Big Five Personality Traits and Entrepreneurial Intention of University Lecturers in Nigeria

.

ABSTRACT

|  |
| --- |
| The study investigates the link between the personality traits of Nigerian university lecturers and their entrepreneurial intents in the post-COVID-19 era. Based on the Big Five Model, data was gathered from a purposive sample of 207 lecturers in south eastern Nigerian universities. The structural equation modeling was deployed in verifying the proposed conceptual model. Findings indicate that the Covid-19 pandemic ignited entrepreneurial passion among the university lecturers since the hardship they faced during the pandemic era pushed majority to venture into entrepreneurship. Besides, the proposed model explains 58.6% of the variance in lecturers’ entrepreneurial intention in the post-pandemic era. Only conscientiousness, extraversion and neuroticism were confirmed as positive and significant drivers of entrepreneurial intention of the university lecturers in Nigeria in the post-COVID-19 era, while openness and agreeableness emerged as non-significant drivers. The study presents both theoretical and practical insights to the post-pandemic entrepreneurial intentions of an unexplored group (university lecturers) in an emerging economy. |

*Keywords: Big Five Personality Traits; Entrepreneurial Intention; University Lecturers; Nigeria*

1. INTRODUCTION

The rise of entrepreneurship as a driving force for inclusive economic growth and development in global economies has become a central topic of contemporary discussions. Economies have increasingly utilized entrepreneurship to combat unemployment, poverty, hunger, and social issues by offering training and support to targeted demographics. Policymakers strive to encourage entrepreneurship, particularly among youth and young adults. Nevertheless, researchers contend that the COVID-19 pandemic, initially thought to have solely negative repercussions, ultimately produced some significant positive outcomes for global entrepreneurship. For example, Agu et al. (2021) discovered that the pandemic transformed the Igbo traditional business school in Nigeria by increasing enrollment among graduate and undergraduate university students. Furthermore, Marculescu et al. (2025) indicated that during the pandemic, individuals who were curious and willing to take risks were more inclined to pursue entrepreneurial ventures.

Similar to other economic crises, there has been a growing emphasis on entrepreneurship as a strategy for recovery in the post-COVID-19 landscape, as reflected in global entrepreneurship literature (Agu et al., 2021; Maritz et al., 2020). Additionally, scholars argue that the COVID-19 pandemic has prompted individuals to modify their lifestyles (Zhao & Sang, 2023), thus creating opportunities for research into the post-COVID-19 entrepreneurial intentions of specific groups, such as university lecturers in developing nations. Research on the post-pandemic entrepreneurial intentions of university students and others exist (e.g., Agu et al., 2021). However, there is a notable lack of studies focusing on the post-pandemic entrepreneurial intentions of university lecturers, particularly in developing countries like Nigeria.

Despite the high regard in which university lecturers are held, the COVID-19 pandemic significantly impacted the financial situation of Nigerian university lecturers, particularly those working in state government-owned institutions that went without salaries for several months during the pandemic. In accordance with Zhao and Sang (2023), this paper posits that the economic difficulties encountered by this group of lecturers may have influenced their personality traits, which in turn could affect their entrepreneurial intentions.

Scholars have investigated the relationship between personality traits and entrepreneurial intention, concluding that personality traits are crucial factors driving entrepreneurial intention (Bazkiaei et al., 2020; Karabulut, 2016). As noted by Sahin et al. (2019), the literature identifies the Big Five personality traits and entrepreneurial self-efficacy as key individual-level determinants of entrepreneurial intention. The Big Five personality traits—extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience—represent the most commonly utilized model of personality structure (Soto, 2021). However, there appears to be a lack of studies examining the connection between the Big Five and the entrepreneurial intentions of university academic staff (lecturers) in the post-pandemic context. Previous research has primarily focused on students (Awwad & Al-Aser, 2021).

Consequently, this study aims to investigate the impact of university lecturers' personality traits on their entrepreneurial intentions in the post-pandemic period. The research seeks to answer the question: "To what extent do the Big Five personality traits influence the entrepreneurial intentions of Nigerian university lecturers in the post-COVID-19 era?"

2. LitERATURE REVIEW

2.1 **The Big Five Model**

The Five-Factor Model, commonly referred to as the Big Five, represents the most widely recognized and empirically validated framework in contemporary personality research (McCrae & Costa, 2008 in Agu, 2021b). This model encompasses five broad dimensions: openness, conscientiousness, extraversion, agreeableness, and neuroticism, which are collectively abbreviated as OCEAN (McCrae and Costa, 1997) in Agu, 2021b.

