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IMPACT OF ENTREPRENEURIAL EDUCATION ON ENTREPRENEURIAL INTENTION IN UNIVERSITY STUDENTS OF PAKISTAN

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Abstract

In this study, we examine the influence of entrepreneurship education on the entrepreneurial intentions of university students. Additionally, we investigate the moderating effects of personality traits and entrepreneurial self-efficacy on the relationship between entrepreneurship education and entrepreneurial intention. The study uses a sample of 110 university students in Haripur, Pakistan, and employs validated measures to analyze the data. The findings indicate that entrepreneurship education has a positive impact on university students' entrepreneurial intentions. Furthermore, we find that proactive personality and narcissistic personality insignificantly moderate this relationship, while entrepreneurial self-efficacy significantly moderates it. This study contributes to the literature by introducing new insights into the roles of personality traits and entrepreneurial self-efficacy in the relationship between entrepreneurship education and entrepreneurial intention. The results provide valuable empirical evidence regarding the moderating effects of proactive personality, narcissistic personality and entrepreneurial self-efficacy, highlighting the heterogeneity of the effect of entrepreneurship education.

INTRODUCTION

Entrepreneurship education first emerged in business schools during the 1970s, and has since grown rapidly, with increasing availability across different countries. As a result, it has become one of the fastest-growing subjects at colleges and universities. While entrepreneurship courses were initially offered primarily within business schools, they have now become popular among students in a range of fields, including engineering, social sciences, and arts programs. In addition to courses, universities also offer entrepreneurship programs and activities (Sun H, Lo C, Liang B & Wong Y, 2017).

Levie and Autio (2008) asserted that entrepreneurship education is an effective way to promote entrepreneurship by fostering the development of entrepreneurial knowledge, skills, attitudes, and intentions that align with the demands of the economy. Fayolle and Liñán (2014) emphasize that entrepreneurial intention is a crucial precursor to entrepreneurial behavior, and without it, no entrepreneurial activities can take place (Bird, 1988). Studies have shown that entrepreneurship education can positively impact students' entrepreneurial intentions (Zhao et al., 2005; Souitaris et al., 2007), and therefore, it is considered a key factor in promoting entrepreneurship. However, there is still a lack of

understanding as to why some students, despite receiving entrepreneurship education, do not develop high levels of entrepreneurial intention. Hence, there is a need to explore the factors that contribute to the variability in the effectiveness of entrepreneurship education in shaping students' entrepreneurial intentions.

According to Ganzach and Gotlibovski (2014), the impact of education is determined by the characteristics of the individuals being educated, such as their personality traits (Williamson, 2021). Personality has been recognized as a significant factor in entrepreneurship (Ciavarella et al., 2004; Hisrich et al., 2007; Fairlie and Holleran, 2012; Basuki et al., 2021), with proactive and narcissistic personalities garnering increased attention (Bateman and Crant, 1993; Liu et al., 2019; Neneh, 2019). Proactive individuals are persistent and take initiative, making them better at identifying and capitalizing on opportunities, and are more likely to start a new business (Neneh, 2019). Narcissistic individuals have high self-esteem and an inflated sense of self-worth, seeking affirmation and appreciation from others to reinforce their self-image (Wallace and Baumeister, 2002). Entrepreneurship provides a context for narcissists to enhance their ego, thereby increasing their entrepreneurial intention (Hmieleski and Lerner, 2016; Gao and Huang, 2021) and promoting entrepreneurial entry (Wales et al., 2013). However, it is unclear how this relationship interacts with external factors such as education to influence entrepreneurial intention. Based on our hypothesis, individuals with high levels of proactive personality are already motivated to achieve their goals and acquire useful information before receiving entrepreneurship education, making them less likely to be influenced by it. Highly narcissistic individuals are more focused on their self-views and inner world, and may ignore the guidance and suggestions provided by entrepreneurship education. Therefore, we anticipate a negative moderating effect of personality on the relationship between entrepreneurship education and entrepreneurial intention.

The study aims to fill a research gap by investigating the relationship between entrepreneurship education, two key entrepreneurial personality traits (narcissism and proactive personality), entrepreneurial self-efficacy, and entrepreneurial intention in university students of Pakistan. Additionally, this study addresses the need for research to evaluate the impact of entrepreneurship education on personal factors of students, as suggested in prior literature. By examining these factors, we seek to gain a deeper understanding of the complex relationship between entrepreneurship education, individual personalities, and the development of entrepreneurial intention in students.

LITERATURE REVIEW

Theoretical Review

Theory of Planned Behavior:

According to the theory of planned behavior (Ajzen, 1991), behaviors are influenced by intentions, which are determined by three factors: attitudes, subjective norms, and perceived behavioral control. It is also possible for external factors to directly force or prevent behaviors, regardless of the intention, depending on the degree to which a behavior is actually controlled by the individual, and the degree to which perceived behavioral control is an accurate measure of actual behavioral control. This relationship is shown with a dashed line in Figure. Attitudes toward teaching and learning generally is relevant in this context. Subjective norms can be considered social pressures, and include both the perceived expectations of others and how much the individual values those expectations. Perceived behavioral control is how able an individual feel to perform a specific behavior, in their context. Thus, it includes both self-efficacy with the use of different method, and external factors such as classroom environments, time, and resources. The more favorable the three factors are, the more likely the intention and action are to occur (Ajzen, 2005).

Empirical Review:

Entrepreneurial Education and Entrepreneurial Intention:

Abdullah Al., etal (2017) examine the factors influencing entrepreneurial intention and startup

preparations among university students in Malaysia. To avoid any possible complications arising
from a small sample size, they collected data from 375 final year students from eight universities in Malaysia. The study tested multivariate normality using the Data analysis method PLS-SEM is a causal modeling approach aimed at maximizing the explained variance of the dependent latent constructs. Due to the exploratory nature of this study and the non-normality issue, the study used variance-based SEM via a PLS SEM estimation with the primary objective of maximizing the explanation of variance in the structural equation model's dependent constructs. It has been reported that young people 10–24 years old account for 1.8 billion of the world population. The results are in line with the TPB, providing empirical evidence of the positive and significant effects of attitude, subjective norms, and perceived behavioral control on entrepreneurial intention and startup preparation among university students in Malaysia.

