

Personality Traits and Opportunity Identification: Moderating Effect of Business Education

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Abstract

The paper examines whether individual personality traits (Innovativeness INN, Locus of Control LOC, Need for Achievement NAC, Self-Efficacy SEF and Tolerance to Risk TOR) have any effects on individual Opportunity Recognition ability (OPR). The moderating effect of Entrepreneurship Education (ETE) between the traits and opportunity recognition was also assessed. Survey was administered to undergraduate students in four different Tertiary Institutions in Gombe state and SEM PLS software was used for the analyses. The results suggest positive and significance effect of INN, LOC, NAC, SEF and TOR on OPR. None moderating effect of ETE with the five trait dimensions with exception of INN was also discovered.

Keywords: *Entrepreneurship Education, Opportunity recognition, Personality Traits, Undergraduate Students, Gombe States*

Introduction

According to Martin and Ingrid, (2018) it is indeed difficult for several aspiring entrepreneurs to achieve their initial expectations because of huge number of failure recorded among start-ups. Right opportunities identification and selection for the establishment of new businesses are among the most essential abilities of a successful and vibrant entrepreneurship (Timmons, et al. 2022). Opportunity recognition connotes the ability of an individual or firms based on their previous knowledge and experiences to identify new ideas, goods, services, raw materials, markets and organizing methods for profitable formulation of new means, ends, or means–ends relationships (Baron, 2017; Phillips and Tracey, 2020). Lumpkin and Lichtenstein (2019) concurred that opportunity recognition entails “the ability to identify a good idea and transform it into business concepts that add value and generate revenue”. Thus, Shane and Venkataramn (2018) opined that ‘without opportunities there is no entrepreneurship’. Hence in this paper opportunity recognition is considered synonymous with entrepreneurial intention (Baručić, and Umihanić, 2018; Shahbani, Bakar and Azmi, 2017).

Creation of a new venture is a multifarious, idiosyncratic process that begins with aspiration by a potential entrepreneur that consists of assembling several resources that may not be necessarily at the disposal and control of the entrepreneur (Venkataraman and Sarasvathy, 2018). Opportunities are said to be available when an individual displays distinct understanding of unusual opportunities and act to grasp them. That action of his led to ‘entrepreneurial rent’; while failing to act result to entrepreneurial loss (Alvarez and Barney 2018). An important question continuously being discussed in the field of entrepreneurship

is “why entrepreneurs recognize opportunities that non entrepreneurs fail to recognize”. Dyer et al. (2088) argued that largely, differences in social networks, personality traits, and cognitive styles are the factors that predict individual opportunity recognition ability. Individuals with entrepreneurial traits are success driven, and are more likely to partake in the relevant opportunity recognition and exploitation that leads to accomplishments (Kerr, Kerr and Xu, 2019; Lim, 2019; Wasdani and Mathew, 2014); and individual’s traits suggest their desire to perceive and pursue potential opportunities (Wang, Ellinger and Wu, 2013).

Gartner (2022) concurred that “Entrepreneurs are distinguished by their propensity to recognize opportunities”. Short et al., (2018) stated that ‘a potential entrepreneur can be enormously creative and hardworking, but with the absence of proper identification of opportunities, entrepreneurial activities cannot take place’ (pp.40). More so, literature affirms that establishment of an entrepreneurial firms is an outcome of individual decision and traits (Herath, 2014). Hence, individual level of these traits plays a dominant role in the success of his new venture. Individuals possessing certain traits have a greater level of inclination to entrepreneurship than those who do not possess those (Shane et al. 2019). For long, the entrepreneurship literatures has recognized entrepreneurship traits as potential means that enhance entrepreneurs competitive advantages and boost their innovative performance (De Carolis and Saporito, 2017; Herath, 2014).

