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ENTREPRENEURIAL MOTIVES, TECHNOPRENEURSHIP INTENTION IN FPEB UPI STUDENTS

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ABSTRACT

This study analyzes the landscape of digital-based entrepreneurship learning, specifically focusing on technopreneurial intention. Technopreneurial intention is an issue linked to technological advancements and the entrepreneurial motivations currently prevalent among university students. In a global context, the shift in perspectives on scientific and technological progress increasingly drives entrepreneurship towards technology-based ventures. However, there is a lack of studies on the mediating role of entrepreneurial motivation in sustaining digital entrepreneurship intentions. This research employed an explanatory survey method. The study population comprised students from FPEB UPI who have completed entrepreneurship courses and possess strong entrepreneurial literacy. The findings indicate a direct and positive impact of entrepreneurial motivation on the influence of technopreneurial learning on technopreneurial interest, which is both positive and significant. This positive relationship implies that the more effective the technopreneurial learning, the stronger the entrepreneurial interest in influencing technopreneurial intention. Based on the study's results, it was found that entrepreneurial motivation places technopreneurial learning in the effective category, with technopreneurial interest being categorized as high.

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1. INTRODUCTION

Technopreneurial intention is essential for creating an algorithm to meet needs and is regarded as a form of artificial social intelligence that students will embody in the future. Currently, students are highly aware of digital applications and artificial social intelligence. As a result, they gain economic opportunities by utilizing digital resources for their needs. The global challenge, with its shifting perspectives on scientific and technological progress, increasingly pushes entrepreneurship toward digital-based ventures. However, the lack of studies on technopreneurship limits the current understanding of the factors contributing to sustaining digital entrepreneurship intentions. Technopreneurial intention represents an effective effort to employ technology in the business society and is crucial in the context of technological and business development in the digital era (Ramazanov et al., 2021; Koe et al., 2018; Loon Koe et al., 2021; Rathnayake & Roca, 2022). Technopreneurial intention refers to an individual's tendency to adopt the role of an entrepreneur utilizing digital means (Dana et al., 2021) and aims to combine technological innovation with business (Belmonte et al., 2022; Nurhayati et al., 2020a). This is a significant phenomenon concerning economic growth, innovation, and the use of digital tools by future students. However, many factors may influence technopreneurial intention, including education, culture, experience, and external factors such as government regulation and access to resources.

Technopreneurial intention is required to create a leap and actualization in fulfilling life functions and is viewed as a means to achieve rapid progress, such as overcoming economic crises that result in unemployment. Entrepreneurial growth helps not only in addressing economic crises but also fosters creativity, promotes innovation, and increases efficiency across various economic sectors. In 2017, only 3% of the Indonesian population was employed as entrepreneurs. According to the 2019 Best Countries report by US News and World Report, Indonesia ranked 50th out of 80 countries surveyed in terms of entrepreneurship. Neighboring countries like Singapore, Malaysia, and Thailand reported entrepreneurship rates of 7%, 6%, and 7%, respectively, while the World Bank's ideal standard for entrepreneurship is 4% of a nation's population. Therefore, entrepreneurship is essential for promoting economic growth, requiring synergy between the government and the public to nurture entrepreneurs. This indicates that entrepreneurship in Indonesia requires greater attention to improve quality and elevate the welfare of society.

Low student participation in entrepreneurship contributes to unemployment post-graduation. Hence, universities strive to open employment opportunities and reduce open unemployment by enhancing entrepreneurship education, fostering economic growth, improving student and workforce skills, and developing entrepreneurship training programs that support job creation. The concept of entrepreneurial intention has become a topic of discussion in various countries, as it plays a crucial role in economic progress, job creation, and the development of entrepreneurship education practices in universities (Hasan, Khan, & Nabi, 2017). Entrepreneurial motivation benefits students across all socioeconomic aspects, as it encourages creative thinking and nurtures talent and skills for self-development, offering financial opportunities to meet needs (Koellinger, 2008). When a person is motivated to become an entrepreneur, they grow in affinity with their work (Al-shammari, 2017). Entrepreneurship is often associated with fostering economic growth and addressing unemployment (Tessema Gerba, 2012); thus, it can build a strong national economy (Al-shammari, 2017). Business development cannot be separated from advancements in technology and knowledge (Handaru, Parimita, & Mufdhalifah, 2015). In today's era of openness, developed and developing nations must face the rapid evolution of

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industries (Valencia-Arias, Montoya, & Montoya, 2018). The Fourth Industrial Revolution, a collaboration between digital technology and conventional industries, ultimately aims to significantly improve productivity, efficiency, and customer service (Prasetyo & Sutopo, 2017). Technopreneurship is a future trend in the IR 4.0 era, requiring innovation and individuals proficient in information and communication technology (ICT) (Loon Koe et al., 2018). Technopreneurship involves a blend of creativity and technology collaboration, with technopreneurs as individuals skilled in technology who can identify business opportunities in the tech sector (Irene, 2019). According to Suparno et al. (2013), technopreneurs must excel in two areas: leveraging technology to meet business needs and targeting a sufficient customer base to achieve profitability while positively impacting the economy, society, and the environment. Technopreneurs are entrepreneurs with hybrid competencies who utilize technology to generate novel ideas, modernizing innovations that will stand out and add uniqueness to entrepreneurial activities (Talib, Sunar, & Nikolic, 2018; Hoque, 2017). Technopreneurial intention is defined as an individual's awareness and confidence to establish a new business venture, planning to do so in the future (Nabi, Holden, & Walmsley, 2010).

