Theory of Planned Behavior Model to Measure Factors Affecting Entrepreneurial Desire among College Students: Insights from Indonesia

Integrative
Business &
Economics

- Research -

Nasrullah*

Department of Management, Universitas Muhammadiyah Makassar, Indonesia

Fitria Husnatarina

Department of Accounting, Universitas Universitas Palangkaraya, Indonesia

Andi Risfan Rizaldi

Department of Management, Universitas Muhammadiyah Makassar, Indonesia

ABSTRACT

This study examines the factors influencing entrepreneurial intentions among Indonesian students using the Theory of Planned Behavior (TPB) model. This study seeks to explore how factors like entrepreneurial self-efficacy, motivation, and family support influence the development of these intentions. Employing a quantitative approach, purposive sampling was used to select respondents from university students in Indonesia and analysed using SEM. The findings of this study indicate that entrepreneurial self-efficacy and motivation, and family support positively influence entrepreneurial education and intention. This suggests that self-efficacy in entrepreneurial, entrepreneurial education, and entrepreneurial motivation are linked to the willingness to acquire new knowledge and techniques for launching entrepreneurial ventures. However, entrepreneurial education does not mediate the effects of entrepreneurial self-efficacy and motivation, and family support on entrepreneurial intention. The findings provide in-depth insights into the factors that influence an individual's decision to engage in entrepreneurship, with implications for the development of effective entrepreneurial education programs.

Keywords: Entrepreneur; Student; TPB; Indonesia.

Received 2 August 2024 | Revised 8 March 2025 | Accepted 9 May 2025.

1. INTRODUCTION

The presence of young and innovative entrepreneurs is a key driver of sustainable economic growth and the creation of new jobs. However, despite the potential that entrepreneurship holds, there remain significant challenges in motivating individuals, particularly students, to choose this path as a career option (Djafarova and Foots, 2022).

In Indonesia, as in many other countries, student involvement in entrepreneurship remains relatively low (Rayyani *et al.*, 2019). Yet, students have significant potential as agents of change in a country's economic development. Therefore, it is crucial to understand the psychological factors that influence students' intentions to engage in entrepreneurship.

Previous studies have highlighted various factors that can influence an individual's entrepreneurial intentions, including entrepreneurial self-efficacy, entrepreneurial motivation, and family support (Ajzen, 2020). However, there remains a need for a deeper understanding of the contributions of these factors, particularly in the context of students in South Sulawesi. It is within this context that the present study is introduced.

This research aims to develop the conceptual framework of the Theory of Planned Behavior (TPB) to investigate the factors influencing entrepreneurial intentions among students in South Sulawesi. With a better understanding of the psychological dynamics involved, it is hoped that appropriate interventions and programs can be designed to enhance students' interest and engagement in entrepreneurship. Through a quantitative approach and the use of purposive sampling techniques, this research collects data from students at various higher education institutions in South Sulawesi. It provides valuable insights for educational policy and economic development in the region.

This research addresses the question of how entrepreneurial self-efficacy, entrepreneurial motivation, and family support influence students' entrepreneurial intentions in South Sulawesi, with entrepreneurial education serving as a mediating factor. The problem-solving approach is grounded in TPB, which suggests that the intention to engage in a behavior is shaped by three key factors comprised of attitudes, perceived social norms, and perceived behavioral control (Ajzen, 2011). In the context of this study, the problem-solving approach will involve measuring these variables through a questionnaire distributed to students. The collected data will be statistically analyzed to evaluate the relationships between entrepreneurial self-efficacy, entrepreneurial motivation, family support, perceptions of entrepreneurial education, and students' entrepreneurial intentions.

The novelty of this research lies in the application of the Theory of Planned Behavior (TPB) in the context of entrepreneurial intentions among students in South Sulawesi. Although TPB has been used in various contexts (Ma *et al.*, 2022), its application in this research is significant as it provides a structured framework for understanding the psychological factors that influence students' entrepreneurial intentions. Within the framework of TPB, this research seeks examines how entrepreneurial self-efficacy, entrepreneurial motivation, and family support directly influence students' entrepreneurial intentions, as well as through the mediation of entrepreneurial education. As a result, this research not only explores the direct relationships between the variables but also elucidates the potential processes underlying these relationships.

As a contribution, this research profoundly deepens the understanding of the dynamics of entrepreneurial intentions in the specific regional context of South Sulawesi. While factors such as an entrepreneur's self-efficacy, motivation and family support may influence the development of entrepreneurial intentions in different countries, the extent to which they do so may vary according to cultural, economic and social contexts. In developing or emerging economies, factors such as financial instability, limited access to resources and cultural views on entrepreneurship may mean that need-driven motivations (e.g. starting a business due to lack of job opportunities) outweigh intrinsic motivations such as passion or innovation. By focusing on the student population, the study enriches our understanding of the factors influencing entrepreneurial intentions within the local cultural and environmental context. Thus, the uniqueness of this research lies in the integration of an established theoretical framework within a specific context, providing valuable insights for educational policy and economic development in South Sulawesi, while also making a significant theoretical contribution to the literature on entrepreneurship.

2. LITERATURE REVIEW

2.1 Theory of Planned Behavior Model

TPB is based on the premise that intention is the best predictor of behavior, especially when the behavior is difficult to perform and requires volitional control. The model integrates personal and social factors to understand how individuals form intentions and ultimately engage in a behavior (Muchran et al., 2023). In the context of entrepreneurship, TPB has been widely used to understand and predict entrepreneurial intentions (Muchran et al., 2024). Several important studies have applied TPB in entrepreneurship research, providing valuable insights into how attitudes, social norms, and perceived control influence individuals' decisions to become entrepreneurs. Wang et al. (2021) integrated TPB with the entrepreneurial intention model, emphasizing the importance of perceived feasibility and desire in shaping entrepreneurial intentions. This study paved the way for further research on the cognitive processes underlying the formation of entrepreneurial intentions. Alkhalaf et al. (2022) used TPB to predict students' career choices between entrepreneurship and employment, finding that the model has significant predictive power. Lee-Ross (2017) developed the Entrepreneurial Intention Questionnaire (EIQ) based on TPB, which has been cross-culturally validated and widely used in entrepreneurship research. EIQ has become a standard instrument allowing for the comparison of research findings on entrepreneurial intentions across different cultural contexts. Belchior and Lyons (2024) conducted a longitudinal study using TPB to predict actual entrepreneurial behavior, demonstrating the validity of the model in the context of entrepreneurship.

2.2 Entrepreneurial Intention (EI)

Entrepreneurial Intention (EI) has been a major focus in entrepreneurship research over the past few decades. This concept refers to an individual's inclination or desire to start a new venture or create new value within an existing organization (Alkhalaf et al., 2022; Saoula et al., 2023). Research on Entrepreneurial Intention (EI) has undergone significant evolution since its inception. In the early stages, studies focused more on the personality traits and demographic backgrounds of entrepreneurs. However, this approach faced criticism for being too deterministic and for overlooking the role of contextual and cognitive factors in shaping entrepreneurial intentions. In response, scholars began adopting a more integrative approach, combining personal, social, and environmental factors into EI models (Dubey and Sahu, 2022; Shahid, 2023; Xuan and Yankai, 2024). Various factors have been identified as important antecedents of Entrepreneurial Intention (EI). Personal factors such as the need for achievement, locus of control, risk-taking propensity, and entrepreneurial self-efficacy have been shown to significantly influence the formation of entrepreneurial intentions (Dubey and Sahu, 2022; Xuan and Yankai, 2024). Additionally, contextual factors such as entrepreneurial education, family support, social networks, and economic conditions also play a crucial role in affecting EI (Duong, 2024; Tognazzo et al., 2017).

