



## Dark Triad Traits and Entrepreneurial Intention Among Final Year Students of Federal University of Technology Minna, Nigeria

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### Abstract

*The increasing prevalence and expression of dark triad traits among the contemporary generation of students of higher institutions raises questions about their impact on key life choices, including entrepreneurship. This study examines the relationship between dark triad traits and entrepreneurial intention among final-year students of Federal University of Technology Minna, Nigeria. Adopting a cross-sectional survey method, the study employed Structural Equation Modeling - Partial Least Squares (SEM-PLS) for data analysis. From the perspective of the three dark triad traits, the study found the presence of machiavellianism and narcissism among the sample, but not at levels sufficient to drive entrepreneurial intention. Psychopathy, however, demonstrated a significant negative relationship with entrepreneurial intention. This suggests that its associated impulsivity and disregard for norms hinder entrepreneurial inclination. This study therefore concludes that the impact of dark triad traits in shaping students' entrepreneurial intention remains sub-optimal and recommends tertiary institutions to design entrepreneurship programs that cultivate adaptive strategic thinking and self-confidence while discouraging manipulative tendencies.*

Keywords: Dark triad traits, Machiavellianism, Narcissism, Psychopathy, Entrepreneurial intention.

### 1.0 Introduction

For decades, theories on personality traits have served as foundational frameworks in the study of entrepreneurship providing insights into the behaviours and decision-making processes of entrepreneurs (Nurjanna *et al.*, 2022). These theories propose that personality traits not only serve as key predictors of entrepreneurial endeavours but also influence how individuals navigate the entrepreneurial process and manage the ventures they create. The Big Five taxonomy of personality traits, developed over 70 years ago (Salmony and Kanbach, 2022), has become one of the most widely adopted frameworks in psychological and entrepreneurial research. This model categorizes personality into five key dimensions namely openness, conscientiousness, extraversion, agreeableness, and neuroticism.

In recent years, the research community has increasingly adopted Dark Triad Traits (DTT) to explain certain entrepreneurial behaviours, entrepreneurial intention inclusive. These traits essentially rest on the tripod of machiavellianism, narcissism, and psychopathy and represent a distinct variance in social values that are not captured by the Big Five personality framework (Hoang *et al.*, 2024). They express behaviours and attitudes that often deviate from conventional social norms, bothering on manipulation, self-obsession, and a lack of moral restraint in the conduct of business operations.

Machiavellianism is characterized by a deeply cynical, manipulative and distrustful view of the world, often accompanied by a disregard for ethical principles (Do and Dadvari, 2017). Individuals with this trait display emotional detachment and pursue self-serving objectives through exploitation. Narcissism, in contrast, is defined by an exaggerated sense of self-importance and a desire for control, accompanied by an intense need for admiration and recognition (Do and Dadvari, 2017). This often manifests in vanity, arrogance, and a sense of superiority. Psychopathy, meanwhile, is marked by impulsivity, a lack of guilt or remorse, and indifference to societal norms (Zai *et al.*, 2020). Individuals high in psychopathy exhibit callousness, a lack of gratitude, and a disdain for authority, often showing little concern for the well-being of others.

Recent global trends, such as widespread job cuts in the tech industry, even among companies not facing financial crises, may suggest that many entrepreneurs in high-growth enterprises exhibit these traits. The ability to make such ruthless decisions that prioritize personal or company gain over employee well-being, depict the characteristics of these traits. The ruthlessness needed to build and manage high growth enterprises, combined with a detachment from moral constraints, may explain the rise of these traits among business leaders in sectors experiencing such disruptive shifts.

There remains no consensus within the research community regarding whether DTT hinder or enhance entrepreneurial outcomes. For example, Rovelli *et al.* (2023) suggested that these traits can act as catalysts for innovation amongst which is entrepreneurial intention, while Kraus *et al.* (2018) found insignificant negative effects in the relationship between DTT and entrepreneurial intention. Additionally, Lestari and Mutmainah (2023) highlighted that narcissism, in particular, may foster speculative behaviour, potentially exposing businesses to higher risk, while Cai *et al.* (2021)'s findings suggested that DTT have a positive and significant influence on nascent entrepreneurial behaviour. Overall, scholars such as Tucker *et al.* (2016) suggest that DTT traits may hold value within business contexts as a glimmer of light in the dark shade. Personality traits manifest in observable behaviours, influencing individuals' entrepreneurial tendencies as manifested in relevant actions and inactions both of which hinging on entrepreneurial intention.

This study was motivated by patterns of DTT observed among the contemporary undergraduate students on various campuses (Wood *et al.*, 2021; Li and Benson, 2022). In a country such as Nigeria where employment opportunities are highly limited, graduates may not pursue entrepreneurship out of choice but as a means to overcome the constraints imposed by the constricted job market. As such, the extent to which the inherent DTT shape their entrepreneurial intentions forms the focus of this study.

This study, therefore, specifically attempts to evaluate the influence of the dimensions of DTT, namely machiavellianism, narcissism, and psychopathy on the entrepreneurial intentions of final year students of Federal University of Technology Minna, Nigeria, particularly in the context of Nigeria's constrained employment market. Hence the following hypotheses:

(i) H<sub>1</sub>: Machiavellianism does not significantly affect entrepreneurial intention among final year students of FUTM, Nigeria.

(ii) H<sub>2</sub>: Narcissism does not significantly affect entrepreneurial intention among final year students of FUTM, Nigeria.

(iii) H<sub>3</sub>: Psychopathy does not significantly affect entrepreneurial intention among final year students of FUTM, Nigeria.

## **2.0 Literature Review**

### **2.1 Conceptual Review**

This subsection presents a review of the foremost variables of the study, namely the dark triad traits and entrepreneurial intention.

#### **2.1.1 Dark Triad Traits**

The dimensions of DTT - namely machiavellianism, Narcissism and psychopathy - are herein reviewed.

