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THE EFFECT OF INNOVATIVENESS AND INTERNAL LOCUS OF CONTROL ON AGRO-ENTREPRENEURIAL INTENTION: A MEDIATING ROLE OF INNOVATIVENESS

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ABSTRACT

The purpose of this study is to evaluate the effects of innovativeness and internal locus of control on agro-entrepreneurial intention as well as the mediating role of innovativeness on the relationship between internal locus of control and agro-entrepreneurial intention among secondary school students in Nigerian. Using structural equation model on 200 secondary school students in Sokoto state, we found that the agro-entrepreneurial aspirations of secondary school students are significantly related to one's innovativeness, while internal locus of control has no significant effect. Also, internal locus of control significantly influences one's innovativeness. Finally, innovativeness has a full mediating effect on the relationship between internal locus of control and agro-entrepreneurial intention. Thus, the Nigerian government and other government entities are reminded by this study of the importance of continuing to develop training programs and activities to support psychological traits in young agro-entrepreneurs.

Keywords: : Innovativeness, Internal Locus of Control, Agro-Entrepreneurship, Nigeria.

INTRODUCTION

Entrepreneurship drives every country's economic success as well as reduces poverty and social vices (Arkorful & Hilton, 2022; Ezeh, Nkamnebe, & Omodafe, 2020). Thus Pulka *et al.*, (2021) opined that entrepreneurs are the backbone of a country's economy since their enterprises help in increasing gross domestic product (GDP). However, the National Bureau of Statistics (NBS) (2020), found that unemployment rate in Nigeria is on a steady increase. Therefore, Agro-enterprises must be established in agriculture-based developing countries, like Nigeria to stimulate economic growth and provide employment and income generation for aspiring entrepreneurs (Ikuemonisan, Mafimisebi, Ajibefun, Akinbola, & Oladoyin, 2022). According to various studies, however, Nigerian government is re-diversify towards agriculture in order to improve GDP and reduce unemployment (Uzonwanne, 2015).

Thus, entrepreneurship is receiving more attention among the academies, government and operators (Eniola & Osigwe, 2021; Ezeh *et al.*, 2020). It is recorded that variety of entrepreneurship initiatives can raise young people's knowledge of entrepreneurship as a career option and foster positive attitudes toward it (Morris, Henley, & Dowell, 2017). Therefore, to provide equitable access to entrepreneurship, Nigerian government has made it compulsory for all students, including secondary school students, to complete and pass an entrepreneurial-related course(s)/subject(s) before graduation (Oladejo & Mafimisebi, 2022). Moreover, scholars found that certain skills aid entrepreneurial intention and success (Obschonka, Hakkarainen, Lonka, & Salmela-Aro, 2017). Scholars have shown that entrepreneurs have distinct set of psychological attributes that distinguishes them from non-entrepreneurs (McClelland, 1976). Entrepreneurs are desiring to have complete control over their firms as well as enjoy the innovativeness that come with business start-up (Alshebami & Seraj, 2022). Moreover, an entrepreneur's proclivity for taking risks, internal locus of control, self-confidence, need for accomplishment, innovativeness, and tolerance for uncertainty are examples of attributes that influence entrepreneurial intention (Dehghanzadeh *et al.*, 2016; Koe, 2016; Koh, 1996; Nasip, Amirul, Sondoh Jr, & Tanakinjal, 2017; Popescu, Bostan, Robu, Maxim, & Diaconu (Maxim), 2016).

Specifically, there is evidence that internal locus of control and innovativeness can favorably influence entrepreneurial success and tendencies (Alshebami & Seraj, 2022; Arkorful & Hilton, 2022). The locus of control can be internal (controlling one's own destiny without relying on fate or chance) or external (having little influence over one's future and relying largely on fate or chance) (Rotter, 1966). People with an internal locus of control stick with tasks and accept responsibility for their actions, whereas those with an external locus of control are less likely to do so because they believe that external factors such as fate, luck, and influential people are at work in any situation where goals must be met (Alshebami & Seraj, 2022; Ndofirepi, 2020). Thus, people with an internal control center are more likely to become agro-entrepreneurs. More so, innovativeness has been championed as the major traits of a successful entrepreneur (Al-Mamary & Alshallaqi, 2022; Hult, Hurley, & Knight, 2004; Wathanakom, Khlaisang, & Songkram, 2020). The ability to innovate is one of the factors that motivates business start-up and business success (Hurley & Hult, 1998; Porter, 2011; Porter, 1998; Schumpeter & Backhaus, 2003). Therefore, managers and entrepreneurs tackle business problems and hurdles by being creative, and their solutions are the foundation of the company's long-term survival and profitability. Consequently, scholars have recently begun to place a greater emphasis on the

concept of agricultural entrepreneurship (Che Nawi et al., 2022; Ezeh & Juniadu, 2019; Fitz-Koch, Nordqvist, Carter, & Hunter, 2018).