2.3 Entrepreneurial Self-Efficacy (ES)

Entrepreneurial Self-Efficacy (ES) has been a significant focus in entrepreneurship research over the past few decades. This concept is rooted in Albert Bandura's social cognitive theory, which defines self-efficacy as an individual's belief in their ability to perform actions required to achieve specific outcomes (Bandura and Locke, 2003). In relation to entrepreneurship, ES refers to a person's confidence in their ability to

successfully carry out various entrepreneurial roles and tasks (Xuan and Yankai, 2024). This concept denotes a strong predictor of entrepreneurial intention and behavior, making it a crucial variable for understanding the entrepreneurial process and the development of entrepreneurs.

Wang *et al.* (2020) developed a multidimensional ES scale identifying five main dimensions: innovation, marketing, management, risk-taking, and financial control. Since then, various researchers have developed and validated different ES scales, adapting them to various contexts and populations. Many studies have demonstrated a positive relationship between Entrepreneurial Self-Efficacy (ES) and various entrepreneurial outcomes (Bagheri *et al.*, 2022; Mwiya *et al.*, 2019; Wang *et al.*, 2020). ES has been shown to impact entrepreneurial intention, the decision to start a business, company growth, and entrepreneurial performance. Individuals with high ES are more likely to see opportunities where others see risks, be more persistent in facing challenges, and be more innovative in their approach to business problem-solving.

2.4 Entrepreneurial Education (EE)

Entrepreneurial Education (EE) can be defined as an educational process aimed at developing entrepreneurial knowledge, skills, attitudes, and mindsets in individuals (Chang *et al.*, 2024). The evolution of EE has undergone a significant paradigm shift, moving from an initial focus on teaching entrepreneurship as an academic subject to a more holistic and experiential approach that aims to teach for entrepreneurship, preparing individuals to actively engage in entrepreneurial activities. Pergelova *et al.* (2023) identified a positive relationship between EE and EI, although the effect size was small. However, some studies have also identified neutral or even negative effects of EE on EI, indicating the complexity of the relationship between education and entrepreneurial outcomes. These variations in findings have prompted further research into the factors influencing the effectiveness of EE, including curriculum design, teaching methods, participant characteristics, and environmental context. The significance of Entrepreneurial Education (EE) in fostering Entrepreneurial Self-Efficacy (ESE) has garnered considerable attention in academic literature.

2.5 Entrepreneurial Motivation (EM)

Entrepreneurial Motivation (EM) is a key focus in the study of entrepreneurship that has garnered extensive attention from academics and practitioners alike. EM can be defined as the internal or external drive that influences an individual's decision to start, sustain, and grow an entrepreneurial venture (Saoula *et al.*, 2023). This concept is essential for comprehending why certain individuals pursue entrepreneurship while others do not, as well as how this motivation impacts behavior and performance throughout their entrepreneurial journey. Recent studies have expanded our understanding of Entrepreneurial Motivation (EM) by exploring its various dimensions. For example, Kim and Park (2019) proposed a framework that distinguishes between intrinsic motivation (such as self-fulfilment and creativity) and extrinsic motivation (such as wealth and status). Cultural values can significantly influence the types of motivation driving entrepreneurship in different national contexts (Ghalwash *et al.*, 2017; Ripollés and Blesa, 2023).

2.6 Family Support (FS)

Family Support (FS) has become a key focus in entrepreneurship research, reflecting the recognition of the crucial role that family plays in shaping an individual's entrepreneurial aspirations, decisions, and success. This concept refers to various forms of assistance, encouragement, and resources provided by family members to individuals involved in or planning to engage in entrepreneurial activities (Saoula *et al.*, 2023). Family support in entrepreneurship can take various forms, including emotional, financial, network, and practical support. Emotional support, such as encouragement and validation, has been shown to be crucial in building confidence and resilience in entrepreneurs, particularly during the challenging early stages of starting a business (Wang *et al.*, 2020).

2.7 Research Hypothesis Development

Entrepreneurial Self-Efficacy (ES) has a positive impact on various entrepreneurial outcomes, including Entrepreneurial Intention (EI) and business performance (Newman *et al.*, 2019). These findings support the argument that ES can positively influence EI. entrepreneurship education enhances ES, which in turn affects entrepreneurial intention. This study reinforces the argument that ES plays a crucial role in shaping entrepreneurial intention (Mozahem and Adlouni, 2021). These findings align with Shahab *et al.* (2019), who investigated the relationship between ES, creativity, education, and intention. Their findings support the hypothesis that ES has a positive and significant impact on EI.Other studies explored the link between Entrepreneurial Self-Efficacy (ES) and entrepreneurial intention (EI) (Duong, 2024; Tognazzo *et al.*, 2017). The findings indicate strong positive correlation between ES and EI, which is further enhanced by entrepreneurship education. This supports the hypothesis that ES positively and significantly affects EI. These studies consistently show that individuals with higher levels of ES tend to have stronger intentions.

H1: ES has a positive and significant impact on EI

To support the next hypothesis, individuals with higher ES are more likely to engage in and benefit more from EE programs, demonstrating a positive impact of ES on the effectiveness of EE (Nabi *et al.*, 2017). This result aligns with Kassean *et al.* (2015), disclosing that students with higher ES are more actively involved in EE activities and achieve better learning outcomes. This suggests a positive influence of ES on both engagement and effectiveness in EE. This is further supported by prior study, disclosing that ES not only affects entrepreneurial intention but also enhances engagement and performance in EE programs, and indicate a positive impact of ES on EE (Shahab *et al.*, 2019). Additionally, individuals with higher ES tend to be more engaged and benefit more from entrepreneurial training(Newman *et al.*, 2019). Barba-Sánchez and Atienza-Sahuquillo (2018) showed similar results, disclosing that students with higher ES are more responsive to EE programs and more significant improvements in entrepreneurial intention after participating in such programs. This indicates a positive effect of ES on the effectiveness of EE.

H2: ES has a positive and significant impact on EE

Barba-Sánchez and Atienza-Sahuquillo (2018) highlighted the pivotal role of entrepreneurial motivation in influencing the intentions of engineering students to pursue entrepreneurship. In other words, entrepreneurial motivation has a significant direct positive effect on entrepreneurial intentions and also serves as a mediator in the relationship between creativity and entrepreneurial intentions.