Badri .R & Hachicha .N (2019) examined the impact of entrepreneurship education on students' intention to start up a business. Using a sample of Tunisian students aged between 22 and 25 from two big Tunisian universities, namely those of Sfax and Sousse, they proposed to determine the significant factors influencing their entrepreneurial intention. Applying the ordered logistic regression, our econometric results revealed that the composite variables which are the students internal and external socio-cultural background, their profiles in terms of theoretical and practical knowledge in new business start-up and their personal characteristics (age, gender and, above all, educational level), are the most determining variables affecting their intention to engage in business start-ups. The gender variable has no significant effect on entrepreneurial behavior.

Izedonmi .P & Okafor .C (2010) examine the effect of entrepreneurial education on students' entrepreneurial intentions. Also the study sought to determine whether such intention usually give rise to entrepreneurial start-up among students. Design / methodology / Approach-Primary data comes from 250 students who currently have entrepreneurship as one of their courses in their institution of higher learning within the south west of the country. Respondents filled in a detailed questionnaire on their background and other related items as regards to their entrepreneurship education. The use of regression analysis results from the fact that it will enable the study to test the influence of independent variables on the dependent variable and also to ascertain the rate of change in the dependent variable as determined by increase or decrease in the independent variables. The results of the regression analysis revealed that student's exposure to entrepreneurship education has a positive influence on the students' entrepreneurial intentions.

Maresch .D., et al (2015) investigate the impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies university programs in the context-specific questions in two separate categories of students. If context is important, we should see different outcomes from similar Entrepreneurship Education (EE) classes provided to different student groups. The results suggest that there is a contextual difference. The results indicate that EE modified to suit a particular target group could address the issue of subjective norms separately for business students and science and engineering students. Their principal results show that EE is generally effective for business students and science and engineering students. However, the Entrepreneurial Intention (EI) of science and engineering students is actually negatively affected by subjective norms, whereas that effect is not apparent among the business student sample. The authors suggest that future research is needed on effective didactic approaches in EE for science and engineering students. The findings suggest that EE is generally effective for both business students and science and engineering students. However, differences between business students and science and engineering students are evident with regard to the impact of subjective norms on EI: while subjective norms have a negative impact on science and engineering students' EI, this effect is not present

in the business student sample. This result implies that EE should be target-group specific and thus address the issue of subjective norms separately for business students and science and engineering students.

Remeikiene R., et al (2013) investigate the impact of entrepreneurial education promoting entrepreneurship among young people. The results of the research confirmed that the main factors of entrepreneurial intention are personality traits (self-efficacy, risk-taking, need for achievement, pro-activeness, attitude towards entrepreneurship, behavioral control and internal locus of control), and they can be developed during the study process. With reference to the research results, it was established that in spite of the chosen study program, young people studying in the higher education institution (Kaunas University of Technology) are inclined to seek for entrepreneurship after completion of the studies – it was stated by 77 per cent of the students of economics and 70 per cent of the students of mechanical engineering. It also appeared that the chose study program differently impacts students' intentions to seek for entrepreneurship. The students of economics are of the opinion that economic education not only provides useful knowledge about business start-up, but also contributes to the development of the personality traits mentioned above (mean values vary in the interval from 3.16 to 4.07), while the opinion of the students of mechanical engineering is opposite – education does not provide useful information about business, does not encourage young people's creativity for business start-up, does not contribute to the development of particular personality traits (favorable attitude towards entrepreneurship and the initiative to start-up business) (mean values are lower than 3).

Doan X & Phan T (2019) assess the impact of entrepreneurial education on entrepreneurial intention on students in the North of Vietnam, through two mediating variables; namely entrepreneurship passion and entrepreneurial self-efficacy. The study was conducted on 688 students from both economic and technical university in the Northern region of Vietnam. Data collected using SPSS 22 and Smart PLS 3.0 software shows that entrepreneurial education had a strong impact on entrepreneurial intention in the North of Vietnam. At the same time, entrepreneurial education also had a positive impact on entrepreneurship passion and Entrepreneurial self-efficacy. Time and Team Cooperation maintained a statistically significant moderate role on the relationship between entrepreneurial education and entrepreneurial intention of students in the North of Vietnam.

Sun H, Lo C, Liang B & Wong Y (2017) examine the impact of Entrepreneurial Education on Entrepreneurial Intention of Engineering Students in Hong Kong. Theory of Planned Behavior (TPB) has been used to study the impact of entrepreneurial education (EE) on entrepreneurial intention (EI) for more than 20 years, yet, an intensive literature review reveals that there are gaps both in the conceptual models and the research methods. This research proposes a conceptual model that links the entire antecedent variables of TPB and the elaborated four components of entrepreneurship education (Why, What, How and Who). The model is tested by a structural equation modelling (SEM) with the empirical data from 200 engineering students from three universities in Hong Kong. The empirical test reveals that the four components of entrepreneurial education do influence attitude, social norm, self-efficacy and entrepreneurial intention, respectively. Additionally, it also reveals that the 4 EE components and the 3 TPB antecedent variables are also interrelated with each other. Hance we propose follwing hypothesis:

H1: Entrepreneurial education has significant positive impact on entrepreneurial intention of the university students.

Moderating role of proactive personaility:

Naz, Zaman, & Rafiq (2020) examine the proactive personality (PP) in determining potential entrepreneurs' emotional intelligence (EI) through the mediating function of both particular and general self-ecacy. Through both general and particular self-ecacy, this study examines the parallel mediation between PP and EI as well as the function of mediators in a series. The current study used a self-administered questionnaire

approach and a quantitative methodology. Using the cluster sampling method, information was gathered from a sample of 700 respondents in the higher education sector. Using Smart PLS 2.0 M3 software, the PLS-SEM approach was applied to evaluate the measurement and structural modelling. Results suggest that PP is positively correlated with three more general types of self-ecacy, which in turn influence particular self-ecacy, when it comes to the direct connections. The correlation between proactive personality and entrepreneurial goals was shown to be serially mediated by wider kinds of self-ecacy and specialised self-ecacy.

P. Prabhu, J. McGuire, A. Drost, & K. Kwong (2012) examine proactive personality (PP) and entrepreneurial self-efficacy as potential antecedents of entrepreneurial intent (EI) is the aim of the current study, which is a component of a wider cross-cultural study (ESE). In particular, the study wants to experimentally investigate the way that ESE influenced the link between PP and EI. The study employed structural equation modelling and moderated regression analysis, respectively, to evaluate the mediation and moderation hypotheses. The three expressions of EI—general, high growth, and lifestyle—have strong relationships with PP, according to the authors. Additionally, ESE moderated the relationships between PP and high growth EI as well as PP and lifestyle EI in addition to mediating the relationships between PP and all three types of EI.

