

## An Examination of the Impact of Selected Personality Traits on the Innovative Behaviour of Entrepreneurs in Nigeria

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### Abstract

Entrepreneurs are visionary, goal-driven, innovative individuals who are oriented to developing new businesses and making it a profitable one. These abilities are affected and boosted by some certain factors or traits possessed by them. This study examined the impact of openness and extraversion traits on the innovative behavior of entrepreneurs in a selected area of Ibadan, Oyo State, Nigeria. Subjects for this study were 120 solo operators (entrepreneurs) in an area of Ibadan, Oyo State, Nigeria consisting of 53 males and 67 females, aged between 18 and 51. Two hypotheses were tested and the findings of the study revealed a significant difference between openness and innovative behavior; also the result of the study showed that entrepreneurs who were high on extraversion exhibited more innovative behavior than those who were low on it. Based on the findings of this study, it was recommended that entrepreneurs should observe and build on dominant traits inherent in them. To be a successful entrepreneur, it is pertinent to understand one's personality.

**Key words:** Personality traits; Innovative behavior; Entrepreneurs; Openness; Extraversion

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### INTRODUCTION

Entrepreneurship is a sure way to bringing fulfilment to the aspiration of an individual, and a major weapon to curbing unemployment, poverty, and underdevelopment problems in any country. Consequently, its importance to the economic wellbeing of an individual and family cannot be over-emphasised. Entrepreneurship is first and foremost a mindset of human beings, focused towards the generation of profitable ideas. Entrepreneurs are visionary, goal-driven, innovative individuals or teams that are oriented to developing a new business and making it a profitable one (Hisrich and Langan-fox, 2005).

Nigerian economy is an emerging one that is characterized by a large influx of entrepreneurs and small and medium enterprises. The emergence of this category of people makes it somewhat important and necessary for researchers to understand and manage them effectively. Entrepreneurs play an important role in any given economy and are the prime movers of economic development. Entrepreneur is derived from the French verb "entreprenre" which means to undertake, to attempt, to try in hand, to contract for, or to adventure (Girard, 1962). However, the concept of entrepreneurship is complex as social scientists are yet to agree on the definition and the determinants of entrepreneurial behaviour for innovation and business competitiveness. Entrepreneurship is the process of wealth creation and individuals referred to as entrepreneurs create this wealth by being innovative. The traditional perspective described entrepreneurship in purely economic terms. For example, Cantillon (1755), describes the entrepreneur as any individual who is self-employed, thereby actively taking the risk of economic uncertainty.

The concept of entrepreneurship has been interpreted and defined differently by many scholars from multiple disciplines in the social science. To a psychologist, an entrepreneur is one who takes a goal directed action for the fulfillment of a need. That is, the need to obtain

or attain something, to experiment, to accomplish, or to escape the authority of others (Hisrich et al., 2008). The goal directed behavior of the entrepreneur creates value. To an economist, an entrepreneur is identified as a factor of production. An entrepreneur combines the other factors and makes their value greater than before and also introduces changes and innovations. To a businessman, an entrepreneur is one who accepts the risk to start and run a business that creates wealth for others as well as finds better ways to utilize resources, reduce waste and produce jobs others are glad to get (Vesper, 1980). Entrepreneurship is a necessary ingredient in the process of economic development. It serves both as the catalyst for market transformation and provides new opportunities for economic growth and increased per capital income. Greater reliance is placed on entrepreneurship all over the world for national development, technological innovations and expanded employment opportunities than was the case earlier (Ottih, 2000). The entrepreneurship literature is filled with controversy on discerning appropriate definitions of an entrepreneur and entrepreneurship or the inconsistency of personality traits study in entrepreneurship, (e.g. Gartner 2001; Shane & Venkataraman 2000; Lumpkin & Dess 1996; Gartner 1988; Cole 1969; Schumpeter 1934; Knight 1921). This lack of consensus has impeded progress for researchers toward building and testing a broader theory of entrepreneurship, and has made it especially difficult for them to investigate the relationship of entrepreneurship to performance.” (Hornaday, 1992).

Entrepreneurship has been in the shadow for a while in Nigeria. Entrepreneurs are known to be generally innovative and creative. These abilities are affected and boosted by certain factors or traits possessed by the individual or group of entrepreneurs.

