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INCLINATION TOWARDS ENTREPRENEURSHIP AMONG UNIVERSITY STUDENTS: REASONING ABOUT CAUSAL RELATIONSHIPS

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Abstract:

Youth entrepreneurship has been growing in recent years, but only some studies investigate the influence of personality traits on youth entrepreneurship intention. In parallel, there is a call for more research investigating the role of cognitive structure, perceived university support, and the need for achievement towards entrepreneurship intention. Entrepreneurial cognition has become one of the essential components to hone students' entrepreneurial talents. Exposure to entrepreneurship knowledge in theory alone is only sufficient without putting it into practice. Therefore, higher learning institutions are responsible for producing more capable entrepreneurship students. Therefore, this article aims to understand how the need for achievement could mediate the relationship between cognitive structure, perceived university support, and entrepreneurship intention. This study is based on a cross-sectional online survey design. The final data of 248 youths were analyzed using structural equation modeling (SEM). The present study proves that the need for achievement mediates the relationship between cognitive structure, perceived university support, and entrepreneurship intention. Thus, a high-achieving individual is more inclined to become an entrepreneur. As a theoretical contribution to the development of youth entrepreneurship, this article analyses the causal path relationship relationships between cognitive structure, perceived university support, need for achievement, and entrepreneurship intention, which have been explored little in the literature. On a practical level, it offers insights into potential strategies for improving training and programs to boost individual characteristics, confidence, competencies, and knowledge in entrepreneurship activities.

Keywords:

Intention, Cognitive, University, Personality, Mediation

Introduction

Entrepreneurs are those willing to take risks and continuously learn new knowledge and ideas (López-Meri et al., 2021). Agrawal et al. (2024), Lupoae et al. (2024), and Mohd Noor et al. (2024) view entrepreneurship in four dimensions: 1) new ideas and products, 2) the investment in time and effort, 3) the rewards of being an entrepreneur, such as personal satisfaction and monetary reward, and 4) risk-taker and high self-confidence. Entrepreneurship is an essential agenda for all countries worldwide since it helps to improve country growth and development (Klofsten et al., 2019; Sergi et al., 2019; Nowiński & Haddoud, 2019). Many ASEAN countries also have started their comprehensive focus on entrepreneurship programs and activities. For instance, Thailand and Vietnam have introduced their entrepreneurship eco-system projects known as the 4th SME Promotion Master Plan 2017-2021 and the National Innovative Start-up Ecosystem to 2025 Project. Entrepreneurship is also essential for Malaysia in driving the country to become a developed nation by 2030 by balancing the Malaysian income gap (National Entrepreneurship Policy 2030, Ministry of Entrepreneur Development and Cooperatives, 2021).

Youth entrepreneurship is essential for Malaysia due to the issue of unemployment. This crisis has urged most countries to strategize by creating more entrepreneurs and promoting self-employment among fresh graduates. Malaysia's third quarter of 2023's unemployment rate is 3.4 percent (%), with 573,100 unemployed people. The unemployment rate among youth aged 15 to 24 for the third quarter of 2023 is 10.3% (Zulkifli, December 2023). However, there are many challenges and barriers to promoting youth entrepreneurship. Previous scholars have revealed that psychosocial, economic, and political barriers hinder youth entrepreneurship. Other than that are personality-related barriers, lack of competencies, poor attitude, lack of finance and support, market-related issues, and legal and regulatory constraints (Bradley & Fry, 2024; Ogamba, 2019; Ridha & Wahyu, 2017). Various programs and supports for entrepreneurial activities have been implemented to overcome those barriers. National Entrepreneurship Policy (NEP) 2030 has been established as a blueprint to promote entrepreneurship. Among the objectives include creating a conducive entrepreneurship environment to support economic goals, inculcating entrepreneurship thinking among Malaysians, producing high-quality entrepreneurs, improving small and medium enterprises (SMEs), and promoting self-employed as a preferred career (National Entrepreneurship Policy 2030, Ministry of Entrepreneur Development and Cooperatives, 2021). To promote youth entrepreneurship, the Malaysian Higher Education Institution (HEI) Entrepreneurship Action Plan 2021-2025 has also been developed to inculcate an all-inclusive entrepreneurial ecosystem across Malaysian universities (Rebecca, 2021).

Past studies have proven that the success of entrepreneurs can be identified when entrepreneurs have personal characteristics that distinguish them from other individuals (Hossain et al., 2024; Merung et al., 2024). Past studies have discovered that young entrepreneurs face challenges such as a lack of support system, limited knowledge, limited strategic location, increased operating costs, instability in the local economy, marketing problems, and lack of capital for development purposes (Merung et al., 2024). In terms of attitude, young entrepreneurs depend heavily on government support, which erodes entrepreneurial abilities' dynamism. Most young people lack essential characteristics for becoming promising entrepreneurs (Apasieva et al., 2024). This may be due to generational differences. One of the weaknesses is that they are often associated with their dependence on digital technology (Bratina & Faganel, 2024). The excessive use of social media can hinder the development of their social skills. The empirical studies also have reported that Generation Z may have a lower level of mental toughness than

previous generations due to the pressures from social expectations and constant use of social media (Bratina & Faganel, 2024). Moreover, although there are many grants from ministries or agencies for students who need financial support, the lack of a support system also has hindered the inclination to become an entrepreneur (Karan et al., 2024). Some people have the natural ability to be entrepreneurs than others, but having a sound support system from family members or university can help them explore entrepreneurship. Although knowledge of the market is required, young entrepreneurs require the guidance of an experienced mentor (Karan et al., 2024). Programs organized at universities are also seen to focus a lot on one-off programs—for example, entrepreneurship talks and entrepreneurship carnivals. When the program ends, students do not get the opportunity to practice their entrepreneurial skills (Puerta Gómez et al., 2024).