Travis & Freeman (2017) propose that proactive personality, as compared to more general personality traits, is more closely associated to entrepreneurial goals (e.g., FFM). What's more, we argue that entrepreneurial self-efficacy and proactive personality interact to predict specific variations in entrepreneurial aspirations, with self-efficacy beliefs having higher impacts when proactive personality is high. The findings confirmed our hypotheses and backed up demands in the literature to look at the interactions between the antecedents of entrepreneurial inclinations. We recommend that future intention-based models explicitly take into account how personality traits and attitudes interact, especially in specific circumstances like entrepreneurship. Hance we propose follwing hypothesis:

H2: Proactive personality positively moderates the relationship between entrepreneurship education and entrepreneurial intention of the university students.

Moderating role of narcissistic personality:

A. Brown et al. (2010) investigate whether empathic or narcissistic personality qualities influence self-reported ethical decision making in business students, and whether individual business majors exhibit these personality traits. First, the results show that empathic and narcissistic personality characteristics are strong predictors of ethical decision making. Second, they revealed that finance majors had a distinct and statistically significant propensity to be less sympathetic and more narcissistic than other business students.

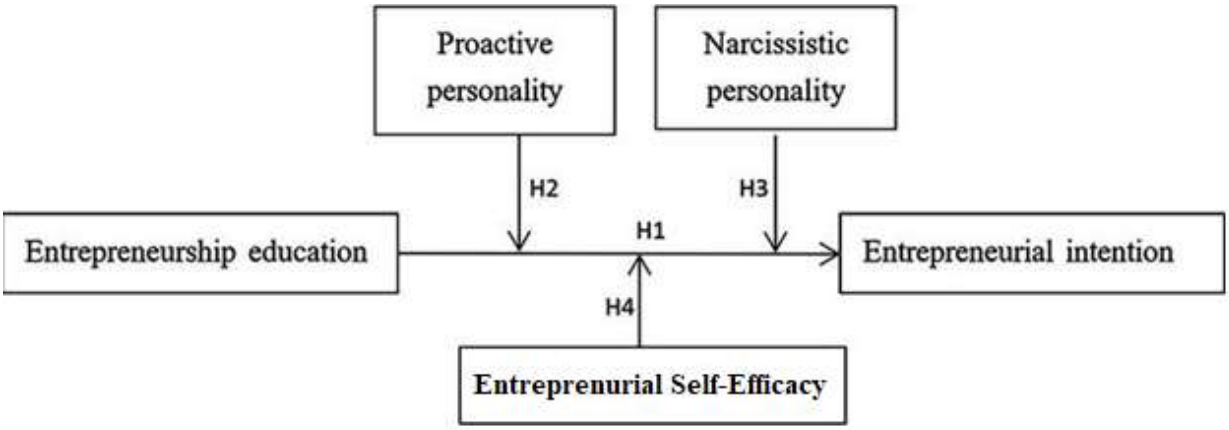
Burch, M. Tocher, & Gregory (2022) investigate how personal traits affect the link between startup intent and Entreprenurial Education intents. On 199 US people, survey information was obtained. Examined moderators include views on education, perceived effectiveness of entrepreneurship, inclination for risk-taking, and the Big Five personality characteristics. In order to verify each of the hypothesised moderation associations, linear regression models were employed. Important findings indicate that individuals with a high level of startup intent are less likely to pursue EE, while individuals who perceive education as a tool for success are more likely to do so. These factors include extroversion, openness to experience, agreeableness, perceived entrepreneurial efficacy, and risk propensity.

Chafra (2016) investigate the link between a leader's behavioural integrity and workplace rejection as well as to evaluate the moderating effects of psychological distance and narcissistic personality on that relationship. Data were gathered from 13 Turkish public universities. 1,003 faculty members and deans from those faculties were included in the sample. The moderated hierarchical regression analysis was used to examine the moderating effects of narcissistic personality and psychological distance

on the link between behavioural integrity and workplace exclusion. According to the results of the moderated hierarchical regression analysis, the workplace rejection of a leader was significantly inversely correlated with that leader's behavioural integrity. Additionally, when a leader's narcissistic personality and psychological distance were higher than when they were lower, the link between behavioural integrity and workplace rejection was less strong. Hance we propose follwing hypothesis:
H3: Narcissistic personality negatively moderates the relationship between entrepreneurship education and entrepreneurial intention of the university students.

Moderating role of self-eficacy:
Cui (2021) investigated that how perceived usefulness (PU) and perceived usability interact. (PEOU) in the indirect association between SESRL and UI, as well as the moderating effect of gender in this relationship. In this study, 400 Chinese college students participated and completed the SESRL, PEOU, PU, and UI assessments. According to the findings, SESRL, PEOU, PU, and UI had a favourable correlation with one another. The association between SESRL and UI was mediated, according to a mediating analysis, by PEOU and PU. PEOU had a robust impact since its single mediating effect was stronger than PU's single mediating effect and their combined multiple mediating effects. According to a moderation study, females were more affected by SESRL's effects on PU and PEOU than males were. A high level of SESRL is more suited to enhancing female students' PU and PEOU, which further affected their decision to adopt online learning.
BarNir, E. Watson, & M. Hutchins (2011) examines the impact of role models and self-efficacy on developing career ambitions and explores whether these effects differ by gender and process. With an emphasis on choosing entrepreneurship as a career, researchers looked at (a) how exposure to entrepreneurial role models affects career intention; (b) how impacts differ for men and women; and (c) how self-efficacy functions as a mediating factor. The findings show that role models significantly and favourably influence intention, that gender moderates the benefits, and that self-efficacy mediates the effects. According to a moderated mediation relationship, women's role models had a higher impact on self-efficacy, which in turn affected their intention to pursue an entrepreneurial career. Results are presented in terms of their theoretical and practical consequences.
Tsai, Chang, & Peng (2014) examines by creating a moderated mediation model, this study expanded the body of knowledge on the link between entrepreneurial self-efficacy and intention. According to this model, attitudes toward entrepreneurship and intended entrepreneurial control mediate the relationship between entrepreneurial self-efficacy and intention, and these mediation processes are further regulated by subjective norms. A regression study using a sample of 308 valid replies produced two interesting findings. First, via attitudes toward entrepreneurship and intentional entrepreneurial control, entrepreneurial self-efficacy positively influences intention. Second, when subjective standards rise, the direct impact of entrepreneurial self-efficacy on intention declines. On the other hand, as subjective norms rise, the indirect intention effects of entrepreneurial self-efficacy through entrepreneurship attitudes and planned entrepreneurial control rise. Additionally, the findings showed that subjective norms had a favourable impact on entrepreneurial inclination. Hance we propose follwing hypothesis:
H4: Entrepreneurial Self-efficacy positively moderates the relationship between entrepreneurship education and entrepreneurial intention of the university students.