The personality of entrepreneurs has been the subject of researchers’ attention. Many people believe that entrepreneurs have a personality that is different from those of other people. An entrepreneur is a person who habitually creates and innovates to build something of recognized value around perceived opportunities. Entrepreneurs are known to be individuals who make significant difference, who are creative and innovative, spot, and exploit opportunities. They are individuals who are determined in the face of adversity and competition; they manage change and business risk.

Personality has been defined as a whole person concept. It includes an individual’s perception, learning, motivation, experience, socio-economic characteristics, among others (Luthans, 1989; and Kimbel, Garmezy, and Zigler, 1974). Personality is described further as a set of behavior patterns, which a person has acquired under special circumstances of his/her development and as a member of his/her society and the several groups he/she belongs.

In contemporary psychology, the big five personality

are five broad domains or dimensions of personality which has been scientifically discovered to define human personality. The “Big Five” is considered to be one of the most comprehensive, empirical data driven research findings in the history of Personality Psychology. Identifying the traits and structure of human personality has been one of the most fundamental goals in all of psychology. The functioning of these factors is dependent on the psychological ability of the individual to utilize the potential.

Personality usually refers to that, which is unique about a person, the characteristics that distinguish people. Therefore, thoughts, emotions, and behaviours as such do not constitute a personality, but rather, the dispositions that underlie these elements. Personality implies predictability about how a person will act or react under different circumstances.

Innovation in general denotes successful introductions of novelties. Innovation according to Schumpeter (1934) is described as the creation and implementation of new combinations. Innovative behavior of an entrepreneur can also be said to be the ability possessed by an entrepreneur to generate new ideas that are very industrious and profitable to the entrepreneur and the society, at large. Innovation to an entrepreneur is an everyday activity that leads them towards the achievement of their aims or goals.

### **(1) Statement of Problem**

Nigeria faces many problems. There is massive unemployment, partly as a result of retrenchment in government and organisations. Due to the economic situation of the country, more “entrepreneurs” are emerging. This is as a result of the inavailability of jobs (i.e. more supply of labor, less demand for it) in the market, and the need or search for survival. Because of this, so many just find themselves doing “something” not knowing what the outcome will be, but they know that it can fetch them a token or support their needs and wants at the moment.

Current researches have also shown that entrepreneurs have inherent characteristics favorable to entrepreneurship (Dionco-Adetayo and Nassar, 1999). Although they, the entrepreneurs have encountered barriers against their effective performance such as lack of technical knowledge, problem of infrastructure and facilities, among other problems (Dionco-Adetayo, 1998). Also, Ajagu (2005) argued that entrepreneurship pursuit is near absent in Nigeria and that the dearth of information in this area has resulted in only very few people that ventured into it without the prerequisite information for succeeding.

This research is based on having an insight into how personality affects or influences the innovative behaviour of entrepreneurs. Decision making and art of innovation or innovativeness is determined majorly by the personality trait possessed by an individual entrepreneur, but which

some entrepreneurs do not have an understanding of this. Most entrepreneurs make certain decisions which jeopardizes their business existence because they have not been able to identify under what situation or circumstance they are best able to generate the most constructive and innovative ideas, and also, what type of personality they possess and its advantage to their innovative ability. Identifying what trait you possess, and knowing how to go about it to an individual's effectiveness is a factor that has not been looked into. Some individuals actually have this ability within them, but have no idea as to what it is, and how to make effective and efficient use of them.

## **(2) Relevance of the Study**

Several researches have been done in the areas of entrepreneurial personality. Few researches have looked at openness and extraversion as important traits in entrepreneurship innovativeness. Because entrepreneurs contribute immensely to the country, it was considered important to conduct an exploratory study in order to identify some of these personality factors that affect their innovativeness thereby leading to the success of the entrepreneurs in this category. The results of such a study could be used to help increase the role and success of entrepreneurs in boosting the Nigerian economy.

## **(3) Research Hypotheses**

- Entrepreneurs who are high on extroversion will exhibit more innovative behaviour than those who are less on extroversion.
- There will be a significant relationship between openness and innovative behavior.