##### **i. Machiavellianism**

*Machiavellianism* is rooted in the political philosophy of Niccolò Machiavelli who emphasized strategic manipulation, cunning, and the disposition to exploit others to achieve one's ultimate goal (Cai et al., 2021). Individuals high on *Machiavellianism trait* are adept at masking their true intentions (Wu et al., 2019b), often presenting a facade of cooperation while pursuing self-interest (Hanson et al., 2024). This trait is characterized by a strong focus on power (Bouncken et al., 2020), a lack of moral scruples and a high degree of opportunism (Yu et al., 2020). *Machiavellianism* has been shown to significantly influence the choice of occupation, particularly drawing individuals toward careers that offer autonomy and a high degree of control over outcomes (Kay and Saucier, 2020). Occupations that provide a sense of personal power and flexibility, such as entrepreneurship, act as a magnet for individuals with high Machiavellian tendencies. The freedom to make decisions, exercise control, and exploit opportunities without external oversight aligns seamlessly with their desire for success and dominance regardless of the costs, aided by strategic maneuvering.

Machiavellianism is often denounced as an anti-social trait due to its association with manipulation, exploitation, and a lack of ethical concern (Beram et al., 2021). However, in highly competitive environments, the traits associated with Machiavellianism can offer a strategic advantage (Leonelli et al., 2020).

## **ii. Narcissism**

Narcissism is a personality trait characterized by exhibitionism, an inflated sense of self-importance, and a desire for admirations (Wu et al., 2019b; Al-Ghazali and Afsar, 2021). This trait imbues individuals with a natural charm and charisma, qualities often linked to leadership (Hmieleski and Lerner, 2016) and self-promotion. Individuals exhibiting high levels of narcissism often have heightened self-confidence, which drives them to undertake risk with a sense of assurance. Individuals with narcissistic tendencies are often driven by a desire for validation and achievement, which predisposes them to embrace entrepreneurship, where calculated risk-taking is central to business success. In venture creation, this trait can be advantageous as the strong sense of self-assurance typical of narcissistic individuals often translates into high levels of motivation, allowing them to push through the uncertainty and challenges that accompany new business creation.

Moreover, successful entrepreneurs are frequently celebrated and regarded as role models in society. This admiration and recognition serve as external validation that reinforces their ego and drive for continued success. Narcissistic individuals thrive on this recognition, as it not only satisfies their need for admiration but also validates their self-perception as high achievers (Baldegger et al., 2017). Previous studies have demonstrated that narcissism is a multi-dimensional construct with distinct behavioural patterns and features (Li and Benson 2022). For instance, Baldegger et al. (2017) differentiated between adaptive and maladaptive narcissism, while Mota et al. (2023) identified two dimensions: assertive and antagonistic. These distinctions suggest that narcissism may manifest in various forms, each with unique implications for individual behaviour and social interactions. Adaptive narcissism, often associated with self-confidence and resilience, can contribute positively to personal goals and relationships. In contrast, maladaptive narcissism, which aligns with traits like entitlement and exploitativeness, is linked to negative and anti-social behaviour such as rivalry and aggressive tendencies (Baldegger et al., 2017).

## **iii. Psychopathy**

Psychopathy is characterized by diminished moral and emotional control (Walker et al., 2020), often manifesting through lack of empathy and an indifference to social norms. Individuals exhibiting psychopathic traits may struggle to regulate their behaviours and emotions in socially acceptable ways and are more eager to engage in behaviours viewed as anti-social (McLarty et al., 2020). In addition, McLarty et al. (2020) observed that individuals with psychopathic traits often display superficial charm and verbal fluency which they can selectively employ to manipulate others. This charm allows them to disarm unsuspecting individuals, creating a false sense of trust and familiarity. Sahinidis et al. (2023) also suggested that psychopathic individuals exhibit indifference to risk or loss which reduces the anxiety about failure typically experienced by those without such tendencies.

This personality trait can have some implications in the context of entrepreneurship. On one hand, the fearlessness associated with psychopathy may allow entrepreneurs to pursue high-risk, high-reward opportunities with confidence (Morgan and Sisak, 2016). This reduced fear of failure could drive innovation and quick decision making with minimal hesitation in a fast paced industry. However, lack of emotional sensitivity and empathy can lead to exploitative practices which can potentially damage relationships with partners and employees (Mathieu et al., 2020).

### **2.1.2 Entrepreneurial Intention**

In an effort to understand the motivation behind the expression of entrepreneurial behaviour, researchers have had to look towards Entrepreneurial Intention (EI) to shed light on the mental and motivational processes that precede entrepreneurial action. Sahinidis et al. (2023) defined EI as a “recognised belief of an individual intending to launch a new business activity”. Brownell et al. (2021) provided a more nuanced description EI as a “conscious state of mind directing behaviour, personal attention, and experience towards planned entrepreneurial action, at some point in the future which can be imminent, indeterminate, or never reached”. In this context, EI can be understood as a state of awareness that drives individuals to align their attention and behaviour toward future entrepreneurial pursuits, regardless of whether these ventures are imminent, uncertain, or never realized. It is considered an essential determinant of entrepreneurial behaviour and the psychological precursor to the creation of new ventures and the exploitation of market opportunities (Wu et al., 2019a; Schlägel et al., 2021).

The nexus between DTT and EI is a growing domain of interest in entrepreneurship research as the dark triad traits are often associated with characteristics that can influence entrepreneurial intentions especially in aspects related to risk taking, self-confidence, opportunism, unconventional decision making, among others.

## **2.2 Theoretical Underpinnings**

With respect to DTT-EI nexus, two theories are closely relevant, namely the theory of planned behaviour (TPB) and the entrepreneurial event theory.

### **2.2.1 Theory of Planned Behaviour (TPB)**

EI is primarily explained through the lens of the theory of planned behaviour (TPB) (Kautonen et al., 2015; Su et al., 2021; Sahinidis et al., 2023). This inclination towards TPB is understandable due to its strong relevance in reliably explaining the constructs of self-efficacy and attitudes, which serve as the principal psychological foundations of EI. However, while TPB provides a solid framework for understanding how intention leads to entrepreneurial action, it may only be relevant in explaining opportunity-driven entrepreneurial behaviour because it focuses primarily on deliberate, planned actions based on perceived control and intentional decision-making (Alferaih, 2017).

