# THE ENTREPRENEURIAL MINDSET: EXPLORING PERSONALITY TRAITS AND ACADEMIC PERFORMANCE IN ENTREPRENEURSHIP EDUCATION

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### **ABSTRACT**

This study introduces a questionnaire, modelled after the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), tailored to evaluate entrepreneurial personality traits among undergraduate students participating in an elective Entrepreneurship course. Utilizing linear regression analysis, our findings indicate that distinct personality traits significantly correlate with academic performance, suggesting that individuals inclined towards entrepreneurship tend to achieve higher grades.

**Keywords:** Entrepreneurship, Personality Traits, Psychology, Education.

### INTRODUCTION

This paper introduces a novel interdisciplinary approach by integrating behavioral psychology with entrepreneurship, offering new insights into entrepreneurial personality traits. Using the DSM-5 framework, the study applies a rigorous methodology based on established psychological research, presenting a potentially transformative perspective for entrepreneurship education. This approach aims to impact curriculum design and pedagogical strategies by bridging psychology and entrepreneurship, and although the empirical foundation is preliminary, the theoretical implications highlight an innovative direction for entrepreneurial education. This study encourages further research to refine and build upon this model (Baron, 2004).

The research has two primary objectives. First, it seeks to establish an entrepreneurial personality construct within individuals, operationalized through delineated traits serving as independent variables. Second, it aims to develop a predictive instrument that uses these identified personality traits to assess entrepreneurial performance, defined as the dependent variable. A comprehensive literature review on personality trait analysis guides the creation of a DSM-5-inspired questionnaire. This model is then tested on college students enrolled in an introductory Entrepreneurship course, hypothesized to show a heightened entrepreneurial inclination. Multi-linear regression analysis and correlation matrices are used to evaluate the predictive validity of these traits regarding students' success in the course. While findings are limited by sample size, they offer promising potential for developing a tool to predict students' entrepreneurial achievement (Lazear, 20025).

The study's arguments are well-supported, combining foundational psychological theories with recent research on entrepreneurship. By linking personality traits with academic performance, the paper suggests that entrepreneurial traits can be both identified and nurtured. The use of multi-linear regression to examine the influence of personality traits reinforces the claim that personality significantly contributes to entrepreneurial success. Employing contemporary theories on behavioral dispositions and entrepreneurial inclination,

this study underscores the value of understanding personality traits within entrepreneurship education.

# Behavioural Psychology Framework: Hypothesis in Literature

To explore the hypothesis that personalized behavioural exercises and recommendations can enhance specific entrepreneurial traits that score low in the model, it is imperative to establish the feasibility of using behavioural psychology to modify individuals' dispositions. Among the key dispositions pertinent to the entrepreneurial personality are social behaviour, emotion management, belief, and cognitivism. Existing studies have demonstrated the potential for enhancing these dispositions, as will be further detailed (Unger et.al.2015).

It is essential to note that while these behavioural studies did not specifically target entrepreneurial capacity, they provide foundational evidence supporting the notion that these dispositions can indeed be improved. Behavioural psychology, in this context, refers to the utilization of external environments and activities to influence an individual's disposition (O'Donohue & Kitchener, 1999). Each study discussed herein represents an external activity, intervention, or training aimed at altering an individual's dispositions.

# **Applied Research Tools**

Numerous ailments can impede social behaviour, including disorders such as Social Anxiety Disorder, characterized by a fear of situations where one may face negative evaluation by others, to the extent that it significantly disrupts one's life (American Psychiatric Association, 2013). Exposure therapy offers a solution, wherein individuals are gradually exposed to the stimuli that provoke fear, facilitating desensitization and reducing fear responses for future encounters (Weisman & Rodebaugh, 2018).

In contemporary times, innovative techniques have emerged to facilitate such therapies. For instance, virtual reality exposure therapy allows for the simulation of specific work settings, such as entrepreneurial responsibilities, enabling individuals to confront and navigate these scenarios (Botella et al., 2017). These exposure methods have demonstrated efficacy in helping individuals practice coping techniques and gain insights into potential social situations (Arnfred et al., 2021), thus underscoring the potential for improvement in social behaviour and better preparation for work-related challenges.