Theoretical Framework



METHODOLOGY

Sample and data collection:

We conducted the survey in Haripur, Pakistan. As the calling of "entrepreneurship and innovation university" University of Haripur are paying increasing attention to cultivating students' entrepreneurial spirits by developing entrepreneurship education. The university of Haripur has created a favorable environment for university students to start businesses by implementing entrepreneurship education in university, thereby injecting innovative and entrepreneurial forces into local and national development. The researchers surveyed a group of university students from different levels of study using questionnaires. They aimed to follow the principle of stratified sampling, where the participants are selected in proportion to the population distribution of the different levels of study. The study lasted for seven days in January 2023, and 110 questionnaires were returned with an effective response rate of 95.14%.

Measurement of variables

Entrepreneurial intention:

To measure entrepreneurial intentions, we utilized a 6-item Entrepreneurial Intention Scale. Respondents used a 5-point Likert scale ranging from strongly agreed to strongly disagreed, with a higher score indicating a lower level of entrepreneurial intention. The scale demonstrated good internal consistency with a Cronbach's α of 0.876.

Entrepreneurship education:

Entrepreneurship education in this study refers to the course training, lectures, and practical experiences related to entrepreneurship that students receive at university. To measure the level of entrepreneurship education, we used a 10-item scale called the Entrepreneurial Education Scale. The mean score of the 10 responses was calculated to indicate the level of education, where a higher mean score suggests a lower level of education. The reliability of the scale was assessed using Cronbach's α, and the value obtained was 0.692, indicating a satisfactory level of internal consistency.

Proactive personality:

To measure the level of proactive personality, we used the Proactive Personality Scale consisting of 10 items, such as "I am always looking for new ways to improve my life" and "I am the main character for constructive change wherever I am." Respondents were asked to rate each item on a 5-point Likert scale, with 1 indicating strong agreement and 5 indicating strong disagreement. A higher score indicates a lower level of proactive personality. The reliability of this scale was measured using Cronbach's α, which was found to be 0.782.

Narcissistic personality:

In this study, we used the Narcissistic Personality Inventory-18 items (NPI-18), a questionnaire that

measures the degree of narcissistic personality traits. The NPI-18 includes 18 statements such as "I have a natural talent for influencing people" and "I am not too concerned about success," which participants rated on a 5-point Likert scale. A higher total score indicates a higher level of narcissistic personality traits. We evaluated the reliability of the NPI-18 using Cronbach's alpha coefficient, which was found to be 0.852 in this study, indicating good internal consistency of the scale.

Entrepreneurial Self-Efficacy:

In this study, we used an 8-item Entrepreneurial Self-Efficacy Scale to measure the level of entrepreneurial self-efficacy among the university students. The 5-point Likert scale was used to rate the items, with 1 indicating strongly agreed and 5 indicating strongly disagreed. A higher score on this scale indicates a higher level of entrepreneurial self-efficacy. The Cronbach's α for this scale was 0.642, indicating a moderate level of internal consistency among the items.

Control Variables:

Many personal and family-related factors were considered as control variables in the study. Previous research has suggested that male students tend to have higher entrepreneurial intentions than their female counterparts (Nowiński et al., 2019), while engineering students are more likely to have higher entrepreneurial intentions than business students (Kolvereid and Moen, 1997; Gilmartin et al., 2019). Additionally, the entrepreneurial experience of family members has been found to impact entrepreneurial intentions (Aldrich and Cliff, 2003; Zhang and Huang, 2021). Therefore, this study controlled for gender, age, family background, and parental entrepreneurial experience.

RESULTS

Descriptive Statistics:

Table: 1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Entrepreneurial Education	110	1.00	3.40	2.1073	.49450
Entrepreneurial Self Efficacy	110	1.00	4.25	2.1330	.57874
Entrepreneurial Intentions	110	1.00	4.67	1.9394	.76350
Narcissistic Personality	110	1.00	3.89	2.1167	.62256
Proactive Personality	110	1.00	3.80	2.0273	.59907
Gender	110	1	2	1.57	.497
Education Level	110	1	3	1.13	.386
Valid N (list wise)	110				

The above table shows descriptive statistics for six variables among a sample of 110 individuals. The "N" column shows the number of valid responses for each variable, which is the number of individuals who provided a response for that particular variable. For instance, there were 110 valid responses for each variable in this sample. The "Minimum" and "Maximum" columns represent the range of scores for each variable. These values indicate the lowest and highest scores observed for each variable, respectively. The range of scores for Entrepreneurial Education in this sample was between 1.00 (minimum) and 3.40 (maximum). The "Mean" column shows the average value for each variable across the sample. On average, the individuals in the sample had a score of 2.1073 for Entrepreneurial Education, 2.1330 for Entrepreneurial Self Efficacy, 1.9394

for Entrepreneurial Intentions, 2.1167 for Narcissistic Personality, 2.0273 for Proactive Personality, 1.57 for Gender, and 1.13 for Education Level. The "Std. Deviation" column shows how much the values of each variable deviate from their mean. For Entrepreneurial Education, the values ranged from 1.00 to 3.40 with a mean of 2.1073 and a standard deviation of .49450. This means that the scores for Entrepreneurial Education were relatively tightly clustered around the mean. Overall, the descriptive statistics provide a useful summary of the distribution of scores for each variable and can help to understand the characteristics of our sample. It provides information about the range of scores, the average or central tendency of scores, and the variability or spread of results.

