
	Five years after studies	14.55%	3.34%	7.81%

Gender differences in entrepreneurial career intentions were notable across all three reports. Males showed a stronger preference for entrepreneurship both immediately after graduation and five years later. By 2018, 2021, and 2023, 34.58%, 46.51%, and 51.99% of male students prefer to start their own business right after graduation. This number increased to 60.51%, 63.48%, and 68.10% five years later, severally. On the other hand, female students displayed a preference for working in established businesses rather than starting their ventures. By 2018, 2021, and 2023, only 19.01%, 34.35% and 39.15% of female students intended to start their own business right after graduation, severally. However, their entrepreneurial intentions also grew significantly over time. 67.49% of them are willing to become entrepreneurs five years after graduation in 2018, 58.19% in 2021, and 58.28% in 2023. Interestingly, the entrepreneurial intentions growth of female is higher than male, especially in 2018.

The influence of family background on career choice intentions was consistently observed. Students with a family business background showed a stronger inclination towards entrepreneurship. By 2018, 2021 and 2023, 16.42%, 43.16% and 56.28% of students with entrepreneurial parents aimed to start their businesses immediately after graduation, and this figure grew to 36.51%, 65.59% and 66.99% five years later, severally. On the other hand, students from non-entrepreneurial families prefer to engage in employment right after graduation, although their entrepreneurial intentions also increased over time. By 2018, 2021 and 2023, only 9.77%, 34.01% and 36.17% of these students aimed to start their businesses immediately after graduation, and this figure grew to 27.76%, 54.01%, and 50.76% five years post-graduation, severally.

Across three survey periods, the GUESSS Indonesian reports highlighted students' entrepreneurial self-efficacy as key determinants of entrepreneurial intentions, along with family and university factors as potential moderators. All three surveys found a significant positive relationship between students' entrepreneurial self-efficacy and intentions ( $\beta=0.215$  to  $0.322$ ,  $p<0.001$ ). Comparing this relationship between male ( $\beta=0.204$ ,  $p<0.001$ ) and female ( $\beta=0.219$ ,  $p<0.001$ ) data groups, the results were not significantly different.

GUESSS also reported Indonesian students' nascent and active entrepreneurship. Nascent entrepreneurs are those who are preparing a business, while active entrepreneurs have already established their ventures. In the 2018, 2021, and 2023 reports, 38.70%, 11.36%, and 19.40% of students were identified as nascent entrepreneurs, and 32.29%, 48.70%, and 24.20% as active entrepreneurs, severally. This data indicates that in 2018, a high percentage of students were nascent entrepreneurs compared to active entrepreneurs. However, by 2021, the proportion has shifted, with the percentage of active entrepreneurs increasing dramatically. In 2023, the figures are more balanced, though

there was a notable decline in nascent entrepreneurs compared to the 2018 report and active entrepreneurs compared to the 2021 report.

## DISCUSSION

### Career Choice Intentions

The trend of graduates securing jobs prior to venturing into business ownership is shaped by numerous elements, such as career intentions, academic qualifications, and external market conditions (Baptista et al., 2012; Sawitri et al., 2015). This route enables graduates to acquire essential experience, financial capital, and self-assurance before pursuing entrepreneurial opportunities. The shift from employee to entrepreneur is frequently regarded as a tactical decision to reduce the risks linked to launching a business (Markman et al., 2005; Van Gelderen et al., 2008).

Business graduates initially pursue employment to gain experience and resources necessary for entrepreneurship. This is often due to perceived barriers such as financial constraints and family responsibilities, which make immediate entrepreneurship less feasible. Graduates value work that provides accomplishment, security, and skill acquisition, but they are increasingly aware that traditional employment may not fulfil these needs, prompting a shift towards entrepreneurship (Brenner et al., 1991). In addition, there is a significant disconnect between higher education outputs and the demands of the entrepreneurial economy. Graduates express a willingness to become entrepreneurs, but the current educational curricula often do not align with these intentions (Birch et al., 2017). On the other hand, graduates often face career shocks that influence their decision to pursue entrepreneurship. These shocks can include unexpected changes in job security or market conditions, which can function as catalysts for entrepreneurial pursuits. The experience gained as employees helps graduates adapt to entrepreneurial challenges, providing a foundation of skills and knowledge that are crucial for business success (Rummel et al., 2021).

While the transition from employee to entrepreneur is a common pathway, graduates are required to traverse a challenging environment filled with varying economic factors and individual life situations (Pérez-López et al., 2016; Rummel et al., 2021; Smith & Beasley, 2011; Zamfir et al., 2018). Despite these obstacles, the inclination towards entrepreneurship keeps expanding, fueled by a longing for independence and satisfaction that conventional jobs often fail to offer (Brenner et al., 1991; Georgellis & Yusuf, 2016; Larsson & Thulin, 2019).

Gender differences in entrepreneurial career intentions have been a focal point of research, with male students exhibit higher entrepreneurial intentions (Ramsay et al., 2016). It might happen due to societal constructs that framing entrepreneurship as a masculine sphere (Dabić et al., 2012). An in-depth investigation into individual attributes indicates that elements such as self-efficacy and work values exert a considerable impact on entrepreneurial intentions, revealing pronounced variations across genders. Research indicates that work values exhibit distinct differences between male and female students, implying that these values may serve as predictors of entrepreneurial career intentions in a gender-specific manner (Hirschi & Fischer, 2013).