Notwithstanding, the importance of innovativeness and internal locus of control on entrepreneurial intention, few scholars or none was able to link those variable on agro-entrepreneurial intention. Thus, we seek to identify the effect of innovativeness and internal locus of control on agro-entrepreneurial intention, as well as the mediating effect of innovativeness on the relationship between internal locus of control and entrepreneurial intention (see fig 1). The key components of this article are divided as follows. The next section was devoted to literature review, followed by research methodology. The fourth portion presents the findings, while the fifth section examines and draws inferences from the findings.

LITERATURE REVIEW

Entrepreneurs have distinct set of psychological attributes that distinguishes them from non-entrepreneurs (McClelland, 1976). Entrepreneurs are desiring to have complete control over their firms and like the innovativeness that come with business start-up (Alshebami & Seraj, 2022). Intention is the best predictor of behaviour (Ajzen, 1991). Arguably, the first stage in the entrepreneurial process is entrepreneurial intention, which is the willingness and desire to establish and operate a business. A variety of elements, including institutional or environmental, as well as human traits influence agro-entrepreneurial intention (Akosah-Twumasi, Emeto, Lindsay, Tsey, & Malau-Aduli, 2018; Bruton, Ahlstrom, & Obloj, 2008; Haggblade et al., 2015). Specifically, personal traits such as internal locus of control, demand for accomplishment, innovativeness, and risk-taking proclivity influence an individual's intention to participate in entrepreneurship (Bhatti, Mat Saat, Juhari, & Alshagawi, 2021; Nasip et al., 2017; Ndofirepi, 2020). Within the evidence in the literature, personal qualities like these have variable and even contradicting outcomes in different situations. Thus, it is critical to understand why some people are inspired to start their own firm while others are not. Locus of control and innovativeness comprises both personality and environmental characteristics (Arkorful & Hilton, 2022; Hurley & Hult, 1998), therefore it is appropriate to explicitly explore their link with agro-entrepreneurial intention, as described in fig 1.

Hypotheses Development

Internal Locus of Control (ILC): It examines people's beliefs of the extent to which external influences or their own actions influence their success (Rotter, 1966). Thus, it describes the extent to which a person feels that success is a result of their own abilities rather than luck or the efforts of others. This research focuses on the internal locus of control in particular. Scholars, for example, have established a link between entrepreneurial intention and internal locus of control (Alshebami & Seraj, 2022; Bernardus et al., 2020; Ndofirepi, 2020; Vodă & Florea, 2019). Internal locus of control is regarded to have a substantial impact on the creation of entrepreneurial ambition. Furthermore, we believe that one's internal locus of control will determine one's innovativeness. Believing in oneself increases one's innovativeness. Thus we hypothesize:

H1: Internal locus of control influence agro-entrepreneurial intention.

H1a: Internal locus of control influence innovativeness.

Innovativeness: Being innovative means being outstanding, wonderful, or creative (Mueller & Thomas, 2001). New enterprises emerge as a result of innovation, which entail selling distinctive products and/or employ cutting-edge business or marketing tactics (Koh, 1996).

Thus, innovativeness results in the creation of enterprises that will boost economic development and growth (Alshebami & Seraj, 2022). Furthermore, entrepreneurship and innovativeness are inextricably linked (Bhatti et al., 2021; Nasip et al., 2017). Therefore we hypothesize:

H2: Innovativeness influence agro-entrepreneurial intention.

The Mediating Effect of Innovativeness on relationship between Internal Locus of Control and Entrepreneurial Intention: Numerous authors emphasized the importance of innovation as a strategy in the entrepreneurial process (Drucker, 2014; Schumpeter & Backhaus, 2003). Being innovative is a hallmark of entrepreneurial conduct (Drucker, 2014). Innovativeness has regularly been shown to have a significant influence on business performance (Frese, 2009) and entrepreneurial intention (Bhatti et al., 2021; Koe, 2016; Nasip et al., 2017). Furthermore, innovativeness mediates the relationships among many factors and entrepreneurship (Adzovie & Jibril, 2022; Capelleras, Domi, & Belletti, 2021; Domi, Capelleras, & Musabelliu, 2020; Ng, Kee, & Ramayah, 2019; Utsch & Rauch, 2000). For instance, process innovation moderates the relationship between technical competence and financial performance, while product innovation moderates the relationship between entrepreneurial competence and financial performance, finally behavioral innovation moderates the relationship between transformational leadership (TFL) and financial performance (Ng et al., 2019); Also innovativeness mediate the link between training and performance (Capelleras et al., 2021); link between Covid-19 outbreak and the adoption of an e-learning approach (Adzovie & Jibril, 2022); link between achievement orientation and venture performance (Utsch & Rauch, 2000). Surprisingly, within the accessed literature no study has investigated the mediating effect of innovativeness on the relationship between internal locus of control and entrepreneurial intention. Thus we hypothesized;

H3: innovativeness mediates the relationship between internal locus of control and entrepreneurial intention.