H3: EM has a positive and significant impact on EE

Entrepreneurial motivation has a significant positive impact on entrepreneurial intention (Saoula et al., 2023). This study reinforces the argument that individual

H4: EM has a positive and significant impact on EI

H5: FS has a positive and significant impact on EE

motivation plays a crucial role in shaping entrepreneurial intention, even in developing country contexts. Furthermore, entrepreneurial motivation, particularly the need for achievement and desire for independence, has a significant positive impact on entrepreneurial intention(Barba-Sánchez and Atienza-Sahuquillo, 2018). Similarly, Karimi *et al.* (2016) found that entrepreneurial motivation has a significant direct positive effect on entrepreneurial intention and also acts as a mediator in the relationship between entrepreneurial education and entrepreneurial intention.

Family support has a significant positive impact on entrepreneurial persistence, which is closely related to entrepreneurial intention (Saoula *et al.*, 2023; Zhu *et al.*, 2017). This highlights the importance of family support in shaping entrepreneurial attitudes and intentions. Family support is a crucial factor positively influencing entrepreneurial intention, emphasizing the specific role of family support in the context of female entrepreneurship in developing countries (Prasodjo *et al.*, 2019; Shi *et al.*, 2020). Therefore, family support (FS) has a positive and significant impact on entrepreneurial intention (EI). The importance of family support in shaping entrepreneurial intention is evident across various demographic groups, including female students and in the context of sustainable entrepreneurship.

Family support, as part of family social capital, has a significant positive impact on entrepreneurial intentions (Campopiano *et al.*, 2016). These findings align with those of Farrukh *et al.* (2017), who explored the role of family factors, personality traits, and self-efficacy in shaping entrepreneurial intentions. The results indicate that family support has a significant positive impact on entrepreneurial intentions, emphasizing the importance of considering family factors in entrepreneurial intention models. Gregori *et al.* (2024) also found that family support has a significant positive impact on entrepreneurial intentions. Family support not only directly influences entrepreneurial intentions but can also serve as a crucial contextual factor in more complex models of entrepreneurial intention. The importance of family support in shaping entrepreneurial intentions is evident across various sectors and fields of study, highlighting its universal impact. Family support can be viewed as part of a broader social capital that contributes to the formation of entrepreneurial intentions.

H6: FS has a positive and significant impact on EI

Entrepreneurship education has a significant positive impact on entrepreneurial intention, with effects persisting even after six months following the end of the program(Fayolle and Gailly, 2015). Entrepreneurship education enhances the ability to identify opportunities, which in turn positively affects entrepreneurial intention (Karimi et al., 2016). These findings are consistent with prior research (Mamun et al., 2017), which explored the relationship between entrepreneurship education, entrepreneurial intention, and startup preparedness among business students in Malaysia. The findings indicate that entrepreneurship education has a significant positive impact on entrepreneurial intention and also on startup preparedness. This research highlights the role of entrepreneurship education in not only shaping intentions but also preparing students for actual entrepreneurial actions. In addition, entrepreneurship education has a significant positive effect on entrepreneurial intention, primarily through enhancing entrepreneurial learning and inspiration(Nabi et al., 2017). The study emphasizes the importance of designing effective entrepreneurship education programs to shape

entrepreneurial intentions early in higher education. It is clear that there is strong and consistent support for the hypothesis that EE has a positive impact on EI. H7: EE has a positive and significant impact on EI

To support the mediation hypotheses in this study, we found several studies that align with our hypotheses. Gregori *et al.* (2024) just explored multilevel contingencies in entrepreneurship education and learning at universities and find that EE mediates the relationship between individual factors (including ES) and contextual factors (including family support, FS) with EI. The result of Zhao *et al.* (2005) shows that entrepreneurship education (EE) mediates the relationship between entrepreneurial self-efficacy (ES) and entrepreneurial intention (EI). These findings support the hypothesis that EE intervenes the nexus between ES and EI. Although Bandura and Locke (2003) provided valuable insights into the significant relationship between self-efficacy, learning, and intention. Their findings show that learning (which can be analogized to EE in the context of entrepreneurship) mediates the relationship between self-efficacy and behavioral intention, supporting the hypothesis.

Entrepreneurial learning (as part of EE) mediates the relationship between social support (including family support) and entrepreneurial opportunity perception, which is closely related to EI (Lechner et al., 2016). These findings provide indirect support for the hypothesis that EE intervenes the nexus between FS and EI. The studies conducted by prior scholars (Gregori et al., 2024; Zhao et al., 2005) directly support the mediating role of EE in the relationship between entrepreneurial self-efficacy and entrepreneurial intention. Therefore, the variable of EE intervenes the effect of entrepreneurial self-efficacy and entrepreneurial intention. Gregori et al. (2024) and Lechner et al. (2016) found support for the mediating role of EE in the relationship between family support and entrepreneurial outcomes, including entrepreneurial intention. These findings offer a strong foundation for the proposed mediation hypotheses, demonstrating the important role of entrepreneurial education as a mechanism through which individual factors (self-efficacy and motivation) and contextual factors of family influence the desire.

H8: EE mediates the relationship between ES and EI H9: EE mediates the relationship between EM and EI H10: EE mediates the relationship between FS and EI

3. RESEARCH METHODS

This study employs a quantitative approach with a cross-sectional design, gathering data through a questionnaire. Purposive sampling was used to select respondents from university students in Indonesia who are interested in entrepreneurship. The initial criteria were established by asking respondents screening questions, including whether they receive family support for entrepreneurship, their confidence in achieving life goals, and their interest and motivation in learning new ideas to develop entrepreneurial platforms.

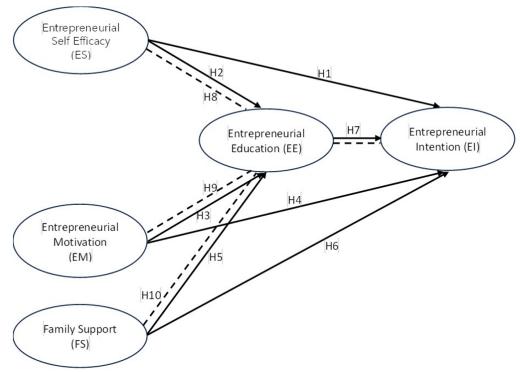


Figure 1. Conceptual Framework

3.1 Research Subjects and Sampling Methods

This study involved 557 students from various universities in Indonesia, with 519 questionnaires qualifying for analysis. The respondents were active students who had completed and passed an Entrepreneurship course.

3.2 Research instruments

The questionnaire was distributed online, and research variables consisted of entrepreneurial intention self-efficacy, motivation, and education, as well as family support, with entrepreneurial education serving as the mediating variable. Responses were collected using a Likert scale ranging from 1 to 5. Entrepreneurial Intention as the endogenous variable, was measured using 10 indicator items, while the mediating variable, Entrepreneurial Education, comprised 14 indicator items. The three exogenous variables—ES, EM and FS—were each assessed using 10 indicator items.