Researchers underscore the significance of personal characteristics and social factors. For instance, gender and individual traits interactionally affect students' entrepreneurial career choice intentions (Sánchez & Hernández-Sánchez, 2013). Furthermore, studies indicate that while women exhibit a strong interest in

entrepreneurship, various barriers and societal perceptions often hinder their actual entrepreneurial activities. For instance, highlight that women face increased barriers to entrepreneurship due to gender stereotypes, which can diminish their perceived behavioral control and affect their entrepreneurial intentions (Vamvaka et al., 2020). This suggests that while women may have high entrepreneurial intentions, the structural and psychological barriers they encounter can impede their growth in this area (Walker & Webster, 2007).

Individuals from entrepreneurial families are likely to pursue entrepreneurial careers (Schröder et al., 2011). This aligns with findings from Tarling et al. (2016), who assert that early exposure to family business experiences plays a crucial role in developing entrepreneurial intentions among individuals, reinforcing the idea that familial influence is a key determinant in career choices. Moreover, the role of parental influence in shaping career intentions is further emphasized by the work of Ntari (2023), which explores how children from family businesses develop their career choice intentions. This study highlights the importance of parental involvement in guiding children's intention toward entrepreneurship. It indicates that family dynamics significantly impact the decision-making process regarding career paths. In this way, family serves as a primary socializing agent, providing essential information and role models that influence children's career choices (Amani, 2013).

The interaction between entrepreneurial self-efficacy and family background is important in understanding career intentions. While entrepreneurial self-efficacy predicts an individual's intention toward entrepreneurial career path, this confidence and belief in one's abilities are often fostered within the family context (Neneh, 2020). Hence, the literature consistently demonstrates that family entrepreneurial backgrounds significantly influence career choice intentions. The combination of familial support, exposure to entrepreneurial practices, and the development of self-efficacy creates a conducive environment for enhancing entrepreneurial intentions among individuals. This multifaceted influence underscores the importance of integrating family dynamics into entrepreneurship education and career counselling practices.

### **Entrepreneurial Intentions and Activities**

Previous research indicated students with higher entrepreneurial self-efficacy are more likely to express a commitment to starting their own businesses (Malebana & Swanepoel, 2019). This relationship between entrepreneurial self-efficacy and intention was not expected to be moderated by gender (Campo, 2011), which was in line with the GUESSS results. Further, considering entrepreneurial experiences and role models can enhance entrepreneurial self-efficacy leading to students' intentions to pursue entrepreneurial ventures, fostering self-efficacy through targeted entrepreneurship education is important. It can significantly influence students' entrepreneurial outcomes and intentions (Winkler & Case, 2014).

Students with family entrepreneurial role models are more likely to pursue entrepreneurship compared to those from non-entrepreneurial backgrounds. Moreover, the family setting serves as the initial platform for developing awareness, attitudes, and capabilities related to entrepreneurship (Holienka et al., 2013). Continuous exposure to family businesses not only nurtures entrepreneurial competencies but also instills confidence in students to take on leadership roles within entrepreneurial contexts (Kwong et al., 2012).

Furthermore, the university environment, including entrepreneurship courses and the broader entrepreneurial climate, significantly impacts students' entrepreneurial activities. Compulsory or elective entrepreneurship courses enhance students' entrepreneurial skills, leading to a higher rate of nascent and active entrepreneurship among students (Tung, 2011). A conducive entrepreneurial environment emphasizes the importance of an all-encompassing learning experience that not only meets academic standards but also promotes experiential learning. This comprehensive approach allows students to engage in multidimensional entrepreneurship activities, thereby positively influencing their entrepreneurial intentions and capabilities (Mueller et al., 2015). The combination of entrepreneurship education and supportive structures within the university is essential for raising student entrepreneurs (Lakkol et al., 2015).

## CONCLUSION

The GUESSS Indonesian reports provide valuable insights into the trends, challenges, and opportunities in this field. The analysis of the three GUESSS Indonesian reports reveals trends. First, the students' preference to become entrepreneurs increases, both immediately after graduation and in the longer term. Second, the males' entrepreneurial intention is consistently higher than females, although the gap is narrowing over time. Third, students from entrepreneurial families tend to pursue entrepreneurship, indicating the major influence of family background in shaping career intentions. These insights can inform educational institutions, policymakers, and entrepreneurship educators in tailoring programs and support systems to better align with students' evolving career intentions.

### Implication

First, entrepreneurship education should be an important part of the university curriculum. The university should emphasize practical training, case studies, and real-world projects to ensure students acquire both theoretical knowledge and practical skills essential for entrepreneurship. An effective entrepreneurship education should stimulate student engagement through practical experiences and incubation opportunities, thereby enhancing entrepreneurial intentions and behaviors. Second, female entrepreneurship should be promoted continuously, with a focus on family support, informal learning, and networks. Family support is essential to play a crucial role in the performance of women-owned enterprises and important to achieve work-family balance, which is particularly critical for women managing both business and family responsibilities. Third, universities and policymakers should encourage students to explore opportunities in digital and social entrepreneurship. Exposure to digital technologies has positively influenced student entrepreneurial intentions, highlighting the importance of integrating technology education into entrepreneurship programs.

### Limitation and Future Direction

While GUESSS Indonesian reports provides valuable insights, it also has limitations. First, the survey is self-reporting, which can be subject to social desirability or recall bias. Future research may implement mixed method approaches that combine qualitative interviews with quantitative surveys to triangulate data and mitigate biases inherent in self-reporting method. Additionally, employing experimental designs could help in understanding the causal relationships between entrepreneurship education and entrepreneurial intentions, thereby providing a more robust framework for analysis.

Second, the survey is accessible only for students at participating universities, therefore, the sample is not fully representative of the Indonesian student. These participating universities might have more of a focus on entrepreneurship, leading to an overrepresentation of entrepreneurial-minded students. Future studies should include students from universities with less emphasis on entrepreneurship, and by exploring different educational levels such as Master's and Doctorate programs.

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