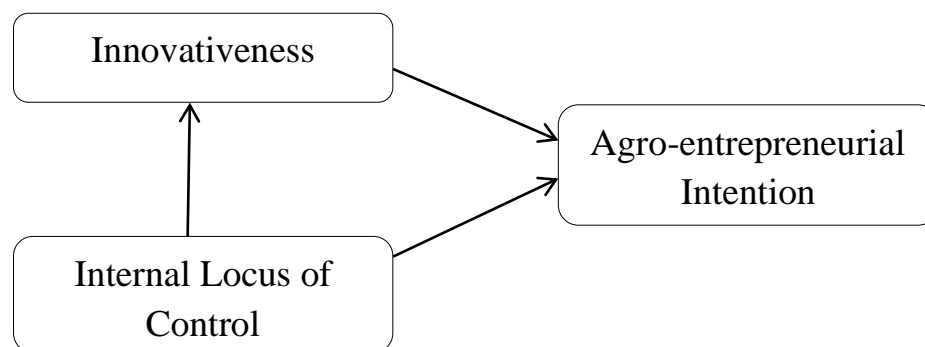


Figure 1: Conceptual framework

METHODOLOGY

Methodology of Research

A quantitative research approach was utilized in this study to evaluate how innovativeness and internal locus of control influence agro-entrepreneurial intention, as well as the mediating effect of innovativeness on the relationship between locus of control and entrepreneurial intention in Nigeria. This was done by drawing 200 samples for the study from four public secondary schools in Sokoto State, Nigeria. The pupils were given a self-administered questionnaire. In addition, we maintained respondents' privacy and followed stringent ethical guidelines when

conducting our research. By completing a consent form, participants agreed to take part in the study. Research assistants delivered surveys and collected completed questionnaires during class. Thus, there was 100% return due the process used.

Questionnaire Development

The questionnaire comprises agro-entrepreneurship purpose questions as well as factors linked to psychological qualities (locus of control and innovativeness). Both the independent and dependent variables were assessed on a Likert scale of 1 (strongly disagree) to 5 (strongly agree) (strongly agree). These researchers works were employed to create measures for assessing a person's psychological qualities and entrepreneurial intention (Koe, 2016; Koh, 1996; Popescu et al., 2016).

DATA ANALYSIS AND FINDINGS

Factor Exploration Analysis

Exploratory factor analysis, testing for normality, and sample adequacy were performed after adhering to the instrument's norms and constraints. Sphericity was also determined using Bartlett's test and Kaiser-Meyer-Olkin (KMO). Furthermore, maximum likelihood analysis based on Promax rotation was used for exploratory factor analysis. Thus, the indicator loading value should be at least 0.50 (Hair, Babin, Anderson, & Black, 2019; Hair, Gabriel, & Patel, 2014). Table I shows the KMO test, which analyzes sample fitness. With a score of 0.887 percent, the outcome is good, and the results of the Bartlett test of sphericity demonstrate that the variables have high correlations ($X^2 = 4141.909$, $p\text{-value} = 0.000$) (Hair et al., 2019). Furthermore, as judged by communalities, there is no noticeable change in the amount of variation that each variable contributes to the variance of the other variables.

Table 1

KMO and Bartlett's Test

| | | |
|--------------------------------------------------|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .887 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 4141.909 |
| | Df | 136 |
| | Sig. | 0.000 |

Psychometric Properties of the Scale

The instrument's validity and reliability were evaluated using confirmatory factor analysis (CFA). The degree to which one thought indicators relate to another is referred to as "convergent validity" (Hair et al., 2019). Convergent validity was tested using the extracted average variance (AVE). An AVE score of at least 50% is recommended for convergent validity (Bagozzi & Yi, 2012). Table 2 displays the composite reliability, AVE, Cronbach's alpha, and indicator factor loadings as a consequence. All of the findings in Table 2 are within the prescribed bounds, they have good validity and reliability (Collier, 2020; Fornell & Larcker, 1981; George & Mallery, 2019). Furthermore, because the original models did not meet up the model fit criteria; model enhancement was performed utilizing modification indices (Collier, 2020). Few items with high modification index were eliminated. Following model enhancement, the following model indices show that the model's fit requirements were met: The CFI (Comparative Fit Index) is 0.991, the IFI (Incremental Fit Index) is 0.991, the Tucker-Lewis index (TLI) is 0.989, and the RMSEA (Root Mean Square Error of Approximation) is 0.044 (Collier, 2020; Hu & Bentler, 1999). Thus, Table 2 shows the CFA findings, and Figure 2 shows the computation of a

measurement model with three latent components. The structural model was also tested for discriminant validity. The discriminant validity of a notion illustrates how it varies from others (Hair et al., 2014). The current study meets the Fornell-Larcker criterion since the square roots of the AVEs are bigger than the shared variance of the model's components, see (Table 3) (Bagozzi & Yi, 2012; Fornell & Larcker, 1981).

