

Entrepreneurial Characteristics and Entrepreneurial Intention: The Mediating Role of Entrepreneurial Mindset

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Abstract:

This study aims at examining the relationship between entrepreneurial characteristics and entrepreneurial intention as well as the mediating role of entrepreneurial mindset among university students. A descriptive correlational technique was utilized to conduct a non-experimental quantitative research approach to provide a detailed understanding of the influence among the constructs. This study involved 385 fourth-year Bachelor of Science in Hospitality Management (BSHM) and Bachelor of Science in Business Administration (BSBA) students majoring in Financial Management (FM) and Human Resource Management (HRM) who enrolled in entrepreneurship courses. The result reveals that entrepreneurial characteristics significantly positively affect entrepreneurial intention. Additionally, direct and indirect models show that an entrepreneurial mindset mediates the relationship between entrepreneurial characteristics and entrepreneurial intention. This suggests that entrepreneurial characteristics such as locus of control, need for achievement, risk-taking propensity, innovativeness, self-efficacy, and tolerance to ambiguity are important drivers of entrepreneurial intention, with an entrepreneurial mindset that acts as a catalyst that translates these characteristics to intentions. This study highlights the importance of cultivating an entrepreneurial mindset in higher education to bridge the gap between inherent traits and actual entrepreneurial pursuits, which is per the fourth and eighth sustainable development goals, which indicate quality education, decent work, and economic growth. Future investigations are encouraged to explore additional variables and conduct longitudinal studies to better understand this dynamic.

Keywords: Entrepreneurial Characteristics; Entrepreneurial Intention; Entrepreneurial mindset.

1. Introduction:

Entrepreneurship plays an important part in the economy of every country ([Ferreira et al., 2023](#)). A lot of people are considering the idea of entrepreneurship because it gives them an opportunity

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to make their businesses successful ([Baskaran, 2020](#)). However, a lot of students lack the courage to start their businesses despite being required to finish an entrepreneurship course as a prerequisite for their education to become future entrepreneurs ([Galay et al., 2023](#)). The significance of entrepreneurship has led to the attention of various scholars and researchers who are examining the barriers that may prevent an individual from engaging in entrepreneurship ([Kong et al., 2020](#)).

Due to fierce market competition and legal risks, students starting their own businesses must learn how customers react to their products, who the key players are, and what policies they must follow, which takes a lot of time to adapt and might cause hesitation in entrepreneurial intention ([Thy et al., 2022](#)). Therefore, universities must support student entrepreneurs by hosting a number of product contests and providing resources for the launch of new ventures ([Suprpto et al., 2020](#)).

Entrepreneurial characteristics such as creativeness, risk-taking, and opportunity recognition significantly influence students' interests in entrepreneurial professions ([Kollmann et al., 2021](#)). As to the investigation of [Jebsen and Rohlfer \(2024\)](#), the authors pointed out that innovative thinking, passion for starting a business, job satisfaction, and anticipated opportunity advocated entrepreneurial intention. Thus, [Ndofirepi \(2020\)](#) states that entrepreneurs must face high levels of uncertainty, and due to their risk-taking propensity, they often evaluate the pros and cons of their actions before making decisions ([Zhuang & Sun, 2024](#)). The detailed relationship between entrepreneurial characteristics and entrepreneurial intention emphasizes the need for customized teaching methods to develop innovative business-minded leaders ([Hossain, 2021](#)).

Another study conducted by [Zahroh et al. \(2023\)](#) claims that the need for achievement is an important entrepreneurial characteristic that has a significant effect on student's intention to become entrepreneurs, implying educational programs that help students develop a strong need for achievement can better prepare them to face the risks of being an entrepreneur. Thus, [Atiya and Osman \(2021\)](#) argued that entrepreneurial characteristics can predict university students' entrepreneurial intentions, emphasizing that higher education institutions assessing students' potential for entrepreneurship should provide training and education to support small businesses, which will decrease government burden and joblessness after their graduation.

Numerous studies have investigated the relationship between entrepreneurial intention and the mediated impact of an entrepreneurial mindset among university students ([Sutrisno et al., 2024](#)). For instance, when the pandemic entered the Philippines in early 2020, whether Filipinos liked it or not, it changed how today's college students think, particularly about entrepreneurial mentality traits like being aware of opportunity, anticipating risk, tolerating ambiguity, and having positivity in business, which all contribute to the student's intention to start a business ([Arnaut et al., 2022](#)). The research study of [Prayoga et al. \(2023\)](#) highlighted that students with a strong entrepreneurial mindset have high intentions due to their ability to think based on their beliefs and abilities, inspire positive behavior, and apply their knowledge to start entrepreneurship. Therefore, an entrepreneurial mindset shapes students' entrepreneurial intentions and, at the same time [Cui et al. \(2019\)](#) suggested that a school culture that supports entrepreneurial attempts affects students' willingness to succeed. In their study, [Cui and Bell \(2022\)](#) reveal that university students who develop a healthy entrepreneurial mindset can identify business opportunities and be enthusiastic about pursuing such ideas, thereby enhancing their entrepreneurial abilities.

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Entrepreneurial characteristics are fundamental in shaping an individual's entrepreneurial mindset, influencing their entrepreneurial intentions and success (Cui et al., 2019). According to the research of Mukhtar et al. (2021). Personality traits such as a willingness to take risks, a tolerance for ambiguity, and optimism help college students develop an entrepreneurial mindset, which in turn makes them more likely to want to start their own business. Moreover, Rodriguez and Lieber (2020) demonstrated that teaching entrepreneurship improves students' entrepreneurial characteristics especially in areas like communication, collaboration, recognizing opportunities, critical thinking, and problem-solving skills. This indicates how important educational programs are for building a strong entrepreneurial mindset that leads to entrepreneurial success.

Several studies provide empirical evidence of the positive link between entrepreneurial characteristics, entrepreneurial intention, and entrepreneurial mindset. However, these combined constructs were less exploited in the university students especially regarding their interest to engage in business. The primary purpose of this study is to lay the groundwork for important advances in entrepreneurship research and education. It aims to provide a better understanding of the things that affects entrepreneurs' decision-making by looking at the level of entrepreneurial characteristics, entrepreneurial mindset and entrepreneurial intention. The study also determines the relationship between entrepreneurial characteristics and entrepreneurial intention, and the role of entrepreneurial mindset among the students. This study is in accordance with the fourth and eight sustainable development which indicates quality education, decent work and economic growth. Thus, the result of this study would likely offer a useful understanding of how educational programs and interventions can be customized to promote entrepreneurial behavior and thinking amongst forthcoming business leaders.