# **Applied Research Outcome**

Emotional management is closely intertwined with emotional intelligence, which encompasses an individual's ability to recognize and regulate their own emotions, as well as understand and respond to the emotions of others in a rational manner (Salovey & Mayer, 1990). A study involving Brazilian teachers demonstrated the potential for improving this skill set (Gilar-Corbi et al., 2018). The research methodology involved both a control group and an experimental group of teachers who underwent two tests to assess their emotional intelligence. The experimental group received interventions aimed at enhancing their emotional intelligence. A comparison of pre- and post-intervention test results revealed a significant improvement in emotional intelligence among the experimental group, while the control group showed no such improvement. This study conclusively illustrated the feasibility of enhancing emotional intelligence (Miller, 2015).

Similarly, efforts to enhance belief systems have been explored, with one study focusing on fostering open-mindedness through digital storytelling (Chan, 2019). Analogous

to exposure therapy, this approach exposes individuals to their biases in an effort to dismantle negative beliefs about certain groups, thereby fostering greater willingness to collaborate and interact with them. Utilizing narrative practice, digital storytelling presents a more compelling storyline about marginalized groups, aiming to supplant weaker narratives that fuel prejudice. The study revealed that individuals who engaged with digital storytelling, whether online or in face-to-face sessions with storytellers, reported a reduction in prejudices and increased openness to working with and accepting these groups. Multiple tests assessing prejudices confirmed statistical improvements, establishing that beliefs can indeed be altered, leading to increased open-mindedness among individuals (Corbett, 2007).

# **Cognitivism Research**

Cognitivism pertains to learning and intelligence, which has long been presumed to have a strong genetic component (Plomin et al., 2014; Plomin & Deary, 2015). However, a revaluation of Kvashchev's experiment (1980) has demonstrated that it is feasible to augment IQ not only through near transfer but also through far transfer (Stankov & Lee, 2020). It is noteworthy that Kvashchev'soriginal experiment, which entailed creative problem-solving exercises, was conducted exclusively with youth in a school setting and did not involve adults.

Furthermore, research indicates that IQ can be augmented during young adulthood through general schooling, resulting in an average increase of 4.3 IQ points, and can also be elevated in mid-life adulthood by an average of 1.3 IQ points (Hegelund et al., 2020). Although general schooling does not exclusively incorporate behavioral psychology, it remains a crucial factor to consider as a foundational element in the context of IQ and cognitivism, particularly given that Kvashchev's experiment involved individuals who were enrolled in formal education.

## **Derived Research Goal**

This experiment, specifically focused on entrepreneurship, supports the hypothesis that behavioral psychology interventions can enhance dispositions such as social behavior, emotional management, and belief systems. This foundational insight is critical for developing strategies to strengthen traits where individuals may exhibit lower aptitude in relation to entrepreneurship. It also establishes essential groundwork for creating an entrepreneurial measurement tool that first identifies personality traits specifically associated with entrepreneurial success.

The methodology is well-suited to the study's goals and aligns with current standards in psychology and education research. Employing a modified DSM-5 framework to assess entrepreneurial traits is an innovative approach, offering a structured and quantitative method that meets interdisciplinary research standards. The use of linear regression to quantify relationships between personality traits and academic outcomes adds a valuable quantitative dimension to the study, despite limitations posed by sample size. Additionally, the methodology adheres to ethical guidelines and best practices in research, ensuring informed consent and participant anonymity.

# Methodology, Research Design

This paper aims at listing as independent variables the eight personality traits already introduced (Van, 2015) and listed below, with initial humor quoting the "unanimous opinion"

saying "you must be crazy to be an entrepreneur" with DSM-5 is a standardized tool widely used in psychiatry to assess pathological personality traits.

Drawing inspiration from this established framework, this research aims to adapt its methodology to the domain of entrepreneurial psychology, employing a quantitative research design to investigate the feasibility of characterizing entrepreneurial personality traits using a questionnaire akin to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5).

Participants for this study will be selected through a sampling technique framed by the ease of a cohort access. Before extending the quantitative research to a sample consisting of individuals actively engaged in entrepreneurial activities across various industries and sectors, this study gathers data from undergraduate college students enrolled in the "ESHIP101-Principles of Entrepreneurship" course at Mount St Mary's University. The inclusion criteria emphasize individuals with diverse entrepreneurial experiences ranging from family businesses experience to personal interest in entrepreneurship.