To ensure the success of entrepreneurship programs and activities, many empirical scholars have proposed determining the factors that influence an individual's entrepreneurship intention and behavior (Aragon-Sanchez et al., 2017; Jena, 2020). The theory of Planned Behavior (TPB) by Ajzen (1991) has been introduced to examine the determinants of human intention and behavior. The theory identifies three main determinants: personal attitude, perceived social norm, and perceived behavioral control. Attitude refers to behavioral beliefs that influence a person in favor or unfavored in performing the behavior. Then, the subjective norm is the expectation that a given referent individual or group (e.g., friends, family, spouse, co-workers, or supervisor) approves or disapproves of performing the behavior. For example, if the individual's family and friends' expectations about the desirability of becoming an entrepreneur are essential, an individual will be motivated to comply with the behavior. Finally, perceived behavioral control concerns factors that can facilitate or impede the performance of the behaviors. For example, if an individual possesses the required skills and abilities, the inclination to become an entrepreneur might be more accessible than those who do not.

Despite the extensive use of the TPB model in analyzing intention and behavior, it has been criticized for its rationality, and the variation in observed behavior needs to be explained (La Barbera & Ajzen, 2020). Based on this argument, this study has included another important determinant: the influence of cognitive structure and the need for achievement. Cognitive structure refers to a person's knowledge structure, and entrepreneurs possess entrepreneurial knowledge that is significantly better than that of non-entrepreneurs (Fuller et al., 2018; Fernández-Pérez et al., 2019; Schmutzler et al., 2019). Next, the university's facility support, and entrepreneurial assistance are critical to encouraging students to choose entrepreneurship as their preferred career after graduation (Gera et al., 2024). This point aligns with studies by Mohamed et al. (2023) and Karahan (2024), which show a positive relationship between initiatives, incentives, and other support from universities with entrepreneurial intentions. The support includes shop lots, business locations, booths, kiosks, cafes, and online and offline platforms with reasonable rental fees or for free. This support allows students to gain experience while managing businesses simultaneously without leaving the campus area (García-Hurtado et al., 2024). This can strengthen their entrepreneurial intentions and talents (Do Nguyen & Nguyen, 2023). Most of the previous research also has primarily focused on determining the relationship between cognitive structure, perceived university support, and entrepreneurship intention (Fuller et al., 2018; Gera et al., 2024; Ndofirepi, 2020; Yukongdi & Lopa, 2017), but how this relationship is mediated by personality factors such as the need for achievement remains unclear. Previous studies have found that personality traits such as the need for achievement will impact entrepreneurship intention since it could increase confidence in one's capabilities to initiate a new business endeavor (Yasir et al., 2019). Individuals with a

high need for achievement aim to achieve their goals, and prior studies have found that entrepreneurs are high achievers (Yukongdi & Lopa, 2017; Che Embi et al., 2019). A high achiever person will also work hard to challenge the outcome of unpredictable situations. To date, a lack of research has pointed out the influence of the need for achievement as a mediator towards the relationship between cognitive structure, perceived university support, and entrepreneurship intention. Thus, this study examines the mediation effect of the need for achievement towards the cognitive structure, perceived university support, and entrepreneurship intention relationship.

The remainder of this paper is divided into six sections. The second section discusses the literature and how it helps formulate the hypothesis. The third section explains the study's methodology. The fourth section displays the study's results. The fifth and final sections discuss the implications, research limitations, and future research suggestions.

Literature Review

Ajzen's Theory of Planned Behavior for Framing Entrepreneurship Intention

Based on the advancement of the theory of reasoned action (TRA), Ajzen (1991) further develops the theory of planned behavior (TPB) to provide a comprehensive model to determine antecedents of individual intention and behavior. The theory asserts that intention and behavior result from people's attitudes, subjective norms, and perceived behavioral control (Figure 1). Attitude reflects the individual's beliefs and evaluations of performing a particular behavior. The cognitive structure of an individual might influence this. For instance, believing in entrepreneurship or self-employment could help generate more income than the wage earner. Subjective norm refers to social support or pressure that affects the individual's action. For instance, social groups such as family, friends, colleagues, lecturers, supervisors, and others influence an individual to become an entrepreneur (La Barbera & Ajzen, 2020). For instance, if the individual has a friend who joins the business and continuously supports them, they may be inclined to join the business.

Next, perceived behavioral control refers to specific factors that expedite or constrain people's intentions and behavior. In entrepreneurship, the individual's willingness to join a business venture might be affected by strict rules and regulations, the availability of financial resources and facilities, tax exemption, and infrastructure and business networks. Thus, it is essential to understand the determinants of entrepreneurship intention, and past studies have also indicated that individual characteristics and personalities impact entrepreneurship intention (Hossain et al., 2024; Maheshwari, 2024). Entrepreneurial intention is "a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do it in the future" (Thompson, 2009, p.676). Most of the literature has acknowledged the significant influence of entrepreneurial intentions on entrepreneurship behavior and action (Che Embi et al., 2019; Nasip et al., 2017).