This study evaluated the implication of entrepreneurial characteristics and entrepreneurial intention through entrepreneurial mindset among the students in the Department of Business and Management of NEMSU-Tagbina Campus, Surigao del Sur. Specific objectives of the study include:

1. Ascertain the level of entrepreneurial characteristics in terms of:
 - 1.1. Risk Taking Propensity;
 - 1.2. Innovativeness;
 - 1.3. Internal locus of Control;
 - 1.4 Need for Achievement; and
 - 1.5 Tolerance of Ambiguity.
2. Identify the level of entrepreneurial intention in terms of:
 - 2.1. Attitude towards the Behavior;
 - 2.2. Subjective Norms; and
 - 2.3. Behavioral Control.
3. Assess the level of entrepreneurial mindset.
4. Determine the significant relationship between:
 - 4.1. Entrepreneurial Characteristics and Entrepreneurial Intention;

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- 4.2. Entrepreneurial Characteristics and Entrepreneurial Mindset; and
- 4.3. Entrepreneurial Mindset and Entrepreneurial Intention.

- 5. Find out the mediating impact of entrepreneurial mindset on the relationship between entrepreneurial intention and entrepreneurial characteristics.

2. Literature Review:

2.1. Entrepreneurial Characteristics

Entrepreneurial characteristics are a set of specific traits that will determine whether this person may be classified as an entrepreneur or not ([Gao & Huang, 2023](#)). Entrepreneurial characteristics are shaped by various factors, such as individual, social, and environmental factors ([Ibidunni et al., 2020](#)). Several authors, such as [Gürol and Atsan \(2006\)](#) and [Hsieh et al. \(2019\)](#), as cited by [Ibidunni et al. \(2020\)](#) argued that individual factors, also known as the trait models, involve the personal characteristics of entrepreneurs. These personal traits are considered to be unique traits, attitudes and values. Meanwhile, social factors include personal experiences, career and family background. On the other hand, environmental factors are external aspects such as opportunities, channels for investment, wealth creation and tax reduction. This study focused more on personality traits as entrepreneurial characteristics.

Various research studies have analyzed certain personality traits as the characteristics of entrepreneurs. In the systematic literature review conducted by [Yangailo and Qutieshat \(2022\)](#), the authors presented various empirical studies that posited different personality traits that successful entrepreneurs possess and those that do not lead to entrepreneurial intention and success. For instance, empirical research posited that successful entrepreneurs have characteristics such as risk-taking propensity, locus of control, need for achievement, self-efficacy, innovativeness and tolerance to ambiguity, among others ([Genç, 2020](#); [Kerr et al., 2017](#); [Nodoro & van Niekerk, 2019](#); [Yangailo & Qutieshat, 2022](#)).

Risk-taking propensity is an individual's ability to avoid potential risks. With high risk-taking propensity, an individual takes advantage of opportunities in decision-making situations ([Yani, 2024](#)). Innovativeness is a crucial attribute for entrepreneurs who constantly seek new opportunities (Steenkamp et al., 2024). In particular, innovation is often what makes entrepreneurs successful ([Pindado et al., 2023](#)).

Entrepreneurs identify different gaps in the market or any areas where existing offers can be enhanced ([Tehseen et al., 2021](#)). Locus of control is an individual's desires, regardless of their ability to control their life conditions. An individual who tends to have an internal locus of control believes that they can control their environment with their actions and that they are responsible for their own destiny ([Mareta et al., 2021](#)). The need for achievement motivates an individual to struggle for success until it is achieved. People with a high need for achievement like to obtain feedback from others to evaluate and improve their performance; as such, entrepreneurs that receive favorable feedback are inspired and driven to succeed ([Damayanti, 2023](#)). General self-efficacy is an individual's persistence in their actions despite facing challenges. As to the investigation of [Idrus and Setiyadi \(2020\)](#), self-efficacy boosts confidence if the individual can

perform the tasks and there are no obstacles to inhibit their work. The construct of self-efficacy is considered to be a determinant factor in mobilizing an individual in the direction of venturing into a new business ([Gielnik et al., 2020](#)). Tolerance of Ambiguity is an individual's ability to handle uncertain situations (Aulia & Evanita, 2020). It is a characteristic of an individual's personality traits that affect their ability to handle and interpret information in situations that have various interpretations ([Yang, 2022](#)). An individual who possesses a high level of tolerance for ambiguity actively seeks out further information to minimize or eliminate uncertainties ([Yu et al., 2022](#)).

The role of entrepreneurial characteristics, especially in students, has been analyzed in the works of many scholars, and each author has indicated that these factors explain why people are successful in their entrepreneurial activities ([Salamzadeh et al., 2014](#)). [Ibidunni et al. \(2020\)](#) posited that this is probably due to the emerging trend that nations must take advantage of youth to improve economic growth and ensure the ongoing success of high-profile firms. Researchers have studied the entrepreneurial characteristics of university students with the purpose of understanding the level of entrepreneurial characteristics of entrepreneurially inclined students and those who are not ([Anwar & Saleem, 2019](#)). Moreover, according to [Hong et al. \(2012\)](#) students' entrepreneurial characteristics can be inferred from their subjective goals, including their motivations and innate psychological attributes.

2.2. Entrepreneurial Intention

A mentality that embraces an entrepreneurial point of view while simultaneously maintaining a focus on one's personal experiences is referred to as entrepreneurial intention ([Suprpto et al., 2020](#)). [Wibisono and Thao \(2023\)](#) defined this as a psychological characteristic that positively has an impact on behavior and encourages an individual to make a determined commitment to participate in the behavior. Many studies have been done on entrepreneurial intention, and the Theory of Planned Behavior (TPB) by [Ajzen et al. \(2009\)](#) is often used for any studies related to the intent of doing an action. This theory says that three main things affect someone's decision to become an entrepreneur: how they feel about the behavior, what they think are the social norms, and how much control they think they have over their behavior ([Zhuoma & Panyagometh, 2023](#)). The theory of planned behavior indicates that entrepreneurial intention is affected by factors such as attitude toward the behavior, subjective norms, and behavioral control ([Mohammed et al., 2017](#)).

An individual's attitude towards the behavior will be determined by the entire set of accessible behavioral beliefs associated with various experiences and outcomes since it encapsulates an individual's personal beliefs and perceived outcomes associated with entrepreneurial actions, which in turn, influence the intention to pursue entrepreneurship ([Liñán & Fayolle, 2015](#)). Subjective norms are the levels of social wellness that people perceive as locking or unlocking a particular behavior ([Masur et al., 2021](#)). The mental states of those important to the individual, such as family, friends, coworkers, and loved ones, impact this factor ([An et al., 2024](#)). Meanwhile, behavioral control pertains to the perception of an individual about the ease or difficulty of performing entrepreneurial behaviors as well as achieving entrepreneurial goals ([Asimakopoulou et al., 2019](#)). Along with attitudes and subjective norms, behavioral control is an essential component in determining the desire to become an entrepreneur, including the things like how capable people think they are, the resources they have access to, as well as external limits that may

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benefit or hinder entrepreneurial activities ([Liñán & Fayolle, 2015](#)).