Openness to Experience assesses the extent to which individuals are intellectually curious, creative, and receptive to new experiences; those with high scores often exhibit originality and open-mindedness, while those with lower scores tend to favor familiarity and tradition (McCrae and Costa, 1997). Conscientiousness reflects the level of self-discipline, organization, and goal-directed behavior; individuals who score high on this trait demonstrate reliability, meticulous planning, and motivation for achievement, whereas those with lower conscientiousness may face challenges with impulsivity and erratic behavior (MacCann et al., 2009). Extraversion relates to sociability, assertiveness, and the quest for external stimulation; extraverts are typically energetic and sociable, in contrast to introverts who are generally more reserved and reflective (Gautam, 2024). Agreeableness encompasses traits associated with interpersonal warmth, cooperation, and trust; high levels of agreeableness are characterized by empathy and altruism, while lower levels are linked to skepticism and antagonism (Graziano & Eisenberg, 1997). Neuroticism reflects emotional instability and the tendency to experience negative emotions; individuals with high neuroticism are susceptible to anxiety and mood swings, whereas those with lower levels of this trait are usually emotionally stable and resilient (McCrae & Costa, 2003).

**2.2 Entrepreneurial Intention**

Entrepreneurial intention is defined as a deliberate and conscious mental state that channels an individual's focus, experiences, and future-oriented actions toward the pursuit of entrepreneurial activities (Bird, 1988). It serves as a central antecedent of entrepreneurial behavior and is widely regarded as the most immediate and reliable predictor of entrepreneurial actions (Krueger et al., 2000). Entrepreneurial intention development is influenced many factors, including socio-economic status, quality of education, institutional and cultural environments, as well as personal attributes such as risk tolerance, proactiveness, and self-efficacy (Liñán & Fayolle, 2015).

In the aftermath of the COVID-19 pandemic, entrepreneurial intention has received intensified scholarly and policy interest due to widespread economic disruptions and job losses, which have prompted individuals to explore self-employment and entrepreneurial ventures as viable alternative income sources (Bandara et al., 2025). Specifically, the post-pandemic realities have revealed how perceived environmental uncertainty and individual resilience contribute to a resurgence in entrepreneurial motivations, especially among those affected by layoffs, financial precarity, or changes in occupational identity.

**2.3 Personality Traits and Entrepreneurship**

Personality traits are enduring patterns of thinking, feeling, and behaving that remain relatively stable across time and situations (McCrae & Costa, 2003). In entrepreneurship, these psychological characteristics have been extensively studied due to their predictive value in shaping entrepreneurial intention. Entrepreneurial intention is grounded in the understanding that specific personality traits can influence entrepreneurial motivation, opportunity recognition, risk-taking behavior, and the capacity for innovation and persistence in uncertain environments (Zhao et al., 2010).

Among the most empirically validated frameworks for studying personality is the Five-Factor Model (commonly known as the Big Five), encompassing Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (Husain et al., 2025). This model has proven instrumental in uncovering the psychological underpinnings of entrepreneurial behavior (Srivastava, 2024).

**2.4 The Big Five Personality Traits and Entrepreneurial Intention**

Openness to Experience is characterized by imagination, intellectual curiosity, a preference for novelty, and receptivity to new ideas. It is a central dimension of the Big Five personality framework and has been strongly associated with entrepreneurial behavior (McCrae & Costa, 1997). Individuals high in openness tend to seek out unconventional solutions, tolerate ambiguity, and adapt well to dynamic environments—all attributes conducive to the entrepreneurial process. Bazkiaei et al. (2020) identified that openness significantly predicted entrepreneurial intention among university students, primarily by enhancing creative problem-solving and opportunity recognition. Likewise, Ng (2021) reported that in a Malaysian student sample, openness was a robust predictor of entrepreneurial intent, suggesting that this trait fosters innovative cognition and exploratory behavior. Srivastava (2024) highlighted that personality-driven entrepreneurial orientation, including openness, is indirectly reinforced through positive affect and institutional support, particularly within the academic context of emerging economies. These findings collectively affirm that openness plays a pivotal role in equipping individuals with the psychological flexibility needed to navigate entrepreneurial uncertainty and seize emergent opportunities.