The current study suggests that predicting an individual entrepreneurial intention in an environment where high unemployment rates and limited formal job opportunities are rampant may not be reliable. The economic landscape forces many individuals to

consider entrepreneurship not as an aspirational goal, but as a necessary means of survival. In this case, the entrepreneurial event theory postulated by Shapero and Sokol in 1982 is apt for this study for contextual reasons.

### **2.2.2 The Entrepreneurial Event Theory (TEET)**

The hardcore of Shapero and Sokol (1975)'s entrepreneurial event theory emphasizes that entrepreneurial activity is triggered by a displacement event, an external disruption that disturbs an individual's state of inertia. This disruption initiates a decision-making process in which the individual evaluates the perceived desirability and feasibility of entrepreneurial action, alongside their propensity to act. Within this theoretical framework, a clear distinction can be drawn between opportunity-driven and necessity-driven entrepreneurship. For final-year students in Nigeria, the transition from the relatively structured environment of tertiary education into an uncertain labour market represents a significant displacement event. As they encounter new challenges and begin to redefine their professional identities, many are confronted with limited employment prospects, especially in a context where job opportunities are highly limited.

In such an environment, entrepreneurship is not necessarily a voluntary pursuit but may emerge as a pragmatic response to the constraints of the shrinking job market. In light of this, individuals high in dark triad traits are more likely to exhibit the darker aspects of their personality, capitalizing on scarce opportunities by leveraging traits such as manipulation, egocentrism, and risk-taking to navigate the competitive and constrained employment landscape. These traits may provide a psychological advantage in pursuing entrepreneurial ventures in a context where traditional job opportunities are limited (Cai et al., 2021).

### **2.3 Empirical Review**

Wu et al. (2019a) and McLarty et al. (2023) reported that machiavellianism had a positive, statistically significant effect on EI which suggest that individuals high in Machiavellian traits are more likely to pursue entrepreneurial endeavours. These findings suggest that rather than merely constituting a maladaptive trait, machiavellianism can function as a pragmatic tool in competitive and resource-scarce contexts, where strategic social influence is paramount.

In contexts such as Nigeria, where graduates contend with a precarious job market and high youth unemployment, the opportunistic tendencies associated with machiavellianism may become crucial for launching entrepreneurial ventures. As students near the end of their academic journey, a significant number may be compelled to pursue self-employment as a survival strategy. In such situations, Machiavellian traits could prove essential in enabling students to exploit opportunities, secure resources, and establish networks necessary for business success

Empirically exploring the relationship between narcissism and Entrepreneurial Intention (EI), Kramer et al. (2021) reported significant positive correlations between narcissism



and various sub-factors in Krueger's model of EI which indicates its potential influence on entrepreneurial motivation. Similarly, Baldegger and Klösel (2023) identified significant, albeit somewhat weaker, correlations between narcissism and EI, suggesting that while narcissistic traits may contribute to entrepreneurial ambition, their impact may vary depending on specific sub-dimensions of narcissism and contextual factors.

Narcissism, as a personality trait, has significant implications for entrepreneurship. Liu and Benson (2022) observed that narcissism can hinder entrepreneurs in discovering opportunities, acquiring resources, and learning from failures, largely due to the pride characteristic of narcissists. Additionally, narcissism has been associated with increased interpersonal conflicts and ineffective management practices (Young et al., 2016), both of which can impede venture growth and organizational cohesion. However, narcissism is not entirely negative. Wu et al. (2019b) argued that narcissistic traits, such as self-confidence and risk tolerance, can increase entrepreneurial intentions and a willingness to pursue high-stakes ventures. This seeming duality suggests the direction of the effect of narcissism on entrepreneurial intentions remains inconclusive, making a further empirical enquiry into the nexus a worthwhile venture.

On psychopathy-EI nexus, Brownell et al. (2021) and Bouncken et al. (2020) observed that psychopathy can serve as a useful asset for individuals attempting to start new ventures. Similarly, Wang et al. (2016) suggested that psychopathic individuals often exhibit innovative tendencies, which are prominent features of entrepreneurial intentions. The relevance of psychopathy in stimulating entrepreneurial intention can be attributed to their lack of emotional inhibition in pursuing personal goals focusing on outcomes rather than consequences.

On the other hand, studies by Wu et al. (2019b) and Khawar et al. (2022) found no significant association between psychopathy and EI. While certain psychopathic traits such as fearlessness and risk tolerance, may offer advantages in entrepreneurial settings, they do not necessarily increase the likelihood of pursuing entrepreneurship. One possible explanation is that the interpersonal and antisocial dimensions of psychopathy, including impulsivity and a disregard for ethical considerations, undermine these potential benefits. Entrepreneurs often depend on social capital, trust-based relationships, and long-term strategic planning. However, the manipulative and exploitative tendencies linked to psychopathy may weaken these essential foundations (Mathieu et al., 2020).

In a nutshell, the extant empirical literature on the DTT-EI nexus have depicted four (4) strands of relationship, namely positive, negative, bidirectional and no relationship. By implication, the foregoing demonstrates that the extant empirical literature on the DTT-EI nexus is far from being consensual, thereby making a further empirical enquiry into the nexus a worthwhile research undertaking.

### **3.0 Methodology**

This section presents an outline of the methodology employed by the study.

### 3.1 Research Design

This study employed an ex-post facto quantitative cross-sectional survey design to execute the specific objectives of the study. The design is ex-post facto in the sense that it utilized readily available information from the research sample, without having to build the information overtime into the future. The design is quantitative in that it used scales to transform the information provided by the respondents into numerical data. The design is cross-sectional as it utilized the available information at the point of the survey, without having to go into the historical evolution of the pieces of information.

The choice of this design is informed by its sufficiency to achieve the research objectives adequately.

### 3.2 Sample and Sampling Technique

The study population consists of final-year undergraduate students of Federal University of Technology, Minna (FUTM), Nigeria who have been exposed to entrepreneurship courses. Previous empirical studies indicate that students are an appropriate research objects when investigating entrepreneurial intentions (Cai et al., 2021; Hmieleski and Lerner, 2016). This focus is particularly relevant in the Nigerian context, where entrepreneurship courses are taught to facilitate students' choice of entrepreneurship as a viable alternative to highly limited employment opportunities, making them an ideal group for studying entrepreneurial intention. Based on records from the Registrar's office, there were 4,134 registered final-year students in the 2023/2024 academic session. The deployment of Singh and Masuku (2014) formula for sample size determination in large populations produced a sample size of 352, which ensure representativeness.