A study conducted by [Mei et al. \(2020\)](#) claims that the educational system and schools have a crucial effect on the growth and future development of entrepreneurial intentions. These institutions offer educational and growth opportunities that can promote entrepreneurial skills, knowledge, and mindset and integrate entrepreneurship education into the curriculum that might enable educational institutions to assist students in developing ambitions to become entrepreneurs through curricular modifications and the establishment of an environment that fosters innovation and willingness to take risks ([Cui, 2021](#)). According to the findings of a study that was conducted by [Abun et al. \(2022\)](#), the desire of students to start their own businesses is a challenging topic that requires greater research for the purpose of fully understanding how to successfully apply several kinds of approaches in order to accomplish this objective. It is important for someone to have an entrepreneurial intention before it is possible to begin the lengthy procedure of starting a business because intending to start a business is considered to be a step before actually executing it ([Jones et al., 2022](#)).

For example, the attitudes toward the behavior of the students can be garnered through educational interventions and experiential learning approaches ([Castaldi et al., 2020](#)). When they are taught entrepreneurship, their understanding of how they would perceive themselves improves through acquiring new entrepreneurship knowledge, skills, and confidence in embracing entrepreneurship ([Fayolle & Gailly, 2015](#); [Wardana et al., 2020](#)). The study of [Vargas-Martínez et al. \(2023\)](#) disclosed that a positive attitude toward entrepreneurship has a significant influence on the entrepreneurial intention of the students to enter entrepreneurship. Numerous scholars concur that attitudes toward behavior that emerged because of entrepreneurial education influence student's intention to start and manage their businesses ([Bahaw et al., 2024](#); [Maydiantoro et al., 2021](#); [Mohammed et al., 2017](#); [Otache et al., 2019](#)). [Wijayati et al. \(2021\)](#) further argued that entrepreneurship attitudes are higher in business students than those who are not.

Academicians determined that subjective norms notably contributed to the entrepreneurial intention of university students, which means that supportive social environments increase the chances of engaging in entrepreneurial pursuits ([Al-Jubari, 2019](#); [Maydiantoro et al., 2021](#); [Mohammed et al., 2017](#)). Subsequently, [Lestari et al. \(2022\)](#) posited that the influence of subjective norms towards entrepreneurial intention may vary depending on social context. For instance, [Karimi et al. \(2021\)](#) stated that there is a higher level of emphasis on the outcome of subjective norms in collectivist traditions because of the value of social harmony and conformity to group expectations. This cultural factor provides an understanding of the importance of family and community's role in the decision-making process ([Chahal et al., 2024](#); [Chua et al., 2021](#)). Entrepreneurial education programs that involve social networks and provide mentorship opportunities can enhance the positive effects of subjective norms, thereby fostering stronger entrepreneurial intentions ([Bahaw et al., 2024](#); [García-Rodríguez et al., 2013](#); [Kusumojanto et al., 2021](#)). Nonetheless, [Mawardi and Baihaqi \(2020\)](#) disclosed that subjective norms do not significantly affect entrepreneurial intention.

Intentions are the best predictor of any intended behavior, including entrepreneurship and acquiring knowledge about the basic causes that drive intentions enhances our comprehension of

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the intended behaviors ([Shrivastava & Acharya, 2020](#)). Studies show consistent findings that individuals who believe that they have a lot of control over their behavior are more likely to be interested in establishing their own businesses ([Shinnar et al., 2014](#)). For instance, [Kurjono \(2022\)](#) states that perceived behavioral control strongly affects entrepreneurial behavior emphasizing the relevance of self-confidence and perceived abilities in entrepreneurial decision-making. Similarly, [Bahaw et al. \(2024\)](#) contend that individuals feel to be more capable of starting entrepreneurship with higher behavioral control. Various empirical studies also found that perceived behavioral control has positively influenced entrepreneurial intentions ([Aga, 2023](#); [Mawardi & Baihaqi, 2020](#)), with [Wijayati et al. \(2021\)](#) putting more emphasis on business administration students. Nevertheless, [Mohammed et al. \(2017\)](#) found that perceived behavioral control does not affect entrepreneurial intention.

2.3. Entrepreneurial Mindset

An entrepreneurial mindset encompasses the ability to identify potential customers, possess entrepreneurial consciousness, respond right away, foresee new possibilities, and identify poor decision-making methods ([Asenge et al., 2018](#); [Langemo, 2023](#); [Naumann, 2017](#)). The entrepreneurial mindset influences human behaviors toward entrepreneurial actions and results ([Saptono et al., 2020](#)). There are several factors affecting entrepreneurial mindsets. [Ndlovu et al. \(2023\)](#) argued that it is influenced by cultural and social factors, whereas [Zhang et al. \(2022\)](#) posited that psychological factors greatly contribute to the entrepreneurial mindset development.

Several studies have supported these claims. For instance, [Nazmi \(2020\)](#) concur that the high level of entrepreneurial mindset is influenced by four predictors such as connectedness, innovativeness and entrepreneurial knowledge. It is also correlated with entrepreneurial competencies and predicted by factors such as risk propensity, planning, creativity and financial literacy ([Pihie & Arivayagan, 2016](#)).

Other scholars highlighted the crucial role of higher educational institutions in improving entrepreneurial mindsets, especially among university students by providing institutional support and the accessibility of resources within educational institutions ([Mohamoud, 2024](#); [Pinto et al., 2024](#)). The entrepreneurial mindset is a prerequisite for students who want to enter entrepreneurship and, later on, focus on execution, adapt effectively, and engage everyone in their field of expertise ([Ngwoke et al., 2020](#)). Students can develop an entrepreneurial mindset by actively participating in problem-solving and decision-making activities within business-oriented situations ([Bosman et al., 2022](#)). Thus, universities must teach entrepreneurial thinking to reduce redundant graduates ([Mukhtar et al., 2021](#)). The low level of entrepreneurial mindset of small and medium enterprises entrepreneurs is associated to their lack of entrepreneurial education ([Neneh, 2012](#)). The entrepreneurial mindset is essential for entrepreneurial success. A high level of this aspect is more likely to generate sustainable revenues and achieve success in their entrepreneurship ventures ([Jemal et al., 2023](#)).

2.4. Entrepreneurial Characteristics and Entrepreneurial Intention.

Many researchers and authors have recognized the importance of various personality traits that influence entrepreneurial behavior. Scholars argued that locus of control, risk-taking propensity,

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innovativeness, tolerance to ambiguity and innovativeness are identified to be the five personality dimensions that directly impact entrepreneurial intentions ([Dubey, 2022](#)). Additionally, in a systematic literature review conducted by [Yangailo and Qutieshat \(2022\)](#) entrepreneurial characteristics predict entrepreneurial intention and, ultimately, guarantee entrepreneurial success, highlighting the key top personality traits such as locus of control, need for achievement, innovativeness, self-efficacy and conscientiousness that unarguably predict entrepreneurial intention and success. The apparent link between these constructs implies that personal characteristics enhance the entrepreneurial intention of an individual by boosting their confidence and improving their ability to succeed in entrepreneurial ventures ([Emrizal & Primadona, 2023](#)). This is also true among university students. [Ledi et al. \(2022\)](#) disclosed that there is a need to cultivate these characteristics to promote entrepreneurial activities as students who manifest higher levels of entrepreneurial characteristics could potentially develop their intention toward entrepreneurship. Numerous empirical studies have also determined that locus of control, need for achievement, self-efficacy, and innovativeness affects entrepreneurial intention of entrepreneurs and students ([Agustina & Fauzia, 2021](#); [Asmara et al., 2016](#); [Kurjono et al., 2022](#); [Li-Yu & Jian-Hao, 2019](#); [Ndofirepi, 2022](#); [Nursyirwan et al., 2022](#); [Tentama & Abdussalam, 2020](#); [Uysal et al., 2021](#); [Wang & Huang, 2022](#); [Wathanakom et al., 2020](#)). Nevertheless, some authors revealed that tolerance of ambiguity ([Nazir & Lone, 2022](#); [Susana & Kurjono, 2023](#)) and self-efficacy had no direct effect on entrepreneurial intention ([Romero-Galisteo et al., 2022](#)). Based on the literature, the following hypothesis was drawn.

