Essentiality of Small Business Owners Neuroticism, and Extroversion with the Influence on Macroeconomy and Bank Risk Microloans in the United States

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Abstract

This study addressed the perceived negative individual characteristics that may precipitate failure of small business owners in securing microloans. The purpose of this quantitative, non-experimental, correlational study is to examine how the neuroticism, and extroversion of small business owners relate to their ability to secure microloans for their business needs in the United States. Goldberg’s Big Two Theory provided a framework for the study, which included a quantitative, survey-based correlational design. Research questions focused on the relationship between neuroticism, and extroversion of the Big Two Theory and the ability of small business owners to secure microloans for their business needs. A sample of approximately 177 small business owners in the United States were recruited to complete an online survey assessing their neuroticism, and extroversion and ability to secure microloans. A binary logistic regression analysis was conducted to address the research aims. The findings of this study imply an overall significant effect of neuroticism, and extroversion on small business owners’ ability to secure microloans and the influence on macroeconomy along with bank risk management after controlling for age, gender, and ethnicity. Individually, out of the neuroticism, and extroversion were found to be not significant and correlated with the ability of the participants to obtain business financing. This study will contribute to the existing practice and has the potential for positive social change among small entrepreneurs through evaluation of the theoretical foundations and assumptions underpinning the study objective.

Keywords: Financial Institution, Business Risk, Business Behaviors, Microfinance.

JEL Classification: M40, M41, M49, M1, G2, G3, G4.

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Background of the Study

Berger, Bouwman, and Kim (2017) provided empirical evidence by conducting a study using novel survey data on U.S. small businesses from 1993-2012 to examine whether small banks are better able to provide financial support to small businesses than large banks. The evidence suggested that small banks’ comparative advantage is strongest when local economic conditions are worse, and that has not deteriorated over time. Small banks continue to alleviate financial constraints for small businesses by providing liquidity insurance to relationship borrowers. Byrd, Ross, and Glackin (2013) conducted an evaluation from small business lending data from 2003 to 2009 collected under the community reinvestment act (CRA); the results of the study suggested that the number of loans and dollars available in credit to small businesses, declined dramatically between 2007 and 2009.
Problem Statement
Small businesses often struggle to secure financing for their financial needs (Krishman et al., 2014). Access to small loans is one of the primary sources of external financing for small businesses, and it is critical for helping small businesses maintain cash flow, hire new employees, purchase equipment, and grow (Mills & McCarthy, 2014).

Purpose of the Study
The purpose of this quantitative, non-experimental, correlational study is to examine how the personality traits of small business owners relate to their ability to secure microloans for their business needs. The independent variables of personality traits are the participants’ levels of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as measured by the Big Two Inventory (John & Srivastava, 1999).

Theoretical Foundation
One theory will serve as the foundation for this research study: the Big Two Theory. The Big Two and concept of the Big Two Theory have been growing for many years. The Big Two are broad categories of personality traits (Goldberg, 1993). Initially derived from Allport’s (1937) seminal list of 4,000 personality traits, the Big Two was a model created to understand the relationship between personality and academic behaviors. Furthermore, other researchers began studying relationships between large numbers of known personality traits. Goldberg (1981) extended the five-factor model of personality to the highest level of the organization and these five domains contain most-known personality traits and represent the basic structure behind all personality traits. Goldman (1981) refined these personality traits in an attempt to understand and explain why individuals make the decisions that they do. Since then, many studies assessed change in the Big Two personality traits (neuroticism, extroversion, openness, conscientiousness, and agreeableness) in different contexts. For the purpose of this study, the Big Two Factor Theory will explain the relationship, if any, between the personality traits of small business owners and their ability to secure microloans for their business needs, controlling for age, gender, and ethnicity (Kasztelnik, 2020).

Nature of the Study
I will use quantitative methodology with a non-experimental, correlational design to conduct this study. The quantitative method involves testing pre-determined hypotheses through statistical analysis of the relationships amongst variables (Johnston et al., 2014). The non-experimental design is appropriate when normal experimental procedures, such as random sampling, random assignment, and experimental manipulation, are not applicable or feasible (Field, 2013).