A simple random sampling technique was then applied to allow each student an equal chance of selection, thus enhancing the generalizability of the findings.

### 3.3 Data Collection

To ease data collection, hostel and class representatives assisted in distributing and collecting the questionnaires during students' free time to ensure a comfortable environment for completing the survey. Out of 352 questionnaires, 329 were returned (93.4% response rate). The questionnaires were initially screened to remove incomplete responses, 314 were properly filled and deemed usable for analysis.

### 3.4 Measurement of Variables

The dark triad dimensions were adapted from Short Dark Triad (SD3) scale developed by Jones and Paulhus (2015). The SD3 is a widely validated 27-item questionnaire, with 9 items allocated to each dimension. Responses were recorded using a 5-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree") to quantify participants' tendencies across the three dimensions.



The entrepreneurial intention (EI) construct was assessed using a scale developed by Valliere (2017). Unlike most previous instruments employed in measuring EI, this scale avoids conflation with constructs associated with the theory of planned behaviour, thereby providing a more precise measure of entrepreneurial intention.

### 3.5 Instrument and Model Reliability and Validity

The measurement model was tested to ensure reliability and validity. Factor loadings, Cronbach's alpha, and composite reliability (CR) confirmed internal consistency, while the average variance extracted (AVE) established convergent validity. Discriminant validity was verified using the HTMT to ensure that each construct was distinct from others.

The results presented in table 1 in section 4.0 confirm that the measurement model is both reliable and valid.

## 4.0 Results and Discussion

### 4.1 Presentation of Results

The results of the two-step SEM-PLS analysis on the assessment of the measurement model and evaluation of the structural model are presented in this section.

#### 4.1.1 Reliability and Validity Tests

Table 1 presents the results of the model reliability and validity tests.

**Table 1: Reliability and Validity Tests**

	<b>Cronbach's alpha</b>	<b>Composite reliability (rho_c)</b>	<b>Average variance extracted (AVE)</b>
<b>EI</b>	0.802	0.852	0.511
<b>Mac</b>	0.744	0.818	0.534
<b>Nas</b>	0.829	0.851	0.501
<b>Psy</b>	0.707	0.805	0.508

Source: Authors' computation, 2025

The results show that Cronbach's alpha values for all constructs exceed the acceptable threshold of 0.7, indicating satisfactory internal consistency. Similarly, the composite reliability (CR) values are above 0.8, confirming the reliability of the measurement model. The AVE values for all constructs surpass the minimum threshold of 0.5, demonstrating adequate convergent validity and ensuring that each construct explains a

significant portion of its variance. These results confirm that the measurement model is both reliable and valid.

#### 4.1.2 Test for Discriminant Validity and Serial Correlation

Table 2 presents the Heterotrait-Monotrait ratio (HTMT), a measure of discriminant validity and serial correlation.

**Table 2: Test for Discriminant Validity and Serial Correlation**

	Heterotrait-monotrait ratio (HTMT)
Mac <-> EI	0.133
Nas <-> EI	0.09
Nas <-> Mac	0.076
Psy <-> EI	0.12
Psy <-> Mac	0.114
Psy <-> Nas	0.131

Source: Authors' computation, 2025.

The values for all construct pairs fall well below the conservative threshold of 0.85 (Hair et al., 2019), which indicates that the constructs are empirically distinct. The HTMT values for the relationships between entrepreneurial intention and Machiavellianism (0.133), narcissism (0.09), and psychopathy (0.12) suggest that these traits are not excessively overlapping with entrepreneurial intention, supporting the model's discriminant validity. Similarly, the intercorrelations among the dark triad traits—Machiavellianism and narcissism (0.076), psychopathy and Machiavellianism (0.114), and psychopathy and narcissism (0.131), all remain within acceptable limits confirming that each trait captures a unique psychological dimension. These results strengthen the credibility of the findings by ensuring that the constructs measure distinct but related concepts.

#### 4.1.3 Model Fitness

Table 3 presents the results assessing the overall fitness or representativeness of the structural equation model.

**Table 3: Model Fitness**

FIT Indices	Current values	model Good and Acceptable fit level values
ChiSqr/df	1.251	≤ 3.0 Tabachnick and Fidell, 2007
CFI	0.973	≥ 0.97 (Hu and Bentler, 1999)

TLI	0.969	$\geq 0.95$ (Schumacker and Lomax, 2004)
AGFI	0.922	$\geq 0.85$ (Hooper et al., 2008)
GFI	0.939	$\geq 0.85$ (Hooper et al., 2008)
SRMR	0.042	$\leq 0.06$ –0.08 (Meydan et al., 2011)
RMSEA	0.028	$\leq 0.06$ –0.08 (Meydan et al., 2011)

Source: Authors, 2025

The values for key indices, including CFI, TLI, AGFI, and GFI, indicate a well-fitting model, as they meet or exceed the established thresholds for a good fit. This reinforces the robustness of the findings of this study.