Traits like self-confidence, innovativeness, need for success, locus of control and risktaking had been documented as important traits that form good entrepreneurship skills that enable opportunity recognition (Stevenson et al 2017;

Fairlie and Holleran, 2012; Wang, Ellinger and Wu, 2013; Kerr, Kerr and Xu, 2019; Lim, 2019). Examining traits influencing entrepreneurial motivations in multiethnic and multicultural society like Nigeria is pivotal in comprehending entrepreneurial intentions among individuals; since the personality of entrepreneur is basically what predicts his behavior and reaction towards the business environment (Ayoade, Ogunnaike and Adegbuyi, 2019).

There is little evidence in the literature to suggest that the combination of these traits (innovativeness, locus of control, need for achievement, self-efficacy and tolerance to risk) have been studied together in order to test how they co-relate to determining the opportunity recognition ability of undergraduate students in Nigeria. Thus, such an oversight repudiates researchers; practitioners as well as policymakers the ample opportunity of comprehensively understand how the knowledge of entrepreneurship could shape the behavior of individual potential entrepreneur.

Theoretical background

This section highlights the broad concepts of personality traits, entrepreneurship opportunity recognition and entrepreneurship education as the moderating variable of the study. The personality traits covered here are innovativeness, locus of control, need for achievement, self-efficacy and tolerance to risk. Narrow personality traits have been recognized as good predictors of industrious behaviors as well as agile actions of entrepreneurs (Llewellyn and Wilson, 2019). These narrow traits herein were deliberately selected because they are found to predicts better outcome of entrepreneurship intentions than the broad traits like Extraversion and Conscientiousness (McAdams, 2019; Rauch and Frese, 2020; Fairlie and Holleran, 2012; Leutner,

Ahmetoglu, Akhtar and Chamorro-Premuzic, 2014; Fayolle and Liñán, 2014; Liñán and Fayolle, 2015). This couple with limitations associated with the Big-5 framework in coherently describing entrepreneur portrait (Kamfer, 2019; Rauch, 2014; Kerr, Kerr and Xu, 2019).

Innovativeness

In general view, innovativeness connotes how individual respond to new things (Goldsmith and Foxall, 2019). Innovative capabilities of an individual come to bear when he develops personal mastery that comprise of intellectual and social capital (Littunen, 2018). Gregoire and Shepherd, (2012) opined that innovativeness on its self cannot serve as an end but add to entrepreneur's drive in exploiting more opportunities. A sustainable entrepreneurship development is achieved when innovative an initiative gradually empowers the entrepreneurs to discover and exploit available opportunities through their creativity by creating/modifying new products or services. Extant literature suggest that in their quest for opportunity exploitation, entrepreneurs after discovering an opportunity, they prepare decision templates on which to act upon, that contains the novel and creative ideas related to what they want to exploit (Wood and Williams, 2014).

Locus of Control

Locus of Control (LOC) is the degree of how an individual exercise control over his life (Karabulut, 2016). People with higher internal LOC believe that their actions can control their environment; hence they tend to take risks by grabbing opportunities through the creation of new business ventures. An individual that possess internal LOC believes that their lives is control by their own decisions, while on the contrary a person with external LOC accept that the true factors that control his life are fate, chance or other environmental feature beyond

his control. People with internal LOC have confidence and believe that they have control over outcomes that affect their lives through their own effort, ability and skills, instead of believing that external forces control these outcomes.

Need for Achievement

Need for Achievement originated from the works of McClelland (2017) “acquired-needs theory”. The notion was initially promulgated by Murray (1938), and later enhances and propagated by McClelland (1961). According to Kerr, Kerr and Xu, (2019) the need for achievement connotes individual’s desire for meaningful accomplishment, mastering of skills, and success in challenging goals. Scholars had argued that entrepreneurs need to possess high need for achievement, since establishing a new venture from the scratch suggests individual capability or ability to swim amid difficult terrain in putting together system responsibilities that are diffuse. Need for achievement has equally been pointed as one of the fundamental elements influencing individual actions in a place of work.

