Entrepreneurship success traits. Do Kenyans possess the desired entrepreneur personality traits for enhanced E-entrepreneurship? Case study of Kenyan students in the people’s republic of China

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Abstract: An individual’s behavior can be determined by the personality traits they possess, which are a description of a set of characteristics that are unique to the individual. Previous analyses have indicated that the Big-5 personality traits (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) predict the likelihood of intention, creation, and success in business ventures (Brandstätter, 2011), while narrow personality traits such as Extraversion and Conscientiousness have also been found to predict the entrepreneurial success more precisely (Rauch & Frese, 2007). This study aimed at finding out if 518 Kenyans possessed the right personality traits that would determine their E-entrepreneurship success or failure in online business ventures. The study also sorts to make
a difference by merging the Big-5 personal traits with self-efficacy, Need for achievement, and Locus of control. To analyze the relationship between personality traits, entrepreneur success, and online business ventures in the Kenyan context, data was analyzed quantitatively through descriptive and inferential analysis with the sample population from Kenyan international students in The People's Republic of China. The results indicate that majority of the students have a high score in openness to experience, Conscientiousness, Neuroticism, Locus of control, and Self-efficacy.

Subjects: Cultural Studies; Politics & Development; Population & Development; Business, Management and Accounting

Keywords: E-entrepreneurship; personality traits; entrepreneur success; big-5; self-efficacy; locus of control; need for achievement

1. Introduction

Entrepreneurs are contributors to the economic growth of a country; therefore, nurturing individual efforts for new business ventures forms great assets, especially to the less developed economies, as discussed by (AI Vodă, N Florea, 2019). From their study, they were able to verify the relationship that is there between Locus of Control, need for achievement, and entrepreneurial intentions among the Romanian youth. There are individual characteristics that determine the ability of an individual to perform and succeed in business or other leadership roles. The core competencies characterized by innate personality traits are what make the differences between success and failure (McMullen & What, 2020). Before we understand the value of entrepreneur personality traits, we should be able to understand how positive traits enhance the chances of a positive economy and how e-commerce plays a big role in our current economic conditions.

The value of E-entrepreneurship is motivated by the large, pervasive adoption of online services and the vast development of virtual families. This is the new way of exercising reach to a vast number of exposed markets and creates opportunities for online market growth (Kraus & Palmer et al., 2019; Mishal Naqvi et al., 2019; Naqvi et al., 2020a). It is relatively easy to set up and maintain an online virtual selling experience through peer to peer selling platforms (Chandna & Salimath, 2018; Naqvi et al., 2020a, 2020b).

For E-entrepreneurship to be considered successful, it has to utilize both the digital network and information technology, which form the adhesiveness and growth in digital societies. These have to be matched with individuals whose character traits generate an environment of success. With the vast levels of technology under exploration, designers and marketers are gambling on this sophistication to grab a greater advantage on a specific niche. (Tonday & Tigga et al., 2018; Yushii et al., 2018). Digital transformation can be well categorized in regards to age or era with an inclination in the acceptance and usage of the current digital world.

All these positive attributes, together with the findings of Global Entrepreneurship Monitor (GEM) data (2017–2018) that more than 50% of entrepreneurs were expected to generate high job opportunities, it is important to understand that the right personality traits that will determine the success of the industry. E-entrepreneurship should be driven by entrepreneurs who are obligated to have certain personality traits that will reduce market risks (Naqvi et al., 2020b; S. P. Kerr et al., 2019). The study will look at personality traits that enhance the success and continuation of E-entrepreneurship within the Kenyan community. To improve on the divergence in success, the focus will be on the Big-5 model, the need for achievement, locus of control, and self-efficacy. Apart from the field experiments, the study will look at previous studies that focused on areas with a high risk of failure in entrepreneurship, especially where venture capital is applied. For a proper analysis, the study utilizes the Trait theory.
Trait Theory (Dispositional Theory)

Trait theory is also known as Dispositional theory and is a way of studying human behaviour and personality. This theory measures a steady pattern in the behaviour of an individual through their emotions, behaviours, and thoughts (Khaled Alyami, 2020). The main reason traits are researched to understand the human personalities which are moulded over time, depending on an individual’s environment and social surrounding. In this study, the focus was on Central traits that define a personality, for example, kindness, common traits that define a culture, for example, bowing degrees in Asian countries and cardinal traits that define an individual assertively, for example, the Pope as a religious symbol.