Research Questions & Hypotheses

**RQ1:** Is there a relationship between the personality traits, and neuroticism of small business owners and the ability to secure microloans for their business needs in the United States?

**H₀₁.** The personality traits do not significantly correlate to neuroticism of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

**H₁₁.** The personality traits do significantly correlate to neuroticism of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

**RQ2:** Is there a relationship between the personality traits, and extroversion of small business owners and the ability to secure microloans for their business needs in the United States?

**H₀₂.** The personality traits do not significantly correlate to extroversion of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

**H₂₁.** The personality traits do significantly correlate to extroversion of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?
Definitions

**Extraversion**: Extraversion is a personality trait that incorporates aspects of an individual such as being talkative, sociable, ambitious, and assertive (Zahra & Wright, 2016). I will measure this continuous independent variable with the Big Two Inventory (John & Srivastava, 1999).

Source: Shutterstock (2021).

**Neuroticism**: Neuroticism is a personality trait that incorporates a tendency to experience frequent and intense negative emotions in response to various sources of stress, the negative emotions, such as anxiety, fear, irritability, anger, and sadness (Barlow et al., 2014). I will measure this continuous independent variable with the Big Two Inventory (John & Srivastava, 1999).

Source: Shutterstock (2021).

**Microfinance institutions**: Microfinance institutions are those financial institutions that specialize in banking services for a low-income group of individuals. These firms provide accounting and financial services to small accounts held by small micro-enterprises. Practically, the rationale for the establishment of micro financial firms is to advance credit to small-scale businesses that would not normally obtain funding from banks (Kozak, 2018).

Source: Shutterstock (2021).

**Microloans**: Microloans are typically very small loans that bear low-interest rates and are usually short term. Lenders extend these loans individuals who are self-employed in micro enterprises or business startups, which have very low capital requirements (Taiwo, Agwu, & Benson, 2016). Participants will indicate whether they were able to secure a microloan and this is the dependent variable of the study.
Personality traits: Personality traits are the distinguishing characteristics of an individual and are the embodiment of an individual. These are the habitual patterns of an individual’s behavior, emotions, and temperament (Hancock, 2016).

Source: Shutterstock (2021).

Social economic status: Social economic status is a combination of the social and economic perspectives that are used to measure the financial and economic position of an individual or an entity. Typically, the social economic perspectives of an individual are revealing the well-being of such individual in terms of creditworthiness and quality of life. Income levels and educational standpoint measure the social economic status of an individual (Hussain, Salia, & Karim, 2018).

Source: Shutterstock (2021).

Working capital: Working capital is a liquidity ratio used to measure the ability of a firm to pay off its current liability using current assets. Deducting current liabilities from current assets reveals working capital (Liang et al., 2016).
Significance to Theory

This study is imperative in adding to the existing literature on the relationship between the personal attributes of entrepreneurs and the ability to secure microloans. The Big Two and concept of the Big Two Theory has been growing for many years. The Big Two are broad categories of personality traits (Goldberg, 1993). The Big Two model suggests that there are certain personality traits that are associated with the amount of unsecured debt and financial assets advanced to entities (Dlugosch et al., 2018). While the current literature has overly focused on the challenges facing microenterprises in sourcing for finance for their enterprises, this study will add to the existing school of thought on effects of personal attributes on the success of small enterprises. Small enterprises have attained difficulties in accessing funding from financial institutions. According to Zahra and Wright (2016), there is a need for more emphasis on the reasons as to why small firms are able to secure microloans while others are unsuccessful (Delanoy & Kasztelnik, 2020). Therefore, this study will be vital in contributing to the current literature on the sustainability of micro enterprises and their potentiality to attain micro credit.

Literature Review

Neuroticism

Neuroticism is the tendency to have emotional instability by demonstrating feelings of fear, sadness, anger and hostility (Farrington, 2012). The personality trait of neuroticism is also the individual experience unpleasant feelings of anxiety, depression, anger, embarrassment and insecurity. Neurotic individuals are prone to display mood swings, emotional instability, and self-consciousness (Farrington, 2012). Displaying this personality trait can cause business owners distress and complicate their navigation of difficult situations (Mabunda et al., 2016).