The primary data collection instrument will be a questionnaire developed based on the DSM-5 framework, modified to assess entrepreneurial personality traits. This questionnaire will comprise items designed to capture key dimensions of entrepreneurship, such as emotional stability, uncertainty management-optimism, persistency tenacity, learning-curiosity, creativity/problem-solving, openness/tolerance, leadership/networking, and independence/maturity. The adaptation process involved expert consultation and pilot testing to ensure content validity and reliability. (Van, 2015)

Data will be collected through an online survey platform to facilitate convenient participation and ensure anonymity. Participants will be provided with clear instructions regarding the purpose of the study and informed consent will be obtained prior to their involvement. The survey will be accessed with a QR code sent by email to the students and the survey taken on their smartphone. At the end of the survey, students automatically receive a thank you message and their score in percentage format for each trait with a succinct and kind explanation of their score signification.

Quantitative data analysis techniques will be employed to analyse the collected data. Correlation analysis and regression modeling will be utilized to examine the relationships between entrepreneurial personality traits and their final semester grade in the class as the dependent variable.

This research will adhere to ethical guidelines outlined by institutional review boards and professional associations. Measures like protection by pass worded access limited to only authors will be taken to ensure participant confidentiality and data protection throughout the research process. Informed consent will be obtained from all participants, and their voluntary participation will be emphasized.

It is important to acknowledge limitations inherent in this study. The subjective nature of self-reported data may introduce response bias, and the nature of the study limits the ability to infer causality. Moreover, the generalizability of findings may be constrained by the sample's demographic composition.

Despite these limitations, this research aims to contribute valuable insights into the characterization of entrepreneurial personality traits. By exploring the feasibility of applying a DSM-5-like questionnaire to the domain of entrepreneurship, this study seeks to advance understanding of the psychological attributes underpinning entrepreneurial behaviour.

# **Entrepreneurial Personality Traits**

According to Eser and Özdemirci (Eser, 2016), the personality of entrepreneurs is one of the most commonly studied topics in research on entrepreneurial psychology (Koh, 1996; Meyer et al., 2014; Littunen, 2000; Shane & Ulrich, 2004). In the literature, the most frequently studied characteristics are the need for achievement, locus of control, propensity to take risks, tolerance for ambiguity, self-confidence, and innovativeness.

Numerous studies (Singh et al.) have also explored various factors such as entrepreneurs' previous expertise, environmental constraints, and personal circumstances like family structure (White, 2006).

Regarding the survey modes, Bolton and Thompson, (Bolton, 2004) proposed a questionnaire of 180 items, arbitrarily limited to 45 minutes, oriented to dedication, focus, profit orientation, ego drive, urgency, courage, activator, opportunity, creativity, expertise orientation, team, and individualized perception.

While the findings of these studies and these tools are undoubtedly valuable, none have specifically focused on defining the psychology and personality traits of individuals inclined toward entrepreneurship by adopting an angle normally used in pathological personality.

The contribution of this research will delineate these personality traits in a DSM5 mode adapted to the eight personality traits identified empirically in the literature.

In Saul (Saul et al., 2012), an empirical study was conducted to identify psychological predictors of successful entrepreneurship in China. The study identified several key psychological traits, including achievement motivation, risk-taking propensity, tolerance for ambiguity, perseverance, internal locus of control, interpersonal collaboration, autonomy & independence, openness & flexibility, and introduced a variable reflecting the cultural bias of "good citizenship" as a personality trait. Given the contentious nature of the latter, our selection of variables will be inspired by the above list, with adaptations as follows:

- 1. Achievement motivation becomes uncertainty management-optimism.
- 2. Risk-taking propensity becomes emotional stability.
- 3. Tolerance for ambiguity and openness & flexibility are combined as openness/tolerance.
- 4. Perseverance becomes persistency/tenacity.
- 5. Internal locus of control becomes creativity/problem-solving.
- 6. Interpersonal collaboration becomes leadership/networking.
- 7. Autonomy & independence becomes independence/maturity.

Since entrepreneurial activity inevitably involves failures, entrepreneurs often utilize their persistence as a quality to overcome issues related to "losing face." Additionally, Corbet (2005) demonstrated that individuals' learning disposition is a significant variable correlated with identifying entrepreneurial opportunities. Furthermore, Kirzner's (1979) concept of learning from mistakes has been shown (Gaglio, 2004) to be a propensity within the entrepreneurial mind-set. Therefore, learning capacity will be added to the variables set in this study.

