

Does Narcissism Foster Entrepreneurial Intentions? Evidence from a Dual Mediation Model of Motivation and Agility

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Abstract

This research looks at the influence of narcissism on entrepreneurial intentions amongst Pakistani university students and tests the direct effects and dual mediating role of entrepreneurial motivation and agility. A cross-sectional survey design based on a quantitative method was used in gathering the data, and the data were collected by using questionnaires among students of four Pakistani universities, and analyzed using structural equation modeling (AMOS). The findings show that there is a positive relationship between narcissism and entrepreneurial intentions and that the relationship can be significantly explained by two complementary mechanisms. To begin with, narcissism enhances entrepreneurial motivation, which vitalizes the desire of students looking to venture creation. Second, narcissism has a positive correlation with greater agility - proactivity, adaptability, and resilience - that allows students to view entrepreneurship as a more plausible option in dynamic and uncertain situations. The mediation analysis contributes to the contribution of both entrepreneurial motivation and agility as partial mediators, indicating that narcissism affects the entrepreneurial intentions not only via direct but also motivational and capability-based paths. The research paper advances entrepreneurship-personality studies by emphasizing agility as a capability process that aids in transforming personality inclinations into entrepreneurial purposes. In practice, the results suggest that entrepreneurship education can transcend intent building stories by reinforcing the entrepreneurial drive-in students and that agility can be systematically built-in students via experiential and feedback-intensive learning strategies.

Keywords: Narcissism; Entrepreneurial Intentions; Entrepreneurial Motivation; Agility; University Students; Structural Equation Modeling; Pakistan

1 Introduction

Entrepreneurship is becoming a viable alternative to the economic revitalization, innovation and

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job creation, especially as the careers are being redefined by disruption and fast evolving market environments. But in modern entrepreneurial settings, good ideas in isolation are seldom rewarded, the ability to move fast, learn, pivot, and restructure plans, as uncertainty emerges, is. This fact has enhanced the focus of universities on education about entrepreneurship and student entrepreneurship. However, recent synthesis projects demonstrate that the research on entrepreneurship education is still divided into major themes of entrepreneurial intention, entrepreneurial mindset, and the emergence of entrepreneurial capabilities, and there is still a need to provide better understanding as to why some students form strong entrepreneurial intentions and not others (Anubhav et al., 2024).

One of the main issues is that the education on entrepreneurship does not always result in the enhancement of entrepreneurial intentions or better entrepreneurial performance. Evidence of impact evaluation shows that there are weak (or even negative) impacts of certain programs on entrepreneurial abilities and motivation of students, which leaves the question of the ability of a single pedagogical approach to be effective on all student profiles (Oosterbeek et al., 2010). Meanwhile, more recent empirical findings indicate that entrepreneurship education can be used to influence entrepreneurial careers by enhancing antecedents like alertness and, most notably, entrepreneurial motivation—thus conforming the intentions of students toward venture creation (Adeel et al., 2023). These conflicting results taken together imply that the field is no longer interested in whether entrepreneurship education is working or not, but rather in the factors and capabilities at the individual level that determine who takes up entrepreneurial intentions, and how they do so (Anubhav et al., 2024; Oosterbeek et al., 2010).

The entrepreneurial intention has been one of the key findings in the entrepreneurship and management education literature as it is generally considered a proximal antecedent of entrepreneurial action and venture creation (Ajzen, 1991; Krueger et al., 2000). This stream still has a strong influence of personality-based explanations due to the influence of perceptions, motives, and dispositional tendencies on intentions. To illustrate, entrepreneurial intention has been associated with internal locus of control, need for achievement, risk tolerance, and entrepreneurial alertness in students (Karabulut, 2016). In this personality-oriented literature, narcissism has been the topic of increased interest as a multifaceted character trait that may have both adaptive and maladaptive outcomes in career-related striving, particularly in young adults who experience identity formation and career doubt, as well as extreme social comparison.

Narcissism is typically perceived as an increased self-centrism and a tendency to seek status, admiration, recognition, but modern studies note that narcissism is not a unit. Grandiose and vulnerable are not synonymous: grandiose narcissism relates more to assertiveness and confidence, whereas vulnerable narcissism is more closely related to insecurity, negative affect, and interpersonal sensitivity (Rogoza et al., 2018). Narcissistic people may find entrepreneurship appealing due to its rewards of visibility, autonomy, and identity. In line with this perspective, there is consistent evidence that narcissism is positively linked with entrepreneurship—specifically during the initial phases of the entrepreneurship process including intention formation (Liu et al., 2021; Leung et al., 2021). Qualitative data also indicates that the narcissistic tendencies can be at times put to constructive use in the opportunities exploration and building of the business, and they can also introduce risks (e.g., losses involving overconfidence, identity conflict) in context and regulation-dependent (Botha and Sibeko, 2024).