This study has proposed the function of cognitive structure in shaping an individual's attitude. Previous studies have spotlighted that cognitive structure helps to foster entrepreneurship inclination (e.g., Cegarra-Navarro et al., 2024; Fernández-Pérez et al., 2019; Otache et al., 2024; Sharma et al., 2024). Moreover, Lim et al. (2023) stated that universities are essential in promoting entrepreneurship since educational institutions are considered ideal places to form entrepreneurial culture and aspirations among students. The university teaching environment is a factor that significantly influences students' perception of entrepreneurial careers (Moraes

et al., 2023). Adeel et al. (2023) also agree that the university environment influences students' entrepreneurial intentions. In addition, Bergner et al. (2023) also recognized the need for achievement as one of the essential personalities that affect people's inclination to join the business. High achiever individuals are those who want to perform better as compared to their previous performances (Maheshwari et al., 2023). Thus, this study examines whether a high achiever is more inclined to join entrepreneurship when they have higher knowledge and competencies. Therefore, this study contributes to current behavioral and entrepreneurship studies knowledge by testing other variations (i.e., cognitive structure, perceived university support, and need for achievement) in observed behavior.

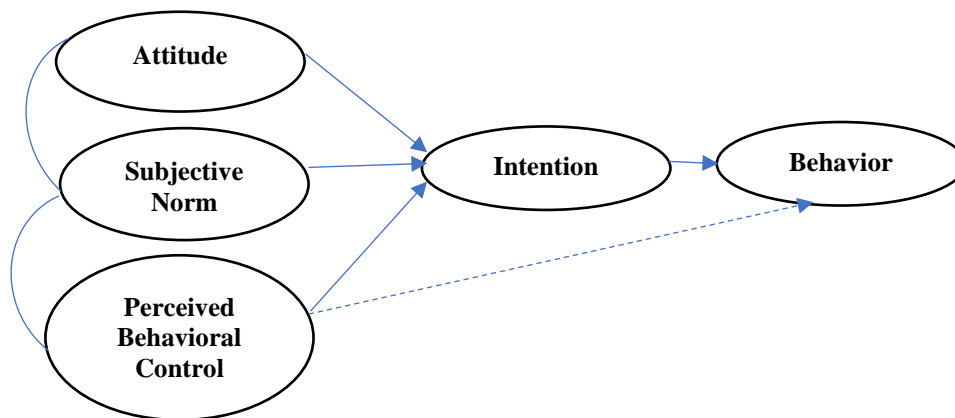


Figure 1: TPB Original Model

Cognitive Structure and Entrepreneurship Intention

Business and making a profit sound suitable. Many people are racing to try into business and become successful entrepreneurs. Every entrepreneur needs to equip themselves with not only the theoretical and practical aspects of the business but also, they need to constantly be updated with all the latest information such as business technology, the use of information and communication technology (ICT), the market, the needs of buyers, and business methods. Cognitive factors can explain entrepreneurial thinking and behavior in building and developing a business. Past studies showed that cognitive processes influence individual thinking and behavior (Mohd Noor et al., 2024; Otache et al., 2024; Sharma et al., 2024). Previous studies have highlighted that brain functionality and structure, such as emotional management, critical thinking, tacit knowledge, and others, help boost competencies in encouraging entrepreneurship. This suggests that a higher degree of cognitive competencies will engage in a positive attitude towards entrepreneurship and perceive themselves as more capable of becoming entrepreneurs (Noor & Malek, 2021; Fernández-Pérez et al., 2019). In particular, the competencies must be related to starting a business and understanding the entrepreneurship eco-systems. Based on the Resource-Based View (RBV), knowledge, skills, and abilities are significant for achieving a competitive advantage (e.g., Cegarra-Navarro et al., 2024; Otache et al., 2024; Sharma et al., 2024). Based on the data collected from 384 informal female micro-entrepreneurs in Kelantan, Malaysia, Zainol and Al Mamun's (2018) findings revealed that intellectual competency and coordinating competency significantly positively affect competitive advantages and business performance.

Ataei (2020) then revealed that entrepreneurial competencies such as entrepreneurial awareness, interacting ability, independence, tolerance of vagueness, and market analysis accounted for almost 40% of the variance of entrepreneurship intention to launch a business venture. Thus, empirical studies suggest that implementing entrepreneurial education could help to inculcate an entrepreneurship mindset. For instance, Iwu et al. (2019) believe that entrepreneurial lecturers or educators need sufficient knowledge and skills to deliver entrepreneurship courses, which can kindle the entrepreneurial intention flame in students. Thus, skills and specific competencies need to be developed to become entrepreneurs. Entrepreneurial competencies development requires entrepreneurs to learn skills to update their beliefs about entrepreneurial aptitude and provide knowledge about the challenge of starting a project. Entrepreneurship education could help improve entrepreneurial cognition, and a series of formal and informal teaching and training activities could nurture entrepreneurial knowledge. Entrepreneurship education encourages entrepreneurs to develop or start their businesses. Entrepreneurship education has also proliferated as a field of research, and researchers report various approaches and curricula worldwide to teach and foster entrepreneurial spirit (Maksüdünov et al., 2024). By considering the importance of entrepreneurship in the economy, universities devote much effort to entrepreneurship education to develop formal curriculum activities and additional curricula to encourage entrepreneurial intentions in students (Karan et al., 2024).