/H₁: There is a significant relationship between entrepreneurial characteristics and entrepreneurial intention.

2.5. Entrepreneurial Characteristics and Entrepreneurial Mindset

On the other hand, empirical research determined the connection between entrepreneurial characteristics and entrepreneurial mindset. According to the findings of the study of [Jiatong et al. \(2021\)](#) and [Oulhou and Ibourk \(2024\)](#) the characteristics of entrepreneurs, such as self-efficacy and resilience are essential in the process of developing an entrepreneurial mindset. Persons who have these characteristics think creatively, survive in the face of difficulties and are likely to have greater level of confidence which are crucial components of an entrepreneurial mindset. This idea supports the arguments of [Al-Ghazali et al. \(2022\)](#) that personality aspects affect the development of an entrepreneurial mindset. This is further reinforced by the idea of [Handayati et al. \(2020\)](#) who also argued that an entrepreneurial mindset does not only encompass self-efficacy but includes creativity, problem-solving, opportunity-seeking, attitudes, beliefs, knowledge and experience. [Pidduck et al. \(2021\)](#) also added innovativeness and risk-taking propensity as factors contributing a positive correlation with an entrepreneurial mindset. With this, [Aima et al. \(2020\)](#) contends that developing a mindset that benefits the success of entrepreneurs can be achieved by enhancing characteristics like self-efficacy and resilience through customized remedies and educational programs. Therefore, the study posits this hypothesis.

H₂: There is a significant relationship between entrepreneurial characteristics and entrepreneurial mindset.

2.5. Entrepreneurial Intention and Entrepreneurial Mindset

The relationship between having an entrepreneurial mindset and entrepreneurial intention suggests that entrepreneurial mindset increases one's intent towards entrepreneurship ([Jiatong et al., 2021](#)). Research scholar reinforced this idea by positing that the source of innovation and entrepreneurship comes from the minds of individuals and hence, entrepreneurial mindset and entrepreneurial intention are closely associated ([Cater et al., 2023](#)). They further contend that people with entrepreneurial intentions often associate themselves with entrepreneurial activities, such as starting a business and emotionally engaging in the entrepreneurial process. [Ikhram and Novadjaja \(2020\)](#) investigated the manner in which university support and entrepreneurship education have an impact on students' intentions to become entrepreneurs, and they figured out that both of these factors significantly strengthen the mindset of students towards entrepreneurship. Scholars like [Handayati et al. \(2020\)](#) found a positive relationship between entrepreneurial mindset and entrepreneurial intention, thus emphasizing the critical role of entrepreneurship education in developing the entrepreneurial mindset of the students ([Mars et al., 2024](#); [Sun et al., 2023](#)). Hence, this assumption was suggested.

H₃: There is a significant relationship between entrepreneurial mindset and entrepreneurial intention.

Mediating Role of Entrepreneurial Mindset

Numerous research studies have found that entrepreneurial mindset performs a pivotal role between entrepreneurial characteristics and the intention to become involved in entrepreneurial endeavors ([Handayati et al., 2020](#); [Lee & Jung, 2021](#); [Y. Li et al., 2023](#); [Mukhtar et al., 2021](#); [Sun et al., 2023](#)). Possessing an entrepreneurial mindset allows individuals to think like entrepreneurs. Hence, those who have a well- developed entrepreneurial mindset have a greater capacity to transform their entrepreneurial characteristics into actual business goals ([Prayoga et al., 2023](#)). A study conducted by [Bosman and Fernhaber \(2021\)](#) concurred that individuals who have high levels of entrepreneurial mindset are likely to show willingness to develop intentions to engage in business activities. Additionally, the investigation shows that having an entrepreneurial mindset characterized by a positive attitude towards entrepreneurship and the ability to recognize and take advantage of opportunities is associated with a higher likelihood of participating in an entrepreneurial endeavor. Thus, this study hypothesized the potential of an entrepreneurial mindset to mediate the relationship between entrepreneurial characteristics and entrepreneurial intention.

H₄: There is no mediating effect of entrepreneurial mindset on the relationship between entrepreneurial characteristics and entrepreneurial intention.

2.6. Theoretical and Conceptual Framework:

This study is anchored on the Theory of Planned Behavior (TPB), which is an enhancement of the Theory of Reasoned Action ([Ajzen, 1985](#)), which states that an individual's behavior is influenced directly by behavioral intention and perceived behavioral control. [Mentrikoski et al. \(2019\)](#) stated

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that the stronger the intention to engage in the behavior, the more likely the behavior will be performed based on the theory of planned behavior (TPB). Theoretically, planned behavior theory links the intention to start a business and the formation of an entrepreneurial mindset, which is significantly influenced by certain entrepreneurial characteristics ([Handayati et al., 2020](#)). Therefore, this theory will provide entrepreneurial instructions in educational institutions to assist students in their entrepreneurial intentions, as it motivates individuals to take the initial steps toward starting a business as future leaders ([Hassan et al., 2022](#)).