Conscientiousness, one of the Big Five personality traits, is defined by characteristics such as self-discipline, dependability, persistence, and a structured, goal-oriented approach to life and work (McCrae & Costa, 1997). These qualities are particularly congruent with the demands of entrepreneurial endeavors, which require long-term planning, risk management, and sustained effort despite obstacles. Zhao and Seibert (2006) demonstrated that conscientiousness had one of the strongest correlations with entrepreneurial performance and the intention to launch a venture. Conscientious individuals were found to be more resilient, task-focused, and persistent—traits that enhance the likelihood of entrepreneurial success. Awwad and Al-Aseer (2021) provided empirical evidence that conscientiousness significantly impacts entrepreneurial intentions, particularly through its effect on perseverance and planning behavior. Their findings suggest that individuals high in conscientiousness are more likely to commit to entrepreneurial pursuits and navigate uncertainty with strategic discipline and focus.

Extraversion, encapsulates qualities such as sociability, assertiveness, enthusiasm, and a desire for external stimulation (McCrae & Costa, 1997). Rauch and Frese (2007) reported a positive correlation between extraversion and entrepreneurial performance in their study, underscoring that extraverted individuals are better equipped to mobilize social capital, initiate market entry, and sustain motivation under challenging conditions. Awwad and Al-Aseer (2021) observed that extraversion significantly predicts entrepreneurial intention, particularly among university students. Their findings suggest that individuals high in extraversion are more inclined to explore new experiences and exhibit a proactive social orientation, both of which are conducive to initiating entrepreneurial activity.

Agreeableness is typified by characteristics such as cooperation, empathy, trust, and altruism (McCrae & Costa, 1997). Zhao et al. (2010) found a negative correlation between agreeableness and entrepreneurship, positing that overly agreeable individuals might lack the assertiveness, competitiveness, and conflict tolerance often required for successful venture initiation and survival. They are less likely to challenge the status quo or make aggressive strategic decisions, both of which are frequently necessary in early entrepreneurial phases. Bazkiaei et al. (2020) found that while the direct influence of agreeableness on entrepreneurial intention is often weak or statistically insignificant, the trait can nonetheless support trust-building and stakeholder engagement, particularly in ventures that depend heavily on collaboration, social capital, or ethical leadership. These mixed findings suggest that while agreeableness may not strongly drive the formation of entrepreneurial intent, it can be valuable in the execution and sustainability of ventures that emphasize human relationships and shared values.

Neuroticism, a trait characterized by emotional instability, anxiety, and a predisposition to experience negative emotions, is often regarded as a psychological barrier to entrepreneurship (McCrae & Costa, 1997). Individuals with high levels of neuroticism may exhibit heightened stress sensitivity, pessimism, and aversion to risk. Zhao et al. (2010), concluded that individuals high in neuroticism are significantly less likely to pursue entrepreneurial careers, largely due to fear of failure and reduced self-efficacy. Awwad and Al-Aseer (2021) reported a paradoxical positive link between neuroticism and entrepreneurial intention in high-stress environments, such as those marked by financial insecurity. In such cases, elevated stress levels may act as a motivational driver rather than a deterrent, prompting neurotic individuals to pursue entrepreneurship as a means of regaining control or ensuring economic survival.

Following these empirical directions, we hypothesize that:

***H1:*** Openness to experience influences the entrepreneurial intention of university lecturers in the post-pandemic era.

***H2:*** Conscientiousness influences the entrepreneurial intention of university lecturers in the post-pandemic era.

***H3:*** Extraversion influences the entrepreneurial intention of university lecturers in the post-pandemic era.

***H4:*** Agreeableness influences the entrepreneurial intention of university lecturers in the post-pandemic era.

***H5:*** Neuroticism influences the entrepreneurial intention of university lecturers in the post-pandemic era.

The study’s conceptual framework is depicted in Figure 1.

**Figure 1**: Conceptual Framework.

**Source**: Authors own conceptualization, 2025.

3. methodology

The study is a quantitative survey of university lecturers in the five Nigerian eastern states of Abia, Anambra, Imo, Enugu and Ebonyi. A purposive sample of five universities was chosen for the study, and the target samples were the academic staff of the faculties of management sciences in the universities. Structured questionnaire was utilized to elicit data from the target respondents, with both online and the traditional method adopted in distributing the questionnaires. A total of 207 samples were generated after two months of data solicitation. This number represents 63% of the target population and also meets the SmartPLS rule for sample size as outlined by Hair et al. (2022).