Perceived University Support and Entrepreneurship Intention

Most of the development of the entrepreneurship ecosystem in educational institutions gives excellent attention to aspects of knowledge and entrepreneurial skills through activities such as seminars, business training, support in industry, or business plan competitions (Bergner et al., 2023; Lim et al., 2023). These programs can improve their entrepreneurial knowledge and skills as part of the effort to deal with the issue of unemployment among graduates. Various initiatives to empower the field of entrepreneurship among students of higher learning institutions have been implemented (Alakaleek et al., 2023). For example, since 1989, the Student Entrepreneur Development Program has been launched to cultivate entrepreneurial activities and change students' minds to pursue a career as entrepreneurs while reducing unemployment among graduates (Moraes et al., 2023). These activities include student entrepreneurship training, which was later replaced by an entrepreneurship module for first-year students amounting to two credits, organizing short-term entrepreneurship courses for final-year students, group business promotion activities on campus, setting up companies, and Student in Free Enterprise (SIFE) community activities to improve the economic status of the local community. The Ministry of Higher Education has launched the Entrepreneurship Action Plan Higher Education Institutions (EAP-HEIS 2021-2025) and the MOHE Guide to Entrepreneurship Integrated Education (EIE) to support the sustainability of the entrepreneurship agenda in Higher Education Institutions (HEIs) and to produce more entrepreneurs among students and graduates. Alumni entrepreneurs also play an essential role in supporting the entrepreneurial ecosystem in an educational institution. This is because sharing alumni success stories can be used as written evidence to build students' entrepreneurial confidence (Christensen et al., 2023). Universities must create an entrepreneurial ecosystem through clear guidelines and frameworks based on program or initiative implementation guidelines so that all parties involved can carry out their responsibilities through their assigned roles (Adeel et al., 2023).

Need for Achievement as a Mediator

Need for achievement refers to "the degree to which one sets and strives to reach goals and the degree to which one works hard and is satisfied with the work results" (Gerba, 2012, p.263). In literature, this concept is associated with entrepreneurship where it affects entrepreneurship potential (Fuller et al., 2018), entrepreneurship persistence (Ndofirepi, 2020), self-employment (Yukongdi & Lopa (2017), and entrepreneurship intentions (Che Embi et al., 2019; Nasip et al., 2017). The results of Fuller et al. (2018) indicate that the ability to reach a goal influences entrepreneurial cognitions and intention. Schmutzler et al. (2019) also observed that highly achievement-oriented individuals are more inclined to become entrepreneurs since they believe they could launch a business enterprise productively. The study also found that national culture affects entrepreneurship.

Based on the data collected from a sample of 308 students, Ndofirepi's (2020) results show that the need for achievement is statistically significant toward entrepreneurial goal intentions. The need for achievement has also been found to act as an intervening variable in the relationship between entrepreneurship education and entrepreneurial goal intentions. Then, based on the data collected from 676 undergraduate students from Universiti Malaysia Sabah (UMS), Nasip et al.' (2017) results have shown that innovativeness, self-confidence, propensity to take risks, need for achievement, and tolerance for ambiguity are positively related to entrepreneurial intention among undergraduate students. Finally, Yukongdi and Lopa (2017) have revealed that a goal achievement-oriented person is found to have a significant effect on the inclination to become an entrepreneur, and the entrepreneurship eco-system mediates the impact. Based on the results, the following hypotheses are formulated:

- H1. Cognitive structure significantly relates to entrepreneurship intention.
- H2. Perceived university support is significantly related to entrepreneurship intention.
- H3. The need for achievement significantly relates to entrepreneurship intention.
- H4. The need for achievement mediates the relationship between cognitive structure and entrepreneurship intention.
- H5. The need for achievement mediates the relationship between perceived university support and entrepreneurship intention.

Figure 2 shows the conceptual model of this study.