### **Questionnaire Design**

The initial approach undertaken in this paper involved retaining DSM-5 questions, while excluding those specifically oriented towards mental disorders typically encountered by psychiatrists' patients. For example, statements concerning Emotional Stability included: "I experience much stronger emotional reactions than almost everyone else," or "I feel panicked in the face of imminent threats." Statements addressing Persistency/Tenacity/Determination

included: "I consistently follow through on my commitments," or "I seldom worry about things."

However, it became apparent that although each response was assigned a weight between 1 and 3 in our questionnaire, with greater emphasis placed on statements relevant to entrepreneurial variables, the entrepreneurial specificity of the questions needed enhancement due to the inherent pathological focus of the DSM-5. This necessitated a comprehensive redesign of the questionnaire, incorporating an average completion time constraint of less than 20 minutes (while avoiding a forced conclusion to mitigate potential bias), facilitating accessibility via smartphones through a QR code, and commencing with the customary disclaimer, reproduced in the appendix, disclaiming the research purposes, the anonymity, and upon completion, sending a gratitude message along with the prospect's obtained score.

# **Participant Recruitment**

The dataset is limited by sample size but is methodologically rigorous, utilizing regression analysis and correlation matrices that meet quantitative standards for exploratory research. This preliminary dataset provides a robust basis for hypothesis generation, establishing a solid foundation for forthcoming larger-scale validation studies.

For survey implementation, students enrolled in the undergraduate "Principles of Entrepreneurship" course at Mount St. Mary's University were invited to participate voluntarily via email (the email template is provided in the Appendix). The email clearly outlined the research objectives and emphasized both anonymity and confidentiality. Additionally, the disclaimer and post-submission messages offered explanations on interpreting individual result numbers, clarifying the significance of the test scores.

## **Statistical Method: Data collection**

Adapting the method utilized by psychiatrists (Tsaousis, Kerpelis, 2006) to our Entrepreneurial Personality Traits Questionnaire, comprising 100 statements, we conducted a comparative analysis of various survey management platforms. Following a review and preliminary testing of these survey tools (SurveyPlanet, Typeform, SurveyMonkey, QuestionPro, Jotform, YesInsights, Surveybot, SurveySparrow, SoGoSurvey), we opted to utilize Jotform (www.jotform.com). This decision was based on its capability for conditional logic, clarity in displaying results, automated feedback provision to respondents, and its reasonable cost, aligned with our non-profit objectives and resources.

After each submission, Jotform generates a comprehensive report containing all 103 questions and their corresponding answers, along with the points scored per question. Utilizing the knowledge of the total potential points achievable for each variable of each respondent, the percentage attained per variable is utilized as the metric for evaluating that specific variable. For example, in the case of the Emotional Stability set of questions with a total potential points allocation of 36, a student scoring 22 would achieve a score of 61.1% for this variable. This process is iterated for each of the eight variables and subsequently transcribed into an Excel spreadsheet. The data is then visualized in the form of a radar chart, as depicted in Figure 1.rich data.

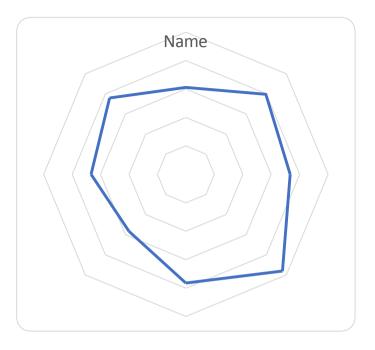


FIGURE 1 RESULT REPRESENTATION

The radar chart, in its current format, offers valuable insights to students, igniting meaningful discussions among those eager to delve deeper into understanding their entrepreneurial traits. Many were astounded by the chart's tangible representation of their traits and fascinated by the cognitive reflections it prompted, leading the authors to contemplate future research that incorporates post-test result research interviews with participants.

Since the primary objective of this research did not entail face-to-face discussions with the surveyed individuals, the subsequent step involved gathering a substantial number of radar charts to enable a comparative analysis of questionnaire outcomes. This comparative analysis is depicted in Figure 2.