Consistent with this reasoning, quantitative studies that put students at the centre have developed the narcissism-entrepreneurial intention relationship by suggesting intervening mechanisms, including entrepreneurial alertness and entrepreneurial passion (Hoang et al., 2024). Other pieces of evidence among student entrepreneurs also indicate that narcissism may relate to entrepreneurial performance via motivational and identity-related mechanisms (e.g., Darwinian entrepreneurial social identity and compulsive overwork) (Gubik & Vörös, 2023). Meanwhile, a significant part

of the study of student entrepreneurship has focused on the cognitive competence beliefs, particularly entrepreneurial self-efficacy, as the primary psychological mediator between narcissistic tendencies and entrepreneurial performance (Ejaz et al., 2024). Although significant, this focus falls short in unstable environments since a belief in the ability to do entrepreneurial work does not always reflect on the ability to quickly adjust and continue progressing when the objectives and constraints change, and the market also changes.

Here agility is brought into the foreground, both theoretically and practically. Agility is a general term that denotes the ability to perceive change rapidly, act decisively, and alter actions in order to maintain performance in the face of uncertainty (Aloulou et al., 2024). The strategic management studies also associate agility with dynamic capabilities, especially sensing opportunities, seizing them and reconfiguring resources in uncertain situations (Doz and Kosonen, 2010; Teece et al., 2016). Applying this reasoning to the individual level, entrepreneurial agility can be interpreted as the capacity of a student to pivot, learn fast, and modify entrepreneurial plans based on the ambiguity, feedback and evolving opportunities. This is particularly apt in digitally mediated markets. As an example, empirical data among vocational students shows that entrepreneurial agility is one of the factors that enable preparation to the digital economy, and adaptability is an essential entrepreneurial skill in the modern environment (Swaramarinda et al., 2025).

Although these processes have taken place, a substantial gap persists: empirical evidence is still unclear as to how narcissism is transformed into entrepreneurial intention via capability-enhancing channels, such as agility, as opposed to motivation-or-competence beliefs. Earlier studies have identified the relationship between narcissism and entrepreneurial striving, but the literature has not adequately empirically tested whether narcissistic traits enhance entrepreneurial intentions due to their heightening the entrepreneurial motivation (the desire to become an entrepreneur to achieve, gain control and status) and due to their promotion of agility (the ability to react and adapt to uncertainty). Filling in this gap is significant to theory in that it offers a more context-sensitive account of how entrepreneurial intention is formed that is consonant with turbulent entrepreneurial ecosystems, and it is significant to practice in that it implies that entrepreneurship education ought to emphasize not just motivational energy, but agility too, so that students can convert ambition into adaptive action as well as remain in the state of aspiration. Consequently, the current research hypothesizes and empirically verifies a model where narcissism is a predictor of entrepreneurial intentions both directly and indirectly via entrepreneurial motivation and agility, providing a capability-sensitive explanation of the role of personality in entrepreneurial paths among college students.

2 Theoretical Framework & Hypotheses

Entrepreneurial intentions and narcissism.

Most people define narcissism as a grandiose and overestimated view of self, which is supported by the sense of entitlement and power and the urge to be recognized (Miller and Campbell, 2008). The modern studies on the topic of personality further explain that narcissism is not a uniform and one-dimensional trait, but it can be frequently presented in terms of grandiose and vulnerable manifestations that vary in terms of emotional stability, interpersonal style, and self-regulatory processes (Miller et al., 2011; Miller, 2021).

In terms of the entrepreneurship perspective, narcissism is theoretically applicable since entrepreneurial careers provide independence, publicity, and fame--aspects that narcissistic status motives find very attractive. Multiple entrepreneurship studies have shown that narcissism is often linked to greater intentions to become an entrepreneur, in part due to the fact that narcissistic individuals are less averse to risk, have higher impactful goals, and want to be unique in their job selection (Mathieu and St-Jean, 2013; Liu et al., 2021). Recent findings, which are more student-

oriented, also indicate that narcissism is indirectly related to entrepreneurial intentions because correlations occur between cognitive/affective variables, including entrepreneurial alertness and passion (Hoang et al., 2024). In addition, there is evidence of a beneficial role of narcissism in the context of entrepreneurship at the initial stages of venture development: qualitative research indicates that confidence, social dominance, and impression management can justify entrepreneurship (however, the risks of the long-term future and the ethical conflict are observed) (Botha and Sibeko, 2024).

H1: Narcissism is an important influencing factor in the entrepreneurial intentions of university students.

Narcissism and entrepreneur motivation.

