The Predictive Assertion of Big-Five Personality Traits (All Factors) on Developing Young and Adults Entrepreneurial Concept Formation/Innovation

Ugochukwwu Christian Ogbogu¹, Jacob Igo² & Okwunwa Sabina Okenyi³.

1,2&3: Department of Psychology, Faculty of Social Sciences, Madonna University, Nigeria. Email: Ugochukwuc@Madonnauniversity.edu.ng, onodugo101@gmail.Com¹,jacobigo@madonnauniversity.edu.ng,marcellinusigo@gmail.com², sabinaokenyi@gmail.com³

ABSTRACT

This study was designed to investigate the predictive assertion of Big-Five personality traits (all factors) on developing young and adults entrepreneurial concept formation/innovation using Big-Five Personality Inventory (BFPI), developed by McCrae & John (1992) and Individual Entrepreneurial Intent Scale (IEIS), developed by Thompson (2009) as measuring tools. A cross sectional survey design was adopted using a sample of 342 developing young and adults accidentally drawn and volunteered, 252 (drawn) from Nnewi, Onitsha, Aba, Umuahia, Owerri and Abakiliki, metropolis of Anambra, Abia, Imo and Ebonyi state of Eastern Nigeria, and 90 (volunteered) from the same metropolis as well. Their age ranged between 25-48 years and average mean age of 34.52 and SD of 12.32. Multiple regression statistical package was used for the data analysis and the results showed that agreeableness (β = .120, t = 2.22, P<.02) and extraversion (β = .148,t = 2.76, p< .02) predicted developing young and adults entrepreneurial concept formation/innovation. Other factors or components of the personality traits (Big-Five): Openness to expression, conscientiousness and neuroticism could not predict developing young and adults entrepreneurial concept formation/innovation. Discussion of the established results was based on the literature reviewed, implication and recommendations were made.

KEYWORDS: Personality Traits (Big-Five), Developing Young and Adults and Entrepreneurial Concept Formation/Innovation

INTRODUCTION

Entrepreneurship today is an essential key in a country's economic growth and development because it provides many job opportunities and offers various types of goods and services (Wibowo et al., 2018). Entrepreneurship has been described as the "capacity and willingness to develop, organize and manage a business venture along with any of its risks to make a profit" (Katila et al., 2012). A broader definition of the term is sometimes used, especially in the field of psycho-economics. In this usage, an entrepreneur is an entity which has the ability to find and act upon opportunities to translate inventions or technologies into products and services. The entrepreneur is able to recognize the commercial potential of the invention organize the capital,

talent, and other resources that turn an invention into a commercial viable innovation (Ogbogu, 2019 & Yetisen et al., 2015).

Early-19th-century French Economist Jean-Baptiste Say provided a broad definition of entrepreneurship, saying that it "shifts economic resources out of an area of lower and into an area of higher productivity and greater yield". Entrepreneurs create something new, something different-they change or transmute values (Drucker, 1993). Regardless of the firm size big or small, they can partake in entrepreneurship opportunities. The opportunity to become an entrepreneur requires four criteria. First, there must be opportunities or situations to recombine resources to generate profit. Second, entrepreneurship requires differences between people, such as preferential access to certain individuals or the ability to recognize information about opportunities. Third, taking on risk is a necessity. Fourth, the entrepreneurial process requires the organization of people and resources (Shane, 2003; Ogbogu 2019).

In general, psychological analysis of entrepreneurship is directed toward internal factors and individual approaches (Hallone & Santrock, 1999). In examining entrepreneurs, the different elements studied are behaviour and personality as did Lam (1999), DeNeve & Cooper (1998) and Jenning (1994). Furthermore, Crane & Crane (2007) examined the factors of personality, trust, values, and behaviour of entrepreneurs, because these factors greatly determine the course of their business. The personality approach in entrepreneurship refers to the assumption that there must be a match between personality and the type of work occupied (Ugwu et al., 2022). According to Holland (1985), individuals will have a high interest in choosing a career that matches personality traits. Career satisfaction levels will be higher if there is a match between personality and work environment characteristics (Branco, 2003; Clark & Robertson (2005); personality factors are dominant characteristics in determining the success of entrepreneurship (Smith & Smith, 2000) have proven that there is a direct relationship between personality and business success. This present study focuses on the role of individual factors particularly personality traits (Big-Five) as predictors of developing young and adults entrepreneurial concept formation/innovation.

According to Friedman & Schustack (2016), personality can be define as the "intrinsic organization of an individual's mental world that is stable overtime and consistent over situation" There are three important points to this definition. First personality represents some structured system by which individuals organize themselves and orientation of the world around them. Second, personality is stable overtime. This means that there is something about who we are and

what we are like that remains constant through our lives. Finally, personality is consistent from one context to the next, who we are inside, and how we perceive the world remains the same. However, Digman (1990) confirmed that only in the last 25 years or so, a consensus has formed to describe the human personality in five dimensions or factors. Accordingly, there are not many studies investigating the relationship between the Big Five Personality dimensions and entrepreneurial concept formation/innovation.

In the past, discussion of the relationship between personality and entrepreneurial concept formation/innovation either did not include the Big-Five personality dimensions, or only discussed personality and other concept, such as career satisfaction level, business success, job performance, job motivation and employees burnout (Ogbogu, 2017). The Big-Five personality dimensions are use to distinguish and investigate the influence on the individual in relation to their entrepreneurial concept formation/innovation.