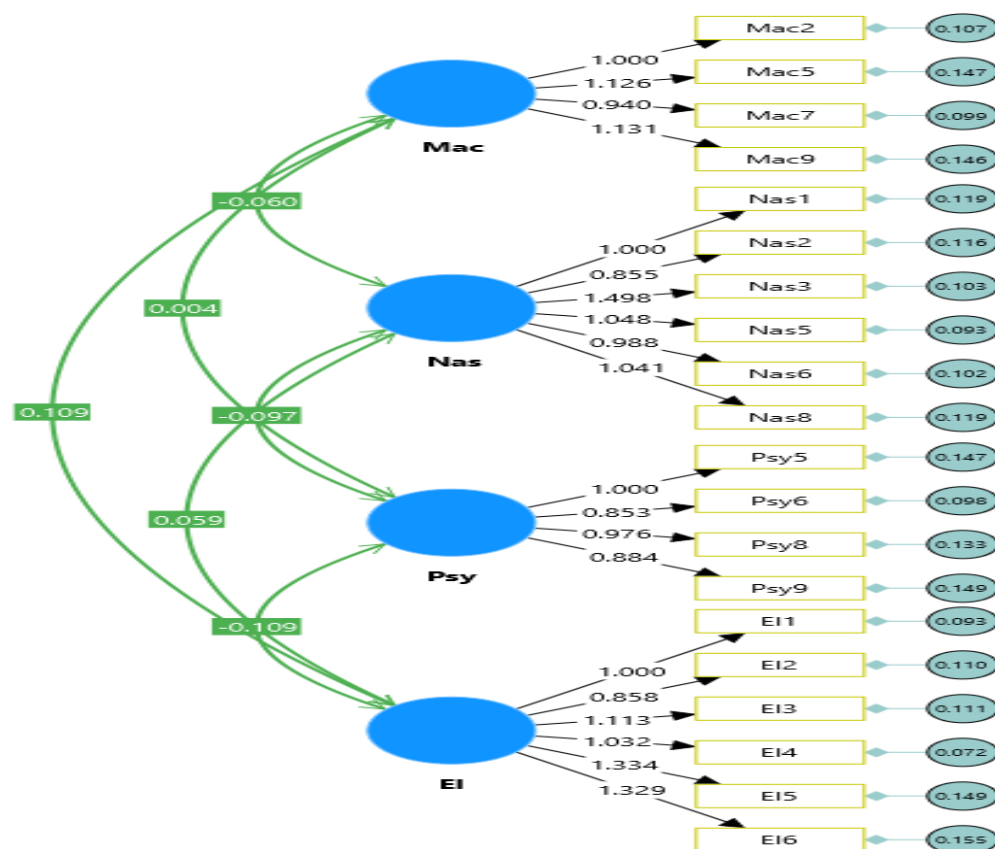


Figure 1: CFA Model Fit

Source: Authors, 2025

#### 4.1.4 Hypotheses Testing

Table 4 presents the SEM-PLS results used in assessing the hypothesized relationships between dark triad traits and entrepreneurial intention.

**Table 4: Test of Hypotheses**

	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
<b>Mac -&gt; EI</b>	0.098	1.142	0.254
<b>Nas -&gt; EI</b>	0.08	0.706	0.48
<b>Psy -&gt; EI</b>	0.047	2.232	<b>0.026</b>

i. H<sub>1</sub>: Machiavellianism does not significantly affect entrepreneurial intention among final year students of FUTM, Nigeria.

The path coefficient for Machiavellianism (Mac → EI) is **0.112**, indicating a weak positive relationship. However, the relationship is not statistically significant (**p = 0.254**, **t = 1.142**) since the p-value exceeds the 0.05 threshold. This suggests that Machiavellian traits, such as manipulation and strategic planning, do not strongly predict entrepreneurial intention.

ii. H<sub>2</sub>: Narcissism does not significantly affect entrepreneurial intention among final year students of FUTM, Nigeria

The path coefficient for narcissism (Nas → EI) is **0.057**, showing a weak positive relationship. However, the effect is not statistically significant (**p = 0.48**, **t = 0.706**) which shows that narcissistic tendencies, such as self-confidence and grandiosity, do not significantly influence entrepreneurial intention.

iii. H<sub>3</sub>: Psychopathy does not significantly affect entrepreneurial intention among final year students of FUTM, Nigeria

The path coefficient for psychopathy (Psy → EI) is **-0.104**, revealing a weak negative relationship. However, this result is statistically significant (**p = 0.026**, **t = 2.232**), meaning that individuals with higher psychopathy traits are less likely to have entrepreneurial intentions.

#### 4.1.5 Path Coefficients & R-Square

Figure 2 provides the graphical representation of the path coefficients and R Square values.