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# **1. LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

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## **1.1 Literature Review**

Research conducted by Cunningham (in Meng & Liang, 1996) on 178 entrepreneurs and professional managers in Singapore showed that success is closely connected with individual traits (49%). The aforementioned individual traits are creativity and innovation. Holt (1992) underlines both traits as necessary conditions to become a successful entrepreneur. Because innovation is a special means for entrepreneurs to reach success, Drucker (1985) considers it necessary for an entrepreneur to innovate systematically or habitually. Creativity and innovation are not identical, however. Creativity is antecedent to innovation (Holt, 1992). According to Amabile (1989) creativity means the emergence of new ideas, while innovation means the application of the ideas.

Entrepreneurship experts insist that personality traits are important factors in determining innovative behaviour. Theoretical analysis of the traits of entrepreneurs conducted by Sukardi (1991) identifies nine excellent

traits in entrepreneurs: namely instrumental, prestantive (a word based on the Indonesian concept of achievement), flexibility in friendship, working hard, self-confident, risk taking, self-controlled, innovative, and autonomous.

In his typology of entrepreneurs, Miner (2000) distinguished between personal achievers, real managers, expert idea generators and empathetic supersalesmen. It can be clearly expected that expert idea generators would show more innovative behaviour when compared with other three types.

Yonekura (1984) in the discussion paper on 'entrepreneur and innovative behaviour of kawasaki' suggested the following qualities: assertiveness, insistence, forward-looking, critical thinking, creativity, innovation, continuity, preparedness, responsibility, open-mindedness for an entrepreneur. Drucker (1985) considered innovation as the specific tool of entrepreneurs by which they exploit opportunities. Research so far focused mainly on innovativeness as a personal trait (e.g., Rauch, and Frese 2007; Mueller, and Thomas 2000) or, on the other hand, on innovativeness on a firm-level (e.g., Covin, and Slevin 1989; Rauch, Wiklund, Lumpkin, and Frese 2009). Innovativeness can be described as a person's willingness and interest to look for novel ways of action. This conceptualization does not imply the introduction of innovative products, rather, more a preference to engage in creativity and experimentation (Rauch 2010). Innovativeness helps entrepreneurs to recognize valuable opportunities and to search for new ways of completing tasks (Ward 2004).

Research shows that entrepreneurs tend to be more innovative than other population. For example, Carland and Carland (1991) found that both U.S. male and female entrepreneurs have significantly higher levels of preference for innovation than managers. Similarly, entrepreneurs scored higher on Kirton's adaption-innovation scale (Kirton 1976) than general managers of large organizations in the study of Buttner and Gyskiewicz (1993).

A Recent meta-analysis shows that entrepreneurs are more innovative than other people and innovativeness is positively related to the decision to start a business and is also positively and directly correlated with business success (Rauch, and Frese 2007). Interestingly, entrepreneurs' innovativeness produces higher relationships with business success as compared to the relationship between firm level innovations (introduction of new products, services, processes and markets) and success (Rauch 2010; Rosenbusch, Brinckmann, and Bausch 2010).

Entrepreneurship is the capacity for innovation, investment, employment opportunities and expansion in new markets, products and techniques. The entrepreneur is engaged in business which is the sum total of all economic activities. When business activity involves the

transformation of input or raw materials into tangible products, it is said to be manufacturing (Dilworth, 1992).

The entrepreneurial process is influenced by the personality of the entrepreneur and environmental forces which trigger events that stimulate growth and give birth to a new enterprise. There are 2 major areas of interests in the study of the personality of the entrepreneur. These include concerns about the entrepreneur's perceived social position and issues relating to the entrepreneur's psychological based traits (Ottih, 2000). Considerable research has been dedicated to the task of identifying the traits and characteristics of successful entrepreneurs. The personal traits that make for a successful entrepreneurship include achievement, motivation, innovativeness, independence, risk-taking, leadership, and optimism (Ottih, 2000). Other characteristics include entrepreneurial spirit (that is the ability to find and evaluate business opportunities, gather the necessary resources and implement action plans to take advantage of the opportunities), decision making, time management and negotiating (Udeh, 1999). Entrepreneurs who are high on the personality trait of openness to experience are predisposed to be original, to be open to a wide range of stimuli, to be daring and to take risks (Jones, et. al., 2000). Among the theory of personality traits, Costa, McCrae & Busch (1994) congregate many views of personality traits, and their proposed personality traits are widely accepted.