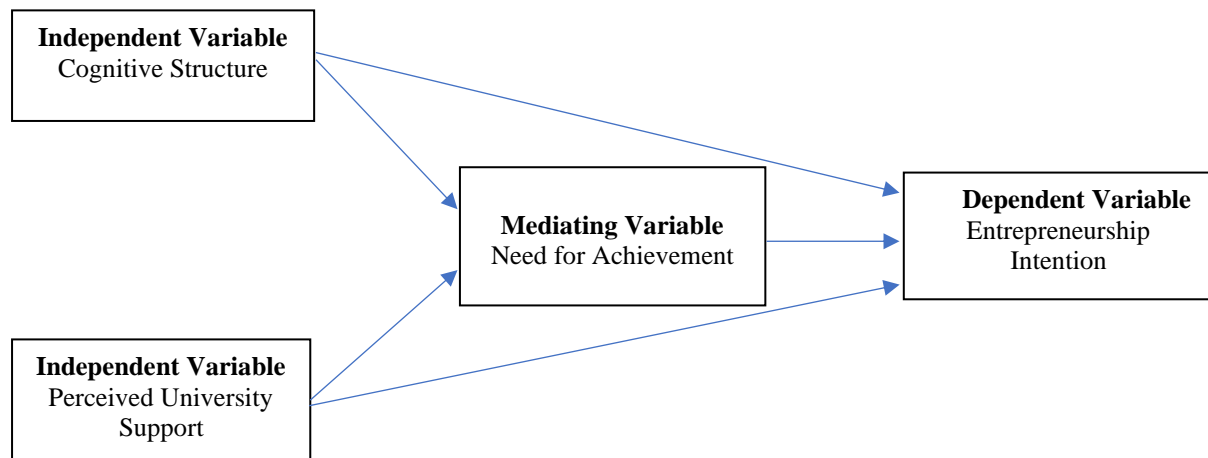


Figure 2: Conceptual Framework

Methodology

This study employed a cross-sectional and quantitative research design. The data collection process was conducted in October until December 2021. This study population was undergraduate students from Malaysian public universities. According to Sekaran (2003), SEM analysis requires a sample of at least five times the number of indicator variables used in determining the sample size. The maximum likelihood estimation technique requires samples ranging from 100 – 200 samples. Thus, the sample of 300 youths from Malaysian public universities was defined for data collection. Long-distance location provides data collection challenges, especially for public universities in the Northern Region, Southern Region, East Coast, Sabah, and Sarawak. To ease the data collection, the study focused on two leading public universities in the Central Region, Universiti Kebangsaan Malaysia (UKM) and Universiti Teknologi MARA (UiTM). Email and Google form surveys were employed for data collection. Convenience sampling is utilized, and the sample is selected from the most convenient part of the population. Several aspects, such as geographical distance, familiarity with sample elements, and sample availability, can determine this convenience.

Usable questionnaires were received from 248 respondents. In this study, male respondents accounted for 59 (23.8%), and female respondents were 189 (76.2%). Next, most were 21 and above ($n=198$, 79.8%), and the rest were less than 21 ($n=50$, 20.2%). In terms of status, most of the respondents were single ($n=235$, 94.8%), and the rest were married ($n=12$, 4.8%) and divorced ($n=1$, 0.4%). When asked whether the respondents have a family business background, many have family members with a business background ($n=162$, 65.3%). Next, most were social science students ($n=156$, 62.9%), and the rest were science and technology students ($n=92$, 37.1%). Finally, most respondents at the bachelor's degree level ($n=198$, 79.8%). This is followed by diploma level ($n=38$, 15.3%) and foundation level ($n=12$, 4.9%).

Table 1: Demographic Profiles

Profile		Frequency (n)	Percentage (%)
Gender	Male	59	23.8
	Female	189	76.2
Age	Less 21	50	20.2
	21 and above	198	79.8
Status	Married	12	4.8
	Single	235	94.8
	Divorce	1	0.4
Family Business	Yes	162	65.3
Background	No	86	34.7
Course	Social Science	156	62.9
	Science & Technology	92	37.1
Program Level	Foundation	12	4.9
	Diploma	38	15.3
	Bachelor's Degree	198	79.8

This research adapted cognitive structure (5 items) from Oftedal et al.'s (2018) study. Seven items to measure perceived university support were adapted from Saeed et al.'s (2015) study. Then, the need for achievement (4 items) will be measured using the Jackson Personality Inventory pool to assess the respondents' need for achievement (Jackson Personality Inventory Pool, 1994). Respondent's entrepreneurial intentions (4 items) were assessed by asking several questions adapted from Liñán and Chen (2009) and Yurtkoru et al. (2014). All variables will be measured using a five-point Likert scale ranging from one (strongly disagree) to five (strongly agree). Before conducting data analysis, data were checked for internal consistency of measures. A reliability value of less than 0.60 is poor, 0.60 to 0.70 is moderate, 0.70 to 0.80 is good, 0.80 to 0.90 is exceptionally good, and 0.90 is excellent (Sekaran & Bougie, 2016). From the results, Cronbach's alphas were 0.804 for entrepreneurship intention, 0.780 for cognitive structure, 0.790 for perceived university support, and 0.820 for the need for achievement (refer to Table 2). Thus, the reliability of instruments was assumed. To test the normality of the data, Kline (2005) stated that the skewness value should fall within the range of -3 to +3, and the kurtosis value should fall within the range of -10 to +10 to indicate the normal distributions. Based on the results from Table 2, this study fulfilled the assumptions of normality. Statistical tests in this research used Structural Equation Modeling (SEM), processed with Analysis of Moment Structure (AMOS) Software.

Table 2: Measurement of Variables

Variable	Items	Cronbach's Alpha	Skewness	Kurtosis
Cognitive Structure	<ol style="list-style-type: none"> 1. I know how to handle the risks associated with a start-up company/business. 2. I have the skills required to start up their own business. 3. I know who may help launch a start-up business. 4. I know the procedures for starting up their own business. 5. I know how to develop their ideas. 	0.780	-0.309	0.176
Perceived University Support	<ol style="list-style-type: none"> 1. My university teaches entrepreneurship-related projects. 2. My university offers an internship program that focuses on entrepreneurship. 3. My university offers a specialization in entrepreneurship studies. 4. My university facilitates communication between students who are interested in entrepreneurship. 5. My university helps facilitate students' access to capital to open a new business. 6. My university will be the primary customer for students starting a new business. 7. My university uses its reputation to support students in starting new businesses. 	0.790	-0.321	0.576
Need for Achievement	<ol style="list-style-type: none"> 1. I excel in what I do. 2. I will continue until everything is perfect. 3. I am a hardworking person. 4. I do more than what people expect me to do. 	0.820	-0.256	0.311
Entrepreneurship Intention	<ol style="list-style-type: none"> 1. Entrepreneurship is a highly desirable career option. 2. I am planning to open a new venture. 3. I would like someday to start my own business. 	0.804	-0.213	-0.267

4. I could quickly pursue a career involving self-employment.

Figure 3 summarizes the research process of the study.