Self-Efficacy

Self-efficacy relates to individuals’ conscious beliefs that by using their own abilities and capabilities they can carry out a particular task (Bandura, 2019). Self-efficacy connotes one’s “belief that he can perform tasks and fulfill roles, and is directly related to expectations, goals and motivation” (Cassar and Friedman, 2018). Normally, individuals tend to avoid tasks which they have low self-efficacy on; while giving more emphasis on tasks they believe they have higher level of self-efficacy (Forbes, 2019). Several studies had hypothesized the strangeness of personal self-efficacy on entrepreneurship intention and growth. Literature on self-efficacy in the context of entrepreneurship posts that the variable can predict individuals’ intentions of

starting a new venture (Krueger and Brazeal, 2019; Luthje and Franke, 2019; Pittaway et al., 2018; Radipere, 2012). More so, literature also asserts that high level of self-efficacy is associated with work-related performance (Stajkovic and Luthans, 2021), growth of small business (Baum and Locke, 2020), lecturers job performance (Cassar and Friedman, 2018), as well as career choice (Lent and Hackett, 2022).

Tolerance to Risk

Ahmed, (2017) define propensity to risk-taking as ability to handle uncertainties and the degree of readiness to bear them. In their quest for success, entrepreneurs take on significant risk for them to achieve high growth. Karabulut (2016) stated that tolerance to risks is an essential trait for entrepreneurs to succeed. As anybody else, entrepreneurs shoulder the burden of taking care of their families as well as other responsibilities, yet they decide to take the risk by investing their resources to establish their own ventures. This could not be possible without element of risk tolerance. Schumpeter argued that entrepreneurs take risks when making decisions, and that risk taking attitude is what makes him different from managers or employees (Iversen et al, 2021). Jain and Ali (2013) concurred that risk taking is a psychological variable reflecting entrepreneur’s ability to accept calculated risks and realistic challenges.

Entrepreneurship Education as Moderating Variable

Entrepreneurship education has been defined by Wilson (2018) as the development of behaviors, competencies and attitudes that individual will apply during his career as an entrepreneur. Considerable number of literature affirms the import and relevance of entrepreneurship education in modeling behaviors related to

entrepreneurship (Fretschner and Weber, 2013; Liñán and Fayolle, 2015; von Graevenitz, Harhoff and Weber, 2018). Equally important to note is that the success of such educational programmes is contingent to individual's acquiescent entrepreneurial traits (Radipere, 2012; Weber, 2013).

In addition to the essentiality of entrepreneurship education programs across campuses, individual differences and characteristics are also essential toward entrepreneurship opportunity recognition ability (Powell 2014); since psychologist are on the

agreement that everything individuals does depends on his mental processes (Costa, Santos, Caetano, 2018). Hence, the linkage between entrepreneurship and aforementioned traits buttresses the argument that entrepreneurs possess unique attributes (Zhao and Seibert, 2017; Carland, Hoy, Boulton, and Carland, (2020). Weber, (2013) and Ndofirepi, (2022) further affirm that upon all the essential roles that entrepreneurship education plays in modeling entrepreneurship related behaviors, the success of the programme depends on the traits harbored by individuals.

Table 1: Discriminate Validity of the Constructs

	1	2	3	4	5	6	7
ETE	0.639						
INN	0.357	0.656					
LOC	0.221	0.152	0.648				
NAC	0.419	0.515	0.160	0.703			
OPR	0.593	0.435	0.370	0.533	0.766		
SEF	0.332	0.497	0.133	0.436	0.385	0.847	
TOR	0.344	0.399	0.392	0.273	0.434	0.161	0.725

Note: Values on diagonal represent the square root of the AVE

To measure their reliability, composite reliability and Cronbach's alpha was used, while in assessing convergent validity of the constructs, average variance extracted (AVE) was adopted. As depicted in Table 1. All the measures look pretty good. Again, to achieve

Fornell and Larcker criterion (2019) on discriminated validity, square root of AVE must be above the correlations of the remaining constructs. The result suggests this criterion has been fulfilled (values of AVE square roots are on the diagonal).