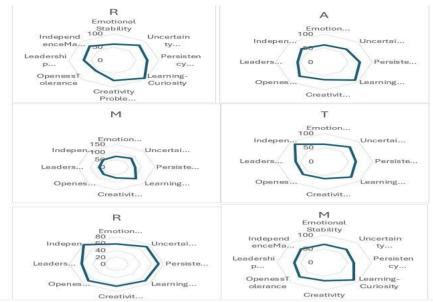


FIGURE 2 COMPARATIVE RADAR CHARTS

Figure 2 provides an instant comparative perspective on the variances in students' entrepreneurial personalities. Following our established methodology, the subsequent phase involves conducting a linear regression analysis, employing the scores of the eight variables as independent variables and each student's overall percentage grade in the Principles of Entrepreneurship course for the semester as the dependent variable. The anticipated outcome at this juncture is to pinpoint the most pertinent variables for elucidating individuals' achievement in this course (Hayton, 2012).

Based on forthcoming findings, it is anticipated that certain among the eight personality traits will emerge as predictors of students' success in this course.

### **Linear Regression Equation**

With the eight independent variables comprising the personality traits (ES, UMO, PT, LC, CPS, OT, LN, IM), and one dependent variable "y" representing the student's semester grade in an entrepreneurship class, the correlation between each independent variable and the dependent variable for each individual, the linear regression model can be expressed as follows:

y= $\beta$ 0+ $\beta$ 1ES+ $\beta$ 2UMO+ $\beta$ 3PT+ $\beta$ 4LC+ $\beta$ 5CPS+ $\beta$ 6OT+ $\beta$ 7LN+ $\beta$ 8IM+ $\epsilon$ y= $\beta$ 0+ $\beta$ 1ES+ $\beta$ 2UMO+ $\beta$ 3PT+ $\beta$ 4LC+ $\beta$ 5CPS+ $\beta$ 6OT+ $\beta$ 7LN+ $\beta$ 8IM+ $\epsilon$ 

Where y denotes the student's semester grade presented as a percentage, serving as the variable of interest for prediction.

ES signifies Emotional Stability, serving as one of the explanatory variables.

UMO denotes Uncertainty Management and Optimism, functioning as an explanatory variable.

PT represents Persistency and Tenacity, serving as an explanatory variable.

LC stands for Learning and Creativity, functioning as an explanatory variable.

CPS represents Creativity and Problem Solving, acting as another explanatory variable.

OT signifies Openness and Tolerance, serving as an explanatory variable.

LN denotes Leadership and Networking, functioning as an explanatory variable.

IM represents Independence and Maturity, serving as an explanatory variable.

 $\beta$ 0 signifies the intercept, representing the value of y when all explanatory variables in the model are zero.

 $\beta1,\beta2,\beta3,\beta4,\beta5,\beta6,\beta7,\beta8\beta1,\beta2,\beta3,\beta4,\beta5,\beta6,\beta7,\beta8$  are the coefficients associated with each personality trait.

 $\epsilon\epsilon$  represents the error term in the model.

## **Interpretation and Results**

# **Multiple regression**

The data have been prepared for analysis in Excel, as illustrated in Table 1. Each row contains the individual scores expressed as a percentage of the total possible points in the survey, along with the corresponding percentage representation of their semester grade.

Table 1 INDEPENDENT AND DEPENDENT VARIABLES VALUE										
Student	ES	UMO	PT	LC	CPS	ОТ	L	IM	GRADE	
R	61	80	73	96	76	57	67	75	95	
A	61	65	75	92	63	72	56	66	81	
M	72	84	73	108	72	66	65	69	86	
T	61	73	65	77	60	64	59	86	77	
M	67	67	63	88	66	74	63	69	86	
R	58	71	72	69	65	68	59	79	74	
T	86	69	78	92	72	68	70	72	94	
M	50	55	70	81	62	62	61	76	80	
G	64	73	68	104	79	68	81	69	87	
G	64	67	85	115	72	70	61	62	91	
D	58	61	72	96	66	72	61	72	80	

The activation of the data/data analysis/regression tool in Excells on Tables 2 & 3.