The Big-Five Personality Traits also known as the Five Factor Model (FFM) and the OCEAN Model is a taxonomy for personality traits (Rothman & Coetez, 2003). It is based on common language descriptors. When factors analysis is applied to personality survey data, some words used to described as conscientious is more likely to be described as "always prepared" rather than "Messey". This theory is based therefore on the association between words but not neuropsychological experiments. This theory uses descriptors of common language and therefore suggests five broad dimensions commonly used to describe the human personality and psyche (Goldberg, 1993; Costa & McCrea, 1992). The five factors have been defined as openness to experience, conscientiousness, extraversion, agreeableness and neuroticism represented the acronym OCEAN or CANOE beneath each proposed global factors, there are a number of correlated and more specific primary factors. For example, extraversion is said to include such related qualities as gregariousness, assertiveness, excitement seeking, warmth, activity, and positive emotion (Mathew, et al., 2003).

- Openness to experience (inventive/curious vs. consistent/cautious). Openness to experience is a personality trait that describes someone who is intellectually curious, imaginative, and creative; someone who seeks out new ideas and alternative values and aesthetic standards. Openness is empirically distinct from mental ability but is correlated with aspects of intelligence related to creativity, such as divergent thinking (Ambridge, 2014), one of the defining characteristic of entrepreneurship is creativity to bring about

innovative change or, in Schumpeter's (1976) famous phrase "creative destruction". In the popular imagination, entrepreneurs are regarded as heroes who pursue their creative vision even in the face of overwhelming resistance from more conventional thinkers (e.g, Locke, 2000). Self-employment is a nontraditional mode of employment that is itself more likely to appeal to individuals who are willing to experiment with a new or unconventional lifestyle.

- Conscientiousness (efficiency/organized vs easy-going/careless). Conscientiousness is a personality dimension that describes an individual's level of achievement, work motivation, organization and planning, self-control and acceptance of traditional norms, and value and responsibility toward others (Robert et al., 2005). According to McClelland's (1961) early work on achievement motivation, individuals who score high on need for achievement are attracted to work situations in which they have personal control over outcomes, face moderate risk of failure, and experience direct and timely feedback on their performance. McClelland submitted that high need-for-achievement individuals would be attracted to entrepreneurship because it offers more of these conditions than most traditional forms of employment. Certain other trait under the conscientiousness dimension, such as work goal orientation and perseverance are also likely to be associated with the entrepreneurial role. For example, Markman& Baron (2003) suggest that perseverance is called for by entrepreneurial work, while others have emphasized the importance of motivation, persistence and hard work. Work goal orientation, hard work and perseverance in the face of daunting obstacles to achieve one's goals are closely associated with entrepreneurship in the popular imagination. All these traits can be associated with conscientiousness. Low conscientiousness is associated with flexibility and spontaneity, but can also appear as sloppiness and lack of reliability (Toegel & Barsourx, 2012).
- Extraversion (outgoing/energetic, vs solitary/reserved). People high on extraversion are gregarious, outgoing, warm, and friendly; they are energetic, active, assertive, and dominant in social situations. Assertiveness, energy, a high activity level, and optimism are traits that have been associated people's perception of entrepreneurs (Lock, 2000). Research using Holland's vocational typology shows that extraverts are attracted to enterprising (i.e business) occupations (Costa & McCrae, 1992), and Holland, 1984). Low

extraversion causes reserved, reflective personality, which can be perceived as aloof or self-absorbed (Toegel & Barsourx, 2012). Extraversion and its associated with people's implicit perceptions of the leadership role.

- Agreeableness (friendly/compassionate vs challenging/detached). Agreeableness is a dimension that assesses one's attitude and behaviour toward other people. Tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. It is also a measure of one's trusting and helping nature, and whether a person is generally well-tempered or not. People high on agreeableness are characterized as trusting, altruistic, cooperative, and modest. They show sympathy and concern for the needs of others and tend to defer to others in the face of conflict. Low agreeableness personalities are often competitive or challenging people, which can see as argumentative or untrustworthy (Toegel & Barsourx, 2012).
- Neuroticism (sensitive/nervous vs. secure/confident). (Tendency to be prone to psychological stress) (Friedman & Schustack, 2016). (The tendency to experience unpleasant emotions easily, such as anger, anxiety, depression and vulnerability). Neuroticism also refers to the degree of emotional stability and impulse control and is sometimes referred to by its low pole, emotional stability. High emotional stability manifests itself as a stable and calm personality, but can be seen as uninspiring and unconcerned. Low emotional stability manifests as the reactive and excitable personality often found in dynamic individual, but can be perceived as unstable or insecure. The personality approach to entrepreneurship has been pursued by many researchers in an attempt to separate entrepreneurs from non-entrepreneurs and identity a list of character traits specific to entrepreneur. There is no agreement however on the number of traits, specific to the entrepreneur, or their validity. Thus, the present study attempts to use personality as a predictor to individual's entrepreneurial concept formation/innovation.