Table 2
Internal Consistency

| Constructs | Estimate | CR | AVE | Cronbach Alpha |
|------------|----------|--------------|--------------|----------------|
| LOC1 | 0.971 | | | |
| LOC6 | 0.969 | | | |
| LOC4 | 0.942 | | | |
| LOC3 | 0.945 | | | |
| LOC2 | 0.851 | 0.973 | 0.877 | 0.972 |
| INNOV2 | 0.936 | | | |
| INNOV3 | 0.937 | | | |
| INNOV4 | 0.932 | 0.954 | 0.875 | 0.954 |
| AEI3 | 0.868 | | | |
| AEI4 | 0.842 | | | |
| AEI2 | 0.817 | | | |
| AEI1 | 0.739 | | | |
| AEI5 | 0.717 | 0.898 | 0.638 | 0.897 |

Note = ILOC- Internal Locus of Control, INNOV- Innovativeness, AEI- Agro-entrepreneurial Intention

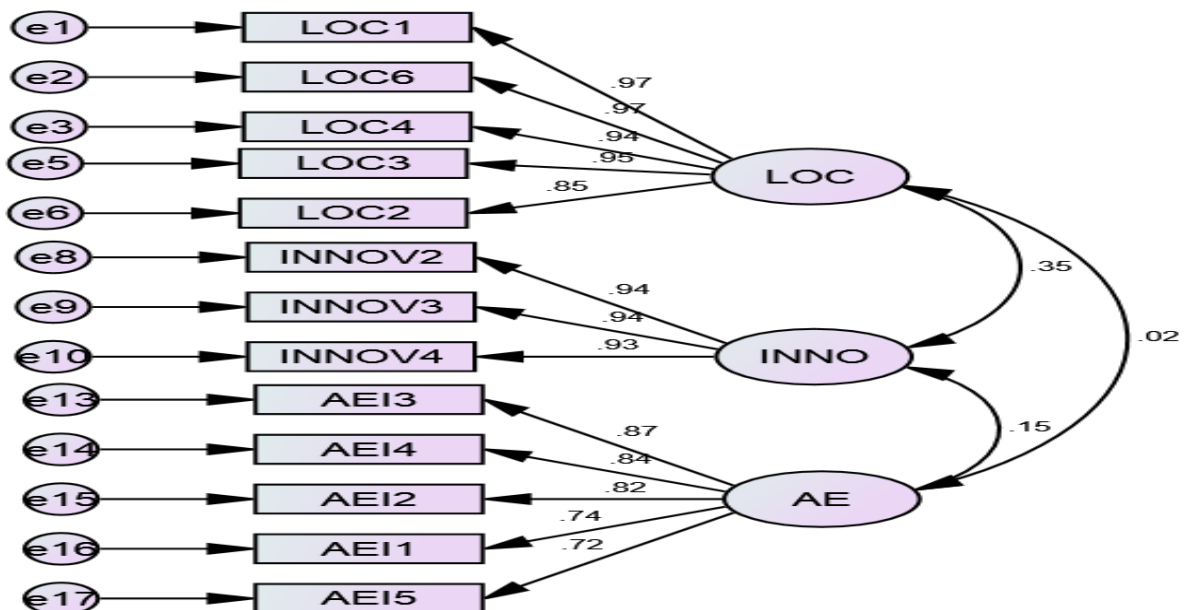


Figure 2: Measurement Model

Table 3
Fornell and Locker Criterion of Discriminants Validity

| | CR | AVE | MSV | MaxR(H) | ILOC | INNOV | AEI |
|-------|-------|-------|-------|---------|--------------|--------------|--------------|
| ILOC | 0.973 | 0.877 | 0.126 | 0.981 | 0.937 | | |
| INNOV | 0.954 | 0.875 | 0.126 | 0.955 | 0.355 | 0.935 | |
| AEI | 0.898 | 0.638 | 0.022 | 0.907 | 0.015 | 0.149 | 0.799 |

Note = AVE- ILOC- Internal Locus of Control, INNOV- Innovativeness, AEI- Agro-entrepreneurial Intention

Structural Equations Model Path Analysis (SEM)

SEM is used to investigate the link between independent factors (Innovativeness and internal locus of control) and the dependent variable (agro-entrepreneurial intentions). According to Table 4 and Figure 3, internal locus of control ($\beta = 0.355$, $p < 0.000$) influence individual innovativeness. Furthermore, innovativeness ($\beta = 0.164$, $p < 0.050$) influence agro-entrepreneurial intention while internal locus of control does not influence agro-entrepreneurial intention. In other words, the more internal locus of control the secondary school pupils are, the more likely they are innovative, thus the more they want to participate in agro-entrepreneurship.