1.1. Research questions

- What E-entrepreneur personality traits do Kenyan students possess?
- What is the possibility of their E-entrepreneurship initiation, development, and success?

1.2. Purpose of the study

This study aims to find out if there is a relationship between personality traits and the impact on E-entrepreneur business joining and success among Kenyan entrepreneurs. With this in mind, we are guided by the objectives of the study, which include;

- Understanding the relationship between the personality traits and success of E-entrepreneurship.
- It understands the need for personality traits and the urge to develop an E-entrepreneur business.
- Understand the need for personality traits and individuals empowerment.

1.3. Problem statement and need for study

The idea of personality is important in the development of business ventures since the behaviour of entrepreneurs is determined by their personality that eventually determines their success or failure. There are a number of traits that are used collectively to come up with a suitable personality with the Big-5 validated by many psychologists as a taxonomy that covers a large number of personality traits. For E-entrepreneurs to be successful, they need to acknowledge these traits as they influence their behaviour and help them behave rationally for positive business feedback. Each personality should be understood clearly to avoid misinterpretation. For example, the trait of agreeableness calls for friendliness most of the time, but they have to be more analytical in some instances, not sympathetic. Understanding the differences in the personality traits is important in determining the right decision an E-entrepreneur makes for his new venture, sustainability, and success.

2. Literature review

2.1. Related work on personality traits of entrepreneurship

The importance of personality traits in developing E-entrepreneurship is a compelling area of research because of the intensity of its development and the number of people served by the industry. A number of articles have been written to explain the knowledge and evolution of E-entrepreneurship. Information initiated leads to the realization and adaption of new markets (Petch, 2018). Ancient entrepreneurship was based on one-on-one selling as necessitated by demands that stimulated sales, including vigorous door to door campaigns with personality traits that included physical endurance, pleasant appearances, and fluency in speech (Baron and Markman, 2018). This has since progressed significantly to a point where physical contact is insignificant. Competition is rife in most business ventures, and E-entrepreneurship and only the ones with the desired character traits initiate, progress, and become successful.
A constantly changing environment requires an agile innovation process that doesn't relent. It is important to understand the problem your market is facing before you try to innovate a solution for it (Chang & Shu et al., 2020). Having the right mindset, coupled with the relevant questions with the precise target audience, would ensure the right answers are obtained. It is thus important to spend a lot of time thinking before the actualization. Great innovators have an open mind and understand the need for change. The flexibility of any individual connected in this area is crucial since the competition is constantly on the hunt for supremacy.

Many successful innovators have the desired characteristic of being a leader in market innovations. Online trading is perceived to have a great trend in adoption and is seen as the future of businesses. The synergies between e-entrepreneurship and innovations should be harvested to deliver a satisfactory result as many businesses move to meet the expectations of the millennial customers.

According to Sari Pekkala Kerr, William R. Kerr, and Tina Xu, innovation will not achieve much if not fused with personality traits built from psychology, economics, business management, and sociology. The differences in traits, as they found out, are what set apart managers from entrepreneurs, both of whom are entitled to multiple duties and direction of workers. Behaviour is a function of both the person and the environment system.

2.2. Big-5 model
Under this model, an entrepreneur's personality is defined through the measurement of 5 critical factors that include neuroticism, extraversion, conscientiousness, openness, and agreeableness (Jawabri, 2020). This model has been prevailing since the 1980s, with a positive link between the traits and overall job performance.

2.3. Openness to experience
Some studies have reasoned that there is a positive link between openness and creativity. People with a high level of openness are associated with high motivation, which was a great factor in determining an entrepreneur’s creativity. Openness is said to be broad and includes curiosity, imagination, broad mind, and originality. Entrepreneurs associated with openness are intrigued by open-ended and ambiguous tasks. This set of duties has been found to bring out creativity and sensation in broader aspects, and this supports the literature that people with a high degree of openness to experience are associated more with creativity (Buschow & Laugemann, 2020).

Working professionals from Ireland were found to have radical creativity that was positively associated with openness to experience. This trait was also associated with incremental creativity (Xu et al., 2018). From this experiment, it was found that employees trust in co-workers affects their openness to experience and the perception of their own creativity.

2.4. Conscientiousness
This is a combination of achievement motivation and dependability and was found out to be the most important differential between entrepreneurs.