Table 2 REGRESSION STATISTICS					
Multiple R	0.975951702				
R Square	0.952481724				
Adjusted R Square	0.76240862				
Standard Error	3.350712261				
Surveyed	11				

	Table 3 REGRESSION ANALYSIS SUMMARY OUTPUT									
	Coefficients	Standar d Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	<i>Upper</i> 95.0%		
Intercept	143.240033	71.6203	1.99999	0.18350	-	451.397	-	451.397		
		6		5	164.9175	6	164.9175	6		
Emotional Stability	0.62862154	0.18756	3.351522	0.07866	-	1.43564	-	1.43564		
		3		4	0.178397		0.178397			
Uncertainty-Mgt-	-0.6256721	0.29146	-	0.16493	-	0.62841	-	0.62841		
Optimism		7	2.146628	3	1.879755	1	1.879755	1		
Persistency-	-0.6413258	0.36694	-	0.22262	-	0.93752	-	0.93752		
Tenacity		7	1.747732	1	2.220173	1	2.220173	1		
Learning-Curiosity	0.12799343	0.17724	0.722135	0.54523	-	0.89060	-	0.89060		
		3		1	0.634622	9	0.634622	9		
Creativity-Problem	1.68959862	0.83247	2.029617	0.17953	-	5.27143	-	5.27143		
Solving		1		2	1.892237	4	1.892237	4		
Openness	-0.8556266	0.37073	-	0.14734	-	0.73950	-	0.73950		
Tolerance		3	2.307933	5	2.450761	8	2.450761	8		
Leadership	-1.0607539	0.58827	-	0.21314	-	1.47039	-	1.47039		
Networking		6	1.803156	1	3.591903	5	3.591903	5		
IndependenceMatur	-0.1520964	0.46531	-	0.77480	-	1.84997	-	1.84997		
ity			0.326871	4	2.154165	3	2.154165	3		

This multiple regression analysis simultaneously examines the relationship between the dependent variable, student grades, and multiple independent variables measuring personality traits. The coefficients presented in the first column signify the association between each personality trait and student grades. The significance levels of these coefficients serve a dual purpose: indicating whether a relationship exists between a particular personality trait and student grades and determining the direction (positive or negative) of this relationship based on the sign of the coefficient. Additionally, the magnitude of each coefficient reflects the strength of the relationship.

Among the personality traits examined, Uncertainty Management-Optimism, Persistency Tenacity, Learning-Curiosity, Leadership Networking, and Independence/Maturity exhibit higher p-values, suggesting that their coefficients may not significantly differ from zero at conventional significance levels.

### **Correlation Matrix**

In this small cohort, five out of the eight personality traits lack statistical significance in explaining grades. Moving forward with the analysis, it would be beneficial to identify correlated personality traits, potentially enabling the grouping or elimination of certain traits. Refer to Figure 6 for the correlation matrix.

	Table 4 CORRELATION MATRIX										
	ES	UMO	PT	LC	CPS	ОТ	L	IM			
ES	1										
UMO	0.4180814	1									
PT	0.26945797	-0.0225307	1								
LC	0.33320169	0.27710767	0.52654512	1							
CPS	0.43291766	0.53776389	0.30905143	0.68939962	1						

Ī	OT	0.20538044	-0.3556646	0.04104276	0.13655653	-0.1881967	1		
Ī	L	0.40297756	0.34249012	-0.0977487	0.40314735	0.8264808	-0.1570586	1	
Ī	IM	-0.26942423	0.07168348	-0.5422267	-0.7905445	-0.4568613	-0.5139724	-0.17781534	1

To ascertain which personality traits exert similar influence on students' grades, a threshold of 0.7 is employed to identify traits demonstrating a robust positive linear relationship. This indicates that when one trait strengthens, so does the other, streamlining research by potentially excluding fewer explanatory traits in Table 4.

Conversely, a coefficient such as the -0.79 correlation between Learning/Curiosity and Independence/Maturity suggests a weak, negative linear relationship. This implies that heightened curiosity and attraction to learning coincide with diminished independence and maturity in students.

This prompts a critical inquiry into the reliability and utility of this statistical finding at this juncture of the analysis. Given the scale of our sample, it appears that obtaining a more meaningful observation necessitates a significantly larger cohort of participants. Hence, the pursuit of correlation analysis will ensue once a more extensive pool of survey respondents becomes available.

# **Discussion – Implication & Limitation**

Values Expressed in Linear Regression Analysis Suggest Strong Correlation Between Personality Traits and Academic Performance in ESHIP Class.

The findings of the linear regression analysis indicate that Emotional Stability, Creativity Problem Solving, and Openness/Tolerance are the primary personality traits correlated with higher grades in the Entrepreneurship (ESHIP) class. This suggests that students possessing these traits are more likely to excel in the course (Silva, 2006).