STATEMENT OF THE PROBLEM

A superfluity of empirically viable research have been carried out which score entrepreneurship as a purposeful activity that includes an innovation, initiation, promotion and distribution of wealth and services to these effect, so many rigorous scholarly debate have been going on to ascertain whether it is personality that drives its innovation in individuals. The personality approach to

entrepreneurship has been pursued by many researchers. To buttress the fact, Zhao & Siebert, (2009), in an attempt to separate entrepreneurs from non-entrepreneurs list five character traits specific to the entrepreneur "The Big-Five", and assert that these personality, are common with entrepreneurs. Their assumption over the years have been that there is a difference between entrepreneurs and other individuals with respect to personality identifying extraversion, agreeableness, conscientiousness, neuroticism (emotional stability), and openness as innate dispositions peculiar to entrepreneurs (Goldberg, 1993).

In addition, Jacobwitz (1980), submits that entrepreneurs commonly share certain personality characteristics which are identified to include, restlessness, independence, a tendency to be a loner extreme self-confidence innovative, action-orientation, high on need for personal control and highly autonomous and emphasized that entrepreneurial attitude is static that is, either people are born with the related characteristics or they are not. In the contrary, which personality and other individual differences may drive individuals to entrepreneurial behaviour; it is faltered due to its trait approach and consequently prompted a growing focus on identifying what the entrepreneur does. From the stand point of "Planned Behaviour Theory" (Ajzen, 1991), entrepreneurship is a planned behaviour driven by innovation desire environmental factors and the propensity to act on perception. The proponents of this model strongly posit that innovation is the principal motivator of entrepreneurial orientation. There is no agreement however on the correspondence, specify and number of traits peculiar to the entrepreneur or their validity. Thus, the present study attempts to take a rigorous round of survey targeted at ascertaining whether personality drive entrepreneurship in individual by examining the listed personality characteristics as predictors of developing young and adults entrepreneurial concept formation/innovation. In view of the forgoing, the present study seeks to answer the question:

QUESTION RAISED BY THE STUDY

- Do personality (Big-Five) in all factor traits predict entrepreneurial young and adults concept formation/innovation?

AIM/PURPOSE OF THE STUDY

- The study is designed to find out if personality traits (Big-Five) in all factor traits will significantly predict entrepreneurial young and adults concept formation/innovation.

THEORETICAL POSITION

The Theory of Planned Behaviour (TPB) (Ajzen, 1991; Ajzen & Fishbein, 1980) suggests that attitudes towards a behaviour (for instance, new venture creation predict innovation and intentions, which in turn predict the actual behaviour. Ajzen's model based on the Theory of Planned Behaviour argues that innovations and intentions in general depend on perception of personal attractiveness, social norms and feasibility and Shapero's Model (1982) of the Entrepreneurial Innovations and Intentions (EII) depend on perception of personal desirability, feasibility and propensity to act. Krueger & Carsrad, (1993) employed a competing models approach and compared the two intention based models using a sample of students were all facing career choice decisions. The results of the analysis offered strong support for both model leading to the conclusion that innovations and intentions are the best indicator of any planned behaviour including entrepreneurship, and that personal and structural variable have an indirect effect on entrepreneurship through their influence on key attitudes and general motivation to cut. Krueger & Carsrad (1993) specify three key antecedents of entrepreneurial innovation and intention:

i: The attitude one holds with respect to venture creation, which develops from perceived desirability, ii: the perceived social norms for the engagement in venture creation and, iii: the perceived control one maintains for entrepreneurial behaviour. Additional person/situational exogenous influences are predicted to affect an individual's entrepreneurial innovation and intentions indirectly through their influence on one of these key antecedents. The Theory of Planned Behaviour is based on the premise that human behaviour is planned and is therefore preceded by innovation and intention towards that behaviour. Understanding the innovations and intentions towards any purposeful behaviour is essential to our understanding of the antecedents of that behaviour (Ajzen & Fishben, 1980). Basu & Virick (2008) argued that innovation and intention is an accurate predictor of planned behaviour, especially in case where behaviour is difficult to observe, rare, or involve unpredictable time lags and the entrepreneurial innovation and intention fulfilled these characteristics.

Traits Theory (TT) holds that entrepreneurs are born not made Jacowitz (1980) suggest that entrepreneurial aptitude is static-that is, either people are born with the related characteristics or they are not. The dissatisfaction with the Trait Approach prompted a growing focus on identifying what the entrepreneur does (Jacobwitz, 1980). In the last 20 years or so, many personality psychologists have embraced the five-factors theory which is similar to Eystenck's model and identifies five basic personality traits (Costa & McCrae 1999). The so-called Big-five are openness

to experience, conscientiousness, extraversion, agreeableness and neuroticism. Each factor is a higher-order trait comprising interrelated lower order traits. Openness to expression refers to degree to which a person is imaginative, creative, has a broad range of interests, and is openness to new ideas. These individuals are intellectually curious and constantly seek out new ways of performing tasks. Those who score low on this dimension tend to have a narrower range of interests and prefer to resort to tried and test method (Daft, 2008).