Entrepreneurial motivation displays the psychological forces that drive and maintain entrepreneurial goal pursuit, such as intrinsic (e.g., autonomy, achievement) and extrinsic drivers (e.g., income, status, recognition). Status rewards and adoration are particularly delicate issues of narcissistic individuals, which may transform into an increased desire to select entrepreneurship as a career route to distinction, symbolic success. Accumulating research on entrepreneurship acknowledges that narcissism is closely related to motive-based entrepreneurial activity, such as visibility, prestige, and competitive accomplishment motivation (Hmieleski and Lerner, 2016). Student sample results also show that narcissism may be linked to more start-up intention, as well as more self-centered motives to start up (Lien et al., 2022).

H2: Narcissism plays a huge role in the entrepreneurial motivation of university students.

Narcissism and agility

Agility, the ability to quickly detect change, act decisively and freely reorganize operations as uncertainty develops, is becoming more and more critical to the entrepreneurial success in turbulent and digitally mediated markets. The studies of strategic management consider agility as a key skill to cope with uncertainty and discontinuity (Doz and Kosonen, 2010; Teece et al., 2016). Entrepreneurial agility in the context of entrepreneurship studies has been described as a cognitive ability to foresee, visualize and capitalize on opportunities, particularly in the presence of disruption (Karimi and Walter, 2021).

Agility can be supported by narcissism because it has the orientation of approach, boldness, and high reward sensitivity- attributes that are associated with taking risks and acting swiftly in unpredictable environments. As an example, narcissism has been linked to a preference to adopt high-risk/high-reward investment strategies (Foster et al., 2011), and synthesis work in the field of entrepreneurship implies that narcissism can enhance risk-taking and decisive action-taking, however, it may also impair learning through failure and feedback, which is one of the primary boundaries conditions of sustainable agility (Liu et al., 2021). Agility-type capabilities are relevant to the early entrepreneurial trajectories as related agility constructs (e.g., learning agility) have been proposed to exist at the student-development level as an ability/preference to learn through new experiences (Yaneva & Yalamova, 2025).

H3: Narcissism can play a great role in determining agility among students in universities.

Allurement and entrepreneurial motives.

Entrepreneurial intention has long since been conceptualized as a premeditated intent to partake in the creation of a venture, and the formation of intention has often been explicated with the help of the Theory of Planned Behavior (TPB), according to which the intention is determined by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). Agility must be relevant in this logic as it will enhance the perceived ability in a student to cope with uncertainty, shift when there

are constraints and persevere as the pressure mounts- enhancing the perceived viability of entrepreneurship and improving intention. This mechanism is supported by the evidence provided by adjacent research on employability/entrepreneurship: career adaptability (the concept with which agility can be closely related as the ability to adapt to changes) has been reported to be associated with a positive impact on entrepreneurial intention by providing individuals with the ability to endure uncertainty and market pressures (Zhang et al., 2025).

H4: Agility influences the entrepreneurial intentions of university students significantly.

Entrepreneur intentions and entrepreneurial motivation.

Entrepreneurial motivation is always considered to be a proximal factor of entrepreneurial intention since motivated persons are more ready to devote themselves, take risk, and not to give up in the case of obstacles. The recent data of the samples of students of the emerging economies does confirm the positive correlation between the entrepreneurial motivation and the entrepreneurial intention, and additionally, demonstrate that favorable institutional conditions are able to enhance this association (Karan et al., 2024). Motivation is also emphasized, in the framework of the digital-economy, as one of the factors contributing to applying traits and competencies towards entrepreneurial intention (Zhao, 2025).

H5: There are high levels of entrepreneurial intentions, which are influenced by entrepreneurial motivation among students of the university.

Mediating effect of entrepreneurial motivation.

The indirect linkage between narcissism and entrepreneurial intention via motivation is theologically anticipated since narcissism is firmly related to status seeking and recognition seeking that have the likelihood to raise entrepreneurial motivation, and entrepreneurial intentions are more likely to be converted into intentions when they have been inspired. This argument is supported by empirical research on Dark Triad in nascent entrepreneurship that demonstrates that narcissism is positively correlated with entrepreneurial intentions and entrepreneurial motives, which indicate that motivational processes are an effective tool through which narcissism can be discussed in the path through which entrepreneurship is created (Hmieleski and Lerner, 2016; Lien et al., 2022).