Table 4
Path Coefficient

| | | | Estimate | S.E. | C.R. | P | Label |
|--------------------------------|------|-------|----------|-------|--------|-------|-----------------|
| Innovativeness | <--- | ILOC | 0.355 | 0.067 | 5.172 | *** | Accepted |
| Agro-entrepreneurial Intention | <--- | INNOV | 0.164 | 0.069 | 2.04 | 0.041 | Accepted |
| Agro-entrepreneurial Intention | <--- | ILOC | -0.043 | 0.066 | -0.545 | 0.586 | Rejected |

Note = AVE- ILOC- Internal Locus of Control, INNOV- Innovativeness, AEI- Agro-entrepreneurial Intention

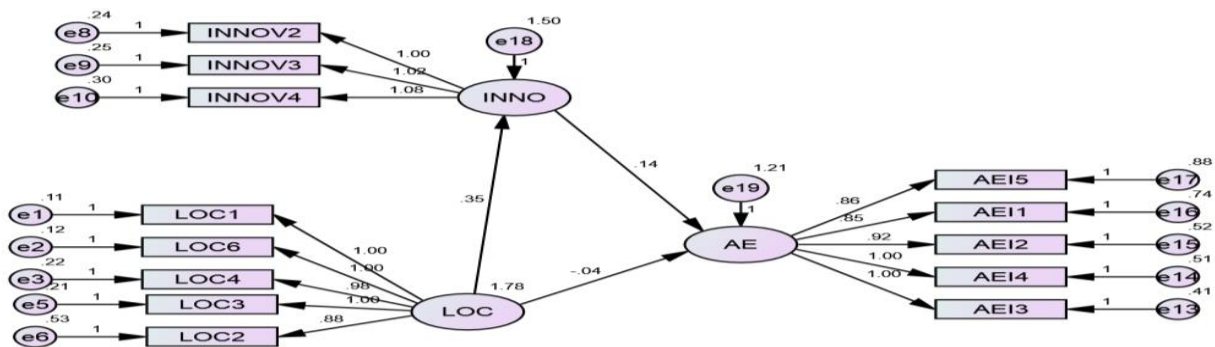


Figure 3: Path Coefficient

Mediating Effect of Innovation on the relationship between Internal Locus of Control and Agro-Entrepreneurial Intention

A mediation analysis was afterward conducted using a bootstrap sample of 5,000. Table 5 highlights the outcome of this analysis, indicating the presence of full mediation. In other words, this study assessed the mediating role of innovativeness on the relationship between internal locus of control on entrepreneurial intention. The result revealed a significant indirect effect of internal locus of control on agro-entrepreneurial intention ($\beta = 0.49$, $p < 0.05$). Furthermore, the direct effect of internal locus of control on agro-entrepreneurial intention in the presence of mediator was not significant ($\beta = -0.043$, $p > 0.05$) (see table 4). Therefore, innovativeness fully

mediates the relationship between internal locus of control and agro-entrepreneurial intention (see table 5 and figure 3).

Table 5

Test for Mediation Using a Bootstrap Analysis with a 95% Confidence Interval

| Relationship | Direct Effect | Indirect Effect | Confidence Interval | | P-value | Conclusion |
|-------------------------|------------------|-----------------|---------------------|-------------|---------|----------------|
| | | | Lower Bound | Upper bound | | |
| ILOC -- INNOV--- AEI | 0.043 (0.586) | 0.49 | 0.009 | 0.106 | 0.018 | Full mediation |

Note: Unstandardized coefficients reported. Values in parentheses are t-values. Bootstrap sample = 5,000 with replacement.

CONCLUSION AND RECOMMENDATIONS

This study looked at how agro-entrepreneurial intention among Nigerian secondary school students are influenced by internal locus of control and innovativeness, as well as the mediating role of innovativeness on the relationship between internal locus of control and agro-entrepreneurial intention. We found that the agro-entrepreneurial aspirations of secondary school students in Nigeria are significantly related to one's innovativeness, while internal locus of control has no significant effect. Also, internal locus of control significantly influences one's innovativeness. Finally, innovativeness has a full mediating effect on the relationship between internal locus of control and agro-entrepreneurial intention.