One of the key characteristics of entrepreneurial ventures is innovation, not only at the level of the firm and its products/services but also on the part of the entrepreneur. Conscientiousness refers to the degree to which an individual is responsible, achievement orientated and dependable. Conscientious individual have be shown to poses high levels of achievement motivation and resilience to pursue their goals until their attainment. Certain traits related to the conscientiousness dimension, such as perseverance and persistence have also been associated with the entrepreneur role (Zhao & Siebert, 2006). Since entrepreneurship requires hard work persistence, and resilience in the face of challenges, it is expected that higher levels conscientiousness will be associated with higher levels of entrepreneurial concept formation/innovation. Extraversion refers to the degree to which an individual is outgoing, assertive, energetic and sociable. These persons usually exhibit high levels of self-confidence and are comfortable meeting and interacting with new people. Extrovert also exhibit higher degree of dominance and seek out position of authority where they are in control and have influence over others. An entrepreneurial career brings with it great levels of uncertainty and challenge in comparison to traditional career paths which may appeal to extroverts who might view this life style as more exciting.

Agreeableness refers to the tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. It is also a measure of one's trusting and helpful nature and whether a person is generally well-tempered or not. High agreeableness is often seen as naïve or submissive. Low agreeableness personalities are often competitive or challenging people which can be seen as argumentative or untrustworthy (Toegel & Barsourx, 2012). Entrepreneurs do not work in isolation: as such a large component of running a business is interaction with others. As such, the livelihood of an entrepreneurial business depends greatly upon their relationship with customers, suppliers, and employees. Neuroticism/emotional stability is the tendency to be prone to psychological stress (Friedman & Schustack, 2016). It also refers to the degree of emotional stability and impulse control. Persons who are emotionally stable have been shown to handle stress

and criticism more effectively and tend to take mistakes and setbacks personally. In contrast, those who have a low degree of emotional stability feel vulnerable under stress and are likely to become tense, anxious or depressed. They also generally have lower self-confidence and may explode in emotional out bursts when stress or confronted with negative feedback (Toegep & Barsourx, 2012). The start-up phase of new venture can often be a very turbulent period and laden with stressors in the form of long working hours, critical decision making under pressure and considerable financial risks despite these psychological and physical burdens, entrepreneurs must forget ahead steadily where others would likely be discouraged by such challenges and obstacles (Dahiyat, 2015).

Cognitive Model (CM) has better explanatory capacity than the Trait and Entrepreneurial Event Theory in entrepreneurship, as they consider behaviour as a consequence of person situation interaction. This fact has been widely accepted in cognitive psychology since the 1960's (Schver & Scott, 19991). Fortunately, the cognitive approach is becoming more and more used to explain the idea why some individuals choose to become entrepreneurs. This emphasizes the fact that everything we say or do as human beings is influence by mental processes, through which we acquire, store, transform and use information to accomplish tasks, i.e making decision/ideas and solving problems. One of these decisions, of course, could be to start a new venture.

Social Cognitive Career Theory (SCCT) (Lent et al; 1994) is an established theory of vocational psychology that has been used extensively to explain individuals' career-related decision making behaviour. It is anchored in social Cognitive Theory and highlights the importance of self-beliefs and self-thought in fostering an individual's motivation and subsequently guiding their behaviour. With its foundation in Bandura's (1986) Social Cognitive Theory, SCCT asserts that the psychological process underlying career decisions and behaviours is dictated largely by the interplay of three key constructs: i: Self-efficacy, which is defined as the dynamic set of beliefs about one's capacity to carry out a specific course of action within a given domain, ii: outcome expectations, which are characterized as the expected consequences of a given behaviour and, iii: Goals, which are specified in terms of one's determination to engage in a specific behaviour (Bandura, 1986; Lent et al, 1994).

Social Cognitive Career Theory further acknowledges that person and environment/contextual elements influence the career decision-making process with self-efficacy, outcome expectations, and goal/innovations and predicted to mediate the relationships between

individual and environmental experiences and outcome behaviour (Lent et al; 1994). Conceptualizing entrepreneurship as a career choice, scholars recognize the utility of the SCCT constructs as predictors of individual's innovation and intention to become an entrepreneur.

EMPIRICAL POSITION

Of all the psychological variables examined by researchers as causative factors of entrepreneurship, personality traits seem to have been widely explored. This is due to the fact that in synchronization with Holland's Theory of Career Choice of a vocation is an expression of personality; some researchers have found the same relationship occurring between personality traits and entrepreneurial innovation and intention (Zhao & Siebert, 2006). They showed that people who choose self-employment as a career option have a different personality profile to people who prefer organizational employment. On the other hand, researchers like Schwavz and Wdowik (2009) suggested that the use of personality traits to predict entrepreneurial innovation and intention gives small explanatory power, predictive validity and inconsistent finding across studies.

Researchers who found a strong relationship between entrepreneurial innovation/intention and personality traits found achievement locus of control, innovations and risk taking propensity as the popular attributes influencing entrepreneurial aspiration of people (Smithikrai, 2007; Srivasta, 2013; Fossey & Harvey, 2010). Other personality attributes found by other researchers in relation to entrepreneurial innovation and intention include overconfidence, optimism, tenacity and passion (Judes et al., 2002; Berg & Feiji, 2003). Other research experts have used the recent measure of personality traits (Big-Five) Taxonomy to predict entrepreneurial innovation and intention. These personality dimensions include openness to experience, conscientiousness, extraversion, agreeableness and neuroticism. Using scale of big five personality traits, Murugesan & Jayavelu (2017) found, extraversion, agreeableness, conscientiousness, neuroticism and openness to expression to significantly and positively influence entrepreneurial innovation and intention.