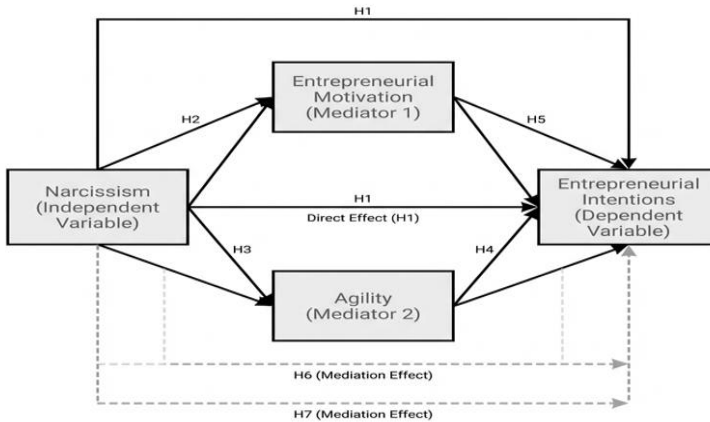
H6: Narcissism has a significant relationship between entrepreneurial intentions and entrepreneurial motivation through narcissism.

Mediating role of agility

The second mechanism is the capability-based one: narcissism can trigger the tendencies of bold action and chasing opportunities, promoting more agility (fast responding, experimenting, adapting), in turn, making entrepreneurship seem possible and desirable enough- building intention. Entrepreneurship research also explains that entrepreneurial agility is a cognitive skill to anticipate and take advantage of opportunity when faced with disruption (Karimi and Walter, 2021), whereas strategic management explains agility as a necessity to be able to cope with risk and uncertainty (Teece et al., 2016). The agility-like abilities among students (e.g., flexibility to change) can prepare them more to the vagueness of entrepreneurial processes that facilitates intention formation (Zhang et al., 2025).

H7: Agility is a significant mediator that exists between narcissism and entrepreneurial intentions among university students.

Conceptual Framework



3 Research Methodology

The current study was grounded in a positivist (post-positivist) research stance and followed a deductive logic to test theoretically derived relationships among narcissism, entrepreneurial motivation, agility, and entrepreneurial intentions using empirical data (Creswell & Creswell, 2023; Saunders et al., 2024). A cross-sectional, quantitative survey design was selected because it is appropriate for examining relationships among latent constructs and for testing direct and indirect effects through structural equation modeling (SEM) (Kline, 2023).

The sampling frame comprised students enrolled in business-related programs in higher education institutions in Pakistan, particularly those taking entrepreneurship as a required or elective course. Data were collected between January and February 2022 using a structured, self-administered questionnaire distributed to eligible respondents. Inclusion criteria required active enrollment in a business program and relevance to entrepreneurship coursework, while responses from students outside the program scope and incomplete questionnaires were excluded to maintain alignment with the study's objectives. The final sample consisted of 766 usable responses. An a priori statistical power analysis using G*Power 3.1 indicated that a substantially smaller minimum sample would have been adequate for detecting expected effects in correlation/regression contexts; therefore, the achieved sample size of 766 provided strong statistical power and stable parameter estimation for SEM (Faul et al., 2009; Kline, 2023).

All study variables were operationalized using previously validated measures, with items rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Narcissism was measured using the Hypersensitive Narcissism Scale (HSNS), a 10-item instrument developed to assess vulnerable/hypersensitive narcissistic tendencies (Hendin & Cheek, 1997), with later psychometric evidence supporting its reliability and validity (Fossati et al., 2009). Entrepreneurial intentions were measured using the Entrepreneurial Intention Questionnaire (EIQ) developed and validated within the theory of planned behavior tradition (Liñán & Chen, 2009). Entrepreneurial motivation was assessed using an 11-item measure adapted from Almobaireek and Manolova (2013), which captures key motives relevant to entrepreneurship among university youth. Agility (replacing self-efficacy in the revised framework) was measured as individual employee/workforce agility reflecting proactivity, adaptivity, and resilience. Specifically, the study adopted the 15-item agility performance scale operationalized across these three dimensions (Cai et al., 2018), which has been used to capture agility as proactive improvement, adaptive response to feedback/change, and resilient functioning under stress (Petermann & Zacher, 2022).

To minimize common method bias (CMB), several procedural remedies were implemented, including assuring confidentiality/anonymity, emphasizing voluntary participation, and presenting

items with clear instructions to reduce evaluation apprehension and socially desirable responding (Podsakoff et al., 2003; Podsakoff et al., 2024). In addition, post-hoc statistical checks were planned/used to diagnose CMB, including Harman's single-factor approach and collinearity-based diagnostics (Harman, 1967; Kock, 2015).

Prior to hypothesis testing, the dataset was screened for missing values, outliers, and assumption violations. The analysis proceeded in two stages. First, descriptive statistics were produced and internal consistency was assessed for each construct. Second, SEM was employed to evaluate both the measurement model (confirmatory factor analysis for reliability and validity assessment) and the structural model (testing hypothesized paths and mediation effects). IBM SPSS Statistics (v26) was used for initial screening and descriptive analysis, and AMOS (v26) was used for CFA and structural modeling due to its suitability for covariance-based SEM with latent variables (IBM SPSS Amos, 2018; Kline, 2023). Mediation effects were assessed using bootstrapping procedures to obtain robust indirect-effect estimates through confidence intervals, which is recommended for mediation testing in SEM contexts (Kline, 2023).