A HELP (High entrepreneurship, leadership, and professionalism) study done among Italian workers concluded that people with a high HELP score were bound to possess higher dominance, readiness, and perseverance in the workplace (Palazzeschi & Bucci et al., 2018). After a classification, it was found that the workers fall under three categories; high, average, and low HELP scores. Through the study, the role of conscientiousness was underscored with its relation to personality traits. Other constructs that are related to this trait include hardworking, rule-abiding, - self-control, responsibility, and orderliness. In a structural model to evaluate the policies that are in support of entrepreneurship, it was discovered that the traits that drive one into entrepreneurship might not necessarily be same advocating for profitability (B H & N W et al., 2019).
example was stated that incentives for small businesses only attracted people with low-quality business ideas but had no effect on talented and reluctant entrepreneurs.

2.5. Extraversion (E)
This trait is a measure of one’s vigour in terms of enthusiasm, energy, activeness, talkativeness, and dominance (Zheng, 2019). For this trait, however, there seems to be no mutual agreement with some surveys denoting the need for e-entrepreneurs to have more since they perform as sales representatives for their products to customers and investors. In order to develop a measure of entrepreneurial alertness (EA) (Liang, 2019), it was found that agri rural entrepreneurs were affected by extraversion as well as openness. This study also brought out the relationship between extraversion and openness in all aspects of EA. In the entrepreneurial world, there tends to be a diversity can be classified as heterogeneous Extraversion is considered a significant and dependable measure when evaluating an entrepreneurs personal traits.

Extraversion and conscientiousness have been found to have a positive impact on the personality traits of entrepreneurs in China (Zhou et al., 2019). In a survey to determine the person-city personality fit, 26,405 Chinese residents were surveyed with an N = 1091 of Chinese entrepreneurs from 42 major Chinese cities. Using a multi-level polynomial regression, it was found out that conscientiousness on an individual level had was positively associated with entrepreneurship success, while individual neuroticism—level and agreeableness had a negative effect on an entrepreneur’s success. Other results included; City-level conscientiousness = success, city-level neuroticism = no success, entrepreneurs with high agreeableness doing businesses in cities with low agreeableness tend to have little success Culture is also a very big determinant on the personality traits of an entrepreneur as it shapes most of a person reasoning. This has a ripple effect on a person’s entrepreneurial traits (Hoyte, 2019).

2.6. Agreeableness and neuroticism (A-, N-)
Entrepreneurs are found to possess these traits in minimal quantities, and the differences between managers and entrepreneurs have been found to be significantly low. Some researchers believe that entrepreneurs don’t have to appease those they work with since they are their own CEOs. Other studies have shown that there is a difference in agreeableness trait when it comes to gender disparity (Bernardino et al., 2018). Earlier studies have shown that agreeableness have a strong influence on entrepreneurs intentions (2017)

2.7. Situations of concern
Although the Big-5 personality traits are largely used for determining character traits, there are instances where they are considered overly general, such that they are not able to predict situation-specific behaviour. This has led to a multidimensional that includes other traits; Self-efficacy and innovativeness, need for achievement. The instances where additional traits are necessary to include:

- Necessity- versus opportunity-driven entrepreneurs
- Generalizations across populations, industry, and culture
- Differences in personality traits for entrepreneurship across environments
- Overly general nature of these macro personality traits

2.8. Self-efficacy and innovativeness
In the current competitive market, the power to manipulate is influenced by flexibility in the innovation of desired products for a particular niche in a timely and attractive way (Newman et al., 2019). E-entrepreneurs with a keen sense of self-efficacy are able to meet their desired goals by staying on top of the market trends. Self-efficacy is the confidence owned by an individual that they are capable of delivering on duties as a consequence of motivation, set goals, and high expectations (Cherry, 2020). High self-efficacy is thus directly associated with the person’s
performance. There are two ways to measure self-efficacy; domain-specific entrepreneurial self-efficacy (ESE), which is more situation oriented and generalized self-efficacy (Pappusamy).

2.9. Locus of control (LOC)
There are two dimensions of LOC; internal and external. People in possession of internal LOC believe that the decisions they take control of their lives (Khushk, 2019). Their understanding is that their skills and efforts can affect outcomes with little consideration of outside factors. Externals, however, are of the view that the environment, chance, and fate are factors, and they have no control over (Anwar & Saleem, 2019). For e-entrepreneurship, internal LOC has been found to be more engaging and appropriate. Many researchers emphasize the need for LOC to be embedded in their studies as it has been found to be very effective in measuring entrepreneurship.

For a successful career in entrepreneurship, the individual should be able to identify opportunities that arise and maximize them to their advantage (E A & Affum-Oselb, 2019).