Students' motivation for entrepreneurship reflects their belief that starting and running a business is a viable career option. Thus, entrepreneurial action can be seen as deliberate behavior. Technopreneurship involves the theoretical transformation of ideas and knowledge into prosperous businesses. To foster technopreneurial intention and achieve the goals of technopreneurship, certain factors, such as personality and external influences, are essential to support desired success. Inspiring entrepreneurial aspirations in young generations is a necessary approach for developing future entrepreneurs, one of which is through entrepreneurship education. Learning is the foundation of behavior and intention to become successful entrepreneurs in the future, and therefore, effective entrepreneurship requires support from the educational system (Fatoki, 2014). Research on technopreneurship intention, such as the study by Hasan Barau (2015) titled The Effect of Technology Entrepreneurial Capabilities on Technopreneurial Intention of Nascent Graduates, found that technological, relational, and financial entrepreneurial capabilities shape graduates' entrepreneurial interests. Unlike Barau's study, this research focuses on technopreneurial learning among the research samples and employs different indicators from prior studies. The conceptual framework used to analyze the influence of technopreneurial learning on technopreneurial intention, mediated by entrepreneurial motivation, in this study is as follows:

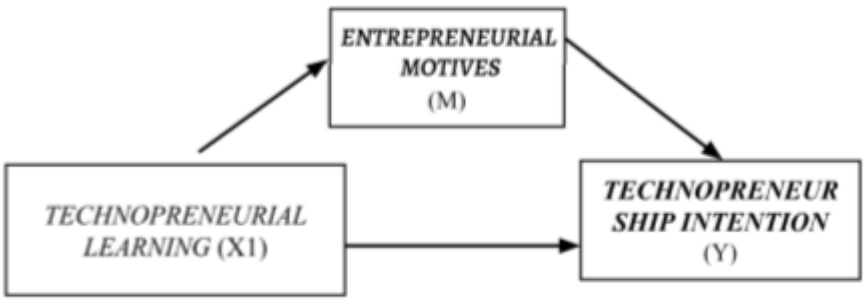

Figure 1. Theoretical Framework.

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2. METHODOLOGY

The study adopts a descriptive and verificative approach. Therefore, the research method used is a survey method via Google Forms to uncover facts about a phenomenon and to evaluate it based on theoretical reviews and previous research findings to gather information about social phenomena. Data collection will be conducted using questionnaires and documentation studies. The research population includes FPEB students at Universitas Pendidikan Indonesia from the academic years 2019, 2020, and 2021. Regression analysis will be used to measure the influence of independent variables on the dependent variable. The dependent variable is Technopreneurship Intention (Y), while the independent variables are Technopreneurial Learning (X) and Entrepreneurial Motivation (M). To measure Technopreneurship Intention, indicators based on Handaru et al. (2015) are used, which include preferences, plans, desires, and behavior expectations. Measurement of Technopreneurial Learning uses contextual indicators.

3. RESULT AND DISCUSSION

The research variables in this study are technopreneurial learning and technopreneurship intention. The research findings are described based on the calculated scores from each respondent's answers, yielding a total response score. An overview of technopreneurial learning and technopreneurship intention is derived from the questionnaire (Google Form) results, which consist of 34 statements.

Table 1. Description of Technopreneurial Learning and Technopreneurship Intention among FPEB Students from 2019 to 2021

Variable	Mean	Category
Technopreneurial Learning		
Contextual *learning*	4.35	Very Effective
Personal and social training	3.95	Effective
Negotiated result enterprise product	3.79	Effective
Average	3.98	Effective
Technopreneurship Intention		
Preference	3.98	High
Plan	4.35	Very High
Desire	3.75	High
Behavior expectation	4.25	High
Average	4.10	High

The research findings provide an overview of the levels of technopreneurial learning, which falls under the effective category, and technopreneurship intention, which is categorized as high. This indicates that the technopreneurial learning undertaken by the students has been effective, leading to a high level of technopreneurship intention. The data analysis used is simple regression analysis, supported by SPSS 29 software. This was done to assess the extent to which technopreneurial learning influences the technopreneurship intention of FPEB UPI students.