4 Results

Various methods and statistical tests were aired to make sure that the data used was valid and reliable. In this connection, the research strictly evaluated the assumptions identified above (Hair et al., 2014). To assess homoscedasticity, the residual scatterplots have been analyzed, which showed the same degree of variance of the residuals. The analysis of linearity was done using scatterplots where linear correlation was found between the independent variable and the dependent variable. The data on demographic characteristics was gathered on controlled variables which were as follows: a university, age, degree, scientific area, and professional experience. Table 1 provides the details of the data collected.

Table 1 Demographic Results

Demographical Description	Frequency	Percentage
University		
University of Lahore	196	25.6
GIFT University	187	24.4
University of Gujrat	191	24.9
University of Sialkot	192	25.1
Age		
< 20 Years	163	21.3
20–25 Years	584	76.2
26–30 Years	15	2
> 30 Years	4	0.5
Degree		
Bachelor's/Graduation	654	85.4
Master	85	11.1
Postgraduate	23	3

Demographical Description	Frequency	Percentage
PhD	4	0.5
Scientific Area		
Life Sciences and Health	175	22.8
Exact Sciences and Engineering	255	33.3
Natural and Environment Sciences	34	4.4
Social Sciences and Humanities	302	39.4
Professional Experience		
No Professional Experience	517	67.5
< 1 Year	144	18.8
1–3 Year	79	10.3
> 3 Years	26	3.4

Descriptive statistics of the respondents are given in Table 2. It includes mean, standard deviation, and correlation matrix.

Table 2 Means, Standard Deviations, and Correlation Matrix

	M	SD	EI	EM	AG	NS
EI	4.8279	1.35310	1			
EM	5.3869	1.09096	.564**	1		
AG	3.8746	0.60879	.473**	.623**	1	
NS	3.5833	0.56694	.132**	.182**	.213**	1

The values of correlation are all positive. It is therefore clear that the correlation of all the variables is positive. By positive relationship, it implies that as one variable is on the rise, the other variable rises correspondingly. The criteria are used to the strength of the relationship. The correlation coefficient (r) of 0.3 to 0.7 shows the existence of a moderate correlation between the variables, whereas a stronger correlation coefficient (r) of more than 0.7 shows that there is a strong relationship. The association between narcissism and entrepreneurial intentions, entrepreneurial motivation, and agility is determined as weak in positive but significant with correlation coefficients of $r = 0.132$, 0.182 , and 0.213 , respectively. Thus, the findings confirm the hypotheses since the orientations and strength of the correlations between the variables are the same.

Besides, the low level of coordination between narcissism and entrepreneurial qualities ($r = 0.182$) pointed out that it is the agility that is influencing more than narcissism. These findings are explainable, and their success in the venture in combined efforts by these characteristics would have contributed to the success of the venture by entrepreneurs.

Table 3 Reliability of Study Variables

Variables	Cronbach's Alpha
EI	0.878
EM	0.897
AG	0.826
NS	0.842
Overall	0.909

The internal reliability is employed to ensure that a scale under consideration to measure the concept is the one to measure the concept. Hair et al. (2013) confirm that 0.70 is the required value of Cronbach's alpha to confirm a construct. Based on Table 3, it is evident that the values of Cronbach's alpha exceed all the criteria. Cronbach's alpha of entrepreneurial intentions is 0.878, entrepreneurial motivation is 0.897, agility is 0.826, narcissism is 0.842 and the total is 0.909. Therefore, the questionnaire and scales that are to be applied to measure the variables are valid and the questionnaire is valid to conduct this study.

Hair et al. (2013) state that the measurement model indicates how constructs are related to their items. It has three significant sections, which are convergent validity, internal consistency, and discriminant validation. Convergent validity implies that constructs are error free and they are measuring what they are supposed to measure (Fornell, 1981). AVE measures convergent validity. AVE has a threshold of 0.5 and above (Fornell, 1981). Table 4 indicates that the convergent validity is supported as all values of AVE are significantly more than the criteria mentioned above.

Table 4 Convergent Validity

Latent Variables	AVE
EI	0.553
EM	0.528
AG	0.512
NS	0.514

As per the findings of Table 5, it is clear that internal consistency is established. The CR values for all variables are well above the aforementioned criteria; for example, the CR value for entrepreneurial intentions is 0.879, and the same is the case with the rest of the variables. The very first criterion to check the outer model is internal consistency, which is checked by composite reliability and its threshold value is 0.7 (Hair et al., 2013).