2.10. Need for achievement (nAch)
Every venture is natured with the expectations for growth and self-sustainability. This trait looks at an individual's desire to accomplish and meet set goals through the mastery of skills and knowledge of the market (Staniewski & Awruk, 2019). This might explain why entrepreneurs would start a business while its time consuming and requires enormous individual abilities. The need for achievement has also been linked to how a venture performs. On a survey to determine the traits of future engineers, the factor of need for independence was found to be very important (Barba-Sánchez & Atienza-Sahuquillo, 2018). This was after the survey was conducted to measure the need for education on the development of entrepreneurship desires among upcoming entrepreneurs.

3. Hypothesis and research model
Starting a business venture is not easy, considering the inputs both physically and mentally. The differences in traits between individuals are the reason why different personalities exist. The degree in possession of traits, therefore, matters and determines who is successful and who is not. The Null hypotheses will be considered as the trait that is desired for the success of E-entrepreneurs (Figure 1).

H1: There are significantly high levels of openness to experience exhibited by E-entrepreneurs in Kenya.

H2: There are significant low levels of conscientiousness exhibited by E-entrepreneurs in Kenya.

H3: There are significantly high levels of Extraversion exhibited by E-entrepreneurs in Kenya.

H4: There are significant low levels of agreeableness exhibited by E-entrepreneurs in Kenya.

H5: There are significant low levels of neuroticism exhibited by E-entrepreneurs in Kenya.

H6: There are significantly high levels of locus of control exhibited by E-entrepreneurs in Kenya.

H7: There are significantly high levels of need for achievement exhibited by E-entrepreneurs in Kenya.

H8: There are significantly high levels of Self-efficacy exhibited by E-entrepreneurs in Kenya.
4. Methodology and data analysis

4.1. Data collection and measurement
This research was designed to generate the dominating character traits new and continuing entrepreneurs. In comparison with other research articles, and analysis was determined by public participation through structured questionnaires on the relevant field. The sample size for the study was derived from 518 students currently studying in various Chinese universities.

4.2. Pilot study
The study was likely to have a couple of problems in both structuring and the language of the questionnaires. For this reason, a preliminary small-scale study was carried out in line with other previous researches to get the real mechanics that would describe the real study in detail. One of the largest expectations was the amount of time the larger study will take to complete. There are other benefits of conducting the pilot study, which includes troubleshooting unforeseen issues and determining the feasibility of the study.

For this study, the intention was to improve on areas that were overlooked while creating research questions through a better questionnaire. The pilot study also helped in the set of hypotheses used in the study as well as in the provision of preliminary results that help determine the direction the study will take. This initial study was done by partners drawn from close associates and students from the school of economics and some more knowledgeable students.

Figure 1. Research model.
from the postgraduate school who were experienced in matters of research and questionnaire drafting. It also offered training to the inexperience of research in this field of study.

4.3. Data collection method
The study was based on a number of constructs, and data was collected and used to generate the study hypothesis. As the questionnaires fronted for the study were distributed online, the convenience sample technique was utilized as it is a non-probability technique that relies on the ease of access and availability of the correspondents at the time of questionnaire dispensation. From the feedback, it was possible to generate reliable information that enabled the analysis of the variables used. Initiatives in the form of group red packets were offered to lure more respondents into engaging in the questionnaire filling, which greatly improved the response rate. The questions used were straightforward to encourage fast filling and discourage giving up. The appropriate questions for the study were derived from the pilot study that was conducted prior to the main survey. This made sure that the study had very focused questions from the criticism and amendments from the pilot study.

From this study, there were suggestions to included more character trait questions and increase the number of questions per contract for the reliability of the outcome. The questionnaire was redone to include more aspects of construct-related questions and partitioned into segments that are logically respondents controlling. The study was also beneficial by increasing the chances of validity and reliability. The questionnaire was in English and made use of a three-section format, as described in the table 1 below.

4.4. Formal study
The study of deliverables from the pilot study enabled a more precise formal study to be conducted after amendments of questions and formats. A total of 518 students were used to give their views on the aspects related to the study. The collection of the main reports for the study was done through social media, WeChat, with questions that corresponded with the eight constructs that were under study; Openness to experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism, Locus of control, Need for achievement, Self-efficacy, and innovativeness. Each of the variables was measured by the corresponding indicators in the form of questions followed by an interpretation to determine the analysis (Table 2).