3.3 Data Analysis Technique

The data analysis technique employed is path analysis utilizing the structural equation modelling software package AMOS. The structural equation model is subjected to reliability and validity tests. Cronbach's Alpha and Composite Reliability (CR) should each have a value of 0.7 or higher, while the factor loading must exceed 0.7 and the AVE should be greater than 0.5. Validity is evaluated through the examination of factor loading values exceeding 0.5. The evaluation of the structural model is conducted by examining the R-Square values and significance for each construct, indicating the percentage of variance for each endogenous variable. In order for the model to be deemed fit, the following criteria must be met: a Chi-square value above 0.05, CMIN less than 2.00, AGFI, TLI, CFI, and NFI above 0.90, and RMSEA below 0.05.

4. RESEARCH RESULTS

4.1 Respondent Profile

The descriptive statistics of the study respondents offer an overview categorized by gender, age, and educational background. A total of 519 respondents took part in this research. Table 1 presents the percentages of respondents by gender and education level. Among the participants, 74% are female, while 26% are male. Additionally, most of the respondents are undergraduate students, with 479 (93%) having a Bachelor's degree.

Table 1. Respondent Characteristics

		Frequency	Percentage
Amount (N)	Woman	384	74.0%
	Men	135	26.0%
	>40 years old	90	42.4%
Undergraduate	Diploma	40	7.0%
	Bachelor	479	93.0%

Source: Processed Data, 2024

4.2 Structural Equation Modeling (SEM)

To test the research hypotheses, structural equation modeling (SEM) was used through AMOS. The structural equation model of the study is shown in Figure 1.

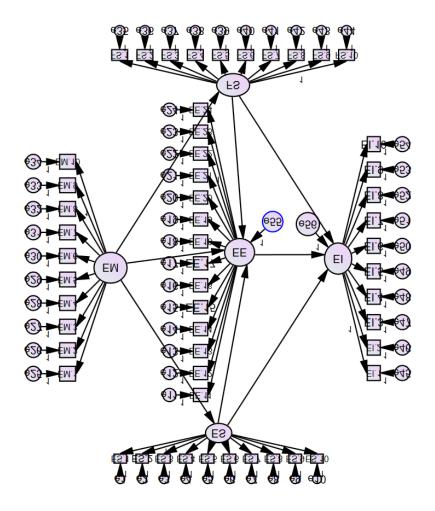


Figure 2. Structural Equation Model

4.3 Evaluation of the Measurement Model

This measurement is assessed through reliability and validity tests. For reliability testing, Cronbach's Alpha and Composite Reliability (CR) coefficients must be 0.7 or higher, signifying that each construct is deemed reliable. Reliability tests should demonstrate loading factors exceeding 0.7 and AVE values above 0.5.

Table 2. Measurement Model Evaluation

Variable	AVE (>0.5)	Construct Reliability (>0.7)
Entrepreneurial Intention (EI)	0.958	0.983
Entrepreneurial Self Efficacy (ES)	0.816	0,919
Entrepreneurial Motivation (EM)	0.946	0.978
Entrepreneurial Education (EE)	0.953	0.983
Family Support (FS)	0.922	0.979

Source: Data Processed, 2024

The results of the evaluation are summarized in Table 2, where all constructs and variables satisfy the established criteria. Meanwhile, validation testing is conducted through loading factor values above 0.5. The results are shown in Table 3.

Table 3. Loading Factor

		<u> </u>	
			Estimate
EI.1	←	Entrepreneurial Intention (EI)	0.859
EI.2	←	Entrepreneurial Intention (EI)	0.884
EI.3	←	Entrepreneurial Intention (EI)	0.890
EI.4	←	Entrepreneurial Intention (EI)	0.892
EI.5	←	Entrepreneurial Intention (EI)	0.901
EI.6	←	Entrepreneurial Intention (EI)	0.883
EI.7	←	Entrepreneurial Intention (EI)	0.815
EI.8	←	Entrepreneurial Intention (EI)	0.904
EI.9	←	Entrepreneurial Intention (EI)	0.840
EI.10	←	Entrepreneurial Intention (EI)	0.817
ES.1	←	Entrepreneurial Self Efficacy (ES)	0.779
ES.2	←	Entrepreneurial Self Efficacy (ES)	0.824
ES.3	←	Entrepreneurial Self Efficacy (ES)	0.786
ES.4	←	Entrepreneurial Self Efficacy (ES)	0.809
ES.5	←	Entrepreneurial Self Efficacy (ES)	0.844
ES.6	←	Entrepreneurial Self Efficacy (ES)	0.830
ES.7	←	Entrepreneurial Self Efficacy (ES)	0.838
ES.8	←	Entrepreneurial Self Efficacy (ES)	0.804
ES.9	←	Entrepreneurial Self Efficacy (ES)	0.840
ES.10	←	Entrepreneurial Self Efficacy (ES)	0.831
EM.1	←	Entrepreneurial Motivation (EM)	0.847
EM.2	←	Entrepreneurial Motivation (EM)	0.878
EM.3	←	Entrepreneurial Motivation (EM)	0.862
EM.4	←	Entrepreneurial Motivation (EM)	0.864
EM.5	←	Entrepreneurial Motivation (EM)	0.878
EM.6	←	Entrepreneurial Motivation (EM)	0.804
EM.7	←	Entrepreneurial Motivation (EM)	0.883
EM.8	←	Entrepreneurial Motivation (EM)	0.877
EM.9	←	Entrepreneurial Motivation (EM)	0.905
EM.10	←	Entrepreneurial Motivation (EM)	0.807

EE.1	←	Entrepreneurial Education (EE)	0.802
EE.2	←	Entrepreneurial Education (EE)	0.786
EE.3	←	Entrepreneurial Education (EE)	0.754
EE.4	←	Entrepreneurial Education (EE)	0.839
EE.5	←	Entrepreneurial Education (EE)	0.859
EE.6	←	Entrepreneurial Education (EE)	0.833
EE.7	←	Entrepreneurial Education (EE)	0.852
EE.8	←	Entrepreneurial Education (EE)	0.828
EE.9	←	Entrepreneurial Education (EE)	0.848
EE.10	←	Entrepreneurial Education (EE)	0.833
EE.11	←	Entrepreneurial Education (EE)	0.893
EE.12	←	Entrepreneurial Education (EE)	0.859
EE.13	←	Entrepreneurial Education (EE)	0.880
EE.14	←	Entrepreneurial Education (EE)	0.999
FS.1	←	Family Support (FS)	0.813
FS.2	←	Family Support (FS	0.805
FS.3	←	Family Support (FS)	0.859
FS.4	←	Family Support (FS)	0.871
FS.5	←	Family Support (FS)	0.866
FS.6	←	Family Support (FS	0.881
FS.7	←	Family Support (FS)	0.837
FS.8	←	Family Support (FS)	0.828
FS.9	←	Family Support (FS)	0.826
FS.10	←	Family Support (FS)	0.853
		* **	

Source: Data Processed, 2024

4.4 Testing the Model Fit (Goodness of Fit Model)

The model fit criteria that must be met include Chi-square, CMIN, AGFI, TLI, CFI, NFI, and RMSEA. The results of the test indicate that these model fit criteria have been acceptable.