Agro-entrepreneurial intention of secondary school students are significantly related to one's innovativeness. This study is in line with (Bhatti et al., 2021; Nasip et al., 2017) who found that innovativeness influence entrepreneurial intention. While internal locus of control has no significant effect on agro-entrepreneurial intention, which contradict other scholars (Alshebami & Seraj, 2022; Bernardus et al., 2020; Ndofirepi, 2020; Vodă & Florea, 2019) who found that internal locus of control influence entrepreneurial intention. Also, internal locus of control influences one's innovativeness. In other words, the more one believe in oneself, the more one will be innovative. Finally, innovativeness mediate the relationship between internal locus of control and entrepreneurial intention: Numerous authors emphasized that being innovative is a hallmark of entrepreneurial conduct (Drucker, 2014). Thus, this study is line with (Capelleras et al., 2021) who found that innovativeness mediate training and performance.

The study's conclusions are useful to a wide range of Nigerian stakeholders. The Nigerian government and other government entities are reminded by this study of the importance of continuing to develop training programs and activities to support psychological traits in young agro-entrepreneurs. Thankfully, previous study indicates that these entrepreneurial traits may be taught (Ezeh et al 2020). Agro-entrepreneurship needs assistance from a thriving entrepreneurial ecosystem with the right institutions in order to promote Nigerian society and culture. By addressing obstacles and issues for nascent agro-entrepreneurs, the Nigerian government may promote agro-entrepreneurship as well. The need of incorporating personal characteristic development in relation to agro-entrepreneurship into school curricula should be highlighted. The entrepreneurial skills that will inspire young people to seek a career in agriculture may be developed and maintained with the help of these educational institutions. In order to do this, efforts should be divided into two main areas: first, presenting agro-business

leaders as role models, emphasizing the benefits of agro-entrepreneurship, and creating an environment that supports it; and second, enhancing agro-entrepreneurial skills.

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Reference

- Adzovie, E. D., & Jibril, A. B. (2022). Assessment of the effects of Covid-19 pandemic on the prospects of e-learning in higher learning institutions: The mediating role of academic innovativeness and technological growth. *Cogent Education*, 9(1), 2041222. <https://doi.org/10.1080/2331186X.2022.2041222>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Akosah-Twumasi, P., Emeto, T. I., Lindsay, D., Tsey, K., & Malau-Aduli, B. S. (2018). A Systematic review of factors that influence youths career choices—the role of culture. *Frontiers in Education*, 3, 58. <https://doi.org/10.3389/feduc.2018.00058>
- Al-Mamary, Y. H., & Alshallaqi, M. (2022). Impact of autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness on students’ intention to start a new venture. *Journal of Innovation & Knowledge*, 7(4), 100239. <https://doi.org/10.1016/j.jik.2022.100239>
- Alshebami, A. S., & Seraj, A. H. A. (2022). Exploring the influence of potential entrepreneurs’ personality traits on small venture creation: the case of Saudi Arabia. *Frontiers in Psychology*, 13, 885980. <https://doi.org/10.3389/fpsyg.2022.885980>
- Arkorful, H., & Hilton, S. K. (2022). Locus of control and entrepreneurial intention: A study in a developing economy. *Journal of Economic and Administrative Sciences*, 38(2), 333–344. <https://doi.org/10.1108/JEAS-04-2020-0051>
- Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Science*, 40(1), 8–34. <https://doi.org/10.1007/s11747-011-0278-x>
- Bernardus, D., Murwani, F. D., Ardyan, E., Padmawidjaja, L., Aji, I. D. K., Jatiperwira, S. Y., ... Hermanto, Y. B. (2020). Which psychological characteristics strengthen “The entrepreneurial intention-action relationship”? An extension of the theory of planned behavior. *Cogent Business & Management*, 7(1), 1823579. <https://doi.org/10.1080/23311975.2020.1823579>
- Bhatti, M. A., A Al Dohan, M., Mat Saat, S. A., Juhari, A. S., & Alshagawi, M. (2021). Entrepreneurial intentions among women: Does entrepreneurial training and education matters? (Pre- and post-evaluation of psychological attributes and its effects on entrepreneurial intention). *Journal of Small Business and Enterprise Development*, 28(2), 167–184. <https://doi.org/10.1108/JSBED-09-2019-0305>
- Bruton, G. D., Ahlstrom, D., & Obloj, K. (2008). Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future.