Goldberg (1993) and Rothman & Ccoetez (2003) found agreeableness, openness to experience, extraversion and conscientiousness to significantly and positively influence entrepreneurship while neuroticism also have significant but negative influence on entrepreneurship. An exploratory study results show that agreeableness is negatively related to job

performance and entrepreneurial concept formation/innovations and intention (Singh & Denoble, 2003). According to Sigh & Denoble (2003), given the limited Leeway for Altruistic behaviour and the high likelihood of guarded and even conflictual interpersonal relationships associated with entrepreneurship, highly agreeable people are unlikely to find the entrepreneurial role and attractive one. The current study also used the Big five Taxonomy as a measure of personality traits.

HYPOTHESES

- Openness to experience will significantly predict developing young and adults entrepreneurial concept formation/innovation
- Conscientiousness will significantly predict developing young and adults entrepreneurial concept formation/innovation.
- Extraversion will significantly predict developing young and adults entrepreneurial concept formation/innovation.
- Agreeableness will significantly predict developing young and adults entrepreneurial concept formation/innovation.
- Neuroticism will significantly predict developing young and adults entrepreneurial concept formation/innovation.
- There will be an interaction effect of all the predicting variables on the dependent variable.

METHOD

Participants

The participants comprised of three hundred and forty-two (342) developing young and adults accidently drawn 252 from Nnewi, Onitsha, Aba, Umuahia, Owerri and Abakiliki metropolis of Anambra, Abia, Imo and Ebonyi State, Eastern Nigeria and 90 volunteered from the same metropolis as drawn with their age range between 25-48 years and average mean age of 34.52 and SD = 12.32. They were of 252 males and 90 female, single (100) and married (242) inclusive.

Instrument

One of the measuring instrument used was the Big Five Personality Inventory (BFPI) develop by McCrae & John (1992). The Big Five Personality Inventory contains 44 items and 5 response patterns from 1 = disagree strongly to 5-agree strongly. McCrae& John (1992) provided the original psychometric properties for American sample, while Umeh (2004) provided the psychometric properties for Nigeria samples. The norms reported here are the mean scores of sample drawn from a population of university, students.

Sca	le American M	A& F (N-711)	Nigeria $m.n = 66$	$\mathbf{f.n} = 60$
a.	Openness 35.00)	38.07	35.18
b.	Conscientiousness	32.40	29.40	29.60
c.	Extreversion	25.60	28.45	27.10
d.	Agreeableness	34.20	29.75	28.73
e.	Neuroticism	24.00	23.43	24.48

BFPI has mean convergent validity coefficient of .75 and .85 with Big-Five Instrument Golberg (1993) and Costa & McCrea (1992) respectively. The divergent validity coefficient obtained Umeh (2004) with university maladjustment scale were: extraversion = 0.5, agreeableness = .13, conscientiousness = .11, neuroticism = .39 and openness to experience = .24. The other instrument used was the individual Entrepreneurial Intent Scale (IEIS) developed by Thompson (2009) to assess the people intention to start a new business. The scale has a Cronbach Alpha of 0.71, .090 (Western sample) and 0.86 (Nigerian sample).

Procedure

With the help of a research assistant employed, the instruments was administered to the participants in there various engagements at their leisure time. They were instructed on how to fill the instruments and the researcher with the help of the research assistant employed was able to gather some of the instruments after thirty (30) minutes, while the remaining were collected the next day because opportunity was given till the next day for completion and return.

Design/Statistics

The present study was across-sectional survey and correlation in nature as the data involving large number of participants were gathered at one point in time to investigate the relationship between the independent variable (personality traits (Big-Five) and the dependent variable (developing young and adults entrepreneurial concept formation/innovation). At the same time, the study employed descriptive and inferential statistics making use of correlation to determine the relationship of the study variables and Hayes process macro for SPSS to test the moderating role of developing young and adults entrepreneurial concept formation/innovation in the relationship between personality traits (Big-Five).

RESULTS

Descriptive information including number of respondents, means and standard deviation of study variables was assessed, and the result is presented in the tables below. The predictor variable (personality) was assessed with the Big Five Personality Inventory (BFPI), and their main effects on the outcome variable (entrepreneurial concept formation/innovation) were evaluated using multiple regression analysis and the result is presented in table 1.

Table 1: Summary of regression analysis showing personality traits on entrepreneurial concept formation/innovation.

Dependent Variables	Predictors	В	t	R	\mathbb{R}^2	Df	F	p
Entrepreneurial Concept Formation/Innovation				.244	.060	5, 333	4.216	<.001
	Openness	.025	.466					
	Conscientiousness	.109	1.58					
	Extraversion	.148	2.76*					
	Agreeableness	.120	2.23*					
	Neuroticism	071	-1.29					

Note: * P<.01;

Result in table 1 shows that personality traits (openness to experience, conscientiousness, extraversion, agreeableness and neuroticism) significantly and jointly predicted entrepreneurial concept formation/innovation among developing young and adults in South Eastern Nigeria [$R = .244 \& R^2 = .060$, F(5, 333) = 4.216; p<.001]. Observation of coefficient of determination [$R^2 = .060$] shows that all the factors of personality traits significant and jointly accounted for 6.0% of the total variance observed in entrepreneurial concept formation/innovation.