Table 4. Model Fit Test Results

Index	Threshold	Result	Information
Chi-square	Prob value > 0.05	3061.608	Good Fit
Prob value		0.517	
CMIN	< 2.000	1.9861	Acceptable Fit
GFI	> 0.900	0.910	Acceptable Fit
AGFI	> 0.900	0.921	Acceptable Fit
TLI	> 0.900	0.937	Acceptable Fit
CFI	> 0.900	0.946	Acceptable Fit
NFI	> 0.900	0.915	Acceptable Fit
RMSEA	< 0.050	0.048	Acceptable Fit

Source: Data Processed, 2024

4.5 Structural Model Evaluation

The purpose of this model evaluation is to determine the percentage of variance in each endogenous variable explained by the exogenous variables, as indicated by the R-Square values and the significance of each construct. The R-Square results, shown in the Squared Multiple Correlation in Table 4, indicate values of 0.789 and 0.352. This suggests that the model explains 78.9% of the variation in the Entrepreneurial Intention

(EI) variable, which acts as the endogenous variable, and 35.2% of the variation in the Entrepreneurial Education (EE) variable.

Table 5. R-Square Results

Entrepreneurial Education (EE)	0.352
Entrepreneurial Intention (EI)	0.789

Source: Data Processed, 2024

In the significance test, all constructs exhibit significance at the α =0.01 level for each variable. Table 5 illustrates that ES, EM, and FS positively influence both EE and EI at this significance level. In contrast, EE shows a significance level of 0.613 positively on EI.

Tabel 6. Structural Model Significance Results

Model			Estimate	C.R.	P
Entrepreneurial Education (EE)	←	Entrepreneurial Self Efficacy (ES)	0.442	5.003	***
Entrepreneurial Education (EE)	←	Entrepreneurial Motivation (EM)	0.384	4.025	***
Entrepreneurial Education (EE)	←	Family Support (FS)	0.160	2.473	.013
Entrepreneurial Intention (EI)	←	Entrepreneurial Self Efficacy (ES)	0.232	4.723	***
Entrepreneurial Intention (EI)	←	Entrepreneurial Education (EE)	0.008	0.506	0.613
Entrepreneurial Intention (EI)	←	Family Support (FS)	0.171	4.656	***
Entrepreneurial Intention (EI)	\leftarrow	Entrepreneurial Motivation (EM)	0.633	11.063	***
ES.1	\leftarrow	ES	1.015	22.179	***
ES.2	←	ES	0.999	24.128	***
ES.3	←	ES	1.009	22.507	***
ES.4	←	ES	1.012	23.600	***
ES.5	←	ES	1.012	25.096	***
ES.6	←	ES	1.048	24.631	***
ES.7	←	ES	1.037	25.033	***
ES.8	←	ES	1.007	23.596	***
ES.9	←	ES	1.045	27.845	***
EE.14	\leftarrow	EE	1.000		
EE.13	\leftarrow	EE	0.679	29.951	***
EE.12	\leftarrow	EE	0.644	27.903	***
EE.11	\leftarrow	EE	0.670	30.331	***
EE.10	\leftarrow	EE	0.634	26.507	***
EE.9	\leftarrow	EE	0.642	27.476	***
EE.8	\leftarrow	EE	0.644	26.801	***
EE.7	\leftarrow	EE	0.636	27.487	***
EE.6	\leftarrow	EE	0.654	26.457	***
EE.5	\leftarrow	EE	0.655	28.019	***
EE.4	\leftarrow	EE	0.643	26.677	***
EE.3	\leftarrow	EE	0.602	22.299	***
EE.2	\leftarrow	EE	0.574	24.064	***
EE.1	\leftarrow	EE	0.600	24.624	***
EM.10	\leftarrow	EM	1.000		
EM.9	\leftarrow	EM	1.147	26.155	***
EM.8	\leftarrow	EM	1.113	25.229	***

EM.7	← EM	1.126	25.352 ***
EM.6	← EM	1.053	21.301 ***
EM.5	← EM	1.076	25.228 ***
EM.4	← EM	1.085	24.785 ***
EM.3	← EM	1.062	24.651 ***
EM.2	← EM	1.082	25.343 ***
EM.1	← EM	1.086	24.117 ***
EI.1	← EI	1.000	
EI.2	← EI	0.975	35.664 ***
EI.3	← EI	0.985	34.246 ***
EI.4	← EI	0.976	30.385 ***
EI.5	← EI	1.016	30.425 ***
EI.6	← EI	0.982	34.913 ***
EI.7	← EI	0.954	25.278 ***
EI.8	← EI	0.970	26.599 ***
EI.9	← EI	0.965	26.738 ***
EI.10	← EI	0.910	25.411 ***
FS.10	← FS	1.000	
FS.9	← FS	0.907	26.927 ***
FS.8	← FS	0.940	25.232 ***
FS.7	← FS	1.014	26.112 ***
FS.6	← FS	1.006	28.156 ***
FS.5	← FS	0.986	27.271 ***
FS.4	← FS	0.989	27.405 ***
FS.3	← FS	1.022	26.711 ***
FS.2	← FS	0.928	27.550 ***
FS.1	← FS	0.911	22.967 ***
ES.10	← ES	1.000	

4.6 Mediation Effect Test Results

In the mediation model test, three effects were estimated: total effects, direct effects, and indirect effects. For the total and direct effects, all variables in the model produced significant effects at the α =0.01 level, except for the effect of EE on EI. Meanwhile, the indirect effects showed insignificance in the influence of ES, EM, and FS on EI through EE.

Table 7. Results of the Intervening Effect Test

Model		Coef.	Boo	tstrap
			Lower	Upper
Total Effect			Bounds	Bounds
Entrepreneurial Education (EE)	←Entrepreneurial Self Efficacy (ES)	.442***	.255	.608
Entrepreneurial Education (EE)	←Entrepreneurial Motivation (EM)	.384***	.184	.572
Entrepreneurial Education (EE)	←Family Support (FS)	.160***	.024	.307
Entrepreneurial Intention (EI)	←Entrepreneurial Self Efficacy (ES)	.236***	.119	.339
Entrepreneurial Intention (EI)	←Entrepreneurial Motivation (EM)	.636***	.512	.801
Entrepreneurial Intention (EI)	←Family Support (FS)	.173***	.085	.286
Entrepreneurial Intention (EI)	←Entrepreneurial Education (EE)	.008	053	.067
Direct Effect				
Entrepreneurial Education (EE)	←Entrepreneurial Self Efficacy (ES)	.442***	.255	.608
Entrepreneurial Education (EE)	←Entrepreneurial Motivation (EM)	.384***	.184	.572
Entrepreneurial Education (EE)	←Family Support (FS)	.160***	.024	.307
Entrepreneurial Intention (EI)	←Entrepreneurial Self Efficacy (ES)	.232***	.095	.354

Entrepreneurial Intention (EI)	←Entrepreneurial Motivation (EM)	.008***	.500	.780
Entrepreneurial Intention (EI)	←Family Support (FS)	.171***	.081	.291
Entrepreneurial Intention (EI)	←Entrepreneurial Education (EE)	.633	053	.067
Indirect Effect (Entrepreneurial I	Education (EE))			
Entrepreneurial Education (EE)	←Entrepreneurial Self Efficacy (ES)	.003	022	.034
Entrepreneurial Education (EE)	←Entrepreneurial Motivation (EM)	.003	023	.026
Entrepreneurial Education (EE)	←Family Support (FS)	.001	011	.014

Source: Data Processed, 2024

4.7 Hypothesis Testing Results

The significance levels for the relationships between exogenous and endogenous variables are set at 10%, 5%, and 1%. Table 7 presents the significance results, with the p-value indicating a significance level of 0.01 for the model relationships through the mediation effects.