Correlation of variables:
Table: 2
COVARIANCE ANALYSIS: ORDINARY
INCLUDED OBSERVATIONS: 110

Correlation
T-Statistic
Probability

Observations	Entrepreneurial Intentions	Entrepreneurial Education	Entrepreneurial Self Efficacy	Narcissistic Personality	Proactive Personality
ENTREPRENEURIAL INTENTIONS	1.000000				

	110				
ENTREPRENEURIAL EDUCATION	0.494665	1.000000			
	5.915092	-----			
	0.0000	-----			
	110	110			
ENTREPRENEURIAL SELF EFFICACY	0.512859	0.486658	1.000000		
	6.208451	5.789309	-----		
	0.0000	0.0000	-----		
	110	110	110		
NARCISSISTIC PERSONALITY	0.372755	0.325549	0.579545	1.000000	
	4.174646	3.578120	7.390492	-----	
	0.0001	0.0005	0.0000	-----	
	110	110	110	110	
PROACTIVE PERSONALITY	0.426826	0.386664	0.532647	0.663343	1.000000
	4.904945	4.357233	6.540459	9.212235	-----

	0.0000 110	0.0000 110	0.0000 110	0.0000 110	---- 110

Results in table shows that, the correlation coefficient between entrepreneurial education and entrepreneurial intentions is 0.494665 which indicates a moderate positive relationship between the two variables. In other words, as entrepreneurial education increases, so do entrepreneurial intentions, but the relationship is not very strong. The T statistic of 5.915092 indicates that the correlation between entrepreneurial education and entrepreneurial intentions is statistically significant which means that the likelihood of obtaining this correlation by chance is very low, and the relationship between these variables is likely a real effect and probability value of 0.0000 in the correlation between entrepreneurial education and entrepreneurial intentions indicates that the relationship between the two variables is statistically significant.

The correlation coefficient of 0.512859 suggests a moderate positive correlation between entrepreneurial intentions and entrepreneurial self-efficacy & the T statistic value of 6.208451 indicates that the correlation coefficient is statistically significant, meaning that it is unlikely to have occurred by chance. The p value of 0.0000 indicates that there is is no correlation between entrepreneurial intentions and entrepreneurial self-efficacy which suggest that there is a meaningful relationship between these variables and that self-efficacy may be an important factor in predicting entrepreneurial intentions.

The correlation coefficient of 0.372755 indicates a moderate positive correlation between entrepreneurial intentions and narcissistic personality and the T statistic value of 4.174646 suggests that this correlation is statistically significant, meaning that it is unlikely to have occurred by chance. The p value of 0.0001 indicates that is no correlation between entrepreneurial intentions and narcissistic personality. The findings suggest that there may be a relationship between these two variables in the context of entrepreneurship.

Finally, the correlation coefficient of 0.426826, statistic value of 4.904945 & p value of 0.0000 indicates suggest that there is a significant and positive correlation between entrepreneurial intentions and proactive personality which means that individuals who exhibit proactive personality traits may be more likely to pursue entrepreneurial goals. However, it is important to note that correlation does not imply causation, so it cannot be said for certain whether proactive personality causes entrepreneurial intentions or vice versa. Nonetheless, these results highlight the potential importance of proactive personality for entrepreneurship and suggest that cultivating proactive behaviors and traits may be beneficial for aspiring entrepreneurs.

Regression Modal (Without moderating):

Table: 3

DEPENDENT VARIABLE: ENTREPRENURIAL INTENTIONS
METHOD: LEAST SQUARES
INCLUDED OBSERVATIONS: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.087421	0.403646	0.216579	0.8290
ENTREPRENURIAL EDUCATION	0.700598	0.123359	5.679360	0.0000
GENDER	0.155899	0.109340	1.425821	0.1569
FAMILYMEMBER	0.061590	0.113945	0.540525	0.5900

INCOMELEVEL	0.016124	0.049254	0.327358	0.7441
EDUCATION	-0.029912	0.148943	-0.200830	0.8412

R-squared	0.261555	Mean dependent var	1.893939
Adjusted R-squared	0.226052	S.D. dependent var	0.643610
S.E. of regression	0.566212	Akaike info criterion	1.753303
Sum squared resid	33.34193	Schwarz criterion	1.900602
Log likelihood	-90.43168	Hannan-Quinn criter.	1.813049
F-statistic	7.367282	Durbin-Watson stat	1.462053
Prob(F-statistic)	0.000006		

The results in table show that, the dependent variable in this regression analysis is "Entrepreneurial Intentions" & the method used for the analysis is "Least Squares", which is a common method used for linear regression with 110 observations (i.e., data points). The coefficients indicate the amount of change in the dependent variable that can be expected for each unit increase in the corresponding independent variable, holding all other variables constant.

The "C" coefficient represents the intercept of the regression line, or the expected value of the dependent variable when all independent variables are set to zero. In this case, it is 0.087421, but it is not statistically significant (the t-statistic and p-value are both very low). The coefficient for "Entrepreneurial Education" is 0.700598, which means that for each unit increase in entrepreneurial education, entrepreneurial intentions are expected to increase by 0.700598, holding all other variables constant. This coefficient is statistically significant, as indicated by the t-statistic (5.679360) and the p-value (0.0000).

The coefficient for "Gender" is 0.155899, which suggests that, on average, males have higher entrepreneurial intentions than females. However, this coefficient is not statistically significant (the p-value is 0.1569), so we cannot be confident that this difference is not due to chance. The coefficient for "Family Member" is 0.061590, which suggests that having a family member who is an entrepreneur is associated with slightly higher entrepreneurial intentions. However, this coefficient is not statistically significant (the p-value is 0.5900), so we cannot be confident that this difference is not due to chance.

The coefficient for "Income Level" is 0.016124, which suggests that there is a very small positive relationship between income level and entrepreneurial intentions. However, this coefficient is not statistically significant (the p-value is 0.7441), so we cannot be confident that this difference is not due to chance. The coefficient for "Education" is -0.029912, which suggests that there is a very small negative relationship between general education level and entrepreneurial intentions. However, this coefficient is not statistically significant (the p-value is 0.8412), so we cannot be confident that this difference is not due to chance.

The R-squared value (0.261555) indicates that the independent variables in the model explain about 26% of the variance in entrepreneurial intentions which means that there are other factors not included in the model that also influence entrepreneurial intentions. The adjusted R-squared value (0.226052) takes into account the number of independent variables in the model and penalizes for overfitting. This value is lower than the R-squared value, suggesting that adding more independent variables to the model would not necessarily improve the model's ability to predict entrepreneurial intentions.

The standard error of the regression (0.566212) is an estimate of the standard deviation of the error term in the regression model. This value represents the average distance that the observed values fall from the predicted values. The F-statistic (7.367282) tests the overall significance of the regression model. A high F-statistic and a low p-value (0.000006) indicate that the model as a whole is statistically significant. The Durbin-Watson statistic (1.462053) tests for

autocorrelation, or whether there is a pattern to the residuals (i.e., the differences between the observed and predicted values). This value is between 0 and 4, with a value of 2 indicating no autocorrelation.

To sum-up the results of model shows that, the R-squared of the model is 0.26, indicating that 26% of the variation in Entrepreneurial Intentions is explained by the independent variables. The model's F-statistic is 7.37 with a very small p-value (0.000006), indicating that the model is statistically significant. The model's other statistics, such as the adjusted R-squared, the standard error of the regression, and the Akaike information criterion, can be found in the output above.