Gathering of the online data took six days, after which the data from the respondents and analyzed to determine its usefulness to this study. Locus of control (LOC) questions were designed from J.B. Rotter with a generalized view comparing internal and external controls.

Need for achievement questions mainly comprised of achievement motivation scale survey by W.W. Norton.

The self-efficacy survey(SES), a new assessment tool, assessment type questions were derived to determine the ten functions of life; intellectual, family, education. Professional, social, religious, erotic, moral, life, and health. A higher sense of self-efficacy is an indicator of the innovativeness of the individual.

4.4.1. BigFiveInventory-10(BFI-10)
A standardized matrix was adopted from the BFI- 10 with the questions included to develop a more substantial base of personality trait measurement questions. The five-point Likert scales of “Agree” was also utilized (1 = Strongly Disagree … 5 = Strongly Agree) with a quantitative data acquisition approach to develop each variable.

4.5. Data analysis
After collection of data from the corresponds through the questionnaires, there was the need to clean, process, and transform the data to obtain the useful information that is used to make the important decisions regarding the research. For this study, the data was analyzed through
prescriptive analysis, which combines a number of varied analysis methods to come up with the best action plan. The first deployed was the descriptive analysis, which involves analyzing complete data to deliver the mean and deviation for continuous data and percentages and frequencies for categorical data sets. Descriptive analysis is, however, not used on the basis of probability but is used to summarize the sample. It can also be used on a range of data to draw a comparison with a good example being month-to-month sales growth. The second analysis was done through an inferential analysis, where the same data set is used to get different conclusions through the selection of different samples.

4.5.1. Variables
The study is from the Big 5 variables (Openness to experience, conscientiousness, extraversion, agreeableness, neuroticism). For better measurements and stability, we included; self-efficacy and innovativeness, need for achievement, and locus of control. The dependent variable in the study is the entrepreneurial success, which is a measure of the growth in relation to the customer base, profits, customer acknowledgment, goal attainment.

4.6. Validity and reliability of measurement scales
In order to get a substantial and reliable outcome, the study used reliable techniques that had been used before. Partial least square PLS method that is commonly used to measure the proposed hypothesis and is popular even in natural science fields was used. The other advantage is that it can work with a small number of sample size by using the Component-based structural Equation Modeling method. In this study, we used the SmartPLS 3 approach to obtain a two-step procedure for the structure and measurement. For statistical development, we made use of SPSS for calculations with a breakdown from Pearson correlation to determine the relationship between variables

4.6.1. Construct validity
At the beginning of this study, it was appropriate to determine the validity of the constructs to ascertain the relevance. We were able to profess the likelihood of the operation definition of variables included a reflection of the theoretical concepts. Due to the subjectiveness of the constructs, we applied the diverse Likert scale measures, which in turn created a smooth, systematic process of analysis. This test was needed since we were dealing with subjective social science theories. Our validity was done after a pre-test on 15 initial subjects through an administered structured questionnaire.

5. Data analysis and computation
The model used in the research was tested for conformity using the Confirmatory Factor Analysis (CFA) with an estimation from the Maximum Likelihood (M) procedure. Other tests included degree of freedom and Root Mean Square Error of Approximation (RMSEA). We also tested the model for the moderator effect with the gender assigned the role.

On the data representation, Table 3 describes the demographics captured during the study. A total of 518 successful responses were used to gather the data for the experiment.

6. Results and discussions
This study was conducted to determine the personality traits of Kenyan students undertaking various courses in The People's Republic of China in relation to E-entrepreneurship. There is a positive inclination on the personality traits that make a successful entrepreneur as derived from the feedback. Although all our subjects indicated the urge to be independently focused on self-sustenance through business ventures, some of their character traits were not coherent with the uniqueness of business ventures. From the studies, family member's involvement in entrepreneurship has little effect on the individual's choice, and even if it does, the characteristics for proper entrepreneurship are relatively diverse. Our modeling was able to determine that the uncertainties in the development and sustenance of an entrepreneurial venture deprive the few
Table 1. Format of questionnaire