Table 5 Composite Reliability

Latent Variables	Composite Reliability
EI	0.879
EM	0.917
AG	0.733
NS	0.838

The purpose of factor loading is to identify those items that are uncorrelated with the given construct, so that such items can be excluded. The criteria for retaining a factor in a construct were determined by Netemeyer et al. (1995). The results of the factor loading are given in Table 6. These are the items that have a value higher than 0.5.

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Table 6 Factor Loading

Factor	Items	Estimates	Factor	Items	Estimates
Entrepreneurial Motivation	EM 1	0.505	Entrepreneurial Intentions	EI 1	0.598
	EM 3	0.679		EI 2	0.637
	EM 4	0.722		EI 3	0.842
	EM 5	0.682		EI 4	0.845
	EM 6	0.757		EI 5	0.810
	EM 7	0.761		EI 6	0.691
Narcissism	EM 8	0.798		AG 3	0.750
	EM 9	0.820		AG 4	0.773
	EM 10	0.675		AG 5	0.770
	EM 11	0.810		AG 6	0.801
	NS 5	0.618		AG 8	0.881
	NS 6	0.612		AG 9	0.845
	NS 7	0.755		AG 10	0.803

Factor	Items	Estimates	Factor	Items	Estimates
	NS 8	0.780		AG 11	0.778
	NS 9	0.768			
	NS 10	0.659			

Discriminant validity refers to what extent a test is truly different from the other test (Hair et al., 2017). Discriminant validity is established when the square root of the AVE of each variable is higher than the values that are present on the left triangle.

Table 7 Discriminant Validity

Latent Variables	EI	EM	AG	NS
EI	0.778			
EM	0.143***	0.746		
AG (Agility)	0.262***	0.178***	0.721	
NS	0.206***	0.242***	0.559***	0.718
NS	0.206***	0.242***	0.559***	0.718

Hypothesis Testing

The study has the first hypothesis that narcissism plays a significant role in entrepreneurial intentions. The p value is significant, which proves that H1 is accepted, and there is an effect of narcissism on the intention of the students to pursue entrepreneurship in the university. H2 is also significant with the p value and it substantiates the hypothesis, i.e. narcissism does affect the entrepreneurial motivation of university students. As per H3, narcissism affects the agility of students positively, hence, this hypothesis is accepted since the p-value is noteworthy. On the same note, agility positively influences entrepreneurial dispositions of university students. Entrepreneurial motivation also influences entrepreneurial intentions positively since the p-value of this hypothesis is also significant.

Table 8 Hypothesis Testing

Hypothesis	Relationship	β	S.E.	C.R.	p	Results
H1	NS → EI	0.158	0.022	7.445	0.000	Supported
H2	NS → EM	0.296***	0.051	5.977	0.000	Supported
H3	NS → AG	0.311*	0.043	7.371	0.000	Supported
H4	AG → EI	0.538*	0.038	13.731	0.000	Supported

Hypothesis	Relationship	β	S.E.	C.R.	p	Results
H5	EM $\rightarrow$ EI	0.741***	0.062	11.645	0.000	Supported

Mediation Analysis

The model has two mediations. It is hypothesized that the relationship between narcissism and entrepreneurial intentions is mediated by entrepreneurial motivation. Table 9 data shows that entrepreneurial motivation is mediating in the relationship. The mediation verifying condition is that there should not be zero value between the high and the low bounds; they must be of the same sign, either positive or negative. The two values used in this case are positive thus validating the mediation between the two given variables. The same applies to H7. The upper and lower bounds values prove the medium of agility in the relationship between narcissism and entrepreneurial intention.

The above analysis revealed that the narcissism to entrepreneurial intention relationship is mediated by the entrepreneurial motivation ($b = 0.266$, 95% CI: 0.202 to 0.344) and agility also mediates a related relationship ($b = 0.124$, 95% CI: 0.09 to 0.163). These analyses and mediators all demonstrate the partial mediation and direct effects of the variables are important. The analysis and results above secured that agility and entrepreneurial motivation are the important mechanisms of connecting narcissism and entrepreneurial intention.