On independent basis, the result showed that only extraversion [β = .148, t = 2.76; p<.05] and agreeableness [β = .120, t = 2.23; p<.05] significantly and independently predicted entrepreneurial concept formation/innovation among developing young and adults in South Eastern Nigeria. On the other hand, the result showed that openness to experience [β = .025, t = .466; p>.05], conscientiousness [β = .109, t = 1.58; p>.05] and neuroticism [β = -.071, t = -1.29; p>.05] did not significantly and independently predict entrepreneurial concept formation/innovation among developing young and adults in South Eastern Nigeria.

SUMMARY OF THE RESULT

Multiple regression analysis revealed that only extraversion and agreeableness positively predicted entrepreneurial concept formation/innovation significantly, with the highest variance accounted for by for by extraversion. Thus, high scores in extraversion or agreeableness are associated with high scores in entrepreneurial concept formation/innovation. There is a limited contribution of other personality traits so observed on entrepreneurial concept formation/innovation because

conscientiousness, openness to experience and neuroticism were found to be negatively correlated to entrepreneurial concept formation/innovation. Finally, there was no interaction effect found.

DISCUSSION

The result of the study indicates that the hypotheses that states that extraversion will significantly predict entrepreneurial concept formation/innovation was concord with and accepted based on the $(\beta = .148; t = 2.757; p < .01)$ and also that agreeableness will significantly predict entrepreneurial concept formation/innovation was concord with accepted too based on the $(\beta = 120; to 2.216; p < .05)$. The hypotheses on other facet of the personality dimensions were rejected because the study did not confirm them at significant level. On extraversion as a predictor of entrepreneurial concept formation/innovation, this study was in concordance with the work of Costa, McCrae, & Holland (1984) that extraverts are attracted to enterprising (i.e, business) occupation. People high on extraversion are gregarious, outgoing, warm, and friendly; they are energetic, active assertive and dominant in social situation; they experience more positive emotions and are optimistic; and they seek excitement and stimulation. Assertiveness, energy, a high actively level, and optimism are traits that have been associated with people's perception of entrepreneurs (Baron, 2007).

The match between the traits of extraversion and the attributes associated with leading a new venture lead us to expect extraverts to be more attracted to entrepreneurship. On agreeableness as predictor of entrepreneurial concept formation/innovation, the result of the study fail to support and also dissent the exploratory study results showed that agreeableness negatively related to job performance and entrepreneurial concept formation/innovations and intentions by Singh & Denoble (2003). Agreeableness as a tendency to be compassionate and cooperative rather than suspicious and antagonistic towards other, also a measure of one's trusting and helpful nature according the present result obtained in study predicted entrepreneurial concept formation/innovation. The more agreeable someone is the more he or she can empathize with others. Increase of this trait are associated with good listening skill, patience and ability to help smooth over conflict and these were related to having innovations and intentions of starting a new business venture (Murugensen & Jayavelu, 2017).

The interaction for extraversion and agreeableness on entrepreneurial concept formation/innovation suggests that the relationship between personality and entrepreneurial concept formation/innovation is more complex, as it goes beyond the main effects of personality

traits. Following Varca's (2004) guidelines for the interpretation of connection/interaction effect, the positive connection & interaction effect suggests that a combination of high extraversion and high agreeableness is associated with high score on entrepreneurial concept formation. Entrepreneurship provides opportunities to learn, and to be exposed to, deal with and challenged by noval situation and points of views. These conditions satisfy the respective tendencies of agreeableness, and these tendencies can be expressed via the activity action tendency and sensation-seeking characteristics of extraversion. This explanation which can be tested in future research, accounts for the fact that neither extraversion nor agreeableness in dependently but only a combination of the two traits is required for higher entrepreneurial concept formation/innovation.

IMPLICATION/RECOMMENDATION AND CONCLUSION

The findings of this study had suggested that extraversion and agreeableness predicts developing young and adults entrepreneurial concept formation/innovation. Policy implication especially, for those providing assistance to entrepreneurs and small business owners according to the findings of this study is that, a better understanding of early adults personality types or dimensions would boost their strategic goals, planning, activities, furthering the development of the developing young and adults skills and competencies, and managing their entrepreneurship development. It is very likely that experience and knowledge gained by taking entrepreneurship leason and subject have stimulated developing young and adults interest and ambition in becoming entrepreneurs and since the developing young and adults are associated with higher rate of entrepreneurship activities (Crane & Crane, 2007), it is believe that by giving more attention into entrepreneurship training and education could improve the development of developing young and adults entrepreneurship, activities. Furthermore, the present findings which suggest a limited contribution of personality to entrepreneurial concept formation/innovation may be specific to older adults (forties and fifties). There is some evidence to suggest that the relationship between the personality traits and entrepreneurial concept formation/innovation varies across age.

Acknowledgement

The authors recognize the anonymous reviewers and all research participants for their helpful feedback during the study.

Conflict of Interest

The authors declare that they have no conflict of interest whatsoever.

Authors Contribution Statement

All authors contributed equally, read and approved the final manuscript.