Antonicic (2015) found that an entrepreneur’s ability for technology acclimation associated with openness to experience, consistent with Farrington (2012), but also with neuroticism; acclimation, in turn, related to the business success.

Extroversion

Extroversion refers to personality traits such as sociability, gregariousness, talkativeness, assertiveness and activity (Mabunda et al., 2016). Extroverts succeed among occupations that require high amounts of social interaction (Farrington, 2012). For example, extroverts are ideal for positions in management and sales, which require people to interact with others and foster relationships (Farrington, 2012). Additionally, extroverts enjoy entrepreneurship because it requires adventure, ambition, risk taking, impulsiveness and self-confidence (Mabunda et al., 2016). Experts consider extroversion a mostly positive personality trait (De Bortoli, da Costa Jr., Goulart, & Campara, 2019; Gambetti & Giusberti, 2017; Pang, Chen, Wang, Hang, Zhang, Lu, & Chen, 2016).

Farrington (2012) concluded that participants who perceived that their business was successful scored higher on positive personality traits such as conscientiousness, openness to experience, and extroversion.

Based on previous research regarding the connection between neuroticism and small business owners’ ability to secure microloans, we developed the following hypothesis:

RQ1: Is there a relationship between the personality traits, and neuroticism of small business owners and the
ability to secure microloans for their business needs in the United States?

H1. The personality traits do not significantly correlate to neuroticism of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

H2. The personality traits do significantly correlate to neuroticism of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

RQ2: Is there a relationship between the personality traits, and extroversion of small business owners and the ability to secure microloans for their business needs in the United States?

H3. The personality traits do not significantly correlate to extroversion of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

H4. The personality traits do significantly correlate to extroversion of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

The lack of credit available for small business owners has caught the attention of many academics and practitioners who have extensively investigated small business owners’ inability to access capital for their business needs (Chen, Hanson, & Stein, 2017; Cole & Sokolyk, 2016; Fracassi, Garmaise, Kogan, & Natividad, 2016). These investigations have led some researchers to examine the relationship between personality traits and small business success (Anwar, Xiao, Fiaz, Ikram, & Younas, 2017; Ayoade, Ogunninge, & Omotayo, 2018; Baluku, Kikooma, & Kibanja, 2016; Viinikainen, Heineck, Böckerman, Hintsanen, Raitakari, & Pehkonen, 2017). However, the literature related to the key variables and concepts demonstrated the need for research that examines small business owners’ abilities to secure business capital.

The following comprehensive review of current (2015 to 2019) literature covers numerous themes to establish the necessary succession for examining personality traits in small business leaders, which correlated to their entrepreneurial success. Because of a dearth in current literature, the search included leadership traits in small business owners along with the Big Two personality traits that are associated with success and failure in small businesses. These guiding topic headings led to a discussion of leadership traits in small business owners (Kasztelnik & Delany, 2020). Reviewed topics include business success and failure, personality traits and motivation in business, gender issues, microloans for small business owners, an association of personality traits with lending options, constructs for predicting small business success, small business entrepreneurs’ access to capital, and expert opinions beyond the Big Two personality traits.

Leadership Traits in Small Business Owners

Leaders of small businesses predominantly focus on their business success. However, as the financial environment continually changes and becomes increasingly difficult to navigate, the leader today must recognize certain facets that can assist with their success (Hazudin et al., 2015; Oyeku et al., 2014; Palazzeschi et al., 2018). Small business leaders must adapt to the ever-changing surroundings and continual advancements in technology, be highly aware of their competition within the same industry or discipline, and partake in multifaceted positions within their company (Berger et al., 2017; Oyeku et al., 2014).