Table 9 Structural Model

Hypothesis	Relationship	β	LB	UB	Results
H6	NS $\rightarrow$ EM $\rightarrow$ EI	0.266	0.202	0.344	Supported
H7	NS $\rightarrow$ AG $\rightarrow$ EI	0.124	0.09	0.163	Supported

5 Discussion

The paper has explored the impact of narcissism on entrepreneurial intentions among Pakistani university students by testing direct and two mediating relationships between narcissism and entrepreneurial intentions, entrepreneurial motivation and agility, on a sample of 766 respondents. The demographic data shows that the majority of respondents were between the ages of 20-25 (76.2%), and most of them were pursuing their bachelor degrees (85.4%), which is why the possible inference is that the largest percentage is made up of early-career students who are still developing career preferences and considering entrepreneurship as an accessible opportunity. Narcissism in the proposed model showed statistically significant direct relationship with the entrepreneurial intention whilst the entrepreneurial motivation and agility showed stronger proximal relationship through which the narcissistic inclination is translated into the entrepreneurial intention. These findings build upon the entrepreneurship-personality line that is making entrepreneurship a psychologically expressive profession and a strategic adaptation to uncertain labor markets.

The intention of narcissism and entrepreneurship (H1).

The H1 postulated that narcissism has positive effect on entrepreneurial intentions. The findings were in favor of this hypothesis ($b = 0.158$, $p < .001$) because the students who had a higher level of narcissism had stronger entrepreneurial intentions. The observation is in line with the recent entrepreneurship studies that have found that narcissism is usually associated with an increased

entrepreneurial intention as entrepreneurship provides autonomy, recognition, and status rewards that resonate with the self-enhancement motives of narcissism. (ScienceDirect)

More to the point, this idea would be supported by previous evidence to the effect that "narcissism" might work in subtle mechanisms that may hinge on the aspects of the concept (e.g., admiration vs. rivalry), with admiration being more likely to correlate with proactive entrepreneurial striving and rivalry with undermining constructive engagement. (Frontiers) The large yet relatively smaller direct coefficient in this study suggests that narcissism is not the primary force behind intention; whereas narcissism is seemingly a working phenomenon via capability- and motive-based mechanisms- here represented by motivation and agility.

Narcissism and entrepreneur motivation (H2)

H2 was that narcissism has a positive influence on entrepreneurship motivation. The assumption was validated ($b = 0.296$, $p < .001$). This finding means that narcissistic inclinations can energize the entrepreneurial drive of the students by increasing the aspiration to affect and obtain a sense of influence, achievement and social acknowledgment, which are often entrenched in the entrepreneurial objectives. It has been proposed in entrepreneurship research many times that narcissism may enhance entrepreneurial striving and persistence by increasing the intensity of status-oriented motives, even in cases where the characteristic is seen as objectionable by society.

Moreover, emerging evidence on student-based entrepreneurship suggests that motivation drives the core of intention in more modern situations (even digital entrepreneurship), which supports the view that motivation is one of the main psychological drivers of connecting traits to intention.

Narcissism and agility (H3)

Substituting self-efficacy with agility, H3 theorized that narcissism has a positive impact on agility. The results were in favour of this direction ($b = 0.311$, $p < .001$). In theory, agility represents the ability of an individual to react swiftly to change due to proactivity, adaptability, and resilience, but which is becoming more and more essential within entrepreneurial contexts of uncertainty and swift changes.

One of the reasons might be that narcissistic students, who are often ambitious and socially compared, could be more likely to be proactive, decisive, and pivot to maintain the self-image and goal achievement in case of a change of circumstances. Nevertheless, previous studies also warn that the narcissism is occasionally harmful to the learning as per failure and feedback that will be significant boundary conditions of long-run, sustainable agility. (Frontiers) Accordingly, although narcissism seems to be a predictor of agility in the present sample, future studies ought to examine whether the effect is conditional upon contextual facilitators (e.g., a good-quality entrepreneurship education, mentoring), which transform boldness into adaptive learning instead of blind persistence.

Agility and entrepreneurial intentions (H4)

H4 assumed that agility has a positive effect on entrepreneurial intentions. This was greatly backed by the results ($b = 0.538$, $p < .001$). This is conceptually significant since agility has the potential of enhancing perceived feasibility and coping capacity amid uncertainty- important psychological characteristics that enhance entrepreneurial intention. Recent investigations on entrepreneurship-intention point to evidence that adaptability-related constructs (e.g., career adaptability) are consistent predictors of entrepreneurial intentions that tend to engage in complementary motivational and cognitive processes. (EconStor)

As far as capabilities are concerned, agility may be seen as readiness to act in case of change, which suits the iterative characteristic of entrepreneurship (learning, experimenting, adjusting, and

reconfiguring). Therefore, students who consider themselves more agile might consider entrepreneurship to be a more manageable and more realistic career choice, which will reinforce their desire to start a venture.

Entrepreneurial intentions (H5) and entrepreneurial motivation.