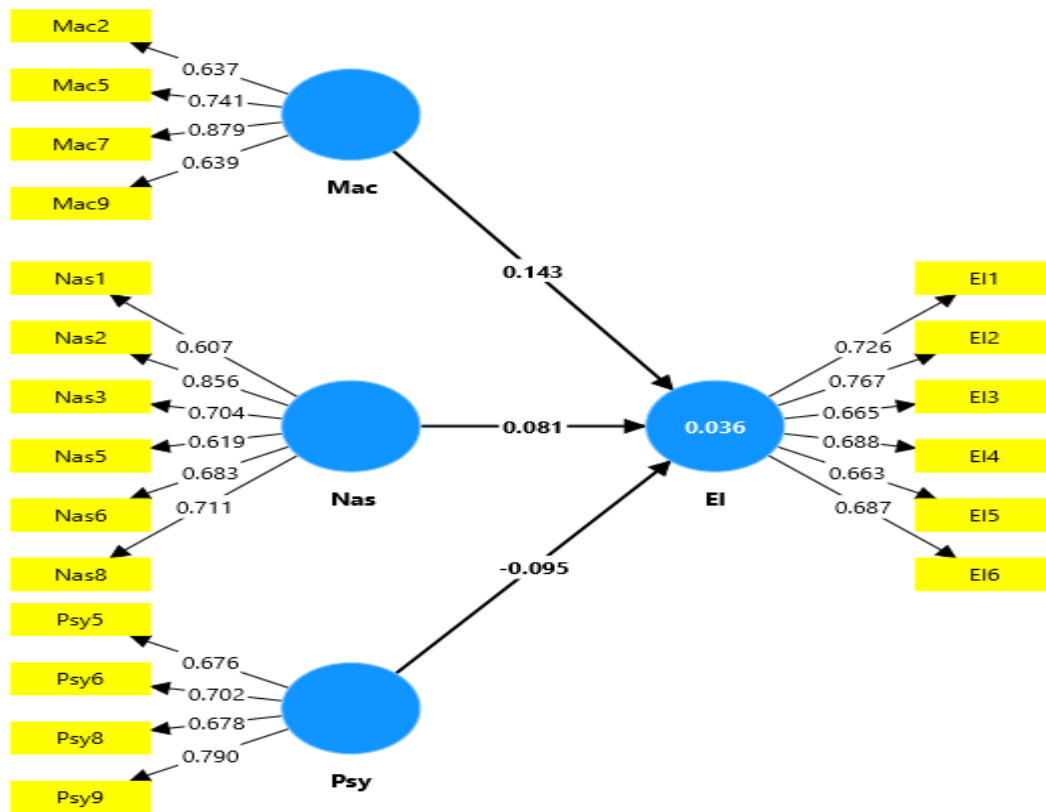


Figure 2: Structural Model  
Source: Authors, 2025

The path coefficients suggest weak relationships between dark triad traits and entrepreneurial intention. Machiavellianism (**0.143**) and narcissism (**0.081**) show slight positive associations, while psychopathy (**-0.095**) is negatively related to entrepreneurial intention. Similarly, the explanatory power of these traits is minimal, as indicated by the **low R<sup>2</sup> value of 0.036**, meaning that dark triad traits collectively account for only 3.6% of the variance in entrepreneurial intention.

This weak predictive power is not unexpected, given the cultural and social context in Nigeria. The expression of dark triad traits is often met with disapproval, particularly among students who remain under the watchful eyes of parents and guardians. In many Nigerian homes, strict religious teachings and societal norms reinforce obedience, humility, and conformity. Divergent behaviours, especially one that hints at manipulation, self-centeredness, or defiance, are not just discouraged but often punished. Young individuals, particularly students, are conditioned to suppress such traits, making it unlikely that they would strongly influence entrepreneurial intention.

#### 4.2 Discussion

This study found out that there exists a weak positive relationship between Machiavellianism and EI. This is a divergence from the findings of studies like Wu et al. (2019a); Yu *et al.*, 2020 and McLarty et al. (2023) which reported that Machiavellianism

had a positive, statistically significant effect on EI, suggesting that individuals high in Machiavellian traits are more likely to pursue entrepreneurial ventures. The weak, statistically insignificant relationship may be attributed to cultural and social factors that suppress the open expression of Machiavellian tendencies. Consequently, Machiavellian traits, even if present, may not translate into entrepreneurial intentions as readily as observed in other cultural contexts.

Similarly, this study finds a weak, non-statistically significant relationship between narcissism and entrepreneurial intention. This also contrasts the findings of Kramer et al. (2021) and Baldegger and Klösel (2023) which reported significant but weak positive correlations between narcissism and entrepreneurial intention. While narcissistic tendencies may still exist among students, social norms likely constrain their outward expression, thereby weakening their observable influence on entrepreneurial ambition. This suggests that although narcissism may contribute to entrepreneurial intention in other contexts, its impact within this setting could be moderated by other factors such as deeply ingrained cultural expectations.

Finally, the findings of this study revealed a **negative and statistically significant** relationship between psychopathy and entrepreneurial intention. This diverges from the findings of Wu et al. (2019b) and Khawar et al. (2022), which reported no significant association between the two variables. The negative influence of psychopathy on entrepreneurial intention suggests that individuals with high psychopathic traits in this sample are less likely to pursue entrepreneurial ventures. This finding may be explained by the nature of psychopathy itself, which is often associated with impulsivity, lack of empathy, and aversion to long-term planning. While some studies suggest that certain aspects of psychopathy, such as fearlessness and risk-taking, may foster entrepreneurial behaviour, these traits alone may not be sufficient in an environment where social capital, trust, and ethical considerations play crucial roles in business success.

In Nigeria, where moral and religious values are deeply embedded in societal structures, individuals who exhibit psychopathic traits may face stronger social sanctions that discourage entrepreneurial pursuits. As a result, the impulsivity and risk-taking tendencies associated with psychopathy may not translate into genuine entrepreneurial ambition within this context with the absence of reliable infrastructures and business support services which are the hallmarks of ease of doing business in advanced economies.

## 5.0 Conclusion, Recommendations and Suggestions for Further Study

This study deepens the understanding of entrepreneurial intention by examining how dark triad traits shape students' entrepreneurial intention. The findings hold important implications for educators, policymakers, and psychologists. Given that Machiavellianism and narcissism, though present, do not significantly predict entrepreneurial intention, universities should consider entrepreneurship programs that foster adaptive strategic thinking and self-confidence while discouraging manipulative tendencies. Additionally, the negative association between psychopathy and



entrepreneurial intention suggests that risk-taking alone is insufficient for entrepreneurial success. Interventions aimed at improving self-regulation, long-term planning, and ethical decision-making may be beneficial in shaping students' entrepreneurial ambitions.

From a broader perspective, this study supports the need for curriculum developers to integrate entrepreneurial education that gives adequate attention to the personality of students. Entrepreneurial training should not only focus on technical skills but also incorporate psychological resilience that help students navigate uncertainty. Moreover, career counsellors and psychologists may find value in understanding how dark personality traits manifest within structured academic environments and influence career choices, particularly in regions where cultural and religious norms suppress certain personality expressions.

Despite its contributions, this study is not without limitations. The sample was drawn from a single institution, which may limit the generalizability of findings to the broader student population in Nigeria. Future research should expand the sample to include students from diverse universities and academic disciplines to provide a more nuanced understanding of the DTT-EI nexus.. Furthermore, the study relied on a cross-sectional design, which does not account for how these traits and entrepreneurial intention evolve over time. A longitudinal approach would offer deeper insights into the stability of these relationships across different stages of students' academic and professional lives.

Additionally, while this study focused on the dark triad, emerging literature suggests that a fourth trait named sadism may also play a role in entrepreneurial behaviour. Future research should explore the impact of sadism alongside the existing triad to determine whether its inclusion enhances the explanatory power of the model. Lastly, measurement limitations, particularly the removal of several items from Machiavellianism and psychopathy constructs, may have influenced the results. Future studies should consider refining these scales or adopting alternative measures that better capture these traits within Nigerian context.