The behaviors required for an entrepreneurial leadership role are evident in many small businesses and may be provisional in determining the leadership qualities of potential persons evaluated for small business loans (Kowalewski, Moretti, & McGee, 2017). For example, individuals considered for leadership positions should be able to understand and assume responsibility for their respective company or business. Small businesses should also recognize required skills, education, and performance expectations of the position (Estedad, Shahhoseini & Hamidi, 2015; Hazudin, Kader, Tarmuji, Ishak, & Ali, 2015; Omorede, Thorgen, & Wincent, 2015). Another facet for the potential leader would be management and leadership knowledge. Such knowledge provides critical development knowledge and experience within the position itself. These tenets promote effectiveness within the organization and align planning procedures for business success.

A leader can cultivate leadership by reviewing different leadership theories to develop leadership qualities (Anwar et al., 2017; Estedad et al., 2015; Omorede et al., 2015). These include the great man theory, which purports that leader can rise when there is a great need. This theory suggests that through the study of great
past leaders, one can learn and emulate the respective skills that attributed to their exceptional abilities of leadership (Chan et al., 2015). Another popular leadership theory is Lewin’s (1998) leadership styles, including the autocratic leader, the Democratic leader, and the laissez-faire leader. According to Lewin (1998), autocratic leaders make all decisions on their own with no consultation with any others. While this leadership style has caused significant discontent in many businesses, leaders may be autocratic when the input from others is just not necessary; i.e., the decision would not change with information from others. The laissez-faire leadership style minimizes the decision-making ability of the leader and allows self-decision from the people involved. The democratic style functions by the formal involvement of many or all parties who have justified reasons for being involved in decision making (Lewin, 1998). This works especially when a close-knit of managers must continuously work together.

Other researchers have examined the role of personality qualities and traits in leadership success. Specific personality qualities that leaders must have include communicating well with subordinates, recognizing the need to improve a facility, addressing revenue loss, and dealing with adversity and change. Some experts believe that more specific personality traits are the measured enhancers that prompt behavior of a small business owner towards success (Kozubikova, Belas, Bilan, & Bartos, 2015; Parks-Leduc, Feldman, & Bardi, 2015; Sackett & Walmsley, 2014). However, some argue that the success of individuals with certain personality traits indicates the need for quality education and leadership ability (Obschonka & Stuetzer, 2017; Robledo, Aran, Martin-Sanchez, & Molina, 2015).

Small Business Access to Capital

Small business lending is defined as the ability for a small business to raise funds through external debt financing (Cole & Sokolyk, 2016; Jagtiani, Kotliar, & Maingi, 2016; Mills & McCarthy, 2014). Experts recognize the contributions of small business as they contribute to the economic growth globally, provide jobs, assist in social cohesion, and minimize poverty in undeveloped nations (Dilger, 2015; Gyimah & Boachie, 2018; Kariv & Coleman, 2015; Neuberger & Rathke-Doppner, 2015; Obebo, Wawire, & Muniu, 2018; Taylor, 2017). Small and Medium-sized Enterprises (SMEs) are continually vulnerable based on limitations for funding potential and are nominally the first to lose business in the event of global or national economic crisis.

Financial capital provides firms with the necessary leverage and fundamentally are situated to enhance, grow, and improve businesses. Krishnan, Nandy, and Puri (2015) conducted a research study that provided evidence that greater access to financing can significantly allow financially constrained businesses to invest in projects that otherwise would not be able to attain. Fracassi, Garmaise, Kogan, and Navidad (2016) conducted a regression research study using data on startup loan applicants from a lender, and the results suggested that startups receiving funding are dramatically more likely to survive, enjoy higher revenues, and create more jobs than their counterparts that did not.

The primary purpose of the current study is to explore if certain personality traits in entrepreneurs who own small businesses affect the ability to secure microloans for the needs, growth, or expansion of their related business. The literature examined in Chapter 2 exhibited several themes associated with such effects. Within the competitive business industry of small business ownership, researchers suggested that success in such business ventures was determined based on the owner’s personality (Azucar et al., 2018; Kozubikova et al., 2015; Parks-Leduc, Feldman, & Bardi, 2015; Sackett & Walmsley, 2014) while other experts ventured to claim critical leadership skills beyond personality characteristics in business practices were the predominant means for success (Estedad et al., 2015; Hazudin et al., 2015; Omorede et al., 2015). Personality traits affected entrepreneurial intent (Oyeku et al., 2014; Staniewski et al., 2016; Viinikainen et al., 2017). Such intent itself was considered a trigger for success and consequently attributed to securing a microloan (Anwar et al., 2017; Ayode Ezekiel et al., 2018; Chatterje & Das, 2015; Hachana et al., 2018; Leutner et al., 2014; Murugesan & Jayavelu, 2017; Ranwala & Dissanayake, 2016).