The hypotheses of the study were H5 which suggested that entrepreneurial intentions are positively impacted by entrepreneurial motivation. This hypothesis had the highest effect in the model ($b = 0.741$, $p < .001$). This means that entrepreneurial intention has the strongest proximal predictor of motivation amongst the variables studied. This trend can be related to the recent empirical evidence that puts motivation at the center of entrepreneurial intention among university students, even in the digital-economy environment where the process of opportunity recognition and entrepreneurial orientation demand continued motivational enthusiasm.

Entrepreneurial motivation mediation (H6).

H6 was a test of the mediating role of entrepreneurial motivation between narcissism and entrepreneurial intention. The findings indicated a high-indirect effect ($b = 0.266$; 95% CI: 0.202 to 0.344), which favors a partial mediation effect. This validates that narcissism enhances intention in part due to its role in elevating entrepreneurial motivation, which is consistent with wider evidence that trait-motivated self-enhancement may be translated into greater entrepreneurial motivation and venture based planning in the research of dark-trait entrepreneurship. (Frontiers)

Mediation through agility (H7)

H7 was a test of agility mediating narcissism and entrepreneurial intention. As it turned out, the results validated the significant indirect effect ($b = 0.124$; 95% CI: 0.09 to 0.163), which was once again the indication of the partial mediation. Theoretical significance of this pathway is that it changes the explanation not of belief mechanisms to a capability mechanism: narcissism seems to affect intention in part by increasing the adaptive action potential (agility) of a student, leading to an increase in the probability of the development of entrepreneurial intentions. The studies of agility emphasize the fact that agility is a performance capability at the individual level (proactivity, adaptability, resilience) and a construct with significant psychological and behavioral consequences.

Combined, the two mediation findings suggest that narcissism plays an entrepreneurial intention role by two complementary processes, an energizing (entrepreneurial motivation) and enabling (agility) mechanism. The other important direct effect implies that narcissism has other channels of influence on intention that are not reflected here (e.g., entrepreneurial passion, alertness, identity motivation) as the recent mediation-oriented research on entrepreneurship purports.

Conclusion

All in all, this research paper has its value as it shows that narcissism is positively associated with entrepreneurial intentions among university students and that the relationships between the two can be explained by entrepreneurial motivation and agility. According to the findings, in cases where entrepreneurial ecosystems reinforce rapid adaptation, student agility is a potent mechanism that transforms personality inclinations into entrepreneurial intention. Meanwhile, the findings indicate that narcissism is not a universally negative factor in the context of entrepreneurship; it can be valuable in terms of intention formation when directing the motivation and adaptive ability, and narcissistic traits impose the need to provide ethical and educational protection because of the existence of the so-called dark side.

Theoretical contributions

The research paper contributes to the body of entrepreneurship-personality studies since it

combines a mediator of capabilities (agility) with a mediator of motives (entrepreneurial motivation). This reinforces the theoretical model of the translation of narcissism into entrepreneurial intention beyond single-mechanism models. The findings also conform to person environment fit logic whereby the people seek career environments that reward their motives and self-concepts; the entrepreneurship environment can be a good fit with those having stronger self-enhancement and status motives.

Practical contributions

To the entrepreneurship education field and university management, the findings suggest that it might be inadequate to merely promote the idea of entrepreneurship as a profession. Agility via experiential learning designs, necessitating iteration, rapid feedback, adaptation and resiliency to constraints, should be intentionally instilled in programmes to build the entrepreneurial motivation (purpose, autonomy, achievement framing), and, most importantly, to develop agility. As agility can be quantified as proactivity, adaptability, and resilience, it is possible to incorporate activities (market experiments, lean simulations, pitch iterations, failure-recovery reflection) that train these sub-capabilities.

Limitations and future research.

To start with, the cross-sectional, self-report design does not allow causal inferences; the longitudinal designs should be used in future research to observe how narcissism, motivation, agility, and intentions will change over time. Second, the use of convenience sampling in chosen universities limits the generalization to the population; the probability-based sampling between provinces and disciplines would improve the external validity. Third, the single operationalization of narcissism was used in the study, and further research should differentiate narcissistic admiration and rivalry to test whether this adaptive entrepreneurial pathway is more motivated by admiration as compared to rivalry.

The contextual moderators that should also be tested in future research include quality of entrepreneurship education, mentoring, institutional support and labor-market uncertainty. Lastly, a multi-source data (peer ratings of agility, behavioral measures of adaptability, and objective measures of entrepreneurship engagement) would minimize the possibility of common-method bias and enhance the confidence in the suggested mechanism.

Conflict of interest

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Data will be furnished upon request.

6 References

Here is the APA 7th references list in alphabetical order, based on the references you shared and the additional in-text citations appearing in your updated introduction/discussion files.

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- If you want, I can now replace any self-efficacy-only sources with agility-focused sources (where needed) so the reference list aligns even more tightly with your updated model.