REFERENCES

- Ajzen, I & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Engle Wood. Cliffs, N. J. Prentice-Hall.
- Ajzen, I. (1991). The theory of planned behaviour. *Organization Behaviour and Human Decision process*. 50, 179-211.
- Ambrige, B. (2014). *Psy-Q: you knew your 1Q-now test your psychological Intelligence, Profile.* Via Google Boos.
- Bandura, A. (1977). Social Learning Theory. Engle wood cliffs, NJ: Prentice-hall.
- Bandura, A. (1986). *Social Foundation of though and Action:* A social Cognitive Theory. Englewood, Cliffs NJ: Prentice-Hall.
- Baron, R. A. (2007). Entrepreneurship; A process perspective. In J. R. Baum, M. Frese& R. A. Baron (Eds). *The Psychology Entrepreneurship: 24-40 Mahavah, NJ: Erlbamm.*
- Basu, A. & Virick, M. (2008). Assessing Entrepreneurial intentions amongst students: a comparative study. *Paper Presented at the National Collegiate Inventors and Innovators alliance conference*, 76-86.
- Bateman, T. S. & Micheal, C. (1993). The proactive component of organizational behaviour. *Journal of Management Review, 14*(2), 103-118.
- Berg, P. T. & Feiji, J. A. (2003). Complex relationship among personality traits, job characteristics, and work behaviours. *International Journal of Selection and Assessment 11,326-368*.
- Branco, A. (2003). Social development in cultural context: cooperative and competitive interaction pattern in peer relation. In Valsiner, J. & Connolly, K. J. editors. *Handbook of Developmental Psychology*. London: SAGE publication.
- Buss, A. & Finn, S. (1987). Classification of personality traits. *Journal of Personality Entrepreneurship Theory and Practice*, 16(2), 13-33.
- Clark, I. & Robertson, I. T. (2005). A meta-analytic review of the Big-Five personality factors and accident involvement in an occupational and non-occupational setting. *Journal of Occupational and Organizational Psychology*, 78,355-376.
- Costa, P. T. & McCrae, R. R. (1976). Age/Differences in personality structure: A cluster analytic approach. *Journal of Gerontology*, 31(5) 564-70.
- Costa, P. T. & McCRae, R. R. (1992). Revised NECO Personality inventory (Neo-p1-R) and NEO five-factor inventory (NEO-FFI). Odessa, F. L. *Psychology Assessment Resources*.
- Crane, F. G. & Crane, E C. (2007). Dispositional optimism and entrepreneurial success. *The Psychologist Manager Journal*, 10(1), 13-25.
- Dahiyat, S. E. (2015). An integrate model of knowledge acquisition and innovation: examining the medication effects of knowledge integration and knowledge application. *International Journal of Leader and change*, 8, 101-132.
- DeNeve, K. M. & Cooper, A. (1998). The happy personality: A meta-analysis off personality traits a subjective well-being. *Psych Bull*, 124, 1974-229.
- Digman, J. M. (1999). Personality structure; emergence of the five factor model. *Annual Review of Psychology*, 41: 417-440.

- Drucker, P. F. (1993). *Innovation and Entrepreneurship: Practice and Principles*. New York: Herper Business.
- Fossey, F. M. & Hervery, C. A. (2010). Finding and sustaining employment: A qualitative metsynthesis of mental consume views. *Canadian Journal of Occupational Therapy*, 77.303-314.
- Friedman, H & Schsutack, M. (2016). *Personality: Classic theories and modern research* (sixth ed). Pearson education Inc.
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *The American Psychologist*, 48(1), 26-34.
- Hallone, J. S. & Santrock, J. W. (1999). *Psychology Contexts & Applications*. 3rd edition, New York, NY, YS: McGraw-Hill.
- Holland, J. L. (1985). *Making Vocational Choice: A theory of vocational personality and work environments*. Prentice-Hall, Inc. Englewood Cliff, New Jersey.
- Jacobwitz, E. (1980). The career resources for nascent entrepreneurial trait theory. *Journal of Applied Psychology*, 1043-1061.
- Jennings, D. F. (1994). *Multiple perspectives of entrepreneurship: Text, Reading and cases.* South western pub.
- Judge, T. A. & Illies, R. (2002). Relationship of personality to performance motivation. A meta-analytic review. *Journal of Applied Psychology*, 87-797-809.
- Katila, R., Chen, E. L. & Piezunka, H. (2012). "All the right moves: How entrepreneurial firms compete effectively". Strategic entrepreneurship. JNL. 6(2): 106-132.
- Koerseid, L & Isaksen, E. (2006). New business startups and subsequent entry into self-employment. Journal of business ventures, 15, 35-57.
- Krueger, N. (1993). Growing up entrepreneurial, some development consequences of early exposure to entrepreneurship. *Paper presented to academy of management*.
- Krueger, N. & Carsraad, A. L. (1993). Entrepreneurial intentions: applying the theory of planned behaviour. *Entrepreneurship and regional development*, *5*(*4*), *315-330*.
- Lam, S. K. S. (1999). Portraits of Successful Entrepreneurs and high-flyers: A Psychological Perspective. Ashgate Pub. Ltd.
- Lent, R. W., Brown, S. D. & Harkett, G. (2000). Contextual support and barriers on to career Choice: a social cognitive analysis. *Journal of Counseling Psychology*, 47, 36-49.
- Lent, R. W., Brown, S. D., & Harkett, G. (1994). Towards a unifying social cognitive theory of career and academic interest, choice and performance. *Journal of vocational behaviour*, 45, 79-122.
- Locke, E. A. (2000). *The prime Movers: Traits of Great Wealth Creators*. New York: AMACOM. Markman, G. D. & Baron, R. A. (2003). Person-entrepreneurship fit: why some people are more successful entrepreneurs than others. *Human Resource Management Review*, 134:1-21.
- Mathews, G.; Deary, I. J. & Whiteman, M. C. (2003) *personality* Traits (PDF) (2nd ed) Cambridge University Press.
- Mcacrae, R. R. (1987). Creativity, divergent thinking and openness to experience. *Journal of Personality and social Psychology*, 52:1258-1265.
- McClelland. D. (1961). The Achieving Society. Princeton NJ: Van Nostrand.
- McCrea, P. R. & John, O. P. (1992). An introduction to the Big-five factor model and its applications. *Journal of Personality* 60(2): 175-215.
- Mitchelh, J. (1981). The effect of intentions, tenure, personal and organizational variables on managerial turnover. *The academy of management Journal*, 24(4), 742-751.