Population

The general population of this study will include small business owners in the United States. According to the United States Small Business Administration Office of Advocacy, in 2018 there were 30.2 million small businesses in the United States (Small Business Administration Office of Advocacy, 2018). The research question is focused on the personality traits of business owners in terms of obtaining microloans. Moreover, the variables of interest include personality traits, specifically, the participants’ levels of extraversion, and neuroticism, as well as ability to secure microloans for business owners’ respective businesses. Therefore, the best individuals to obtain data from will be small business owners in the United States.
Data Analysis Plan

It is not known if and how the personality traits of small business owners are related to their ability to secure microloans for their business needs. Microfinance loans have been on the rise since the 1970s. The general problem is that it is not known why some small business owners are able to secure small loans to finance their small businesses while others do not. The specific problem is factors such as perceived negative individual characteristics may precipitate failure of small business owners in securing microloans. The proposed study will address the gap regarding how personality traits relate to small business owners’ ability to secure microloans for their business needs. The following research questions and hypotheses will be addressed in the analysis:

**RQ1:** Is there a relationship between the personality traits, and neuroticism of small business owners and the ability to secure microloans for their business needs in the United States?

**H₀₁.** The personality traits do not significantly correlate to neuroticism of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

**H₁₁.** The personality traits do significantly correlate to neuroticism of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

**RQ2:** Is there a relationship between the personality traits, and extroversion of small business owners and the ability to secure microloans for their business needs in the United States?

**H₀₂.** The personality traits do not significantly correlate to extroversion of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

**H₁₂.** The personality traits do significantly correlate to extroversion of small business owners and the ability to secure microloans for their business needs, controlling for age, gender and ethnicity of the individual seeking the loan in the United States?

Each set trait has subdivisions collected based on the relationship of facets appearing as a sub-level hierarchical aspect of a person’s characteristic traits and are measured by the Big Two Aspect Scale. Figure 1 examples the sub-traits measured under such and are valuable in determining success or failure of small business ventures.

| Neuroticism | Extroversion |
|-------------|--------------|
| Volatility  | Enthusiasm   |
| Withdrawal  | Assertiveness|

**Figure 1. From Big Five Scale – Neuroticism and Extroversion**

Data Preparation and Cleaning

The data were collected in February 2021. An initial total of 267 individuals responded to the survey. Sixty-four respondents did not meet the study eligibility criteria or did not agree to the consent. An additional seven participants did not finish the entire survey, leaving a final total of 196 participants with complete data. There were no missing values among the included 196 participants.

Descriptive Findings

Data were collected for the categorical variables of age, ethnicity, gender, and whether or not the participants had secured a microloan. Frequencies and percentages were computed for these categorical variables. Table 1 displays the characteristics of the sample. The largest proportion of participants were 36-55 years of age ($n = 85, 43\%)$. The majority of participants identified their ethnicity as White ($n = 159, 81\%)$. The sample was approximately evenly split between men ($n = 101, 52\%)$ and women ($n = 95, 48\%)$. Finally, most participants indicated that they did not secure a microloan for their business ($n = 125, 64\%)$.
### Table 1. Sample Characteristics

| Variable          | n  | %    |
|-------------------|----|------|
| Age               |    |      |
| 18-35 years       | 56 | 28.57|
| 36-55 years       | 85 | 43.37|
| 56 or more years  | 55 | 28.06|
| Ethnicity         |    |      |
| Black             | 20 | 10.20|
| Hispanic          | 5  | 2.55 |
| Native American   | 1  | 0.51 |
| Pacific Islander  | 1  | 0.51 |
| White             | 159| 81.12|
| Multi-racial or other | 10 | 5.10 |
| Gender            |    |      |
| Female            | 95 | 48.47|
| Male              | 101| 51.53|
| Secured a microloan? |   |      |
| Yes               | 71 | 36.22|
| No                | 125| 63.78|

Source: Compiled by Authors in SPSS.