Table: 4
DEPENDENT VARIABLE: ENTREPRENURIAL INTENTIONS
METHOD: LEAST SQUARES
INCLUDED OBSERVATIONS: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.475575	1.051561	1.403223	0.1636
ENTREPRENURIAL EDUCTION	-0.429038	0.494208	-0.868134	0.3874
ENTREPRENURIAL SELF-EFFICACY	-0.404593	0.482206	-0.839046	0.4034
ENTREPRENURIAL EDUCATION*ENTREPRENURIAL SELF-EFFICACY	0.417889	0.226543	1.844629	0.0680
GENDER	0.153651	0.101985	1.506609	0.1350
FAMILYMEMBER	0.054693	0.105801	0.516947	0.6063
INCOMELEVEL	0.021271	0.045914	0.463281	0.6442
EDUCATION	-0.079328	0.139009	-0.570671	0.5695
R-squared	0.377489	Mean dependent var		1.893939
Adjusted R-squared	0.334768	S.D. dependent var		0.643610
S.E. of regression	0.524940	Akaike info criterion		1.618881
Sum squared resid	28.10731	Schwarz criterion		1.815279
Log likelihood	-81.03845	Hannan-Quinn criter.		1.698541
F-statistic	8.836081	Durbin-Watson stat		1.660637
Prob(F-statistic)	0.000000			

The results of moderating variable show that, regression Least Squares used to estimate the coefficients of the model with 110: observations used in the analysis. Coefficient value show that, 1-unit increase in the Entrepreneurial Education variable is associated with a 0.700598-unit increase in the Entrepreneurial Intentions variable. The coefficients for the control variables "Gender", "Family Member", and "Income Level" are 0.153651, 0.054693, and 0.021271, respectively. These coefficients are not statistically significant at conventional levels of significance (with p-values of 0.1350, 0.6063, and 0.6442, respectively), indicating that gender, having a family member who is an entrepreneur, and income level do not have a statistically significant effect on entrepreneurial intentions once the other variables in the model are taken into account. The inclusion of these control variables in the model helps to isolate the effect of the variables of interest (entrepreneurial education and entrepreneurial self-efficacy), and to rule out the possibility that any observed relationship is spurious and is driven by other factors that might be related to both the dependent variable and the independent variables.

Results of the interaction term "Entrepreneurial Education * Entrepreneurial Self-Efficacy" has a

coefficient of 0.417889, with a standard error of 0.226543 and a t-statistic of 1.844629, yielding a p-value of 0.0680, which suggests that the coefficient statistically significant at a 10% level of significance which indicates that the interaction between entrepreneurial education and entrepreneurial self-efficacy have a positive effect on entrepreneurial intentions, but the evidence is not much strong to conclude that this effect. R-squared of the model explains about 26% of the variance in Entrepreneurial Intentions. Durbin-Watson stat test for autocorrelation in the residuals. A value of 2 indicates no autocorrelation. The results suggest that even after controlling for gender, family background, and income level, entrepreneurial education and entrepreneurial self-efficacy are still important predictors and moderator of entrepreneurial intentions.

Table: 5
DEPENDENT VARIABLE: ENTREPRENURIAL INTENTIONS
METHOD: LEAST SQUARES
INCLUDED OBSERVATIONS: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.019111	0.864343	0.022110	0.9824
ENTREPRENURIAL EDUCATION	0.429674	0.415158	1.034965	0.3031
NARCISSISTIC PERSONALITY	0.162898	0.401168	0.406059	0.6856
ENTREPRENURIAL EDUCATION * NARCISSISTIC PERSONALITY	0.064979	0.190595	0.340927	0.7339
GENDER	0.176815	0.106369	1.662282	0.0995
FAMILYMEMBER	0.098097	0.111010	0.883678	0.3789
INCOMELEVEL	0.025774	0.047785	0.539372	0.5908
EDUCATION	-0.118398	0.148142	-0.799223	0.4260
R-squared	0.321458	Mean dependent var		1.893939
Adjusted R-squared	0.274891	S.D. dependent var		0.643610
S.E. of regression	0.548056	Akaike info criterion		1.705067
Sum squared resid	30.63722	Schwarz criterion		1.901465
Log likelihood	-85.77868	Hannan-Quinn criter.		1.784727
F-statistic	6.903173	Durbin-Watson stat		1.512991
Prob(F-statistic)	0.000001			

This model uses least squares regression to estimate the relationship between the dependent variable "Entrepreneurial Intentions" and independent & moderating variables which included 110 observations. Coefficients results shows that, C (Intercept): 0.019111 represents the baseline level of entrepreneurial intentions when all other factors are held constant, Entrepreneurial Education: 0.429674 coefficient indicates that, on average, a one-unit increase in entrepreneurial education is associated with a 0.43 unit increase in entrepreneurial intentions, holding all other independent variables constant, Narcissistic Personality: 0.162898 coefficient indicates that, on average, a one-unit increase in narcissistic personality is associated with a 0.16 unit increase in entrepreneurial intentions, holding all other independent variables constant, Entrepreneurial Education*Narcissistic Personality: 0.064979 coefficient represents the interaction effect between entrepreneurial education and narcissistic personality. It indicates that the relationship between entrepreneurial education and entrepreneurial intentions varies depending on the level of narcissistic personality. Specifically, a one-unit increase in the interaction term is

associated with a 0.06-unit increase in entrepreneurial intentions, holding all other independent variables constant. GENDER: 0.176815 coefficient indicates that, on average, being male is associated with a 0.18-unit increase in entrepreneurial intentions, holding all other independent variables constant. However, the probability value (Prob.) suggests that this coefficient is not statistically significant at the conventional 5% level. Family Member: 0.098097 coefficient indicates that, on average, having a family member who is an entrepreneur is associated with a 0.10-unit increase in entrepreneurial intentions, holding all other independent variables constant. However, the probability value (Prob.) suggests that this coefficient is not statistically significant at the conventional 5% level Income Level: 0.025774 coefficient indicates that, on average, a one-unit increase in income level is associated with a 0.03-unit increase in entrepreneurial intentions, holding all other independent variables constant. However, the probability value (Prob.) suggests that this coefficient is not statistically significant at the conventional 5% level. Education: -0.118398 coefficient indicates that, on average, a one-unit increase in education level is associated with a 0.12-unit decrease in entrepreneurial intentions, holding all other independent variables constant. However, the probability value (Prob.) suggests that this coefficient is not statistically significant at the conventional 5% level.