#### **1.1.1 Entrepreneurs' Innovative Behaviour**

Entrepreneurs also often possess innate traits such as extroversion and a propensity for risk-taking. According to Schumpeter (1934), an entrepreneur characteristically innovates, introduces new technologies, increases efficiency, productivity, or generates new products or services. An entrepreneur acts as a catalyst for economic change and research indicates that entrepreneurs are highly creative individuals who imagine new solutions by generating opportunities for profit or reward.

The entrepreneur has been described as the one who starts an enterprise; the one who puts new forms of industry on their feet; the one who shoulders the risks and uncertainty of using economic resources in a new way; and the one with the right motivation, energy, and ability to build something by his or her own efforts.

An entrepreneur's innovative behaviour has a direct and significant influence on business achievement. In this study innovative behaviour will be predicted from entrepreneur traits as formulated by Sukardi (1991), entrepreneur personality type from Miner (1996), and personality type from Stoltz (1997).

The novelty aspect of entrepreneurial innovation leads us to the Adaptation-Innovation theory of Kirton (1976, 1989). Kirton (1989) maintains that individuals are systematically different from each other in creative style, decision-making, and problem solving. Differences in creative style are influenced by originality, efficiency,

and group-conformity. A low standing on originality but a high standing on efficiency and group conformity makes a person an adaptor; on the contrary, a high standing on originality but low on the other two aspects makes a person an innovator.

#### **1.1.2 Brief Description of the Personality Traits**

##### **(1) Openness**

Openness is a general appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity, and variety of experience. The trait distinguishes imaginative people from down-to-earth, conventional people. People who are open to experience are intellectually curious, appreciative of art, and sensitive to beauty. They tend to be opened, compared to closed people, more creative and more aware of their feelings. They are more likely to hold unconventional beliefs. People with low scores on openness tend to have more conventional, traditional interests. They prefer the plain, straightforward, and obvious over the complex, ambiguous, and subtle. They may regard the arts and sciences with suspicion, regarding these endeavors as uninteresting.

##### **(2) Extroversion (introversion)**

This title cannot be described in isolation without making reference to or recognition of its partner, INTROVERSION. This was put forward by Carl Gustav Jung (1910). Extroversion is characterized by positive emotions, surgency, and the tendency to seek out stimulation and the company of others. The trait is marked by pronounced engagement with the external world. Extroverts enjoy being with people, and are often perceived as full of energy. They tend to be enthusiastic, action-oriented individuals who are likely to say "Yes!" or "Let's go!" to opportunities for excitement. In groups they like to talk, assert themselves, and draw attention to themselves. They generate their own ideas from what people say, do, or others actions and reactions. Here, also are some other name that could be used to describe an extrovert: qualities as sociability, excitement seeking, impulsiveness, and positive emotions. They prefer participating in social and practical affairs instead of solitary activities. Introverts lack the social exuberance and activity levels of extroverts. They tend to seem quiet, low-key, deliberate, and less involved in the social world. Their lack of social involvement should not be interpreted as shyness or depression. Introverts simply need less stimulation than extroverts and more time alone. They may be very active and energetic, simply not socially. They believe in their own personally generated ideas as the best. They prefer imagination and introspection to the company of other

According to Jung, the introvert is sensitive, continually subjecting thoughts and actions to self-analysis and criticism. The introvert delays emotional expression and tends to prefer his or her own thoughts to

the company of others.

## 1.2 Theoretical Framework

Entrepreneurship is a multidimensional trend that cuts across disciplines. There is no universally accepted theory of the phenomenon. The existing theories of entrepreneurship are propounded from a variety of schools of thought, with many scholars emphasizing different variables to explain it. These variables include: culture, marginality, internationalists, and achievement motivation, among others. The explanations provided by these different theoretical approaches gave insight to some entrepreneurial behavior. The schools of thoughts are as follows:

### 1.2.1 The Classical School of Thought on Entrepreneurship

The origin of entrepreneur provides an insight into the classical view which makes a distinction between a manager and an entrepreneur. An entrepreneur is seen as a person who bears risks and uncertainty in order to make innovations and originality. These definitions take in the notion of undertaking a venture which has a component of risk and requires some creativity. An important feature of entrepreneurship appears to be the process of doing, rather than owing a venture (Herbert and Link, 1982).