The conceptual framework presented one (1) independent variable, which is the entrepreneurial characteristic assessed by six (6) indicators: risk-taking propensity, innovativeness, locus of control, need for achievement, general self-efficacy, and tolerance of ambiguity ([Anwar & Saleem, 2019](#)). It also presented one (1) dependent variable, which is the entrepreneurial intention, as assessed by three (3) indicators: attitude towards the behavior, subjective norms, and behavioral control ([Li et al., 2023](#)). Entrepreneurial mindset is presented as the mediating variable ([Nazmi, 2020](#))

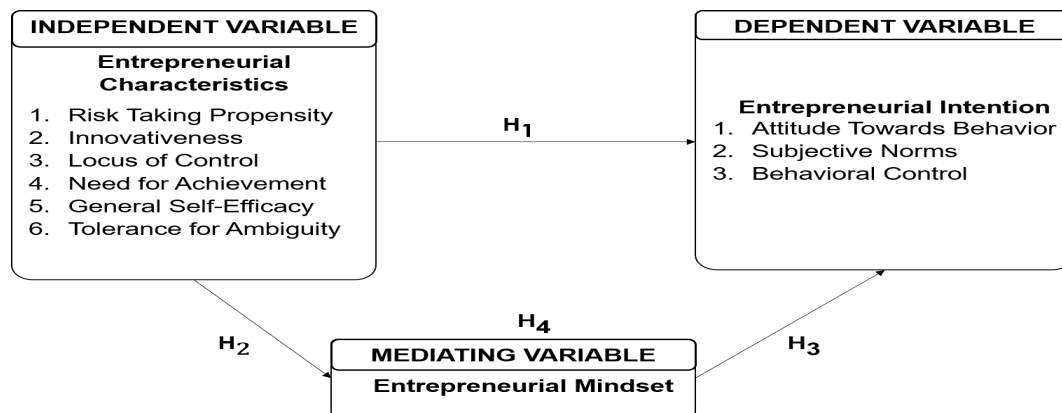


Figure 1. Conceptual Framework

3. Research Method

3.1. Research Design

This study used a descriptive correlational technique to conduct a non-experimental quantitative research approach. A descriptive correlational technique was used to investigate the relationship between entrepreneurial characteristics, entrepreneurial intention and entrepreneurial mindset. Non-experimental quantitative research employing mediation analysis was utilized to conduct the study and determine the degree of entrepreneurial characteristics and entrepreneurial intention, and the mediating effect of the entrepreneurial mindset of the students in the Department of Business and Management in NEMSU- Tagbina Campus.

3.2. Sampling

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The respondents of this study were the students in the Department of Business and Management. Respondents were selected on the basis of randomization through stratified random sampling technique. This study involved 385 fourth-year Bachelor of Science in Hospitality Management (BSHM) and Bachelor of Science in Business Administration (BSBA) students majoring in Human Resource Management (HRM) and Financial Management (FM) students enrolled in the entrepreneurial management course.

3.3. Data Collection

The study primarily utilized a modified closed-ended survey questionnaire in the English language for data collection. The questionnaire has three sets of questions that focus on a specific variable. The first set of questions was about the degree of entrepreneurial characteristics of the student, involving risk-taking propensity, innovativeness, locus of control, the need for achievement, general self-efficacy, and tolerance of ambiguity. The second set of questions focused on the students' degree of entrepreneurial intention. It involves the attitude towards behavior, subjective norms and behavioral control. The third set of questions was the degree of entrepreneurial mindset of the students. The survey items aim to better understand the subject under investigation.

The questions used to assess the entrepreneurial characteristics of the respondents were derived from a multi-item scale developed by [Anwar & Saleem \(2019\)](#). The measurement of entrepreneurial intention was conducted using a scale that was developed by [\(Li et al., 2023\)](#), while the entrepreneurial mindset of the respondents was assessed with a questionnaire that was adapted from [\(Nazmi, 2020\)](#). The study made use of the 5-point Likert scale to assess each of the items in the questionnaire. Respondents were provided with this rating system ranging from (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, and (5) strongly agree.

The survey questionnaires underwent validation from experts in the field of study that resulted 0.99 using Lawshe's Content Validity Index (CVI). A reliability test was conducted afterwards to assess consistency and accuracy of the sets of questions and generated a Cronbach Alpha value of 0.946.

3.4. Measures

The data collected in this study underwent evaluation and interpretation using descriptive statistics, Pearson r correlation and regression analysis. Descriptive Statistics were used to interpret the level of entrepreneurial characteristics, entrepreneurial intention and entrepreneurial mindset. Pearson Product-Moment Correlation (Pearson r) was preferred to determine the relationship between entrepreneurial characteristics and entrepreneurial intention and entrepreneurial mindset to entrepreneurial intention and entrepreneurial characteristics. Ultimately, regression analysis was used to determine the mediation effect of entrepreneurial mindset on the relationship between entrepreneurial characteristics and entrepreneurial intention

4. Results And Discussion:

4.1. Level of Entrepreneurial Characteristics

Presented in Table 1 is the level of entrepreneurial characteristics. The overall mean level of entrepreneurial characteristics is 3.85, and the standard deviation (sd) of 1.01 indicates a very high

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descriptive level. Among the indicators, *Locus of Control* obtains the highest mean of 3.96, followed by *Need for Achievement* ($\bar{x} = 3.93$). This is followed by *General Self-Efficacy* ($\bar{x} = 3.88$), *Risk Taking Propensity* ($\bar{x} = 3.82$), *Innovativeness* ($\bar{x} = 3.79$), and *Tolerance of Ambiguity* ($\bar{x} = 3.71$) which these characteristics also demonstrate a high descriptive level. These findings show that entrepreneurial characteristics are always manifested among students.

Table 1. Level of Entrepreneurial Characteristics

Indicators	Mean	SD
Risk-Taking Propensity	3.82	1.02
Innovativeness	3.79	0.96
Locus of Control	3.96	1.05
Need for Achievement	3.93	1.06
General Self-Efficacy	3.88	0.98
Tolerance of Ambiguity	3.71	1.01
Overall	3.85	1.01

The very high level of value of locus of control in the context of entrepreneurial characteristics is attributed to its influence on the self-perceived control of success, which increases the students' initiatives and proactive behaviors, risk-taking, and problem-solving skills essential for entrepreneurship. This finding validates the idea of ([Hamzah & Othman, 2023](#)) and ([Mareta et al., 2021](#)) that individuals with an internal locus of control believe that they can influence their environment and that their activities directly affect the consequences or rewards they attain. This finding is also in consonance with the idea of ([Karya et al., 2022](#)) where individuals with strong self-control make themselves believe that their quality of life is self-determined and that their actions lead to life events. They are inclined to believe that they have the ability to influence the results of their endeavors. Thus, they are willing to work hard to achieve success.

As highlighted in the information above, it is most likely that students with a high locus of control have confidence in their own abilities, are more likely to seize opportunities, and are more proactive and alert to entrepreneurial opportunities. These findings are also congruent with the idea of ([Karya et al., 2022](#)) who opined that individuals with a clear vision of the future and internal locus of control are more likely to engage in entrepreneurial activities and start new businesses ([Karya et al., 2022](#)). ([Baldegger et al., 2017](#)) contended that individuals with an internal locus of control think they will succeed in entrepreneurship. Moreover, this characteristic allows owner-managers to find and discover profitable business opportunities ([Asante & Affum-Osei, 2019](#)). As cited by ([Hamzah & Othman, 2023](#)), prior research found a significant connection of internal locus of control to career motivations ([Baldegger et al., 2017](#)), opportunity recognition ([Asante & Affum-Osei, 2019](#)), entrepreneurial intentions of vocational high school students ([Tentama & Abdussalam, 2020](#)), and learning from failure, and resilience ([Zhao & Wibowo, 2021](#)).