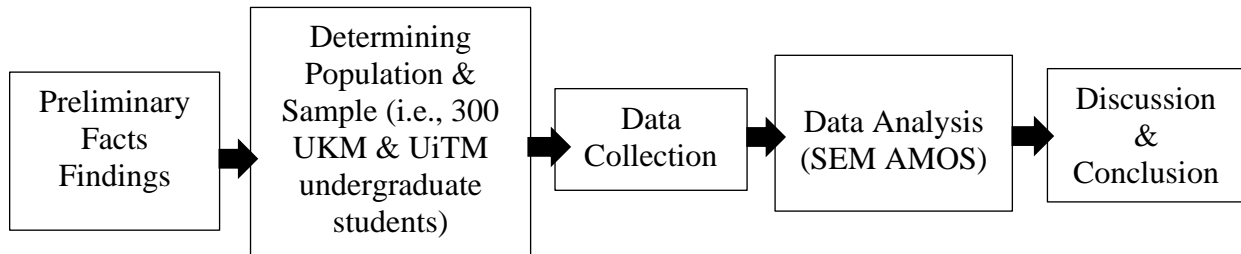


Figure 3: Flow Chart of Research

Findings

Confirmatory Factor Analysis (CFA)

In SEM, several fitness indices describe the model's fit obtained from the data. To determine the model fit, the value for Comparative Fit Index (CFI), Goodness Fit Index (GFI), and Tucker Lewis Index (TLI) is expected to be ≥ 0.90 . The values range from 0.00 (poor fit) to 1.00 (perfect fit) (Hair et al., 2010). The Root Mean Square Error of Approximation (RMSEA) explains the residual found in the model. The size of the expected RMSEA value ≤ 0.05 . A value of $\text{RMSEA} \leq 0.05$ indicates a close fit, whereas if the value is in the range of $0.05 < \text{RMSEA} \leq 0.08$, the model can still be accepted as a good fit (Hair et al., 2010). The value of chi-square (χ^2/df) ≤ 3 It is considered acceptable (Hair et al., 2010). For this study, various indicators of the confirmatory model were acceptable ($\chi^2/\text{df} = 1.988$, $p < 0.001$, $\text{GFI} = 0.940$, $\text{TLI} = 0.950$, $\text{CFI} = 0.945$, and $\text{RMSEA} = 0.036$). Figure 4 shows the basic model using confirmatory factor analysis (CFA).

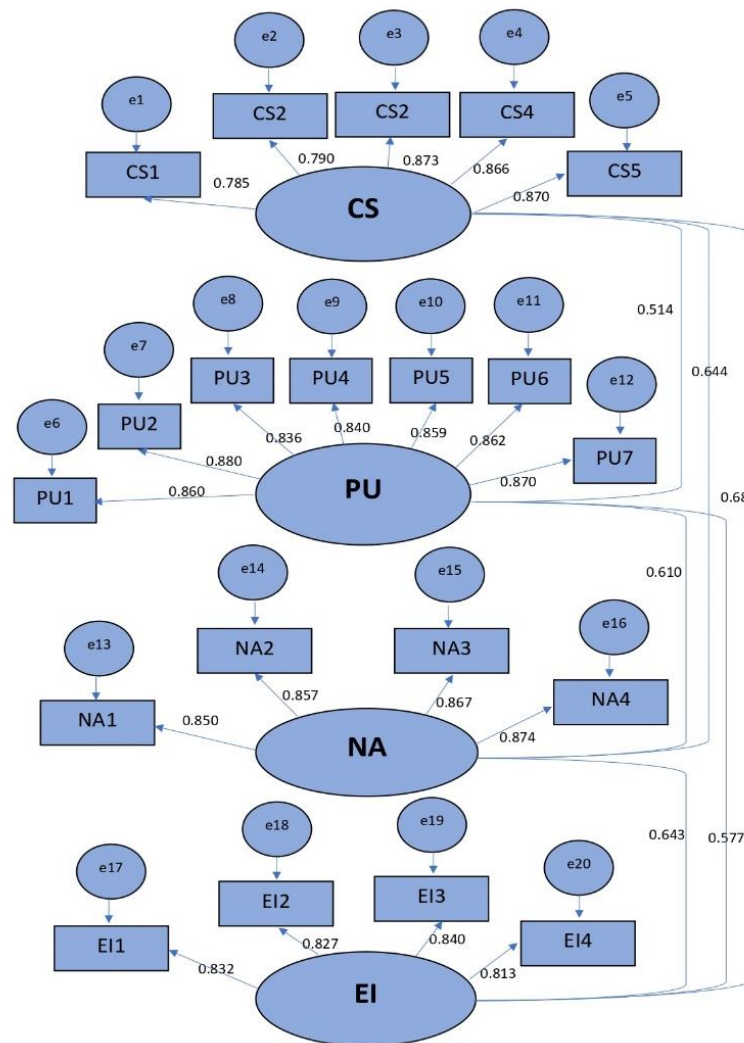


Figure 4: CFA Model

Note: Cognitive Structure, CS; Perceived University Support, PU; Need for Achievement, NA; Entrepreneurship Intention, EI