### Table 2. Descriptive Statistics for Personality Dimensions

| Variable     | M  | SD  | Min | Max | Skewness | Kurtosis |
|--------------|----|-----|-----|-----|----------|----------|
| Neuroticism  | 2.71| 0.86| 1.00| 4.88| -0.18    | -0.62    |
| Extraversion | 3.37| 0.70| 1.12| 5.00| -0.12    | 0.58     |

Source: Compiled by Authors in SPSS.

The reliability of the items corresponding to the dimensions of the Big Two Inventory was tested by computing Cronbach’s alpha coefficients. Table 3 displays the Cronbach’s alpha for each variable. All Cronbach’s alpha coefficients exceeded .70, indicating that the measures had acceptable reliability.

### Table 3. Reliability for Personality Dimensions

| Variable     | Number of Items | Cronbach’s Alpha |
|--------------|-----------------|------------------|
| Neuroticism  | 8               | .82              |
| Extraversion | 8               | .72              |

Source: Compiled by Authors in SPSS.

An a priori power analysis was conducted using G*Power for two-tailed binary logistic regression. The power analysis was conducted based on a power of 80%, a medium effect size (odds ratio = 1.72), and a 5% level of significance. The minimum required sample size based on these parameters is 177. A post hoc power analysis conducted in G*Power showed that the achieved power of the study with a sample of 196 participants was .84.
Assumption Testing

Before interpreting the results of the regression, the assumptions of binary logistic regression were assessed. The first assumption of binary logistic regression is that the dependent variable is dichotomous. This assumption was tested using the Box-Tidwell test, which involves testing if there are any significant interactions between the continuous independent variables and the log-transformed values of the independent variables. None of the interactions were significant (all $p$-values $> .05$; see Table 4), indicating that the assumption was met.

Table 4. Regression Coefficients Computed for Box-Tidwell Test

| Variable                     | $B$   | $SE$  | $\chi^2$ | $p$    | OR    |
|------------------------------|-------|-------|----------|--------|-------|
| Neuroticism                  | 3.35  | 2.66  | 1.58     | 0.209  | 28.40 |
| Extraversion                 | 4.06  | 4.28  | 0.90     | 0.343  | 57.82 |
| Neuroticism x LN(Neuroticism)| -1.97 | 1.35  | 2.15     | 0.143  | 0.14  |
| Extraversion x LN(Extraversion)| -1.79 | 1.95  | 0.84     | 0.359  | 0.17  |

Notes. LN () indicates the log-transformed value of the variable in parentheses.

Source: Compiled by Authors in SPSS.

All variance inflation factors were below 2, indicating that there was no severe multicollinearity present in the data.

Table 5. Variance Inflation Factors for Binary Logistic Regression

| Variable     | Variance Inflation Factor |
|--------------|--------------------------|
| Neuroticism  | 2.54                     |
| Extraversion | 1.31                     |

Source: Compiled by Authors in SPSS.

The omnibus test of model coefficients for the overall regression model is presented in Table 6. The results for the overall regression model were significant, $\chi^2(9) = 52.87$, $p < .001$. These results indicate that collectively the independent variables and covariates significantly predicted participants’ ability to secure microloans.
Table 6. Omnibus Test of Model Coefficients

| Test | $\chi^2$ | df  | $p$   |
|------|---------|-----|-------|
| Model| 52.87   | 9   | < .001|

Source: Compiled by Authors in SPSS.

Research Question 1

The regression coefficient for neuroticism was not significant ($B = -0.58$, $p = .071$). This indicates that neuroticism was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis ($H_0$1) was not rejected. A post hoc power analysis conducted in G*Power showed that the achieved power of this analysis with a sample of 196 participants was .84.

Research Question 2

The regression coefficient for extraversion was not significant ($B = 0.20$, $p = .490$). This indicates that extraversion was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis ($H_0$2) was not rejected. A post hoc power analysis conducted in G*Power showed that the achieved power of this analysis with a sample of 196 participants was .84.