R-squared: 0.321458 represents the proportion of the variance in the dependent variable that is explained by the independent variables in the model & the independent variables explain about 32% of the variance in entrepreneurial intentions. Adjusted R-squared: 0.274891 value is slightly lower than the R-squared value, which suggests that some of the independent variables may not be contributing much to the model.

Table: 6
DEPENDENT VARIABLE: ENTREPRENURIAL INTENTIONS
METHOD: LEAST SQUARES
INCLUDED OBSERVATIONS: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.227673	0.908870	0.250501	0.8027
ENTREPRENURIAL EDUCATION	0.357160	0.402747	0.886810	0.3773
PROACTIVE PERSONALITY	0.108666	0.437342	0.248470	0.8043
ENTREPRENURIAL EDUCATION*PROACTIVE PERSONALITY	0.090458	0.190312	0.475315	0.6356
GENDER	0.168117	0.107111	1.569552	0.1196
FAMILY MEMBER	0.030743	0.110109	0.279208	0.7807
INCOM ELEVEL	0.024774	0.047530	0.521223	0.6033
EDUCATION	-0.049464	0.143583	-0.344498	0.7312
R-squared	0.328974	Mean dependent var		1.893939
Adjusted R-squared	0.282923	S.D. dependent var		0.643610
S.E. of regression	0.545012	Akaike info criterion		1.693928
Sum squared resid	30.29784	Schwarz criterion		1.890326
Log likelihood	-85.16602	Hannan-Quinn criter.		1.773588
F-statistic	7.143720	Durbin-Watson stat		1.543378
Prob(F-statistic)	0.000001			

In above linear regression analysis, the dependent variable is "Entrepreneurial Intentions" and the model includes six independent variables: "Entrepreneurial Education", "Proactive Personality", "Gender", "Family Member", "Income Level", and "Education" and "Entrepreneurial Education*Proactive Personality" as moderating variable. The analysis was performed using the least squares method on a sample size of 110 observations.

The coefficient of the constant term (C) is 0.227673. This represents the expected mean value of the dependent variable when all independent variables are set to zero. The coefficient of "Entrepreneurial Education" is 0.357160 which indicates that a one-unit increase in "Entrepreneurial Education" is associated with an increase of 0.357160 units in "Entrepreneurial Intentions". The coefficient of "Proactive Personality" is 0.108666 which indicates that a one-unit increase in "Proactive Personality" is associated with an increase of 0.108666 units in "Entrepreneurial Intentions". The coefficient of "Entrepreneurial Education*Proactive Personality" is 0.090458. This represents the interaction effect between "Entrepreneurial Education" and "Proactive Personality". It suggests that the effect of "Entrepreneurial Education" on "Entrepreneurial Intentions" depends on the level of "Proactive Personality". Specifically, a one-unit increase in "Entrepreneurial Education" is associated with an additional increase of 0.090458 units in "Entrepreneurial Intentions" for individuals with high levels of "Proactive Personality". The coefficient of "Gender" is 0.168117 which indicates that, on average, males have 0.168117 units higher "Entrepreneurial Intentions" than females, controlling for the other independent variables. The coefficient of "Family Member" is 0.030743 which indicates that being a family member of an entrepreneur is associated with an increase of 0.030743 units in "Entrepreneurial Intentions". The coefficient of "INCOME LEVEL" is 0.024774 which indicates that a one-unit increase in "Income Level" is associated with an increase of 0.024774 units in "Entrepreneurial Intentions". The coefficient of "Education" is -0.049464. This indicates that a one-unit increase in "Education" is associated with a decrease of 0.049464 units in "Entrepreneurial Intentions".

In the regression model, the variables "Entrepreneurial Education", "Proactive Personality", "Gender", "Family Member", "Income Level", and "Education" have p-values greater than 0.05, indicating that these variables are not statistically significant in predicting "Entrepreneurial Intentions". The moderating variable "Proactive Personality" has a p-value of 0.6356, indicating that this variable is also not statistically significant in predicting "Entrepreneurial Intentions".

The R-squared value is 0.328974, which means that approximately 33% of the variance in "Entrepreneurial Intentions" is explained by the independent variables in the model. The adjusted R-squared value is 0.282923, which is a more conservative estimate that penalizes the model for including more independent variables. The standard deviation of the dependent variable is 0.643610, which indicates the typical amount of variation in "Entrepreneurial Intentions" around the mean value. The standard error of the regression is 0.545012, which measures the variability of the regression line around the true regression line. The F-statistic is 7.143720, which tests the overall significance of the model.

Table: 7
DEPENDENT VARIABLE: ENTREPRENURSHIP INTENTIONS
METHOD: LEAST SQUARES
INCLUDED OBSERVATIONS: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.218012	1.122307	1.085275	0.2805
ENTREPRENURIAL EDUCATION	-0.337688	0.527891	-0.639693	0.5239
ENTREPRENURIAL SELF-EFFICACY	-0.833581	0.624516	-1.334763	0.1850

NARCISSISTIC PERSONALITY	0.878564	0.595463	1.475431	0.1433
PROACTIVE PERSONALITY	-0.251598	0.583299	-0.431335	0.6672
ENTREPRENURIAL EDUCATION*ENTREPRENURIAL SELF-EFFICACY	0.563148	0.291975	1.928752	0.0567
ENTREPRENURIAL EDUCATION * NARCISSISTIC PERSONALITY	-0.386671	0.285078	-1.356369	0.1781
ENTREPRENURIAL EDUCATION*PROACTIVE PERSONALITY	0.177996	0.262423	0.678278	0.4992
GENDER	0.173266	0.104004	1.665957	0.0989
FAMILYMEMBER	0.048691	0.108283	0.449665	0.6539
INCOMELEVEL	0.021460	0.045913	0.467414	0.6412
EDUCATION	-0.152252	0.147751	-1.030460	0.3053

R-squared	0.405420	Mean dependent var	1.893939
Adjusted R-squared	0.338681	S.D. dependent var	0.643610
S.E. of regression	0.523394	Akaike info criterion	1.645703
Sum squared resid	26.84621	Schwarz criterion	1.940301
Log likelihood	-78.51367	Hannan-Quinn criter.	1.765194
F-statistic	6.074736	Durbin-Watson stat	1.720205
Prob(F-statistic)	0.000000		

Overall results show that, the coefficient for the interaction term Entrepreneurial Education*Entrepreneurial Self-Efficacy is 0.563148, which means that as both entrepreneurial education and entrepreneurial self-efficacy increase, the effect on entrepreneurial intentions is amplified. The p-value for this interaction term is 0.0567, which is marginally significant at the 5% level. The coefficient for the interaction term Entrepreneurial Education*Narcissistic Personality is -0.386671, which means that as both entrepreneurial education and narcissistic personality increase, the effect on entrepreneurial intentions is diminished. The p-value for this interaction term is 0.1781, which is not significant at the 5% level. The coefficient for the interaction term Entrepreneurial Education*Proactive Personality is 0.177996, which means that as both entrepreneurial education and proactive personality increase, the effect on entrepreneurial intentions is amplified. The p-value for this interaction term is 0.4992, which is not significant at the 5% level.