## References

- Alferaih, A. (2017). Weight-and meta-analysis of empirical literature on entrepreneurship: Towards a conceptualization of entrepreneurial intention and behaviour. *The International Journal of Entrepreneurship and Innovation*, 18(3), 195-209. DOI: 10.1177/1465750317722114
- Al-Ghazali, B. M., & Afsar, B. (2021). Narcissism and entrepreneurial intentions: the roles of entrepreneurial self-efficacy and environmental complexity. *The Journal of High Technology Management Research*, 32(1), 100395. doi:10.1016/j.hitech.2020.100395

- Alvarez, S., & Barney, J. B. (2020). Has the concept of opportunities been fruitful in the field of entrepreneurship?. *Academy of Management Perspectives*, 34(3), 300-310.
- Baldegger, U., & Klösel, K. (2023). Fashion entrepreneurship: Narcissism and entrepreneurial intention. *Journal of Enterprising Culture*, 31(03), 233-251.
- Baldegger, U., Schroeder, S. H., & Furtner, M. R. (2017). The self-loving entrepreneur: dual narcissism and entrepreneurial intention. *International Journal of Entrepreneurial Venturing*, 9(4), 373-391.
- Beram, M. M., Bagheri, S., Mashhadi, R. K., & Davoodvandi, Z. (2021). The Dark Triple Role of Personality (Machiavellianism, Anti-Socialism and Narcissism) In Predicting the Tendency to High-Risk Sexual Behaviors in Female Adolescents with Experience of Running Away from Home. *Academic Journal of Psychological Studies*, 10(3), 130-137.
- Bouncken, R., Cesinger, B., & Tiberius, V. (2020). Narcissism, Machiavellianism, and psychopathy of top managers: Can Entrepreneurial Orientation secure performance. *International Journal of Entrepreneurial Venturing*, 12(3), 273–302. <https://doi.org/10.1504/IJEV.2020.107932>
- Brownell, K. M., McMullen, J. S., & O'Boyle Jr, E. H. (2021). Fatal attraction: A systematic review and research agenda of the dark triad in entrepreneurship. *Journal of Business Venturing*, 36(3), 106106. <https://doi.org/10.1016/j.jbusvent.2021.106106>
- Cai, L., Murad, M., Ashraf, S.F. *et al.* Impact of dark tetrad personality traits on nascent entrepreneurial behavior: the mediating role of entrepreneurial intention. *Front. Bus. Res. China* 15, 7 (2021). <https://doi.org/10.1186/s11782-021-00103-y>
- Castellanza, L. (2022). Discipline, abjection, and poverty alleviation through entrepreneurship: a constitutive perspective. *Journal of Business Venturing*, 37(1), 106032.
- Do, B. R., & Dadvari, A. (2017). The influence of the dark triad on the relationship between entrepreneurial attitude orientation and entrepreneurial intention: A study among students in Taiwan University. *Asia Pacific Management Review*, 22(4), 185-191.
- Gerpott, F. H., & Kieser, A. (2017). It's not charisma that makes extraordinarily successful entrepreneurs, but extraordinary success that makes entrepreneurs charismatic: a second-order observation of the self-reinforcing entrepreneurial ideology. *Managementforschung*, 27(1), 147-166.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
- Hanson, S. K., Valentine, S. R., & Shultz, P. L. (2024). Bright or dark, vain or villainous? How entrepreneurial fitness, Machiavellianism and narcissism relate to entrepreneurial intention. *Journal of Management & Organization*, 30(1), 97-120. doi:10.1017/jmo.2023.15

- Hmieleski, K. M., and Lerner, D. A. (2016). The dark triad and nascent entrepreneurship: an examination of unproductive versus productive entrepreneurial motives. *J. Small Bus. Manage.* 54, 7–32. doi: 10.1111/jsbm.12296
- Hoang, H. T., Ho, N. T. T., & Pham, N. T. (2024). Green Transformational Leadership, Green Human Resource Management, Big Five Personality Traits, and Hotel Employees' Green Behavior in Vietnam. In *Green Human Resource Management: A View from Global South Countries* (pp. 197-211). Singapore: Springer Nature Singapore.
- Hooper, D., Coughlan, J., and Mullen, M. R. (2008). Structural equation modeling: guidelines for determining model fit. *J. Bus. Res. Methods* 6, 53–60.
- Hu, L. T., and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct. Equ. Model. Multidiscip. J.* 6, 1–55.
- Huggins, R., & Thompson, P. (2020). Human agency, entrepreneurship and regional development: A behavioural perspective on economic evolution and innovative transformation. *Entrepreneurship & Regional Development*, 32(7-8), 573-589.
- Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship theory and practice*, 39(3), 655-674. <https://doi.org/10.22495/cbsrv4i2siart11>
- Kay, C. S., & Saucier, G. (2020). *Insert a joke about lawyers: Evaluating preferences for the Dark Triad traits in six occupations. Personality and Individual Differences*, 159, 109863. doi:10.1016/j.paid.2020.109863
- Khawar, R., Amin, R., Zulfqar, A., Hussain, S., Hussain, B., & Muqaddas, F. (2022). Dark personality traits and entrepreneurial intentions among Pakistani university students: The role of executive functions and academic intent to entrepreneurship. *Frontiers in Psychology*, 13, 989775.
- Kramer, M., Cesinger, B., Schwarzing, D., & Gelléri, P. (2021). Investigating entrepreneurs 'dark personality: How narcissism, machiavellianism, and psychopathy relate to entrepreneurial intention. In *Proceedings of the 25th ANZAM conference* (pp. 1-15). Wellington, New Zealand: Australia and New Zealand Academy of Management.
- Kraus, S., Berchtold, J., Palmer, C., & Filser, M. (2018). Entrepreneurial orientation: the dark triad of executive personality. *Journal of Promotion Management*, 24(5), 715-735.
- Leonelli, S., Pietro, F. D., & Masciarelli, F. (2020). *Narcissism, Machiavellianism and Psychopathy: How Do Displayed Entrepreneurs' Personality Dark Traits Influence Crowdfunding Success? The Entrepreneurial Behaviour: Unveiling the Cognitive and Emotional Aspect of Entrepreneurship*, 41–65. doi:10.1108/978-1-78973-507-920201007.
- Lestari, S., & Mutmainah, S. (2023). Does narcissism moderate training on performance among millennial and gen z accountants at startups?. *Cogent Business & Management*, 10(3), 2275383.
- Li, Z., & Benson, A. J. (2022). Culture and narcissism: The roles of fundamental social motives. *Current Research in Behavioral Sciences*, 3, 100072.