According to Schumpeter (1934), the key element of entrepreneurship lies in the creativity of the individual and may not involve ownership at all. Innovation and creativity are the key causes underlying the classical thought and research. Entrepreneurship is the process of creating an opportunity which seeks style of management that sparks innovation (Peterson, 1985). Here, innovation is seen as disruptive activities having an impact on established ways of thinking. As an entrepreneur you must be creative and innovative at all times.

### 1.2.2 The Leadership School of Thought on Entrepreneurship

An entrepreneur is seen as a leader who depends on people to achieve organizational goals. Proponents of this school of thought propose that entrepreneur must be skilled in bringing vision to reality. An entrepreneur must be ready and willing to lead, motivate, organize and direct people. The school is concerned with how a leader gets task accomplished and respond to the needs of people (Kao, 1989). The concern for getting task accomplished and the concern for the people doing the work are the basic measurement for the management of business. These measurements grow out of previous research which tried to describe the necessary aspect of leadership (Hemphill, 1959). Leadership role is the centre for change and encouraging values, it involves the skills of setting clear goals and creating opportunities (Kao, 1989). Leaders must be effective in developing and mentoring people. It has been suggested that effective leaders are those who create a vision, and institutionalize it (Bennis and Nanus, 1985). A leader is a mentor by whom the responsibility is

taught. An entrepreneur is more than a manager when it comes to mentoring, because he is a leader as well.

### 1.2.3 The Psychological Characteristics School of Thought on Entrepreneurship

The behavior of an individual is determined by his/her attitudes, beliefs, drives, needs and values. Human behaviors originate from the desire to satisfy ones needs. This school's focal point is on personality factors; they believed that entrepreneurs have distinctive values and attitudes towards work in particular and life in general.

People who have similar characteristics as entrepreneurs do will have a superior predisposition to perform entrepreneurial activities than people who do not possess such characteristics (Lachman, 1980). Cunningham and Lischeron (2002) recognized three basic personality traits namely: personal value, such as honesty, duty, responsibility and ethical behaviour, risk-taking tendency and the need for achievement. Scholars have shown that many are exhibiting honesty, ethical behaviour, socially responsible, and hardworking compared to the general population. Values are learned and internalized, it replicate the practice of socialization into a culture. Personal values are fundamental to the way an individual believes and will be expressed irrespective of the situation (Mainoma and Aruwa, 2008).

This school believes that certain individual values and needs are the necessary preconditions for entrepreneurship. Since these values are learned early in life and are well established prior to adulthood, entrepreneurial characteristics are hard to inculcate in schools. Characteristics which have received a great deal of attention include; need for achievement, locus of control, risk-taking, tolerance of uncertainty and behaviour type (Begley and Boyd, 1987).

### 1.2.4 The Management School of Thought on Entrepreneurship

Entrepreneurship draws heavily from management theory. The management school sees an entrepreneur as a person who organizes a business and bears risk in order to make profit (Webster's, 1986). According to Mill (1984), entrepreneur is that person who supervises, control and provides direction to a business venture. This school deals with technical aspects of management and believed that entrepreneurs can be developed.

Many entrepreneurial ventures fail each year and this can be attributed to poor management and decision making, lack of financing and marketing limitation. The school believed that entrepreneurship can be target, therefore the need to identify the specific functions concerned and provide appropriate training. Entrepreneurship is related to function of business plan, start-up, managing development and growth. Other writers define the transition of moving from entrepreneurial to professional management as a strategy of coordination which include the manner in which responsibilities

are delegated and the degree of formality with which those tasks are controlled (Roberts, 1987). Analyzing investment opportunities, acquisition of resources, developing a realistic business plan and working towards the achievement of the organizational goals are other functions of an entrepreneur.

### **1.2.5 The Great Person School of Thought on Entrepreneurship**

This school of thought believes in studying and looking at successful and great entrepreneurs. This has proved to be distinctive and have certain characteristics which makes them do extremely well in their area of business. These individuals have initiative, theory, and beliefs that others find appealing and captivating. These great persons are endowed with certain traits that differentiate them from others (Garfield, 1986). They have instinctive capacity to identify opportunities and to make the precise decision, they respond more to their instinct, mood and insight. They easily recognize dilemma and makes the right decision at the appropriate time while others will still be procrastinating and looking for information.