- Entrepreneurship Theory and Practice*, 32(1), 1–14. <https://doi.org/10.1111/j.1540-6520.2007.00213.x>
- Capelleras, J.-L., Domi, S., & Belletti, G. (2021). Skill-enhancing human resource practices and firm performance: The mediating role of innovativeness. *Tourism Review*, 76(6), 1279–1296. <https://doi.org/10.1108/TR-10-2019-0429>
- Che Nawi, N., Mamun, A. A., Hassan, A. A., Wan Ibrahim, W. S. A. A., Mohamed, A. F., & Permarupan, P. Y. (2022). Agro-Entrepreneurial intention among university students: a study under the premises of theory of planned behavior. *SAGE Open*, 12(1), 215824402110691. <https://doi.org/10.1177/21582440211069144>
- Collier, J. E. (2020). *Applied structural equation modeling using AMOS: Basic to Advanced Techniques* (1st ed.). Routledge. <https://doi.org/10.4324/9781003018414>
- Dehghanzadeh, M. R., Kholasehzadeh, G., Birjandi, M., Antikchi, E., Sobhan, M. R., & Neamatzadeh, H. (2016). Entrepreneurship psychological characteristics of nurses. *Acta Medica Iranica*, 54(9), 595–599.
- Domi, S., Capelleras, J.-L., & Musabelliu, B. (2020). Customer orientation and SME performance in Albania: A case study of the mediating role of innovativeness and innovation behavior. *Journal of Vacation Marketing*, 26(1), 130–146. <https://doi.org/10.1177/1356766719867374>
- Drucker, P. (2014). *Innovation and Entrepreneurship*. Routledge. <https://doi.org/10.4324/9781315747453>
- Eniola, A. A., & Osigwe, K. C. (2021). Entrepreneurship Education and Venture Intention. In P. Jones, N. Apostolopoulos, A. Kakouris, C. Moon, V. Ratten, & A. Walmsley (Eds.), *Contemporary Issues in Entrepreneurship Research* (pp. 97–116). Emerald Publishing Limited. <https://doi.org/10.1108/S2040-724620210000011007>
- Ezeh, P. C., Nkamnebe, A. D., & Omodafe, U. P. (2020). Determinants of entrepreneurial intention among undergraduates in a Muslim community. *Management Research Review*, 43(8), 1013–1030. <https://doi.org/10.1108/MRR-09-2018-0348>
- Ezeh, P. C., & Juniadu, A. S. (2019). Determinants of Nigerian Youths' Choice of Career in Agriculture: A Case of Zamfara State. *Journal of Business Management & Accounts Studies*, 2(1), 1–8.
- Fitz-Koch, S., Nordqvist, M., Carter, S., & Hunter, E. (2018). Entrepreneurship in the Agricultural Sector: A Literature Review and Future Research Opportunities. *Entrepreneurship Theory and Practice*, 42(1), 129–166. <https://doi.org/10.1177/1042258717732958>
- Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- Frese, M. (2009). Towards a Psychology of Entrepreneurship: An Action Theory Perspective. *Foundations and Trends® in Entrepreneurship*, 5(6), 437–496. <https://doi.org/10.1561/03000000028>
- George, D., & Mallery, P. (2019). *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference* (6th ed.). Routledge. <https://doi.org/10.4324/9780429056765>
- Haggblade, S., Chapoto, A., Drame-Yayé, A., Hendriks, S. L., Kabwe, S., Minde, I., ... Terblanche, S. (2015). Motivating and preparing African youth for successful careers in

- agribusiness: Insights from agricultural role models. *Journal of Agribusiness in Developing and Emerging Economies*, 5(2), 170–189. <https://doi.org/10.1108/JADEE-01-2015-0001>
- Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2019). *Multivariate data analysis*. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=2639357>
- Hair, J. F., Gabriel, M., & Patel, V. (2014). AMOS Covariance-Based Structural Equation Modeling (CB-SEM): Guidelines on its application as a marketing research tool. *Brazilian Journal of Marketing*, 13(2).
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33(5), 429–438. <https://doi.org/10.1016/j.indmarman.2003.08.015>
- Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: an integration and empirical examination. *Journal of Marketing*, 62(3), 42. <https://doi.org/10.2307/1251742>
- Ikuemonisan, E. S., Mafimisebi, T. E., Ajibefun, I. A., Akinbola, A. E., & Oladoyin, O. P. (2022). Analysis of Youth's Willingness to Exploit Agribusiness Opportunities in Nigeria with Entrepreneurship as a Moderating Variable. *Businesses*, 2(2), 168–187. <https://doi.org/10.3390/businesses2020012>
- Koe, W.-L. (2016). The relationship between individual entrepreneurial orientation (ieo) and entrepreneurial intention. *Journal of Global Entrepreneurship Research*, 6(1), 13. <https://doi.org/10.1186/s40497-016-0057-8>
- Koh, H. C. (1996). Testing hypotheses of entrepreneurial characteristics: A study of Hong Kong MBA students. *Journal of Managerial Psychology*, 11(3), 12–25. <https://doi.org/10.1108/02683949610113566>
- McClelland, D. C. (1976). *The achieving society: With a new introduction*. New York: Irvington Publishers : distributed by Halsted Press.
- Morris, W., Henley, A., & Dowell, D. (2017). Farm diversification, entrepreneurship and technology adoption: Analysis of upland farmers in Wales. *Journal of Rural Studies*, 53, 132–143. <https://doi.org/10.1016/j.jrurstud.2017.05.014>
- Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential. *Journal of Business Venturing*, 16(1), 51–75. [https://doi.org/10.1016/S0883-9026\(99\)00039-7](https://doi.org/10.1016/S0883-9026(99)00039-7)
- Nasip, S., Amirul, S. R., Sondoh Jr, S. L., & Tanakinjal, G. H. (2017). Psychological characteristics and entrepreneurial intention: A study among university students in North Borneo, Malaysia. *Education + Training*, 59(7/8), 825–840. <https://doi.org/10.1108/ET-10-2015-0092>
- National Bureau of Statistics (NBS),. (2020). *Labor Force Statistics: Unemployment and Underemployment Report*. ABRIDGED LABOUR FORCE SURVEY UNDER COVID-19. Retrieved from