The need for achievement also indicates a very high descriptive level. This result is manifested by task interest, positive mood and organizational spontaneity. The study also parallels the idea of ([Akhtar et al., 2020](#)) who also purport that the need for achievement is one of the major motivational factors for learners or students regarding their career choices. Entrepreneurial

characteristics such as general self-efficacy risk, risk-taking propensity, innovativeness, and tolerance of ambiguity form part of the very high descriptive level. Such findings also corroborate to the study of ([Anwar & Saleem, 2019](#)), who argues that students who are entrepreneurially inclined show higher levels of entrepreneurial characteristics such as high-risk taking propensity innovativeness, tolerance of ambiguity, need for achievement, and locus of control, except general self-efficacy which remains similar to those students who are not entrepreneurially inclined.

4.2. Level of Entrepreneurial Intention

Displayed in Table 2 is the level of entrepreneurial intention that exhibits an overall mean level of 3.91 and standard deviation of 1.05. It indicates a very high descriptive level. This result implies that entrepreneurial intention among fourth year students is always manifested. Among the three indicators, *Attitude Towards the Behavior* obtained the highest mean of 4.06 which results to a very high descriptive level. *Subjective Norms* garners a mean of 3.85 also classified as very high descriptive level. *Behavioral Control*, the least among the indicators, generated a mean of 3.83; however, it achieved a very high descriptive level.

Table 2. Level of Entrepreneurial Intention

Indicators	Mean	SD
Attitude Towards the Behavior	4.06	1.06
Subjective Norms	3.85	1.09
Behavioral Control	3.83	1.02
Overall	3.91	1.05

The theory of planned behavior indicates that entrepreneurial intention is affected by factors such as attitude toward the behavior, subjective norms, and behavioral control. ([Mohammed et al., 2017](#)). The findings show an overall result of a surprisingly very high level of the three indicators, thus determining that the students who have undergone entrepreneurial education possess a remarkable entrepreneurial intention. The findings are in agreement with the study by ([Wijayati et al., 2021](#)) who determined that entrepreneurship attitude and perceived behavior in business students appear to be higher than those who are not, thus, perceiving a high level of entrepreneurial intention due to entrepreneurial education they received. Further, the results of prior research posited that entrepreneurial attitude and subjective norms have a significant effect on the entrepreneurial intentions of university students ([Maydiantoro et al., 2021](#); [Mohammed et al., 2017](#)). In contrast to ([Mohammed et al., 2017](#)), perceived behavioral control showed no significant effect on entrepreneurial intention. Nevertheless, ([Aga, 2023](#)), findings emphasized that behavioral control positively predicts entrepreneurial intentions and partially mediates the relationship between entrepreneurship education and entrepreneurial intentions. Similarly, ([Mawardi & Baihaqi, 2020](#)) found that behavioral control and entrepreneurial attitude positively impact entrepreneurial intentions, noting that subjective norms do not have a significant effect.

Further, the exceptionally high descriptive level of the entrepreneurial intention of the respondents may be due to factors such as entrepreneurial education, as these students have enrolled in subjects that supply entrepreneurial knowledge and skills. The very high level of attitude toward the behavior is attributed to a person's negative or positive evaluation of entrepreneurship ([Wardana](#)

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et al., 2020). It also reveals the extent to which the individual considers becoming an entrepreneur favorable. Parallel to the study of (Otache et al., 2019), they observed that changes in attitudes toward behavior occur through the influence of entrepreneurial education, and this was found to have a mediated moderation effect on intentions. Similarly, (Bahaw et al., 2024) noted that a positive change in attitude toward behavior indicates that participants have a favorable perception of starting and managing their own businesses. Because these students have already undertaken entrepreneurial education in the business administration program, they will most likely enhance their attitudes toward behavior.

Subjective norms, another indicator, is an individual's perception of other people's beliefs and expectations toward their entrepreneurial intention (Lavelle, 2019). These influential individuals are their friends, families, partners, and other groups of people (Chahal et al., 2024). The respondents' entrepreneurial education could explain the remarkably high level of subjective norms as they perceived. These results are in consonance with the idea of (Kusumojanto et al., 2021) and (Bahaw et al., 2024) that individuals with entrepreneurial education are more likely to achieve positive approval from others to pursue entrepreneurship as social pressure can affect a person's intention to act. As mentioned in the review paper of (Cardella et al., 2022), the authors noted that the students with entrepreneurial knowledge and skills understood their career paths well, enhancing parental support for entrepreneurship intentions.

Further, behavioral control that achieved a very high descriptive level is attributed to the perceived ease or difficulty in carrying out a behavior (Lavelle, 2019). An empirical study by (Bahaw et al., 2024) determined that an increase in behavioral control means that the participants felt more capable of launching successful embark of entrepreneurship ventures. The author further cited research findings that revealed that both students in vocational education who undergo entrepreneurial education perceive themselves to be more capable of performing entrepreneurial tasks and experience greater control over their entrepreneurial behaviors than those who do not undergo formal entrepreneurial education.

4.3. Level of Entrepreneurial Mindset

Illustrated in Table 3 is the level of entrepreneurial mindset. It generated an overall mean of 3.79 with the standard deviation of 0.98, indicating a very high descriptive level. This result implies that the entrepreneurial mindset is always manifested by the respondents. The indicator *I keep trying until I found the solution to a problem* generated the highest mean of 4.07. It is followed by *I can plan tasks in a project* ($\bar{x} = 3.79$), *I see opportunities where others see it as problems* ($\bar{x} = 3.73$), and *I am often the first to come up with a solution for a problem* ($\bar{x} = 3.58$) which are all classified with very high descriptive level.

Table 3. Level of Entrepreneurial Mindset

Indicators	Mean	SD
I am often the first to come up with a solution for a problem	3.58	0.98
I keep trying until I found the solution to a problem	4.07	1.01
I see opportunities where others see it as problems	3.73	0.99
I can plan tasks in a project	3.79	0.95

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Overall	3.79	0.98
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The entrepreneurial mindset generated a very high overall descriptive level. The entrepreneurial mindset is attributed to an individual's ability to create new ideas, search for and select opportunities, and take the necessary actions to create and manage an enterprise. In essence, it is closely related to an individual's capacity to reason and choose, using available resources to seize opportunities ([Asenge et al., 2018](#); [Naumann, 2017](#)). The findings of the study revealed that the students are capable of creating new ideas, assessing risks and opportunities and starting or managing a business. These results are aligned with the study of ([Nazmi, 2020](#)), positing that there is a high level of an entrepreneurial mindset among university students as determined by the predictors such as connectedness, evaluation, innovative employee and entrepreneurial knowledge. Moreover, the finding is also in consonance with the study of ([Pihie & Arivayagan, 2016](#)), who disclosed that university students have moderate levels of entrepreneurial mindset, which is associated with entrepreneurial competencies. The authors also revealed creativity, risk propensity, planning, and financial literacy as significant predictors of an entrepreneurial mindset. Other scholars highlighted the important role of higher educational institutions in creating a curriculum that targets the enhancement of entrepreneurial mindset among university students ([Pinto et al., 2024](#)).