| Constructs                        | Number of questions | Measurement                                           | Interpretation                                                                 |
|-----------------------------------|---------------------|-------------------------------------------------------|---------------------------------------------------------------------------------|
| Openness to experience            | 5                   | 5 Point Likert scale:                                 | Strongly Disagree, Agree 2, Not sure 3, Agree 4, Strongly Agree                 |
| Conscientiousness/work ethics     | 6                   | Strongly Disagree, Disagree, Not sure, Agree, Strongly Agree |                                                                                |
| Extraversion                      | 6                   | Score point: 1b, 2a, 3b, 4b, 5b, 6a, 7a, 8a, 9a       | 5–9, A high score = Internal Locus of Control, 1–4, A low score = External Locus of Control |
| Agreeableness                     | 6                   | True or False questions                                | 22–20: High need for achievement, 19–17: Moderate need for achievement, 16–10: Average need for achievement, < 5: Low need for achievement. |
| Neuroticism                       | 5                   | 5 Point Likert scale:                                 | To calculate a score, the average of all of the responses is taken. A higher score indicates a greater self-efficacy. |
| Locus of control                  | 9                   |                                                        |                                                                                |
| Need for achievement              | 22                  |                                                        |                                                                                |
| Self-efficacy                     | 8                   | 5 Point Likert scale:                                 |                                                                                |

risk takers and are more tolerated by a population that has little to lose in case of negative feedback. This is the main reason some of the subjects would prefer a more realistic and promising venture being employed in the public sector. This model was idealistically convenient in determining the degree of perseverance and success of the subjects.

From the data collected, simple descriptive and inferential analysis is done, and the hypothesis tested using the chi-square with a 5% level of significance.

The Table 4 above is an indication of entrepreneur character traits distribution of the eight traits investigated on 518 Kenyan students in the People’s Republic of China. Out of the eight traits, 5 have more students with the higher scores on the traits; Openness to experience, Conscientiousness, Locus of Control, Neuroticism, and Self-efficacy. The other three traits had a lower score on the traits; Extraversion, Agreeableness, and Need for Achievement.

The need for achievement, according to the survey, was derived at a three-level significance with the most desired of high need for achievement commanding 5% in comparison to the moderate 50% and a low of 45%. This is an outcome of the personality traits study that is inverse to the intentions of our subjects. With the numerical considerations, this is a representation of 26 of the
518 subjects who would be desperate to achieve in a business venture. The rest were statistically and naturally deprived of success related to resilience. On the other hand, the desire to be unique is concealed by the majority of the respondents, which favorably places them on the right path of business success.

The trait of openness was backed by a higher number of respondents indicating that most Kenyan students possessed these desired traits for e-entrepreneurship development and sustenance. Very high openness is an indication of creativity and I.Q that are required to make the trailblazers smart and creative. The perceived entrepreneurship is indicated by the low need for cautiousness for the majority of the subjects, and this is a positively desired trait. Amazingly, from this study, we found that 53.2% (276) of the respondents portrayed negative abilities for efficiency
and organization. Out of the 518, only 242 had a personality trait outcome that is manifested in people who like procedures and orderliness and are more unlikely to start and sustain a business. Entrepreneurs should have low conscientiousness since the process of developing and sustaining a business venture is full of mistakes and surprises and requires a personality trait that can easily break their own rules and make corrections as they move along. On the perceived outgoing personality of the studied group, 38.8% were found to be extraverted with an edge in a trait that determines their abrasiveness on gaining new grounds in terms of their outgoing nature. 57% of the people in this study were determined to be compassionate and friendly in terms of getting along with others. This trait also demonstrates the ability of the holder to make an indecisive decision in order to put the interests of others first. For entrepreneurship, the Agreeableness trait, which is concerned about the care of other people, has to be lower. It is controlled by the compassion that is associated with empathy and emotion towards others, and politeness that deals with the need to abide by interpersonal norms. This trait was found to be more within the respondents and is negative in entrepreneur management.

A positive trait in agreeableness shows a decent relationship with team members and is also associated with transformational leadership skills (Obschonka and Fisch, 2018). On another personality trait, it was discovered that 64.6% of our subjects were confident and inhibited security with less negative emotions. Conditionally, this indicates the high level of tolerance inhibited by the respondents. The remaining 35.6% would probably interpret ordinary situations to portray emergencies with frustrations and hopelessness, bringing with it negative mood swings and despair. The biggest of the personality traits being exhibited by the urge to complete assigned tasks. 62.6% of those interviewed possessed the trait of self-efficacy, making it the biggest of the personality traits studied for this group. This personality trait is mainly related to the complexity of the task in hand and is inversely related. If a task is more difficult, self-efficacy is lowered.

In conclusion, the study established the relationship between the perceived entrepreneurship and the related personality traits among Kenyan students in the People’s Republic of China was supported by 5 out of the eight researched personality traits. This could summarily indicate the reason the sustainability of new businesses is quite low in Kenya. However, the best application of the research would be to use a benchmark society to compare the results.