In line with the five-point likert scale format, scales for measuring the constructs proposed were adopted from existing studies (e.g., Awwad & Al-Aseer, 2021; Koe, 2016; Agu, 2022). A total of 29 items were captured in the questionnaire to cover the key constructs - extraversion (EXT, 5 items); agreeableness (AGR, 5 items); conscientiousness (CON, 6 items); neuroticism (NEU, 4 items); openness to experience (OPN, 5 items); and entrepreneurial intention (EI, 4 items).

The collected data indicate that there were 72% male lecturers and 28% female lecturers. Also, Over 98% of the respondents were above 30 years, while married people constituted over 78% of the sample. More than 87% of the lecturers disclosed that the COVID-19 pandemic exposed them to entrepreneurship, while 45% increased their entrepreneurial efforts as a result of the Covid-19.

The reliability of the scales was measured using the item loading approach, the Crobach’s alpha and the composite reliability. First, all items except NEU2, and OPN4 loaded significantly and above the required minimum of 0.70. Also, the items met the Crobach’s alpha and the composite reliability criteria of 0.70 to 0.60 were met (Hair et al., 2022). Convergent validity is evaluated through the average variance extracted (AVE), with an acceptable threshold set at 0.50, while discriminant validity was assessed with the **heterotrait-monotrait ratio of correlations** (HTMT) which was below 0.9 (Ringle et al., 2024).

4. results and discussion

First, the findings indicate that the Big Five constructs, with an R2 value of 0.586 explain 58.6% of the variance in lecturers’ entrepreneurial intention in the post-pandemic era. Again, in line with the stated hypotheses, findings indicate that conscientiousness, extraversion and neuroticism have positive and significant influences on influence the entrepreneurial intention of university lecturers in Nigeria in the post-COVID-19 era. However, openness and agreeableness do not influence entrepreneurial intention of the respondents. The results are further illustrated on Table 1.

**Table 1**

*Results of hypotheses (Inner direct Models)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Hypothesized relationship** | **Path coefficients** | **SE** | **t-values** | **p-value** | **Results** |
| *H1. OPN 🡪 EI* | .*016* | .*019* | *.531* | .595 | Not Supported |
| *H2. CON 🡪 EI* | .199 | .*199* | *5.265* | .000\*\* | Supported |
| *H3. EXT 🡪 EI* | .071 | .*073* | *2.433* | .015\*\* | Supported |
| *H4. AGR 🡪 EI* | .047 | .*050* | *1.579* | .115 | Not Supported |
| *H5. NEU 🡪 EI* | .069 | .071 | *3.454* | *.001\*\** | Supported |

*\*\* = significant at .05*

Therefore, the findings are summarized thus:

1. That Nigerian university lecturers with high levels of extraversion are more likely to seek out new experiences and demonstrate a proactive approach to social interactions, both of which facilitate the initiation of entrepreneurial endeavors.
2. The COVID-19 pandemic has driven neurotic Nigerian university lecturers to engage in entrepreneurship as a strategy for regaining control and ensuring economic survival.
3. Nigerian university lecturers who exhibit high levels of conscientiousness are more inclined to engage in entrepreneurial endeavors and manage uncertainty with strategic discipline and concentration.
4. Although Nigerian university lecturers are high in openness and agreeableness, but these are not sufficient enough to push them into entrepreneurial ventures.

The findings support and also challenge exiting research findings on the Big Five. First, The positive influence of the COVID-19 pandemic on the entrepreneurial intention of Nigerians, in this context, university lecturers provides support to previous research (Agu et al., 2024; Agu et al., 2021). Again, the findings on the role of the Big Five in predicting entrepreneurial intention strengthens previous research (Awwad & Al-Aser, 2021). More specifically, the findings around the influence of conscientiousness, extraversion and neuroticism are in alliance with prior studies (Awwad & Al-Aser, 2021; Zhao et al., 2010). The non-significant performance of openness and agreeableness is also supported in the literature (Li et al., 2022), but opens window for further research.

The findings relating to openness which discloses that the construct does not significantly predict the entrepreneurial intention of university lecturers in Nigeria is in contrast with several previous research (McCrae & Costa, 1997; Bazkiaei et al., 2020; Ng, 2021; Srivastava, 2024). However, it supports the assertion that in certain contexts, openness is weak and non-significant driver of intention to engage in entrepreneurship (Davila et al., 2025; Li et al., 2022). The positive and significant influence of conscientiousness in entrepreneurial intention is established and supported by previous studies, thereby justifying the findings that university lecturers who are self-discipline, dependability, persistence, and goal-oriented are more likely to engage in entrepreneurship (Bergner et al., 2021; Zhao & Seibert, 2006; Awwad & Al-Aseer, 2021). Besides, the positive and significant influence of extraversion lends support to the findings of Rauch and Frese (2007) and Awwad and Al-Aseer (2021). Thus, university lecturers who are sociable, assertive and enthusiastic are likely to engage in entrepreneurial venture creation.