https://www.nigerianstat.gov.ng/pdfuploads/Q2_2020_Unemployment_Report.pdf
(Q2 2020)

- Ndofirepi, T. M. (2020). Relationship between entrepreneurship education and entrepreneurial goal intentions: Psychological traits as mediators. *Journal of Innovation and Entrepreneurship*, 9(1), 2. <https://doi.org/10.1186/s13731-020-0115-x>
- Ng, H. S., Kee, D. M. H., & Ramayah, T. (2019). Examining the mediating role of innovativeness in the link between core competencies and SME performance. *Journal of Small Business and Enterprise Development*, 27(1), 103–129. <https://doi.org/10.1108/JSBED-12-2018-0379>
- Obschonka, M., Hakkarainen, K., Lonka, K., & Salmela-Aro, K. (2017). Entrepreneurship as a twenty-first century skill: Entrepreneurial alertness and intention in the transition to adulthood. *Small Business Economics*, 48(3), 487–501. <https://doi.org/10.1007/s11187-016-9798-6>
- Oladejo, S. O., & Mafimisebi, O. P. (2022). Risk Society as a Framework for Exploring Entrepreneurship Education in Nigeria. In O. Kolade, D. Rae, D. Obembe, & K. Woldesenbet Beta (Eds.), *The Palgrave Handbook of African Entrepreneurship* (pp. 187–213). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-75894-3_9
- Popescu, C., Bostan, I., Robu, I.-B., Maxim, A., & Diaconu (Maxim), L. (2016). An Analysis of the Determinants of Entrepreneurial Intentions among Students: A Romanian Case Study. *Sustainability*, 8(8), 771. <https://doi.org/10.3390/su8080771>
- Porter, M.E. (2011). *Competitive Advantage of Nations: Creating and Sustaining Superior Performance*. Free Press. Retrieved from <https://books.google.com.ng/books?id=CqZzxAxBpFEC>
- Porter, M.E. (1998). *The competitive advantage of nations: With a new introduction*. Retrieved from <http://e-media.lapl.org/ContentDetails.htm?ID=DBCFFD459-1B41-4E3F-A711-EDF553F259E3>
- Pulka, B. M., Ramli, A., & Mohamad, A. (2021). Entrepreneurial competencies, entrepreneurial orientation, entrepreneurial network, government business support and SMEs performance. The moderating role of the external environment. *Journal of Small Business and Enterprise Development*, 28(4), 586–618. <https://doi.org/10.1108/JSBED-12-2018-0390>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. <https://doi.org/10.1037/h0092976>
- Schumpeter, J., & Backhaus, U. (2003). The Theory of Economic Development. In J. Backhaus (Ed.), *Joseph Alois Schumpeter* (pp. 61–116). Boston: Kluwer Academic Publishers. https://doi.org/10.1007/0-306-48082-4_3
- Utsch, A., & Rauch, A. (2000). Innovativeness and initiative as mediators between achievement orientation and venture performance. *European Journal of Work and Organizational Psychology*, 9(1), 45–62. <https://doi.org/10.1080/135943200398058>
- Uzonwanne, M. C. (2015). Economic diversification in Nigeria in the face of dwindling oil revenue. *Journal of Economics and Sustainable Development*, 6(4), 61–67.

- Vodă, A., & Florea, N. (2019). Impact of personality traits and entrepreneurship education on entrepreneurial intentions of business and engineering students. *Sustainability*, 11(4), 1192. <https://doi.org/10.3390/su11041192>
- Wathanakom, N., Khlaisang, J., & Songkram, N. (2020). The study of the causal relationship between innovativeness and entrepreneurial intention among undergraduate students. *Journal of Innovation and Entrepreneurship*, 9(1), 15. <https://doi.org/10.1186/s13731-020-00125-5>