Model assumption evaluation was conducted through data normality and multicollinearity tests. The normality test was performed using the Kolmogorov-Smirnov

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method with the help of SPSS 29, yielding a residual value of 0.200, which is above 0.05, indicating a normal distribution. Hierarchical Regression Analysis was used to predict and examine the influence between the independent variable, technopreneurial learning, and the dependent variable, technopreneurship intention, with the mediation variable being entrepreneurial motivation. Based on the data analysis results using SPSS 29 for Windows, the processed data is shown in Table 2 as follows:

Table 2. Results of Hierarchical Regression Analysis

Model	R	R^2	R^2 (Adj R Square)	B	St. eror	Beta	F (t)	Sig
Model 1	0,42	0,18	0,19				79,92	<0,001
Constan				30,95	2,15		(14,35)	<0.001
(X)				0,38	0,04	0,42	(8,94)	<0.001
Model 2	0,47	0,22	0,21				33,84	<0.001
Constan				71,15	10,33			
Prakerin				-0,34	0,22	-0,44	-1,83	0,07
AQ				-1,26	0,31	-1,357	-4,087	<0.001
X*M				0,02	0,01	1,84	3,86	<0.001

Source: Appendix

The research findings indicate that technopreneurial learning has a positive and significant impact on technopreneurship intention. This regression result is in line with the studies by Ainul et al. (2016) and Pihie & Bagheri (2013), which suggest that technopreneurial learning among FPEB students at UPI Bandung has a significant and positive meaning for their entrepreneurial desire to become technopreneurs with an entrepreneurial mindset. Several studies on technopreneurial learning have shown a positive relationship with attributes such as personality, traits, self-confidence, digital literacy, and communication skills, which influence the decisions of FPEB students in choosing technopreneurship intention that develops social artificial intelligence (Scientific AI, Technical AI, and Cultural AI). The technopreneurship intention model in this research is predictive relevant and has significant data alignment. Relation support is the variable that exerts the strongest influence on technopreneurial intention. Other variables, such as entrepreneurial motivation, serve as mediators for technopreneurial intention, while entrepreneurship learning serves as a variable that connects to technopreneurial intention.

The research results highlight the importance of collaboration between faculties, study programs, and business practitioners in developing technopreneurial intention programs that go beyond just entrepreneurship courses. According to Choi, L. K., Iftitah, N., & Angela, P. (2024), a technopreneur can learn through direct experience, practice, success, failure, and relationships with others (Rae & Wang, 2015; Rae & Carswell, 2012). Technology- and entrepreneurship-based activities encourage FPEB students to view technopreneurship as a career choice. Incubation resources can also serve as additional input for technopreneurial learning, as they facilitate students in forming teams with the guidance of their instructors to start their technology businesses (Hoque, Awang, & Siddiqui, 2017). One of the efforts that can be made is fostering entrepreneurial intention among the community as an alternative way of creating jobs for themselves and others. Entrepreneurial skills are

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among the seven key competencies required to survive in the 21st century (Wagner, 2010). The ability to be entrepreneurial is a crucial topic discussed in global educational systems, as students with entrepreneurship skills are better equipped to face life after college, aligning with 21st-century education (Partnership for 21st Century Learning, 2016). In the 21st century, FPEB students are confronted with the challenges of Industry 4.0, which requires them to adapt quickly and prepare for a digital economy. To understand how entrepreneurial motivation mediates technopreneurial learning and intention, the study reveals that direct entrepreneurial motivation is more effective in enhancing technopreneurial intention. Perfect mediation by entrepreneurial motivation demonstrates an effective strategy to encourage technopreneurial intention. Although direct support from entrepreneurial motivation allows for a high effect in the relationship, students should not stop learning from entrepreneurship practitioners to maintain a high level of technopreneurial intention. Furthermore, considering that entrepreneurial motivation has a strong relationship with technopreneurial intention, the influence of technopreneurial learning on technopreneurial intention must be supported by entrepreneurial motivation to achieve high success. The research results show that improving technopreneurial learning capacity among students is effective. A student's aspiration to become a technopreneur will increase if the learning process is effective. Educating more people about technopreneurship and developing technopreneurial intention can drive students to innovate, supporting various student-driven innovations and creativity. By developing technopreneurial intention through lessons on technopreneurship and enhancing students' skills and abilities, a greater impact on their technopreneurial intention can be achieved with a focus on entrepreneurial motivation.

4. CONCLUSION

The research results indicate that technopreneurial learning influences technopreneurship intention with direct support from entrepreneurial motivation. This shows that a higher level of entrepreneurial motivation can drive high technopreneurial learning, which in turn positively impacts technopreneurship intention, placing it in the effective category. Furthermore, it supports technopreneurship intention in the high category with direct backing from entrepreneurial motivation. The development of technopreneurial intention is reflected in entrepreneurial-related activities fostered by FPEB UPI students. Future research is recommended to explore mediating or moderating variables affecting technopreneurship intention, as well as the variable of financial passion. Technological advancements driven by Industry 4.0 point toward increased efficiency in the digital world’s development. This business revolution, known as the digital service revolution, encompasses digital networks and digital products involving new technological innovations. This condition strategically aligns with technological developments, supporting students’ entrepreneurial interests in an increasingly rapid and dynamic future.

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