The weak and non-significant performance of agreeableness in driving entrepreneurial intention is highlighted in extant research (Zhao et al., 2010; Bazkiaei et al., 2020; Mohammad et al., 2021). This implies that university lecturers who are less inclined to question the existing state of affairs or to undertake bold strategic choices will struggle to engage in entrepreneurial activities. Furthermore, in line with Awwad and Al-Aseer (2021) and contrary to Zhao et al. (2010), neurotic Nigerian university lecturers are more likely to engage in entrepreneurial pursuit. This finding could be attributed the fear of job insecurity and economic anxiety caused by the COVID-19 pandemic. The findings supports the assertion that in situation of uncertainty and fear, neuroticism is likely to drive entrepreneurial intention (Awwad and Al-Aseer, 2021; Kristanto & Pratama, 2020).

5. Conclusion

The aim of this study was to explore the rarely examined link between the Big Five and the entrepreneurial intention of Nigerian university lecturers in the post-COVID-19 era. This study is relevant since Nigerian university lecturers were among the worst hit civil servants during the COVID-19 pandemic as most state-owned universities were unable to pay their staff salaries for months, thereby forcing/pushing the lecturers into seeking alternative means of survival. The findings of this research reveal that, indeed, entrepreneurship provided an escape route to most of the lecturers who leverage venture creation to beat the hardship occasioned by the pandemic.

Theoretically, this study contributes to the understanding of the Big Five in understanding the predictors of intentions to engage in entrepreneurship, especially in a non-student context. It adds to the growing literature on the positive effects of the COVID-19 pandemic on entrepreneurship development across the globe.

Practically, the study provides guideline and direction to policymakers, university management and the government in understanding that university lecturers are currently embracing entrepreneurship. This will assist in tailoring supports for scaling up their entrepreneurial efforts.

This study is limited in methodology such as in scope and samples. Future studies can focus on lecturers of other faculties such as engineering and medical sciences. Again, further research is required to validate the findings on openness and agreeableness.

Ethical approval

The Research Ethics and Publications unit at the Abia State University, Uturu, Nigeria provided approval for the conduct of this research.

Disclaimer (Artificial intelligence)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

References

Agu, G. A. (2021b). A survey of business and science students’ intentions to engage in sustainable entrepreneurship. *Small Enterprise Research*, *28*(2), 206-227.

Agu, G. A*.* (2022). Recovery strategies of a micro restaurant in Nigeria: Implications on customer satisfaction and loyalty. *Journal of African Business.* <https://doi.org/10.1080/15228916.2022.2087442>.

Agu, G.A., Agu, G.1., & Aidin S. (2024). Women entrepreneurship during COVID-19 pandemic: Perspectives based on framing effect theory. Journal of Women’s Entrepreneurship and Education, 1-2(2024), 227-247.

Agu, G.A., Onwuka, O.O., Okocha, E.R., & Madiche, N. (2021). Covid-19 pandemic and entrepreneurial intention among university students: a contextualization of the Igbo traditional business school. African Journal of Economic and Management Studies, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/AJEMS-05-2021-0227>

Agu, A. G., Ikenna, M. H., & Ben, U. D. (2017). Determinants of passenger preference for long distance shuttle services in Nigeria. *International Journal of Business and Finance Management Research*, *5*, 42-51.

Awwad, M.S. and Al-Aseer, R.M.N. (2021), "Big Five personality traits impact on entrepreneurial intention: the mediating role of entrepreneurial alertness", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 15 No. 1, pp. 87-100. <https://doi.org/10.1108/APJIE-09-2020-0136>

Bandara, W. M. H. K., Surangi, H. A. K. N. S., & Jayawardhana, K. (2025). Entrepreneurial Growth Intention and New Venture Performance in Times of Crisis: A Conceptual Model. *Journal of Business and Technology*, *9*(1).

Bazkiaei, H. A., Heng, L. H., Khan, N. U., Saufi, R. B. A., & Kasim, R. S. R. (2020). Do entrepreneurial education and big-five personality traits predict entrepreneurial intention among universities students?. *Cogent business & management*, *7*(1), 1801217.