- Mathieu, C., Babiak, P., & Hare, R. D. (2020). Psychopathy in the workplace. *The Wiley international handbook on psychopathic disorders and the law*, 607-644.
- Matos, S., & Hall, J. (2021). An exploratory study of entrepreneurs in impoverished communities: when institutional factors and individual characteristics result in non-productive entrepreneurship. In *Business, Entrepreneurship and Innovation Toward Poverty Reduction* (pp. 134-155). Routledge.
- McLarty, B. D., Skorodzyevskiy, V., & Muldoon, J. (2023). The Dark Triad's incremental influence on entrepreneurial intentions. *Journal of Small Business Management*, 61(4), 2097-2125.
- Meydan, C. H., Basım, H. N., and Çetin, F. (2011). The effect of organizational justice perception and organizational commitment on burnout: a study in the Turkish public sector. *Turk. World J. Soc. Sci.* 57, 175–200.
- Morgan, J., & Sisak, D. (2016). Aspiring to succeed: A model of entrepreneurship and fear of failure. *Journal of Business Venturing*, 31(1), 1-21.
- Mota, S., Mielke, I., Kroencke, L., Geukes, K., Nestler, S., & Back, M. D. (2023). Daily dynamics of grandiose narcissism: Distribution, stability, and trait relations of admiration and rivalry states and state contingencies. *European Journal of Personality*, 37(2), 207-222.
- Nurjanna, A. T., Sahabuddin, R., Putera, W., & Yahya, I. L. (2022). Factors that Influence Entrepreneurship Decision Making in Shaping the Characteristics Entrepreneurial of MSMEs among Women in Makassar City. *Asian Journal of Business and Management* (ISSN: 2321-2802), 10(4).
- Paulhus, D. L., & Jones, D. N. (2015). Measures of dark personalities. In *Measures of personality and social psychological constructs* (pp. 562-594). Academic Press.
- Rovelli, P., Massis, A. D., & Gomez-Mejia, L. R. (2023). Are narcissistic CEOs good or bad for family firm innovation?. *human relations*, 76(5), 776-806.
- Sahinidis, A. G., Xanthopoulou, P. I., Vassiliou, E. E., & Tsaknis, P. A. (2023). Do dark personality traits add to the entrepreneurial intention predicting ability of theory of planned behaviour? An empirical study [Special issue]. *Corporate & Business Strategy Review*, 4(2), 313–325.
- Salmony, F. U., & Kanbach, D. K. (2022). Personality trait differences across types of entrepreneurs: a systematic literature review. *Review of managerial science*, 16(3), 713-749.
- Schlägel, C., Engle, R. L., Richter, N. F., & Taureck, P. C. (2021). Personal factors, entrepreneurial intention, and entrepreneurial status: A multinational study in three institutional environments. *Journal of International Entrepreneurship*, 19, 357–398. DOI: 10.1007/s10843-021-00287-7
- Schumacker, R. E., and Lomax, R. G. (2004). *A Beginner's Guide to Structural Equation Modeling*. New Jersey, London: Psychology press.

- Shapero, A. (1975). The Displaced, Uncomfortable Entrepreneur. *Psychology Today*, 9 (6), pp.83–133.
- Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of economics, commerce and management*, 2(11), 1-22.
- Su, Y., Zhu, Z., Chen, J., Jin, Y., Wang, T., Lin, C. L., & Xu, D. (2021). Factors influencing entrepreneurial intention of university students in China: integrating the perceived university support and theory of planned behavior. *Sustainability*, 13(8), 4519.
- Tabachnick, B. G., and Fidell, L. S. (2007). *Using Multivariate Statistics*. New York: Allyn and Bacon.
- Tucker, R. L., Lowman, G. H., & Marino, L. D. (2016). Dark triad traits and the entrepreneurial process: A person-entrepreneurship perspective. In *Research in personnel and human resources management* (pp. 245-290). Emerald Group Publishing Limited.
- Valliere, D. (2017). Multidimensional entrepreneurial intent: an internationally validated measurement approach. *International Journal of Entrepreneurial Behavior & Research*, 23(1), 59-77.
- Walker, S. A., Olderbak, S., Gorodezki, J., Zhang, M., Ho, C., & MacCann, C. (2022). Primary and secondary psychopathy relate to lower cognitive reappraisal: A meta-analysis of the Dark Triad and emotion regulation processes. *Personality and Individual Differences*, 187, 111394.
- Wood, A. D., Borja, K., & Hoke, L. (2021). Narcissism for fun and profit: an empirical examination of narcissism and its determinants in a sample of generation Z business college students. *Journal of management education*, 45(6), 916-952.
- Wu W., Wang H, Zheng C and Wu YJ (2019b) Effect of Narcissism, Psychopathy, and Machiavellianism on Entrepreneurial Intention—The Mediating of Entrepreneurial Self-Efficacy. *Front. Psychol.* 10:360. doi: 10.3389/fpsyg.2019.00360
- Wu, W., Wang, H., Zheng, C., & Wu, Y. J. (2019a). Effect of narcissism, psychopathy, and machiavellianism on entrepreneurial intention—the mediating of entrepreneurial self-efficacy. *Frontiers in psychology*, 10, 360.
- Young, S. M., Du, F., Dworkis, K. K., & Olsen, K. J. (2016). It's all about all of us: The rise of narcissism and its implications for management control system research. *Journal of Management Accounting Research*, 28(1), 39-55.
- Yu, M. C., G Wang, G., Zheng, X. T., & Shi, W. J. (2020). Entrepreneur narcissism and unethical pro-organizational behaviour: an examination of mediated-moderation model. *Economic research-Ekonomska istraživanja*, 33(1), 501-520. doi.org/10.1080/1331677x.2020.1718525

Zia, S., Murad, M., Syed, N., Akhtar, S., & Omhand, K. (2020). An attitude approach to the prediction of entrepreneurial intention among students: mediating role of dark triad. *Manag. Lett*, 1, 22-38.