It is important that we read the past and know the success story of an accomplished entrepreneur because the theories are simple and does not depend on elaborate concepts. This school defines successful entrepreneurs as having strong drives for self-determination and success, with high levels of energy, doggedness, and self-esteem (Cunningham and Lischeron, 2002). This study lends support to Psychological characteristics school of Entrepreneurship. It is a general thought that one's drives, needs, beliefs, attitudes and values are key determinants of behavior, performance and actions. The psychological school focuses on personality factors and believes that entrepreneurs have distinctive values and attitudes toward work and life. The perceived motivational factors on women entrepreneurs whose impact are assessed are psychological in nature.

### **1.2.6 Personality perspective on Entrepreneurship**

The personality perspective examines the characteristics of the entrepreneurs. Entrepreneurial behaviour can be looked at from either internal or external viewpoints of an individual (Kapp 2003). Internal viewpoint looks at the personality traits of an individual such as, locus of control, risk taking, need for achievement, extraversion, problem solving, innovation, creativity perception, openness and work values. While external viewpoint examines things like, culture, role models, work experiences, education and environment. McClelland (1961) says that entrepreneurs are persons who have a high need for achievement. He goes on to explain that, individuals with a high need to achieve will exhibit entrepreneurial behaviour. (Casson, 1982) quotes Kets De Vries (1985) as saying that family background and work experiences were significant in forming an entrepreneurial personality, he says that individuals who have gone through hardship

in childhood need to escape from their harsh background. Their aggressive behaviour forces them to start their own enterprises, instead of being employed by others. Rotter (1989) developed the concept of locus of control whereby the forces responsible for an individual's destiny are either internal or external. Individuals with a high internal locus of control are more likely to become entrepreneurs, than those of high external locus of control. Timmons (1990) refers to entrepreneurial behaviour as a way of thinking, reasoning, and acting that is opportunity directed, and leadership balanced. He acknowledged that entrepreneurship personality can be acquired or in born.

Hisrich et al (2008) compiles seven factors responsible for entrepreneurial behaviour. First is education where he states that, there is a general feeling that entrepreneurs are less educated than the general population, while research findings show that this is not the case. He asserts that education is essential in the upbringing of an entrepreneur because it facilitates the integration and accumulation of new knowledge, it provides individuals with opportunities and assists entrepreneurs in adapting to new situations. The second factor is personal values, which refers to a set of attitudes about the nature of the management process and business in general, for example opportunism, individualism and competitiveness. Third is age, which is the chronological age of an entrepreneur, and the entrepreneur's previous business experience. Fourth is work experience that includes previous technical and industry experience. The fifth factor is role models; these are individuals influencing entrepreneurial career choice and style. Moral-Support network is stated as the sixth factor and these are individuals who give psychological support to an entrepreneur. The final factor is Professional-Support network, which refers to individuals who help entrepreneurs in business activities.

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## **2. METHOD**

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### **2.1 Research Design**

This study employed the survey design. The independent variables are the personality traits (openness and extroversion), and the dependent variable is innovative behaviour of entrepreneurs.

### **2.2 Sample**

The sample of this study comprised entrepreneurs in Akobo area of Ibadan. These entrepreneurs were selected from different lines of trade like caterers, fashion designers, hairdressers, surveyors. The subjects were purposively selected for this study. A total of one hundred and fifty questionnaires were distributed, with a number of one hundred and twenty found usable and analysed. The subjects consist of fifty three males and sixty seven females.

### 2.3 Instruments

The study used a questionnaire for data gathering. The questionnaire was designed in three parts. The first part measured demographics, second part measured the personality traits and the third part measured the innovative behaviour of entrepreneurs. This study made use of the five personality traits (Big Five personality) evaluation index developed by McCrache & Costa (1992) which is a 22 item scale, using a 4-point likert format ranging from Strongly Agree=5 to Strongly Disagree=1. The Cronbach's alpha value of the index is 0.72. The innovative behavior scale developed by Scott & Bruce (1994) which is a 13 item questionnaire, using a 4-point likert format ranging from Strongly Agree=5 to Strongly Disagree=1 was also used. The Cronbach's alpha value is 0.88. The scales were revalidated and the reliability coefficients are openness 0.73, extroversion 0.71 and innovative behaviour 0.88.

### 2.4 Data Analyses

Hypothesis 1 was tested using t-test and hypothesis 2 was tested using Pearson Correlation.