The variables of ES, EM, and FS significantly impact EE and EI at the α =0.01 level. However, the variable of EE does not significantly influence EI. These findings support hypotheses H1, H2, H3, H4, H5, and H6, while hypothesis H7 is rejected. Additionally, in the mediation effect test, the variable of EE did not demonstrate a significant impact. Consequently, hypotheses H8, H9, and H10, suggesting that the variable of EE mediates the effects of ES, EM, and FS on EI, are also rejected.

Table 8. Hypothesis Testing Results

Hypotheses	Model	Coef.	Sig.	Result
H1	$ES \rightarrow EE$.442***	positive	Accepted
H2	$ES \rightarrow EI$.232***	positive	Accepted
Н3	$EM \rightarrow EE$.384***	positive	Accepted
H4	$EM \rightarrow EI$.008***	positive	Accepted
H5	$FS \rightarrow EE$.160***	positive	Accepted
Н6	$FS \rightarrow EI$.171***	positive	Accepted
H7	$EE \rightarrow EI$.633	No	Rejected
Н8	$ES \rightarrow EE \rightarrow EI$.003	No	Rejected
Н9	$EM \rightarrow EE \rightarrow EI$.003	No	Rejected
H10	$FS \rightarrow EE \rightarrow EI$.001	No	Rejected

5. DISCUSSION

Within the TPB framework, perceived behavioral control reflects an individual's evaluation of their capacity to engage in entrepreneurial activities. This concept is closely linked to self-efficacy, which includes a person's confidence in their skills, resources, and overall capability to successfully launch and manage a business. For instance, individuals with prior experience in starting a business typically exhibit higher self-efficacy and more favorable attitudes toward entrepreneurship, thereby enhancing their entrepreneurial intentions.

Firstly, the positive effect of Entrepreneurial Self-Efficacy on Entrepreneurial Education indicates that high self-efficacy reflects greater confidence in one's entrepreneurial abilities, which drives individuals to actively engage in entrepreneurial education. This high level of engagement helps them develop a business. These results

are consistent with previous research(Duong, 2024; Shahab et al., 2019; Tognazzo et al., 2017).

Secondly, the positive effect of Entrepreneurial Motivation on Entrepreneurial Education reveals that motivation is a key driver encouraging individuals to pursue entrepreneurial education to achieve their goals. High levels of motivation are associated with a stronger commitment to learning and applying entrepreneurial concepts. These results are consistent with previous studies (Barba-Sánchez and Atienza-Sahuquillo, 2018; Kassean *et al.*, 2015; Nabi *et al.*, 2017).

The positive effect of Family Support on Entrepreneurial Education indicates that support from family members provides emotional and sometimes financial backing, which can reduce perceived entrepreneurial risks. This encouragement facilitates participation in entrepreneurial education programs by providing a safety net. Together, these factors create a conducive environment for entrepreneurial education, enhancing its effectiveness by promoting active learning and practical application of entrepreneurial skills. These findings are consistent with prior studies (Barba-Sánchez and Atienza-Sahuquillo, 2018).

Moreover, positive effects were also found in the relationships between entrepreneurial self-efficacy and motivation, family support, and entrepreneurial intention, self-efficacy and motivation. Meanwhile, family support plays a significant and positive role in enhancing entrepreneurial intention. These findings are in accordance with those of previous studies (Campopiano *et al.*, 2016; Farrukh *et al.*, 2017; Gregori *et al.*, 2024; Karimi *et al.*, 2016; Saoula *et al.*, 2023; Zhu *et al.*, 2017)

High levels of self-efficacy instill confidence in one's entrepreneurial abilities, making individuals more likely to engage in entrepreneurial activities. This increased confidence directly translates into a stronger intention to start and successfully manage a business. Entrepreneurial Motivation (EM) drives the ambition to achieve entrepreneurial goals. Highly motivated individuals show greater commitment to facing challenges and pursuing their entrepreneurial aspirations, which, in turn, strengthens their entrepreneurial intentions. Family Support (FS) includes emotional and sometimes financial support from family members, which reduces the perceived risks associated with entrepreneurship. This support provides an optimal safety net, encouraging individuals to develop and follow through with their entrepreneurial intentions. Together, these factors create a nurturing and motivating environment that significantly enhances the likelihood of individuals engaging in entrepreneurial ventures.

In the relationship between Entrepreneurial Education (EE) and Entrepreneurial Intention (EI), no significant effect was found. It appears that Entrepreneurial Education does not effectively shape entrepreneurial intentions or prepare students for actual entrepreneurial actions. Although many studies have identified a positive relationship between Entrepreneurial Education (EE) and Entrepreneurial Intentions (EI), this research reveals that the relationship is not always significant. Entrepreneurial Education does not consistently lead to an increase in entrepreneurial intentions. The effectiveness of entrepreneurial education can vary significantly based on the quality of the curriculum and teaching methods used. If the education is too theoretical and not sufficiently practical, students may not feel adequately prepared to start their own businesses. The lack of effect of entrepreneurial education on entrepreneurial intention indicates that entrepreneurial education cannot mediate the effects of entrepreneurial self-efficacy, motivation, and family support on entrepreneurial intention.

6. CONCLUSION

Entrepreneurial self-efficacy and motivation, and family support directly influence students' entrepreneurial intentions. This demonstrates that self-efficacy in entrepreneurship, entrepreneurial education, and entrepreneurial motivation are related to the willingness to acquire new knowledge and techniques for launching entrepreneurial ventures. The indirect effects show that entrepreneurial education cannot mediate the effects of entrepreneurial self-efficacy and motivation, and family support on entrepreneurial intention. This is because entrepreneurial education is not always seen as promoting positive effects on increasing entrepreneurial intention, and the quality of the curriculum and teaching methods used are often considered insufficient in enhancing entrepreneurial resource quality.

The relationship between entrepreneurial education, self-efficacy, motivation, family support, and entrepreneurial intention has several important implications. First, these findings can help educational institutions design more effective entrepreneurship programs by focusing on optimizing self-efficacy, enhancing motivation, and involving family support to foster stronger entrepreneurial intentions among students. In terms of policy development, policymakers can use these insights to create a supportive environment for aspiring entrepreneurs. This may include funding for entrepreneurial education, mentorship programs, and initiatives that encourage family involvement in entrepreneurial activities.

ACKNOWLEDGEMENTS

We extend our heartfelt gratitude to BIMA Kemendikbudristek, Directorate General of Higher Education, Research, and Technology, as well as the Directorate of Research, Technology, and Community Service (DRTPM). We also wish to acknowledge our institution, Universitas Muhammadiyah Makassar, and the Institute for Research, Development, and Community Service (LP3M) for their invaluable support and collaboration. Such support is essential for our institution, particularly for lecturers and researchers dedicated to advancing research and community service efforts. Also, the authors would like to express their sincere gratitude to the anonymous reviewers for their invaluable comments and suggestions.