Inferential analysis

From the 8 hypotheses developed in the study, the T-test method was used to determine the relevance of the results. The results are statistically significant at P < 0.05 at a 5% confidence level.

Openness to experience:

H1: There are significantly high levels of openness to experience exhibited by E-entrepreneurs in Kenya.

| Traits                  | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|-------------------------|---------------------------------------|----------------------------------------|-----------------------------|
| Openness to experience  | 230                                   | 288                                    | 518                         |

T-value:

|                      | t-value | y1  | P          |
|----------------------|---------|-----|------------|
| H1:                  | 8.722   | 0.54| < 0.05     |
Since the p-value is less than 0.05, the hypothesis is accepted. There are significantly high levels of openness to experience exhibited by E-entrepreneurs in Kenya.

**Conscientiousness:**

H2: There are significant low levels of conscientiousness exhibited by E-entrepreneurs in Kenya.

| Traits                       | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|------------------------------|----------------------------------------|----------------------------------------|-----------------------------|
| Conscientiousness/work ethics| 276                                    | 242                                    | 518                         |

**T-value:**

|                      | t-value | y1       | P          |
|----------------------|---------|----------|------------|
| H2:                  | 2.88    | 0.517    | < 0.05     |

Since the p-value is less than 0.05, the hypothesis is accepted. There are significant low levels of conscientiousness exhibited by E-entrepreneurs in Kenya

**Extraversion:**

H3: There are significantly high levels of Extraversion exhibited by E-entrepreneurs in Kenya.

| Traits          | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|-----------------|----------------------------------------|----------------------------------------|-----------------------------|
| Extraversion    | 317                                    | 201                                    | 518                         |

**T-value:**

|                      | t-value | y1       | P          |
|----------------------|---------|----------|------------|
| H3:                  | 1.753   | 0.215    | > 0.05     |

Since the p-value is greater than 0.05 at a 5% level of significance, we reject the hypothesis. There are significantly high levels of Extraversion exhibited by E-entrepreneurs in Kenya.

**Agreeableness:**

H4: There are significant low levels of agreeableness exhibited by E-entrepreneurs in Kenya.

| Traits         | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|----------------|----------------------------------------|----------------------------------------|-----------------------------|
| Agreeableness  | 223                                    | 295                                    | 518                         |

**T-value:**

|                      | t-value | y1       | P          |
|----------------------|---------|----------|------------|
| H4:                  | 2.754   | 0.342    | > 0.05     |
Since the p-value is greater than 0.05 at a 5% level of significance, we reject the hypothesis. There are significant low levels of agreeableness exhibited by E-entrepreneurs in Kenya.

Neuroticism:

H5: There are significant low levels of neuroticism exhibited by E-entrepreneurs in Kenya

| Traits      | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|-------------|----------------------------------------|----------------------------------------|-----------------------------|
| Neuroticism | 335                                    | 183                                    | 518                         |

T-value:

|                | t-value  | y1       | P    |
|----------------|----------|----------|------|
| H5:            | 5.643    | 0.761    | < 0.05|

Since the p-value is less than 0.05, the hypothesis is accepted. There are significant low levels of neuroticism exhibited by E-entrepreneurs in Kenya.

Locus of control:

H6: There are significantly high levels of locus of control exhibited by E-entrepreneurs in Kenya.

| Traits       | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|--------------|---------------------------------------|----------------------------------------|-----------------------------|
| Locus of control | 62                                    | 456                                    | 518                         |

T-value:

|                | t-value  | y1       | P    |
|----------------|----------|----------|------|
| H6:            | 5.125    | 0.691    | < 0.05|

Since the p-value is greater than 0.05 at a 5% level of significance, we reject the hypothesis. There are significantly high levels of locus of control exhibited by E-entrepreneurs in Kenya.

Need for Achievement:

H7: There are significantly high levels of need for achievement exhibited by E-entrepreneurs in Kenya.

| Traits          | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|-----------------|---------------------------------------|----------------------------------------|-----------------------------|
| Need for Achievement | 492                                    | 26                                     | 518                         |

T-value:

|                | t-value  | y1       | P    |
|----------------|----------|----------|------|
| H7:            | 3.254    | 0.593    | > 0.05|

Shimoli et al., Cogent Business & Management (2020), 7: 1847863
https://doi.org/10.1080/23311975.2020.1847863
Since the p-value is greater than 0.05 at a 5% level of significance, we reject the hypothesis. There are significantly high levels of need for achievement exhibited by E-entrepreneurs in Kenya.