# **Future Research Hypotheses**

This research seeks to generate insights relevant to both theory and practice. Theoretically, it challenges the traditional view of entrepreneurship as purely skill-based, highlighting the importance of personality traits in entrepreneurial education. Practically, it suggests that educators could integrate personality assessments to better support students' entrepreneurial development, potentially offering tailored feedback to foster entrepreneurial traits. The practical use of a DSM-5-inspired questionnaire provides an accessible tool for educators, aligning with the broader aim of cultivating entrepreneurial mindsets. The following hypotheses could enhance the current findings:

 $H_1$ : Emotional Stability, Creative Problem-Solving, and Openness/Tolerance are specific to the ESHIP class. To test this hypothesis, a comparative study involving a non-business-related class could be conducted. If scores in the non-business class differ significantly from those in the ESHIP-entrepreneurship class, it would suggest that these three traits are particularly predictive of success in entrepreneurship education.

**H<sub>2</sub>:** The assessment used in the ESHIP class may not effectively measure students' entrepreneurial propensity. Initial findings indicate that traits such as Uncertainty Management-Optimism, Persistence-Tenacity, Learning-Curiosity, Leadership-Networking, and Independence/Maturity do not significantly impact academic performance in the ESHIP class. To validate this hypothesis, alternative assessments focused on specific entrepreneurial competencies, such as Leadership/Networking, could be employed. Additionally, considering students' personal backgrounds in entrepreneurship might provide further insights into how these assessments align with potential entrepreneurial success.

Although this psychology-based survey offers promising scholarly contributions, it requires further validation with a larger sample. The initial sample size of 10 students, while providing preliminary insights, is too small to establish statistical significance. Future research should aim to replicate the study with a larger cohort and examine additional variables, such as students' course preferences, previous entrepreneurial experiences, and family backgrounds, to strengthen the findings. For truly robust results, future studies must expand both the sample size and participant diversity (Huff, 1999); Shepherd and Wiklund's (2020).

### **CONCLUSION**

To extend the theoretical contribution of this paper, it explicitly ties back to the scholarly conversations introduced at the outset, specifically integrating behavioral psychology and entrepreneurship within the DSM-5 framework and exploring personality traits as foundational to entrepreneurial success. Grounding these findings within these theoretical frameworks, this paper directly contributes to the ongoing discussion on the impact of personality on entrepreneurial inclination and success—a topic with limited but increasing attention within the entrepreneurship literature.

The insights into emotional stability, creativity in problem-solving, and openness/tolerance as predictors of academic performance underscore the relevance of personality in entrepreneurship education. This research broadens the scope of entrepreneurship theory by substantiating that specific personality traits, identified through a rigorous psychological framework, are not only relevant but foundational to understanding entrepreneurial capability. These findings build on foundational psychological theories by positioning entrepreneurial personality traits within an evidence-based structure, thereby enriching the conversation on entrepreneurial dispositions introduced by behavioral psychology.

The paper also responds to calls in the field to develop more predictive and operational tools that can inform educational practices. By using the DSM-5-inspired framework to model entrepreneurial personality constructs, the study provides a structured method that addresses heuristic for making entrepreneurship theory both accessible and operational. The model proposed here, while preliminary, offers a template that can be refined and adapted across diverse educational contexts to assess and even develop entrepreneurial potential in students, thereby extending the utility of personality analysis from theoretical inquiry into practical application.

Further research employing this model can contribute to a nuanced understanding of entrepreneurial personality as an educational tool, enabling entrepreneurship programs to adopt a more tailored approach to student development. Future studies with larger and more diverse samples will help validate this model's effectiveness, enhancing its precision as a predictive instrument for entrepreneurial traits beyond academic environments. The envisioned application of the questionnaire as a formative assessment tool in both educational and professional contexts adds to the literature by proposing a structured way for individuals to enhance their entrepreneurial disposition, providing actionable recommendations for personal development.

This study, therefore, enriches existing theories by positioning personality traits not only as static predictors but as developmental tools within entrepreneurship education, aligning with the broader objective of fostering an entrepreneurial mindset and cultivating innovation. Through the integration of behavioral psychology into entrepreneurship education, this paper offers a transformative perspective that invites future research to bridge

these fields further, thereby advancing the scholarly conversation around the role of personality in entrepreneurial success.

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