Bergner, S., Auburger, J., & Paleczek, D. (2021). The why and the how: A nexus on how opportunity, risk and personality affect entrepreneurial intention. *Journal of Small Business Management*, *61*(6), 2656–2689. https://doi.org/10.1080/00472778.2021.1934849

Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of management Review*, *13*(3), 442-453.

Dávila, M.A., Bueloth, M.R., Vega, E.C., Ocampo, P.E., Reyes, E.I., Espinoza, O.C; Entrepreneurial orientation and intention: opening up university entrepreneurial experiences. Strategy & Leadership 8 April 2025; 53 (3): 217–234. <https://doi.org/10.1108/SL-05-2024-0046>

Gautam, R. K. (2024). *Personality Development*. Academic Guru Publishing House.

Graziano, W. G., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. In *Handbook of personality psychology* (pp. 795-824). Academic Press.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2022), A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), Sage, Thousand Oaks, CA.

Husain, W., Haddad, A. J., Husain, M. A., Ghazzawi, H., Trabelsi, K., Ammar, A., ... & Jahrami, H. (2025). Reliability generalization meta-analysis of the internal consistency of the Big Five Inventory (BFI) by comparing BFI (44 items) and BFI-2 (60 items) versions controlling for age, sex, language factors. *BMC psychology*, *13*(1), 20.

Koe, W. L. (2016). The relationship between Individual Entrepreneurial Orientation (IEO) and entrepreneurial intention. *Journal of Global Entrepreneurship Research*, *6*(1), 13.

Karabulut, A. T. (2016). Personality traits on entrepreneurial intention. Procedia-Social and Behavioral Sciences, 229, 12-21.

Kristanto, H. & Pratama, R.W. (2020). Effects of the neuroticism and agreeableness personality types on entrepreneurial intention with subjective norm as moderator. Expert Journal of Business and Management

8(1) 57-66

Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, *15*(5-6), 411-432.

Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. *International entrepreneurship and management journal*, *11*(4), 907-933.

Marculescu, B., Brancu, L., Noja, G. G., Cristea, S. M., & Pantea, M. I. (2025). Entrepreneurial Intentions in the Context of the COVID-19 Pandemic: The Role of Psychological and Demographic Factors. *Journal of the Knowledge Economy*, 1-36.

Maritz, A., Perenyi, A., De Waal, G., & Buck, C. (2020). Entrepreneurship as the unsung hero during the current COVID-19 economic crisis: Australian perspectives. *Sustainability*, *12*(11), 4612.

McCrae, R. R., & Costa Jr, P. T. (1997). Personality trait structure as a human universal. *American psychologist*, *52*(5), 509.

Ng, H. S., Hung Kee, D. M., & Khan, M. J. (2021). Effects of personality, education and opportunities on entrepreneurial intentions. *Education+ Training*, *63*(7/8), 992-1014.

Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of work and organizational psychology*, *16*(4), 353-385.

Ringle, C. M., Wende, S., & Becker, J. M. (2024). Discriminant validity assessment and heterotrait-monotrait ratio of correlations (HTMT). *Boenningstedt: SmartPLS*.

MacCann, C., Duckworth, A. L., & Roberts, R. D. (2009). Empirical identification of the major facets of conscientiousness. *Learning and individual differences*, *19*(4), 451-458.

Sahin, A. R., Erdogan, A., Agaoglu, P. M., Dineri, Y., Cakirci, A. Y., Senel, M. E., ... & Tasdogan, A. M. (2020). 2019 novel coronavirus (COVID-19) outbreak: a review of the current literature. *Ejmo*, *4*(1), 1-7.

Soto, C. J. (2021). Do links between personality and life outcomes generalize? Testing the robustness of trait–outcome associations across gender, age, ethnicity, and analytic approaches. *Social Psychological and Personality Science*, *12*(1), 118-130.

Srivastava, S. (2024). Investigating how individual entrepreneurial orientation impacts entrepreneurial intention: The mediating role of positivity and moderating affect of institutional support among university students. *Journal of the International Council for Small Business*, 1-21.

Zhao, H., & Seibert, S. E. (2006). The big five personality dimensions and entrepreneurial status: a meta-analytical review. *Journal of applied psychology*, *91*(2), 259.

Zhao, Z., Li, L., & Sang, Y. (2023). The COVID-19 pandemic increased poor lifestyles and worsen mental health: a systematic review. *American Journal of Translational Research*, *15*(5), 3060.