REFERENCES

- [1] Ajzen, I. (2011), "The theory of planned behaviour: Reactions and reflections", *Psychology and Health*, doi: 10.1080/08870446.2011.613995.
- [2] Ajzen, I. (2020), "The theory of planned behavior: Frequently asked questions", *Human Behavior and Emerging Technologies*, Vol. 2 No. 4, pp. 314–324, doi: https://doi.org/10.1002/hbe2.195.
- [3] Alkhalaf, T., Durrah, O., Almohammad, D. and Ahmed, F. (2022), "Can entrepreneurial knowledge boost the entrepreneurial intent of French students? The mediation role of behavioral antecedents", *Management Research Review*, Emerald Publishing Limited, Vol. 45 No. 12, pp. 1545–1571, doi: 10.1108/MRR-06-2021-0432.
- [4] Bagheri, A., Akbari, M. and Artang, A. (2022), "How does entrepreneurial leadership affect innovation work behavior? The mediating role of individual and team creativity self-efficacy", *European Journal of Innovation Management*, Emerald Publishing Limited, Vol. 25 No. 1, pp. 1–18, doi: 10.1108/EJIM-07-2020-0281.

- [5] Bandura, A. and Locke, E.A. (2003), "Negative self-efficacy and goal effects revisited.", *The Journal of Applied Psychology*, United States, Vol. 88 No. 1, pp. 87–99, doi: 10.1037/0021-9010.88.1.87.
- [6] Barba-Sánchez, V. and Atienza-Sahuquillo, C. (2018), "Entrepreneurial intention among engineering students: The role of entrepreneurship education", *European Research on Management and Business Economics*, Vol. 24 No. 1, pp. 53–61, doi: https://doi.org/10.1016/j.iedeen.2017.04.001.
- [7] Campopiano, G., Minola, T. and Sainaghi, R. (2016), "Students climbing the entrepreneurial ladder", *International Journal of Contemporary Hospitality Management*, Emerald Group Publishing Limited, Vol. 28 No. 6, pp. 1115–1136, doi: 10.1108/IJCHM-05-2014-0236.
- [8] Chang, Y.Y., Chang, W.S. and Fadhil, A. (2024), "Enterprising spirit rejuvenated: entrepreneurship education in shaping company employees' career commitment and turnover intentions", *New England Journal of Entrepreneurship*, doi: 10.1108/NEJE-02-2024-0009.
- [9] Dubey, P. and Sahu, K.K. (2022), "Examining the effects of demographic, social and environmental factors on entrepreneurial intention", *Management Matters*, Vol. 19 No. 1, pp. 91–108, doi: 10.1108/manm-12-2021-0006.
- [10] Duong, C.D. (2024), "If you sow goodness, you will reap goodness': activating social entrepreneurial intentions with karmic beliefs", *International Journal of Ethics and Systems*, Emerald Publishing Limited, Vol. 40 No. 3, pp. 561–581, doi: 10.1108/IJOES-02-2023-0033.
- [11] Farrukh, M., Khan, A.A., Shahid Khan, M., Ravan Ramzani, S. and Soladoye, B.S.A. (2017), "Entrepreneurial intentions: the role of family factors, personality traits and self-efficacy", *World Journal of Entrepreneurship, Management and Sustainable Development*, Emerald Publishing Limited, Vol. 13 No. 4, pp. 303–317, doi: 10.1108/WJEMSD-03-2017-0018.
- [12] Fayolle, A. and Gailly, B. (2015), "The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention: Hysteresis and Persistence", *Journal of Small Business Management*, Vol. 53 No. 1, pp. 75–93, doi: https://doi.org/10.1111/jsbm.12065.
- [13] Figueiredo Belchior, R. and Lyons, R. (2024), "Entrepreneurial intentions' temporal stability intraindividual and group-level analyses", *Journal of Enterprising Communities: People and Places in the Global Economy*, Emerald Publishing Limited, Vol. 18 No. 1, pp. 72–93, doi: 10.1108/JEC-10-2022-0156.
- [14] Ghalwash, S., Tolba, A. and Ismail, A. (2017), "What motivates social entrepreneurs to start social ventures?", *Social Enterprise Journal*, Emerald Publishing Limited, Vol. 13 No. 3, pp. 268–298, doi: 10.1108/SEJ-05-2016-0014.
- [15] Gregori, P., Holzmann, P., Krajger, I., Schwarz, E.J. and Harms, R. (2024), "Entrepreneurship and environmental sustainability: the effects of passion and self-efficacy on entrepreneurial intentions", *Journal of Small Business and Enterprise Development*, doi: 10.1108/JSBED-10-2023-0488.
- [16] Karimi, S., Biemans, H.J.A., Lans, T., Chizari, M. and Mulder, M. (2016), "The Impact of Entrepreneurship Education: A Study of Iranian Students' Entrepreneurial Intentions and Opportunity Identification", *Journal of Small Business Management*, Vol. 54 No. 1, pp. 187–209, doi: 10.1111/jsbm.12137.
- [17] Kassean, H., Vanevenhoven, J., Liguori, E. and Winkel, D.E. (2015), "Entrepreneurship education: a need for reflection, real-world experience and action", *International Journal of Entrepreneurial Behavior & Research*, Emerald