Table 2. Measurement Model Items for the Reflective Constructs

	Cronbach's Alpha	Composite Reliability	AVE	VIF
ETE	0.756	0.827	0.709	1.356
INN	0.786	0.787	0.630	1.740
LOC	0.738	0.740	0.520	1.201
NAC	0.856	0.795	0.594	1.554
OPR	0.765	0.850	0.587	1.463
SEF	0.706	0.835	0.617	1.456
TOR	0.848	0.769	0.526	1.441

Additionally, we ascertained whether multi-collinearity problems exist through the assessment of the VIFs. These were equally found to be below 5, with the highest at 1.6 as portrayed on Table 2

The Structural model

Upon validating the measurement model, the structural model was equally assessed. Table 3 presents the results of the tested direct hypotheses (H¹–H⁵) as well as their statistical significance level obtained from the structural model.

Table 3 Results of Hypothesis Testing via Bootstrapping

Direct Path	Path Coefficient	T Statistics	P Values	Decision
H1: INN_ -> OPR	1.980	1.789	0.030	Supported
H2: LOC -> OPR	2.272	2.462	0.014	Supported
H3: NAC -> OPR	2.201	2.464	0.014	Supported
H4: SEF -> OPR	2.199	1.245	0.013	Supported
H5: TOR -> OPR	2.217	2.111	0.035	Supported

Table 4 Moderation Analysis

Indirect Path	Path Coefficient	T Statistics	P Values	Decision
H6: INN -> ETE -> OPR	2.281	3.076	0.002	Supported
H7: LOC -> ETE -> OPR	1.192	1.123	0.262	Not Supported
H8: NAC -> ETE -> OPR	1.122	0.916	0.360	Not Supported
H9: SEF -> ETE -> OPR	1.066	0.248	0.804	Not Supported
H10: TOR -> ETE -> OPR	1.087	1.067	0.286	Not Supported

This study explored the effects of different personality traits on OPR along with moderating effect of entrepreneurship education. In line with this, hypothesis testing was conducted in order to verify the links between the variables. A hypothesis is considered to be significant if its path coefficient is higher than 1.96 and its p-value under 5%. For the direct relationships (Table 3), INN, LOC, NAC, SEF and TOR were found to have positive effects on OPR with p values 0.030; 0.014, 0.014, 0.013, 0.035 respectively. From the Table, SEF was found to have highest effect on OPR with P value 0.013, while TOR has the least effect with p value 0.035. The results suggest that student's innovative ability, both internal and external locus of control, need for achievement, self-efficacy as well as propensity to take risk have determined their ability to recognize business opportunities. Hence these traits need to be harness.

But to a greatest surprise, only innovativeness out of the five variables was found to have been statistically and significantly moderated by entrepreneurship education and opportunity recognition as shown on Table 4. Thus, ETE have been found to moderate the relationship between INN and OPR with path Coefficient 2.281 and p value 0.002. These findings clearly indicate the contribution of entrepreneurial education on enhancing innovative ability of students to recognize more opportunities as well as exploit them. The finding is in line with Wei, Liu and Sha, (2019) who found mediating role of entrepreneurship education to innovativeness. More so, other prior studies argued that exposing students to entrepreneurship knowledge strengthened their innovative ability (Hansemark, 2019), and that a strong innovative ability enhance opportunity recognition and exploitation (Dinis et al., 2013).

Implication of the study

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Findings from the study have both practical and theoretical implications. One of the important implication for researchers is how the study highlight the essentiality of personality traits in entrepreneurial research hitherto was “falsely assumed that personality research did not offer it anything useful” (Frese and Gielnik, 2014, p. 414). While in practical term, this study posed a serious question on the effectiveness of teaching methods used in teaching entrepreneurship education in Tertiary Institutions domiciled in Gombe state, considering the absence of moderating effects between the four personality traits and opportunity recognition. Previous empirical and anecdotal evidences had recognized the positive and significance role of entrepreneurship education in predicting and boosting entrepreneurship activities (Radipere, 2012; Weber, 2013; Hsu and Powell 2014; Ndofirepi, 2022). Hence there is need for entrepreneurship educators in Gombe state to revisit their teaching strategies. For instance, teaching methods could be planned in a way they ignite students' consciousness on the benefits associated with partaking in entrepreneurship, rather than trying to push into their throats how to start a business after graduation.

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