A binary logistic regression was conducted to address the research questions. For Research Question 1, the results indicated that neuroticism was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis ($H_0$1) was not rejected. For Research Question 2, the results indicated that extraversion was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis ($H_0$2) was not rejected.

Interpretation of Findings

The trait of neuroticism and its relation to small business owners’ ability to secure microloans formed the basis of the first research question. Neuroticism was not significantly correlated with the small business owners’ abilities to secure financing for their small businesses after controlling for age, gender, and ethnicity. This result of the first research question differed from relevant findings of studies related to neuroticism and entrepreneurial success. For example, in a previous study, Hachana et al. (2018) observed a negative association between entrepreneurs with high level of neuroticism and entrepreneurial success in Tunisia. Similarly, in a study with microenterprise owners in Uganda, Baluku et al. determined that behavioral attributes related to neuroticism, such as low self-esteem, anxiety, and fear of failure, made these individuals less suited for sustaining and growing their businesses (Baluku et al., 2016). In case of small- and medium-scale enterprise owners, neuroticism was negatively linked with entrepreneurial commitment (Ayoade et al., 2018). Although the results of these studies demonstrate that neuroticism and the associated actions of individuals have a negative relation with business activities, the findings of the present study did not show any significant correlation of this personality trait with the ability to secure microloans for businesses.

The second research question of this study involved the relationship between extraversion and small business owners’ ability to secure financial aid. After controlling for age, gender, and ethnicity, the personality trait of extraversion was not significantly correlated with the ability to secure microloans. This result was in partial alignment with previous findings on the correlation between extraversion and entrepreneurial aspects. Extraversion has been studied by numerous scholars as a moderating factor in various entrepreneurial relationships. Inconsistent with the present study, Baluku et al. (2016) found that in the Big Two model, only extraversion moderated the relationship between start-up capital and entrepreneurial success, and Ayoade et al. (2018) obtained a positive correlation between extraversion and entrepreneurial commitment. In a study with creative entrepreneurs from China, the findings revealed that a moderate level of extraversion is the most suited for entrepreneurs’ creativity (Gao et al., 2020), which might suggest an advantage in receiving lending. In contrast, Hachana et al. (2018) observed that extraversion and entrepreneurial success were not significantly related, which supports the present study’s findings. The results of the present study did not indicate a significant relationship between extraversion and small business owners’ ability to secure financial aid for their businesses, which aligns with some previous works related to extraversion and entrepreneurship.
Recommendations

Small- and medium-scale business are major contributors to the national economy (Mares & Dlasková, 2016) and further quantitative as well as qualitative investigations are essential in determining the relationship between financing of these businesses and the attributes of business owners. As a future research direction, the sample population could be made more extensive to ensure the results are generalizable. For instance, including the region of inhabitation of the participants on the survey and ensuring that the final sample comprises individuals from different parts of the country in a decent proportion would provide a more comprehensive picture. This could, to a certain extent, enable the examination of the role of the immediate society in the relationship between personality traits of small business owners and their ability to secure microloans. To be more inclusive, the binary option of gender identity could be replaced by a model which includes participants who do not identify as either male or female. Not only would this ensure that a higher number of individuals choose to voluntarily participate in the study, the study sample would also consist of a larger demographic, which would, in turn, help obtain a more accurate answer to the research questions at hand. Additionally, the inclusion of a more diverse population would facilitate the investigation of the perspective of these individuals as to how their gender moderates the relation between their personality traits and their ability to secure microloans for their businesses.

Implications

Small businesses largely depend on external financing such as bank loans in order to successfully launch, sustain, and grow their enterprises (Berger & Udell, 2002; Ramcharran, 2017). Considering the significance of securing microloans, understanding the correlation between the business owners’ personality and their ability to secure these loans is imperative toward ensuring that they are successful in their financing ventures. Because of the extensive research connecting Big Two personality traits to various measures of entrepreneurial performance, connecting the personality traits to aspects intrinsically necessary for business success seems to be a logical next step in understanding the connections between Big Two personality traits and entrepreneurship.

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