- Group Publishing Limited, Vol. 21 No. 5, pp. 690–708, doi: 10.1108/IJEBR-07-2014-0123.
- [18] Kim, M. and Park, M.J. (2019), "Entrepreneurial education program motivations in shaping engineering students' entrepreneurial intention", *Journal of Entrepreneurship in Emerging Economies*, Emerald Publishing Limited, Vol. 11 No. 3, pp. 328–350, doi: 10.1108/JEEE-08-2018-0082.
- [19] Lechner, C., Kirschenhofer, F. and Dowling, M. (2016), "The influence of social capital on opportunity emergence and exploitation: a comparison of portfolio and serial entrepreneurs", *Journal of Innovation and Entrepreneurship*, Vol. 5 No. 1, p. 28, doi: 10.1186/s13731-016-0056-6.
- [20] Lee-Ross, D. (2017), "An examination of the entrepreneurial intent of MBA students in Australia using the entrepreneurial intention questionnaire", *Journal of Management Development*, Emerald Publishing Limited, Vol. 36 No. 9, pp. 1180–1190, doi: 10.1108/JMD-10-2016-0200.
- [21] Ma, K. V., Le, N.T.T., Nguyen, P. V. and Tran, K.T. (2022), "Predicting the Determinants of Investors' Intention to Purchase Tourism Real Estate Property Using TPB, Government Policy and Perceived Financial Risk", *Review of Integrative Business and Economics Research*, Vol. 12 No. 4, pp. 102–117.
- [22] Mamun, A. Al, Nawi, N.B.C., Mohiuddin, M., Shamsudin, S.F.F.B. and Fazal, S.A. (2017), "Entrepreneurial intention and startup preparation: A study among business students in Malaysia", *Journal of Education for Business*, Routledge, Vol. 92 No. 6, pp. 296–314, doi: 10.1080/08832323.2017.1365682.
- [23] Mozahem, N.A. and Adlouni, R.O. (2021), "Using Entrepreneurial Self-Efficacy as an Indirect Measure of Entrepreneurial Education", *The International Journal of Management Education*, Vol. 19 No. 1, p. 100385, doi: https://doi.org/10.1016/j.ijme.2020.100385.
- [24] Muchran, M., Muchran, M., Arsal, M., Badollahi, I., Muchran, M. and Insirat, M.N. (2024), "A Test of the Planned Behavior Theory: The Impact on Behavior in the Implementation of Central Bank Digital Currency in Indonesia", *Review of Integrative Business and Economics Research*, Vol. 13 No. 3, pp. 451–463.
- [25] Muchran, M., Shafina Khairudin, N., Arizah, A., Ode Rayyani, W. and Soraya, Z. (2023), "Integration of the UTAUT 2 Model and Awareness of Cybercrime as the Moderating Variable of Cashless Adoption in Indonesia", *Review of Integrative Business and Economics Research*, Vol. 13 No. 3, pp. 304–321.
- [26] Mwiya, B.M.K., Wang, Y., Kaulungombe, B. and Kayekesi, M. (2019), "Exploring entrepreneurial intention's mediating role in the relationship between self-efficacy and nascent behaviour", *Journal of Small Business and Enterprise Development*, Emerald Publishing Limited, Vol. 26 No. 4, pp. 466–485, doi: 10.1108/JSBED-03-2017-0083.
- [27] Nabi, G., Linan, F., Fayolle, A., Krueger, N. and Walmsley, A. (2017), "The Impact of Entrepreneurship Education in Higher Education: A Systematic Review and Research Agenda", *Academy of Management Learning & Education*, Academy of Management, Vol. 16 No. 2, pp. 277–299.
- [28] Newman, A., Obschonka, M., Schwarz, S., Cohen, M. and Nielsen, I. (2019), "Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research", *Journal of Vocational Behavior*, Vol. 110, pp. 403–419, doi: https://doi.org/10.1016/j.jvb.2018.05.012.
- [29] Pergelova, A., Angulo-Ruiz, F., Manolova, T.S. and Yordanova, D. (2023), "Entrepreneurship education and its gendered effects on feasibility, desirability

- and intentions for technology entrepreneurship among STEM students", *International Journal of Gender and Entrepreneurship*, Emerald Publishing Limited, Vol. 15 No. 2, pp. 191–228, doi: 10.1108/IJGE-08-2022-0139.
- [30] Prasodjo, I., Amelinda, R., Nuringsih, K. and MN, N. (2019), "Sustainable Entrepreneurial Intention: The Perceived of Triple Bottom Line among Female Students", *Jurnal Manajemen*, Vol. 23 No. 2, p. 168, doi: 10.24912/jm.v23i2.472.
- [31] Rayyani, W.O., Abbas, A. and Hannani, H. (2019), "Accountability of Performance Integrated With the Value of Islamic Civilization: The Case of Muhammadiyah University of Makassar", *IJISH* (*International Journal of Islamic Studies and Humanities*), Vol. 2 No. 2, doi: 10.26555/ijish.v2i2.881.
- [32] Ripollés, M. and Blesa, A. (2023), "Moderators of the effect of entrepreneurship education on entrepreneurial action", *International Journal of Entrepreneurial Behaviour and Research*, Vol. 29 No. 7, pp. 1402–1426, doi: 10.1108/IJEBR-06-2022-0518.
- [33] Saoula, O., Shamim, A., Ahmad, M.J. and Abid, M.F. (2023), "Do entrepreneurial self-efficacy, entrepreneurial motivation, and family support enhance entrepreneurial intention? The mediating role of entrepreneurial education", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 17 No. 1, pp. 20–45, doi: 10.1108/apjie-06-2022-0055.
- [34] Shahab, Y., Chengang, Y., Arbizu, A.D. and Haider, M.J. (2019), "Entrepreneurial self-efficacy and intention: do entrepreneurial creativity and education matter?", *International Journal of Entrepreneurial Behavior & Research*, Emerald Publishing Limited, Vol. 25 No. 2, pp. 259–280, doi: 10.1108/IJEBR-12-2017-0522.
- [35] Shahid, S. (2023), "Perceived barriers and entrepreneurial exit intentions: moderating role of regular versus sustainable entrepreneurship", *European Business Review*, Emerald Publishing Limited, Vol. 35 No. 1, pp. 39–56, doi: 10.1108/EBR-03-2022-0053.
- [36] Shi, L., Yao, X. and Wu, W. (2020), "Perceived university support, entrepreneurial self-efficacy, heterogeneous entrepreneurial intentions in entrepreneurship education", *Journal of Entrepreneurship in Emerging Economies*, Emerald Publishing Limited, Vol. 12 No. 2, pp. 205–230, doi: 10.1108/JEEE-04-2019-0040.
- [37] Tognazzo, A., Gianecchini, M. and Gubitta, P. (2017), "Educational Context and Entrepreneurial Intentions of University Students: An Italian Study", *Entrepreneurship Education*, Vol. 7, Emerald Publishing Limited, pp. 47–74, doi: 10.1108/S2040-724620170000007008.
- [38] Wang, M., Cai, J. and Munir, H. (2021), "Promoting entrepreneurial intentions for academic scientists: combining the social cognition theory and theory of planned behaviour in broadly-defined academic entrepreneurship", *European Journal of Innovation Management*, Emerald Publishing Limited, Vol. 24 No. 2, pp. 613–635, doi: 10.1108/EJIM-07-2020-0257.
- [39] Wang, Y.S., Tseng, T.H., Wang, Y.M. and Chu, C.W. (2020), "Development and validation of an internet entrepreneurial self-efficacy scale", *Internet Research*, Vol. 30 No. 2, pp. 653–675, doi: 10.1108/INTR-07-2018-0294.
- [40] Xuan, M. and Yankai, L. (2024), "The influence of entrepreneurial role model on entrepreneurial intention: a cross-level investigation", *Asia Pacific Journal of Innovation and Entrepreneurship*, doi: 10.1108/apjie-04-2024-0064.
- [41] Zhao, H., Seibert, S.E. and Hills, G.E. (2005), "The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions.", *Journal of Applied*

- *Psychology*, American Psychological Association, Zhao, Hao: Department of Managerial Studies (M/C 243), University of Illinois at Chicago, 601 South Morgan Street, Chicago, IL, US, 60607-7123, zhaohao@uic.edu, doi: 10.1037/0021-9010.90.6.1265.
- [42] Zhu, F., Burmeister-Lamp, K. and Hsu, D.K. (2017), "To leave or not? The impact of family support and cognitive appraisals on venture exit intention", *International Journal of Entrepreneurial Behavior & Research*, Emerald Publishing Limited, Vol. 23 No. 3, pp. 566–590, doi: 10.1108/IJEBR-04-2016-0110.