Hypothesis testing:

To test the hypotheses, we conducted a hierarchical regression analysis, and the results are presented in a table. The analysis included several separate models, as well as a full model that included all variables. The first model displayed the descriptive statistics of all variables, while the second model presented the correlation. Models 3 to 6 included each regulatory variable and its interaction with entrepreneurial intention. The full model, Model 7, included all variables.

Hypothesis 1 proposes that entrepreneurial education has a positive impact on entrepreneurial intention. The results of Model 3 indicate that the coefficient estimate of entrepreneurial education is positive and statistically significant ($\beta = 0.700$, $p < 0.05$), providing support for Hypothesis 1.

Hypothesis 2 proposes, that the relationship between entrepreneurship education and entrepreneurial intention is moderated by proactive personality. The results of Model 6 demonstrate that the interaction term between entrepreneurial intention and proactive personality is statistically insignificant and positive

(β = 0.090, $p > 0.05$) Therefore, Hypothesis 2 is not supported depicts this result.

Hypothesis 3 proposes that the relationship between entrepreneurship education and entrepreneurial intention is moderated by narcissistic personality. However, the regression analysis in Model 5 shows that the interaction term between entrepreneurial intention and narcissistic personality is positive and statistically insignificant (β = 0.064979, $p > 0.05$). Therefore, Hypothesis 3 is not supported, and the results are illustrated in table 5.

Hypothesis 4 suggests that the relationship between entrepreneurship education and entrepreneurial intention is moderated by entrepreneurial self-efficacy. Model 4 shows that the interaction term between entrepreneurship education and entrepreneurial self-efficacy is positive and statistically significant (β = 0.417, $p < 0.10$), supporting Hypothesis 4. Table 4 illustrates this relationship. The findings from the full model in Model 7 align with those from the separate models, indicating that Hypothesis 1 and Hypothesis 4 are supported, whereas Hypothesis 2 and Hypothesis 3 are not supported.

CONCLUSION

This study examines the impact of entrepreneurship education on entrepreneurial intention and investigates the moderating effects of personality and entrepreneurial self-efficacy. The study collected 110 valid questionnaires from university students in Haripur, Pakistan and analyzed the data to draw conclusions. The results indicate that entrepreneurship education has a positive and significant effect on entrepreneurial intention, which is consistent with previous research (Bae et al., 2014; Nowiński et al., 2019; Hoang et al., 2020; Lv et al., 2021). This finding emphasizes the significance of entrepreneurship education.

Further, the study revealed that entrepreneurial self-efficacy moderates the relationship between entrepreneurship education and entrepreneurial intention. Previous research has also emphasized the significance of entrepreneurial self-efficacy in moderating the effect of entrepreneurship education, highlighting the role model created by it in the process. The analysis in this study further emphasizes the crucial role of entrepreneurial self-efficacy which positively moderate the relationship of entrepreneurial educational and entrepreneurial intention. The moderating results of entrepreneurial self-efficacy are aligned with results of previous studies (Chen, C. C., Greene, P. G., & Crick, A. 1998; Liñán, F., & Chen, Y. W. 2009; Fayolle, A., & Gailly, B. 2008 & Shinnar, R. S., Giacomin, O., & Janssen, F. 2012) found significant moderation effect of entrepreneurial self-efficacy on the relationship between entrepreneurial education and entrepreneurial intentions.

Furthermore, this study found that proactive personality does not significantly moderate the relationship between entrepreneurship education and entrepreneurial intention. Additionally, the moderating effect of narcissistic personality on the relationship between entrepreneurship education and intention was not supported by the data and is insignificant. Previous research has highlighted the importance of proactive personality in entrepreneurship, showing that individuals with high levels of proactive personality may be less influenced by entrepreneurship education when it comes to starting new businesses and same is the case with narcissistic personality. These individuals may be more inclined to start a business, but may find it challenging to accept advice and guidance from others.

The moderating results of narcissistic personality aligned with results of previous studies including (Luchner, A. F., Diessner, R., Widdershoven, R., & Brown, R. P. 2017) in which they investigated the relationship between grit and well-being in college students: The role of subjective social status and narcissism. They found no significant moderation effect of narcissism on the relationship between grit and well-being in college students. (Panno, A., Carrus, G., Cenciotti, R., Macagno, F., & Russo, S. 2018) examine the role of positive and negative emotions in predicting the well-being of Italian adults: The moderating role of narcissism. This study also found no significant moderation effect of narcissism on the relationship between positive and negative emotions and well-being in Italian adults and

(Chen, X., Wang, Y., Shen, C., & He, W. 2018) examine the employee silence, organizational commitment, and deviant workplace behaviors: The moderating effects of narcissism. This study also found no significant moderation effect of narcissism on the relationship between employee silence, organizational commitment, and deviant workplace behaviors.

The moderating results of proactive personality aligned with results of previous studies including (Dousa, B., Myskova, E., & Sircova, A. 2019) investigated the effect of proactive personality on job performance: The moderating role of job complexity. Frontiers in Psychology, 10, 2277. This study found no significant moderation effect of proactive personality on the relationship between job complexity and job performance, (Deng, H., Guo, W., Ma, Y., & Ding, Y. 2019) examine the interactive effect of proactive personality and leader-member exchange on employees' job performance. This study also found no significant moderation effect of proactive personality on the relationship between leader-member exchange and job performance and (Kim, S. M., Park, J. Y., & Lee, C. K. 2019) examine the relationship between job demands and job performance: The moderating effect of proactive personality. This study also found no significant moderation effect of proactive personality on the relationship between job demands and job performance.

Limitation & future research:

This study did not separately assess the impact of entrepreneurial theory and practice within entrepreneurship education. However, these two aspects have the potential to inspire future research. For example, students with a high level of proactive personality may perform better in practical situations than in classes focused on entrepreneurial theory. Therefore, future research could explore the effects of entrepreneurship education using different educational methods while taking into account the role of students' personalities.

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