Convergent and Discriminant Validity

Cronbach's Alpha's, Convergent Validity, and Composite Reliability measure the value validity and reliability of the study. To identify the convergent validity, the researchers need to ensure that the Composite Reliability (CR) value is ≥ 0.60 and the Average of Variance Extracted (AVE) values are ≥ 0.05 (Hair et al., 2010). Table 3 describes the Factor Loading, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's alpha (CA) for the study variables. Based on Table 3, the factor loading for each study item was more than 0.60, and AVE, CR, and Cronbach's Alpha values were within the acceptable range (Hair et al., 2010). The study then assesses the discriminant validity by looking at the diagonal value. According to Fornell and Larcker (1981), a diagonal value is said to have discriminant validity when it is ≥ 0.85 . From Table 4, the discriminant validity is achieved as the values were more than 0.85. The resulting factor loading is sufficiently high (> 0.5); thus, the model's formation has been stable and can support validity and reliability measurements.

Table 3: Value of Factor Loading, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach Alpha's

Variable	Items	Item Loadings	AVE (≥ 0.50)	CR (≥ 0.60)	α (≥ 0.70)
Cognitive Structure	CS1	0.785	0.660	0.824	0.780
	CS2	0.790			
	CS3	0.873			
	CS4	0.866			
	CS5	0.870			
Perceived University Support	PU1	0.860	0.776	0.811	0.790
	PU2	0.880			
	PU3	0.836			
	PU4	0.840			
	PU5	0.859			
	PU6	0.862			
	PU7	0.870			
Need for Achievement	NA1	0.850	0.794	0.839	0.820
	NA2	0.857			
	NA3	0.867			
	NA4	0.874			
Entrepreneurship Intention	E1	0.832	0.709	0.839	0.804
	E2	0.827			
	E3	0.840			
	E4	0.813			

Table 4: Discrimination Validity

No.		1	2	3	4
1	Cognitive Structure	0.812			
2	Perceived University Support	0.514***	0.880		
3	Need for Achievement	0.644***	0.610***	0.891	
4	Entrepreneurship Intention	0.689***	0.577***	0.643***	0.842

Note: Values in the diagonal show the square root of AVE

Structural Model Analyses

The results of the direct path show that there was a significant and positive relationship between cognitive structure ($\beta = 0.599$, $p < 0.001$), perceived university support ($\beta = 0.523$, $p < 0.001$), and Need for Achievement ($\beta = 0.523$, $p < 0.001$) towards the entrepreneurship intention. Thus, H1 was accepted. Therefore, H1, H2, and H3 were accepted.

Table 5: Results of Direct Path

Path	Coefficient	SE	p
Cognitive Structure - Entrepreneurship Intention	0.278	0.024	0.000
Perceived University Support - Entrepreneurship Intention	0.393	0.033	0.000

Need for Achievement - Entrepreneurship Intention	0.240	0.012	0.000
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Hayes' mediation method was used to evaluate the mediating effect. According to process V3.1, the 95% confidence interval of the mediating effect was estimated by extracting 5,000 bootstrap samples. Bootstrapping has been documented as one of the effective methods for testing the mediating effect (Hayes, 2018). If the Boot LLCI and Boot ULCI ranges do not include the value zero (0), then it can be concluded that the estimate is significant, and a mediation effect occurs. The results are shown in Table 6. Cognitive structure - need for achievement - entrepreneurship intention, the mediating effect is 0.041, 95% confidence interval is [0.002, 0.054], excluding 0, and the mediating effect is significant. Therefore, H4 is accepted. Next, perceived university support - the need for achievement - entrepreneurship intention, the mediating effect is 0.037, 95% confidence interval is [0.003, 0.068], excluding 0, and the mediating effect is significant. Therefore, H5 is accepted. The need for achievement mediates cognitive structure, perceived university support, and entrepreneurship intention. It acts like a bridge. If no bridge exists, locations A and B will not be connected. In this case, the need for achievement will connect all relationships.