- Murugesan, R. & Jayavelu, R. (2017). The influence of Big-Five personality traits and self-efficacy on entrepreneurial intention: the role of gender. *Journal of entrepreneur and innovation in emerging economics*, 3(1), 41-61.
- Ogbogu, U. C. (2019). Overtime prediction of work role stress on psychological well-being among entrepreneurs, *Madonna Journal of Public Administration*, 2(2), 110-121.
- Ogbogu U. C. (2017). Personality traits as predictors of burnout among private employees in Private Establishments. ANSU Journal of Art and Social Sciences (Now Chukwuemeka Odumegwu Ojukwu University, Igbariam, Faculty of Social Sciences) 5(2): 123-137.
- Robert, B. W., Chernyshenko, O. Stark, S. & Goldberg, L. (2005). The structure of conscientiousness: An empirical investigation based on seven major personality questionnaires. *Personnel Psychology*, 58:103-139.
- Rothman, S. & Coetez, E. P. (2003). The big five personality dimensions and job performance. *SA Journal of Industrial Psychology*, 29-88-98.
- Schumpeter, J. A. (1976). Capitalism, and Democracy. New York: Harper & Brothers,
- Schves, K. G. & Scott, L. R. (1991). Person, process, choice: the Psychology of new Venture creation. *Entrepreneurship theory and practice*, 16(2), 23-32.
- Schwavz, E. J. &Wdowik, R. J. (2009). The effects of attitudes and perceived environment conditions on student's entrepreneurial invasion and intent. *Educational Training*, 15(4), 51-54.
- Shane, S. A. (2003). A General Theory of Entrepreneurship: The individual Opportunity Bexus. Northamption, Massachy-Setts: E. Elgar.
- Singh, G. & Denoble, A. F. (2003). Views of self-employments and personality: An exploratory study. *Journal of Developmental Entrepreneurship*, 8(3): 265-281.
- Smith, J. K. & Smith, R. L (2000). *Entrepreneurial Finance*. New York: John Wiley & Son.
- Smithikrai, C. (2007). Personality traits and job success. An investigation in a thai sample. *International Journal of Selection and Assessment, 15, 134-138.*
- Srivasta, S. (2013). Job satisfaction and organizational commitment relationship: effect of personality variables: vision. *Journal of Business Perspective*, 17, 159-167.
- Thompson, E. R. (2009). Individual Entrepreneurial Intent: Construct classification and development of an internationally reliable metric. *Entrepreneurship theory and practice*, 669-694.
- Toegel, G. & Basourex, J. L. (2012). How to become a better leader. *MIT Sloan management review*, 53(3), 51-60.
- Ugwu, C. C., Nnamah G. N. & Ogbogu, U. C. (2022). Job insecurity and Deviant Workplace Behvaiours: Buffering Role of Honesty-Humility Personality Trait. *International Journal of advanced study and research work*, 5(4); (2581-5997), 1-12.
- Varca, P. E. (2004). Service skills for service workers: emotional intelligence and beyond. *Managing service Quality*, *14*, *457-467*.
- Vasiliadis, A. & Poulios, T. (2007). Entrepreneurship among graduates, reality and prospects in tertiary education. *Proceedings of academy of entrepreneurship*, 13(1), 75-82.
- Vecchio, R. (2003). Entrepreneurship and leadership: common trends and common threads. *Human Resource Management Review, 13(2): 303-327.*
- Wibowo, A., Saptono, A. & Suparno (2018). Does teacher's creatively impact on vocational students' entrepreneurial intention? *Journal of entrepreneurship education*, 21(3). 210-221.
- Yetisen, A. K; Volpatti, L. R; Costa, A. F.; Cho, S.; Kamrani, E.; Butt, H.; Khademhos, A.; Seini, & Yun, S. H. (2015). "Entrepreneurship". *Lab Chip.* 15(18). 3660.

Zhao. H. & Siebert, S. E. (2006). The Big-Five personality dimension and entrepreneurial statistic meta-analytical review. *Journal of Applied Psychology*, 91(2), 259-271.