## 3. DATA PRESENTATION AND ANALYSES

### 3.1 Descriptive Statistics of demographics

Table 1 above showed that 10(8.3%) of the respondents are of the age range 18-20years, 56(46.7%) are of the age range 20-30 years,,35(29.2%) are of the age range 31-40, 15(12.5%) are of the age range 41-50 years while 4(3.3%) respectively. In the table above, 83(69.2%) of the respondents had practiced for almost 5 years, 34(28.3%) had practiced for over 5years and 3(2.5%) for over 10 years. Also, the respondents who hold primary school certificate are 27(22.5%), 7(5.8%) hold the SSCE

**Table 2**  
**Summary of T-Test Analysis Showing Extroversion on Innovative Behaviour of Entrepreneurs**

Innovative behavior	N	Mean	Std. Dev	Crit-t	Cal-t	Df	P
Low extroversion	43	25.2791	6.9602				
High extroversion	77	28.4935	6.4576	2.00	2.543	118	.012

Source: field survey (2010)

The result in table 2 showed that there was significant difference (Crit-t=2.00, Cal.t=2.543; P<.05). It was also shown that those with high extroversion had a higher mean of 28.4935 compared with the mean score of

**Table 1**  
**Distribution of the respondents by demographical information**

Age	Frequency	Percentage (%)
18-20	10	8.3
21-30	56	46.7
31-40	35	29.2
41-50	15	12.5
51+	4	3.3
Total	120	100

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Sex	Frequency	Percentage (%)
Male	53	44.2
Female	67	55.8
Total	120	100.0

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Marital status	Frequency	Percentage (%)
Single	68	56.7
Married	48	40.0
Others	4	3.3
Total	120	100.0

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Years of Practice	Frequency	Percentage (%)
0-5 years	83	69.2
5-10 years	34	28.3
11-15 years	3	2.5
Total	120	100.0

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Educational Qualification	Frequency	Percentage (%)
Primary	27	22.5
SSCE	7	5.8
OND	14	11.7
HND	27	22.5
B.Sc	36	30.0
Others	9	7.5
Total	120	100.0

Source: field survey (2010)

certificate, 14(11.7%) hold the OND certificate, 27(22.5%) hold the HND certificate, 36(30.0%) hold the B.Sc certificate while 9(7.5%) are holding other certificates.

### 3.2 Hypotheses Testing

**Hypothesis 1:** Entrepreneurs who are high on extroversion will exhibit more innovative behaviour than those who are low on extroversion.

25.2791 of those in the low extroversion group. The hypothesis is therefore accepted.

**Hypothesis 2:** There will be a significant relationship between innovative behaviour and openness.

**Table 3**  
**Summary of Pearson Correlation Showing the Significant Relationship Between Openness and Innovative Behaviour**

Variable	Mean	Std. Dev	N	r	P
Innovative behaviour	27.3417	6.7916	120	.440	.000
Openness	7.8583	2.8441			

Source: field survey (2010)

Table 3 showed that there was a significant relationship between innovative behaviour and openness ( $r=.440$ ,  $N=120$ ;  $P<.05$ ). Hence, openness had a positive influence on the innovative behaviour of entrepreneurs.

## CONCLUSION

Innovation and entrepreneurship are needed in the society as much as in the economy. What we need is an entrepreneurial society in which innovation and entrepreneurship are normal, steady, and continuous. Based on the findings of this study, the following can be concluded:

- Entrepreneurs who were high on extroversion exhibited more innovative behaviour than those who were low on extroversion. The result of the analysis in hypotheses 1 implied that entrepreneurs who are high on the extroversion scale will be more innovative. It confirms the characteristics they possess. They are enthusiastic and curious; always see opportunity where others think is impossible. They are comfortable around people, start conversation, extract/get ideas from discussions held with people.

- Entrepreneurs who are open to experience also exhibited more innovative behaviour, because of their nature and the trait they possess which include appreciation for art, curiosity, adventure, unusual ideas. This means that an entrepreneur who possesses this trait has a natural appreciation for adventure, imaginative, intellectually curious; thereby making them a little bit more innovative. They can put together some of their past experiences and come up with something new from it.

## RECOMMENDATIONS

Based on the findings of this study, the following are recommended:

- To be a successful entrepreneur, an understanding of one's personality is very essential as it aids the ability of making good, meaningful and profitable decisions.
- Entrepreneurs should also endeavour to build and work on the traits which are dominant in them.

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