Table 6: Model Summary Information for the Mediator Model

Effect	Path	Coefficient	SE	95% Confidence Interval	
				Lower Limit	Upper Limit
Direct effect	Cognitive Structure - Entrepreneurship Intention	0.220	0.022	0.036	0.325
	Perceived University Support - Entrepreneurship Intention	0.181	0.025	0.027	0.290
	Need for Achievement - Entrepreneurship Intention	0.209	0.032	0.178	0.356
	Cognitive Structure - Need for Achievement	0.199	0.019	0.026	0.246
	Perceived University Support - Need for Achievement	0.178	0.031	0.070	0.232
	Cognitive Structure - Need for Achievement - Entrepreneurship Intention	0.041	0.014	0.002	0.054
Indirect effect	Perceived University Support - Need for Achievement - Entrepreneurship Intention	0.037	0.007	0.003	0.068

Discussion

The first finding revealed that cognitive structure, perceived university support, and need for achievement significantly predicted entrepreneurship intention. These results indicate that individuals with entrepreneurial competencies, receiving good support from the university, and higher goal orientation are likely to become entrepreneurs. Our results were consistent with prior studies such as Gera et al. (2024), Zainol and Al Mamun (2018), Ndofirepi (2020), and Nasip et al. (2017). Entrepreneurs need to be educated and nurtured because entrepreneurs are

not born as entrepreneurs. Educational institutions play an essential role in cultivating entrepreneurial values in students. This helps provide informal exposure related to the world of entrepreneurship (Bergner et al., 2023; Lim et al., 2023). In addition, through educational institutions, the government also helps form the entrepreneurship ecosystem by creating various training. The combination of physical and virtual training can indirectly change the perception of students from being paid to working for themselves. Second, this study has found that the need for achievement mediates the relationship between cognitive structure, perceived university support, and entrepreneurship intention. This indicates that the impact of entrepreneurial competencies on entrepreneurship intention could be increased with the intervening effect of the need for achievement (Che Embi et al., 2019; Nasip et al., 2017). For instance, an individual with business knowledge and university support but a lack of motivation to strive for achievement would hinder him or her from becoming an entrepreneur. However, if the individual has a higher aim for success, the tendency to become an entrepreneur is also higher (Che Embi et al., 2019; Nasip et al., 2017; Fuller et al., 2018).

Overall, this research contributes to the literature and provides some novel insights, especially for entrepreneurship literature. Apart from the theoretical implications, the findings also offer several intriguing insights. The contribution of this study highlights the importance of entrepreneurial knowledge and competencies. Therefore, the government and related agencies need to provide resources such as seminars, conferences, training, workshops, support, and guidance in which the individual will acquire knowledge that would give them a competitive advantage. This may include tangible and intangible knowledge and skills, such as knowledge about credit instruments, business technologies and platforms, legal regulations, and professional competencies. The Malaysian government also should focus on building specific platforms for the public at the local and national levels. For instance, entrepreneur smart apps allow entrepreneurs to share their ideas, knowledge, and experiences. As argued in this article, sustainability-driven entrepreneurs need specific key competencies to perform sustainability-driven economic action effectively. This section focuses on specific knowledge and skills for sustainability-driven entrepreneurs and future change agents in sustainability as elements of the relevant competencies. Thus, potential entrepreneurs can discover new methods and solutions for their future business ventures. In addition, the university needs to focus more on interested students who want to run a business. This prevents the organizers from wasting time, energy, and money by focusing on students who want to avoid getting involved with entrepreneurship. Furthermore, changing a person's mind is exceedingly tricky, and there are many challenges; thus, providing encouragement and motivation is essential for the mind of an entrepreneur. The university could hold a mentor-mentee program with its entrepreneurial alumni. The alumni can mentor students and guide them in the field of entrepreneurship. A role model can support and motivate others and have experience managing business-related matters. According to Lopes et al. (2023), there is a positive correlation between role models and entrepreneurial intentions. This study found that learning through experience is essential because respondents are more excited to interact, share experiences, and exchange opinions with successful entrepreneurs. Next, the academic advisor is the closest person to a student during their studies. They can also play a role in promoting entrepreneurship as a career to students under their care. Suppose there are students in care who show an interest in entrepreneurship. In that case, the academic advisor can provide appropriate advice and guidance and channel space and opportunities to follow entrepreneurship training to those students from the beginning.

Conclusion

The study proves that the need for achievement mediates the relationship between cognitive structure, perceived university support, and entrepreneurship intention. Thus, a high-achieving individual is more inclined to become an entrepreneur. As a theoretical contribution to the development of youth entrepreneurship, this article analyses the causal path relationship relationships between cognitive structure, perceived university support, need for achievement, and entrepreneurship intention, which have been explored little in the literature. The results of this study can be used as a source of reference and guidance for other researchers who want to research youth entrepreneurship in the future. This study has proved that the TPB elements do not necessarily affect a direct relationship and could occur in causal path relationships. The study findings will facilitate decision-making processes concerning youth entrepreneurship strategies in the Malaysian context. On a practical level, it offers insights into potential strategies for improving training and programs to boost individual characteristics, confidence, competencies, and knowledge in entrepreneurship activities. Although this study's empirical results support the current model, there are several limitations to the current study. First, the researcher's small sample size and convenience sampling methods limit the ability to generalize results. It warrants future research with a larger sample. Second, a cross-sectional research design could prevent us from inferring the causality effect. As such, the longitudinal research design could help to confirm the causal relationships between these variables. Third, the current study only examines a limited set of variables, and many factors, such as perceived behavioral control, attitude, and other demographic factors, could affect our proposed relationship. Therefore, a future study might gain new insights by exploring the effects of the mentioned factors. For instance, Lin and Wang (2019) revealed that age determines entrepreneurship intention, where the youngsters are more energetic and dedicated to becoming an entrepreneur than the older. On the other hand, Nguyen (2018) has revealed that men are more determined to start a business than women. Many studies have also discovered a family background where wealthy families or parents have significantly influenced entrepreneurship's positive intention (Jemal, 2017).

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