Other studies have also arrived at similar conclusions in terms of business ventures or work-related aspects. The findings of ([Abun et al, 2022](#)) revealed a high level of entrepreneurial mindset among the employees. The author also noted that an entrepreneurial mindset is correlated to an individual's work performance. On the other hand, this is in contrast to the study by ([Neneh, 2012](#)), which found that entrepreneurs of small and medium enterprises in South Africa had a low level of entrepreneurial mindset. Neneh's study further explained that this is due to the low level of growth mindset and lack of entrepreneurial education, which are significant in the success of an enterprise. In their study, ([Jemal et al., 2023](#)) opined that entrepreneurial mindset was associated to entrepreneurship success in Vancouver. Startups owned by people with higher levels of entrepreneurial mindset are likely to generate sustainable revenues and acquire funding and quality employees. People who have resilient mindsets, accept failures, and do not give up in the course of the venture have higher chances of making their ventures succeed.

Ultimately, the abovementioned studies means that individuals who possess high levels of entrepreneurial mindset are people who have gained entrepreneurial knowledge or entrepreneurial education. Moreover, those individuals who possess entrepreneurial mindsets have the potential to achieve venture success

4.4. Relationship Among Entrepreneurial Characteristics, Entrepreneurial Mindset and Entrepreneurial Intention

Depicted in Table 4 is the correlation between constructs used in this study. These relationships are essential as requisites in the conduct of the mediation analysis. Closely examining the associations between the two constructs, entrepreneurial characteristics and entrepreneurial intention are statistically significant to each other with an r-value of 0.859 and a $p < 0.01$, signifying that H1 was supported. The r-value contributed to the significant overall correlation of

the two main constructs. This suggests that entrepreneurial characteristics and entrepreneurial intention have significant relationship with each other. Moreover, entrepreneurial characteristic is statistically significant to entrepreneurial mindset (r value = 0.841, $p < 0.01$) and entrepreneurial mindset is significant to entrepreneurial intention (r -value = 0.820, $p < 0.01$, signifying that H2 and H3 were deemed acceptable. This generated result indicated that an entrepreneurial mindset is highly associated with entrepreneurial characteristics and entrepreneurial intention.

Table 4. Relationships among Entrepreneurial Characteristics, Entrepreneurial Mindset and Entrepreneurial Intention

<i>Correlated Constructs</i>	<i>r-value</i>	<i>p-value</i>	<i>Decision</i>
<i>Entrepreneurial Characteristic and Entrepreneurial Intention</i>	0.859*	0.00	H1: Accepted
<i>Entrepreneurial Characteristics and Entrepreneurial Mindset</i>	0.841*	0.00	H2: Accepted
<i>Entrepreneurial Mindset and Entrepreneurial Intention</i>	0.820*	0.00	H3: Accepted

The overall result on the correlation of the constructs reveals a positive relationship to each other. From a holistic point of view, entrepreneurial characteristics are always manifested and are positively associated with entrepreneurial intention. A number of research studies have disclosed that students' entrepreneurial characteristics are positively significant in relation to their entrepreneurial intention. The results are congruent to the study of (Wang & Huang, 2022), who determined that internal locus of control has a positive and significant impact on entrepreneurial intention. In the same way, the finding of this study is parallel to the investigation of (Tentama & Abdussalam, 2020), contending that students' internal locus of control can predict students' entrepreneurship intention. Moreover, (Uysal et al., 2021) reported that locus of control has a significant effect on entrepreneurial intention. The author also noted, using conditional indirect effect, that the locus of control depended on sex, with the effect being higher for men.

The study by Wardana et al. (2024) revealed that the need for achievement affects students' entrepreneurial intention. Pursuing this further, Asmara et al. (2016) also revealed a direct effect of the need for achievement and an indirect effect of risk-taking propensity on the entrepreneurship intention of students through entrepreneurship attitude. The same result was found by (Agustina & Fauzia, 2021) on Generation Z. However, it is not mediated by an entrepreneurial attitude. Several scholars have also determined the relationship between entrepreneurial characteristics such as self-efficacy, innovativeness, and tolerance of ambiguity. The result supports the study of several authors as they inferred that entrepreneurial self-efficacy positively influences entrepreneurial intention of students toward entrepreneurship. (Li-Yu & Jian-Hao, 2019; Ndofirepi, 2020; Nursyirwan et al., 2022). In the same way, the finding of this study is parallel to the result of (Wathanakom et al., 2020), contending that innovativeness can effectively predict entrepreneurial intention among undergraduate students. Moreover, locus of control and tolerance of ambiguity had a positive effect on entrepreneurial intention (Kurjono, 2022). These findings support the literature that entrepreneurial characteristics significantly impact entrepreneurship intentions (Sun et al., 2023). Nevertheless, the findings contrast with those of (Romero-Galisteo

[et al., 2022](#)), who reported that self-efficacy had no direct effect on entrepreneurial intention. The study was also in contrast to the empirical study of ([Nazir & Lone, 2022](#)), where their results revealed that the except for tolerance of ambiguity, indicators such as need for achievement, locus of control, self-confidence, risk-taking propensity, and innovativeness influence the entrepreneurial intention of the students. Furthermore, ([Susana & Kurjono, 2023](#)) found that locus of control, self-confidence, need for achievement, and innovation positively and significantly influence social entrepreneurial intentions, while the propensity to take risks and tolerance of ambiguity do not.

On the other hand, the significant association of the three constructs is also supported by different studies. The study's findings are aligned with ([Handayati et al., 2020](#)), who highlighted studies that posited entrepreneurial mindset do not only focus on self-efficacy but also encompasses factors like knowledge, experience, creativity, problem-solving, opportunity-seeking, attitudes, and beliefs. They are in congruence with the entrepreneurial characteristics as highlighted by ([Al-Ghazali et al., 2022](#)), who established that personality aspects played a crucial role in enhancing the entrepreneurial mindset, which impacted the entrepreneurial ambition of university students in Saudi Arabia. In the context of ([Lindberg et al., 2017](#)), an entrepreneurial mindset is a person's orientation toward activities and outcomes associated with entrepreneurship. ([Fayolle & Gailly, 2015](#)) stated the importance of this mindset in the formulation of entrepreneurship decisions and activities.

Other research studies reinforced the conclusion of the study. For instance, the study of ([Pidduck et al., 2021](#)) find that there is a positive correlation between entrepreneurial orientation dimensions, innovativeness, and risk-taking with entrepreneurial mindset. In their model, it is stated that these traits modulate value beliefs with opportunity beliefs, either enhancing or inhibiting their expression. This interplay impacts how such beliefs are looked at by these individuals, what choices are made and what actions are taken, making subjectivity key to the understanding of the entrepreneurial mindset.