**Self-efficacy:**

H8: There are significantly high levels of Self-efficacy exhibited by E-entrepreneurs in Kenya.

| Traits     | Number of respondents low on the trait | Number of respondents high on the trait | Total number of respondents |
|------------|----------------------------------------|----------------------------------------|-----------------------------|
| Self-efficacy | 194                                    | 324                                    | 518                         |

**T-value:**

|                       | t-value | y1  | P     |
|-----------------------|---------|-----|-------|
| H8:                  | 8.443   | 0.7 | < 0.05|

Since the p-value is less than 0.05, the hypothesis is accepted. There are significantly high levels of Self-efficacy exhibited by E-entrepreneurs in Kenya.

Out of the eight hypotheses, five were accepted, and three were rejected. Openness to experience, Conscientiousness, Neuroticism, Locus of control, and Self-efficacy personality traits was found to be of higher degree among the Kenyan students. Extraversion, Agreeableness, and Need for Achievement traits were not of a significant degree for E-entrepreneurship.

**6.1. Implementations**

There are numerous studies done to determine the eligibility of an individual as far as business venturing is concerned. This study can be used to further deduce more complex factors that have not been captured yet, so it can be a good foundation for future researches. The Kenyan government and even the citizens can use the research to determine their strengths and deficiencies in terms of overall personality understandings and device appropriate catch-up strategies.

It will be helpful if this research will be used as a benchmark for scholarly purposes by students proceeding with their thesis and research papers. Comparison between different regions, continents, and other differentials can be utilized to develop an elaborative future study.

**6.2. Study implication**

According to the study, the respondents exhibited the most personality traits that would enable them to venture into the fast-growing e-entrepreneurship. From the government’s point of view, supporting most of their citizens to do online businesses will result in positive feedback with high employment rates and economic growth. On the individual level, new e-entrepreneurs will be able to make their own judgment on their ability to develop and sustain a business venture. Since personality traits are subconscious, they can decide if they will learn to adapt. For example, they can learn to be less agreeable and focus on being tough, skeptical, competitive, and willing to do what they need to do to succeed. It is also wise to note that e-entrepreneurship is an ever-growing industry, and competition is rife therefore needs a strong internal locus of control where they understand that chance is not part of their success, but hard work and determination control everything.

The low need for achievement (492 out of 518) can be attributed to a new industry that has not been considered a possible venture by many respondents. The majority of the respondents had no known family members doing e-entrepreneurship and those who will take the initiative to venture. This will be the first generation of e-entrepreneurs. Four hundred fifty-three respondents were willing to venture into e-entrepreneurship mainly because they have had a chance to experience the success of the industry in a developed economy (China).
6.3. Limitations and future research
This study was carried out on the background of a group of subjects modeled by a specific inherited culture with less diversity on environmental differences. A conclusive study would consider a larger sample from different regions and with less affiliation to a certain educational perspective. Another challenge is associated with the time allocated for the study. Future studies should consider a vast expanse of unlimited time and resources to ensure more varied data is collected. Although the survey includes demographic factors, they were not extensively utilized to get a further breakdown of the sub-divisions of the personality traits. Another issue is related to the non-inclusiveness of the determinants of personality, which is critical during the development of the specific traits. Future studies should include culture, personality influence due to natural factors, academic discrepancies, and political effects. And lastly, data collected will be more useful if benchmarked against a more developed and self-sustaining regime to determine what should or should not be done to enhance entrepreneurial attitude. For example, this Kenyan data can be matched with the Chinese entrepreneur’s personality data for comparison.

6.4. Summary
Personality traits studies are conducted to determine the variability in individuals’ character traits that set them apart in terms of the roles played in the success of a business venture. The Big-5 as mostly used traits use a small set of character traits and, when used together with the other three; Locus of control, Need for achievement, and Self efficacy, bring out more desired personality traits for successful E-entrepreneurs.

A high degree of openness is associated with innovation and is a positive trait for Kenyan E-entrepreneurs. Extraversion is a good trait that entrepreneurs should have as they are assertive and sociable, making them more likely to succeed.

An individual should be aware of the personality traits they possess to determine if they are likely to succeed in business ventures or not. Lack of particular traits can be compensated through learning and adaptation of ideas. Kenyan e = entrepreneurs can learn to be more extroverted, less agreeable, and have a higher need for achievement for better success in their E-businesses.

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