Moreover, the findings of the study are supported by empirical studies that demonstrated the association between entrepreneurial mindset and entrepreneurial behavior. The finding is consistent with ([Bahaw et al., 2024](#)), who reported a significant enhancement in the level of entrepreneurial intention among vocational students. This increase was attributed to the entrepreneurial education program that changed not only the intentions of entrepreneurship but also the attitudes, perceived control, and social norms in the creation of businesses for the comprehensive development of the entrepreneurial spirit. Likewise ([Sun et al., 2023](#)) proved that entrepreneurship education both improve the students' entrepreneurial mindset and their intentions of becoming entrepreneurs. ([Handayati et al., 2020](#)) also confirmed a strong relationship between entrepreneurial mindset and students' entrepreneurial intentions; as such, educational programs are critical. Similarly, [Mars et al. \(2024\)](#) noted that for students to possess the right entrepreneurial attitude, their choices of program should incorporate the provision of entrepreneurial leadership training for them irrespective of their academic disciplines, highlighting education on the development of entrepreneurial personal characteristics and intentions.

4.5. Mediating Effect of Entrepreneurial Mindset on the relationship between Entrepreneurial Characteristics and Entrepreneurial Intention

The study aims to determine the mediating role of entrepreneurial mindset towards the relationship between entrepreneurial characteristics and entrepreneurial intention as illustrated in Table 5. The total effect model reveals a significant and positive effect of entrepreneurial characteristics to entrepreneurial intention ($\beta = .949$, $z = 32.97$, $p < 0.01$). The direct effect model also reveals, with the inclusion of the mediator, a significant and positive effect ($\beta = .640$, $z = 12.86$, $p < 0.01$). Furthermore, the indirect effect model depicts a significant and positive effect of entrepreneurial characteristics to entrepreneurial intention as mediated by entrepreneurial mindset ($\beta = .330$, $z = 7.20$, $p < 0.01$). Thus, hypothesis H4 was deemed acceptable.

Table 5. Mediating Result

Effect	Path	β	SE	z	95% CI		p
					Lower	Upper	
Total	EC $\rightarrow$ EI	.95	.03	32.97	.89	1.01	0.00
Indirect	EC $\rightarrow$ EM $\rightarrow$ EI	.33	.04	7.20	.23	.39	0.00
Direct	EC $\rightarrow$ EI	.64	.05	12.86	.54	.74	0.00

Note. EC: Entrepreneurial Characteristics; EM: Entrepreneurial Mindset; EI: Entrepreneurial Intention; SE: Standard Error

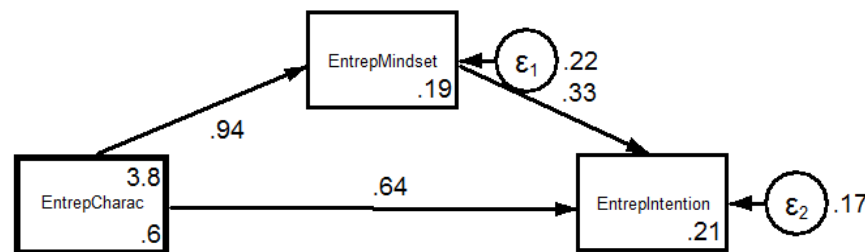


Figure 2. Graph showing regression paths of the variables

This study shows an indirect effect of a significant relationship between entrepreneurial characteristics and entrepreneurial intention mediated by an entrepreneurial mindset. Empirical studies are aligned with the findings of this study, where entrepreneurial mindset mediated two constructs. The study of (Sun et al., 2023) determined that an entrepreneurial mindset mediates the relationship between entrepreneurship education and entrepreneurial intention. (Handayati et al., 2020) also arrived at the same conclusion, highlighting a strong link between entrepreneurial mindset and entrepreneurial intention. Moreover, another study by Lee and Jung (2021) revealed that entrepreneurial mindset mediated the relationship between intolerance of uncertainty and career adaptability. The authors illustrated the importance of cultivating an entrepreneurial mindset during the pandemic. The finding is also parallel with Mukhtar et al. (2021) that entrepreneurial

mindset can explain the relationship between entrepreneurial education, entrepreneurial culture and students' entrepreneurial intention in Indonesia.

5. Conclusion

The findings provide persuasive evidence that entrepreneurial mindset plays a mediating role in the entrepreneurial characteristics and entrepreneurial intention nexus. The findings demonstrate a strong framework that emphasizes the role of intrinsic characteristics and cognitive processes in generating entrepreneurial aspirations. The total effect model suggests that there is a highly significant positive association between entrepreneurial characteristics and entrepreneurial intention. This implies that individuals who exhibit strong entrepreneurial traits, such as resilience, proactivity, and risk-taking, are more likely to express intentions to participate in entrepreneurial activities, thus establishes a fundamental understanding that entrepreneurial characteristics are essential building blocks that drive entrepreneurial intention. Upon examining closely the direct effect model, the introduction of entrepreneurial mindset as a mediator still results in a substantial positive effect, suggesting that the direct relationship between characteristics and intention remains robust, even after accounting for the mediating influence of mindset. This serves as additional confirmation that the entrepreneurial mindset is essential for strengthening the correlation between an individual's characteristics and their aspiration to pursue entrepreneurship. This dynamic is further elucidated by the indirect effect model, which reveals a substantial mediation effect. This finding emphasizes that the entrepreneurial mindset not only directly influences intentions but also enhances the influence of entrepreneurial characteristics on those intentions. Essentially, it functions as a catalyst that converts inherent characteristics into actionable entrepreneurial aspirations.

These discoveries have significant implications for higher education institutions, policymakers, and prospective entrepreneurs especially the students who have the aspirations of such. The integration of business simulations that cultivate an entrepreneurial mindset can be crucial in bridging the divide between innate characteristics and actual entrepreneurial pursuits for educators and training programs. Programs such as turning idea generation into business implementation that are intended to foster critical thinking, resilience, adaptability, and innovation can significantly improve the preparedness of students or participants to engage in entrepreneurial endeavors. Governments can also establish networks which are conducive to entrepreneurship by supporting initiatives that foster the development of the students' entrepreneurial attitudes and characteristics, such as mentorship schemes, workshops, and incubators.

This study comes with several limitations. First, this study focuses on a specific group of students of the Department of Business and Management who underwent entrepreneurial education. Hence, the findings may not be applicable to the general population or other educational institutions and programs. Second, the study only focuses on specific entrepreneurial traits (risk-taking propensity, locus of control, innovativeness, need for achievement, general self-efficacy, and tolerance to ambiguity) and does not include other traits that are relevant to entrepreneurial intention. This recommends further research of the various traits that could provide a more comprehensive understanding of what drives entrepreneurial intention. Third, this study does not include external influences and variables such as institutional support, mentorship, economic conditions, or family

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background that could influence entrepreneurial intention and entrepreneurial mindset. These considerations would provide a more detailed view of the determinants of entrepreneurial intentions and the role of entrepreneurial mindset. The study offers valuable insights into the mediating role of entrepreneurial mindset. However, further research is suggested to investigate additional variables and factors that may affect this relationship. Additionally, longitudinal studies may be advantageous in evaluating the impact of changes in perspective on entrepreneurial intentions as individuals advance through different stages of their careers.

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