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The Effects of Personality on Obtaining Microloans for Small Business Owners in the United States

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Walden University

College of Management and Technology

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Luis Moncayo

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Walden University
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Abstract

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by

Luis Moncayo

MBA, Benedictine University, 2014

BA, Benedictine University, 2012

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Management

Walden University

October 2021

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, nonexperimental, correlational study was to examine how the personality traits of small business owners related to their ability to secure microloans for their business needs. Goldberg's big five theory provided a framework for the study and aided in forming the research questions focused on the relationship between personality traits of the big five theory and the ability of small business owners to secure microloans for their business needs. A sample of 196 small business owners in the United States were recruited to complete an online survey assessing their personality traits 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 personality traits on small business owners' ability to secure microloans after controlling for age, gender, and ethnicity. Individually, out of the big five personality traits, only agreeableness was found to be significantly negatively correlated with the ability of the participants to obtain business financing. This study contributes 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.

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Dedication

I dedicate my dissertation work to God, my two children and my mother who give me encouragement during this journey. A special feeling of gratitude to my loving mother, Patricia whose words of encouragement and push for tenacity ring in my ears. I also dedicate this dissertation to other family and friends who supported me throughout the process. I will always appreciate all they have done. I dedicate this work and give special thanks to my parents who always encouraged me to go above and beyond in everything I do, their inspiration have me the will to help me achieve such wonderful degree and proof that I ca do everything I put my mind into.

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Table of Contents

List of Tables	v
List of Figures	vi
Chapter 1: Introduction to the Study.....	1
Background of the Study	1
Problem Statement	4
Purpose of the Study	5
Research Questions and Hypotheses	5
Theoretical Foundation	9
Nature of the Study	11
Definitions.....	11
Assumptions.....	14
Scope and Delimitations	14
Limitations	15
Significance of the Study	15
Significance to Theory	15
Significance to Practice.....	16
Significance to Social Change	16
Summary and Transition.....	16
Chapter 2: Literature Review	18
Literature Search Strategy.....	19
Theoretical Foundation	19

The Big Five Personality Traits	20
Neuroticism.....	22
Extraversion	23
Agreeableness	24
Conscientiousness	25
Openness to Experience	26
Application to the Proposed Study	28
Review of the Literature Related to Key Concepts and Variables	32
Leadership Traits in Small Business Owners	33
Big Five Personality Traits and Motivation in Business	35
Big Five Personality Traits Associated with Business Success and Failure.....	37
Small Business Access to Capital	42
Importance of Microloans for Small Business Owners	45
Factors Influencing Small Businesses’ Receipt of Microloans	46
Summary and Conclusions	51
Chapter 3: Research Method.....	54
Research Design and Rationale	54
Methodology	56
Population	56
Sampling and Sampling Procedures	57
Procedures for Recruitment, Participation, and Data Collection.....	58
Instrumentation and Operationalization of Constructs	59

Data Analysis Plan	61
Data Preparation and Cleaning	64
Descriptive Statistics	64
Inferential Statistics	65
Threats to Validity	66
External Validity	66
Internal Validity	66
Construct Validity	67
Ethical Procedures	68
Summary	69
Chapter 4: Results	70
Data Preparation and Cleaning	72
Descriptive Findings	73
Assumption Testing	76
Hypothesis Testing.....	78
Research Question 1	83
Research Question 2	83
Research Question 3	84
Research Question 4	84
Research Question 5	84
Summary	85
Chapter 5: Discussion, Conclusions, and Recommendations	86

Interpretation of Findings	87
Neuroticism.....	89
Extraversion	90
Openness	91
Conscientiousness	91
Agreeableness	92
Limitations of the Study.....	95
Recommendations.....	95
Implications.....	98
Implications for Practice	99
Implications for Theoretical Framework	100
Conclusions.....	101
References.....	103
Appendix A: G*Power Sample Calculation	121
Appendix B: Big Five Inventory.....	122

List of Tables

Table 1. Sample Characteristics.....	74
Table 2. Descriptive Statistics for Personality Dimensions.....	75
Table 3. Reliability for Personality Dimensions.....	75
Table 4. Regression Coefficients Computed for Box-Tidwell Test	77
Table 5. Variance Inflation Factors for Binary Logistic Regression	78
Table 6. Omnibus Test of Model Coefficients.....	81
Table 7. Model Summary	82
Table 8. Classification Table	82
Table 9. Regression Coefficients for Binary Logistic Regression Predicting Ability to Secure Microloans	83

List of Figures

Figure 1. Big Five Scale.....	21
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Chapter 1: Introduction to the Study

Small businesses play a key role in the advancement of economic frameworks and in enhancing social well-being of owners. However, small business owners continue to face imminent challenges arising from access to capital. Accessing credit from financial institutions has proven to be challenging for small business owners (Krishnan et al., 2014). Therefore, it is invaluable to understand the challenges faced by small business owners in accessing credit. Microfinance institutions apply business owners' personal attributes to assess the suitability of such individuals in the advancement of a microloan. The purpose of this study was to evaluate the effects of microloans on small business owners in the rural United States. This study contributed to the existing practice and has the potential for positive social change among small entrepreneurs by evaluating the theoretical foundations and assumptions underpinning the study objective.

Background of the Study

Scholars have researched various matters relating to microfinance. These studies cover the roots of microfinance, observed trends in the microfinance industry, the factors that have caused these trends, and the financial implications of these monies on the recipients and the economies in which they exist. The scholarly works have also depicted real-life situations as case studies and examples to illustrate the effects of microfinance while using figures to illustrate the implications and trends.

Berger et al. (2017) provided empirical evidence by conducting a study using novel survey data on U.S. small businesses from 1993 to 2012 to examine whether small banks are better able to provide financial support to small businesses compared to large

banks. The evidence suggested that small banks' comparative advantage is strongest when local economic conditions are worse. Small banks continue to alleviate financial constraints for small businesses by providing liquidity insurance to relationship borrowers. Byrd et al. (2013) evaluated small business lending data from 2003 to 2009 collected under the Community Reinvestment Act (CRA); the study results suggested that the number of loans and dollars available in credit to small businesses declined dramatically between 2007 and 2009.

DeYoung (2015) provided a retrospective evaluation of recent research studies conducted in the United States to determine who bore the most risk when funding small businesses. Risks associated with lending to small businesses are usually spread over three sectors (entrepreneurs, bank lenders, and taxpayers), and the level of risk-bearing varies depending on the current business cycle. Overall, risk levels are lower when bank-borrower relationships are stronger. Krishnan et al. (2014) provided evidence that greater access to financing can significantly allow financially constrained businesses to invest in projects that they otherwise would not be able to attain. Fracassi et al. (2016) conducted a regression research study using data on startup loan applicants from a lender; 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.

Banerjee et al. (2015) provided evidence of the effect of microfinance by examining the financial situations of the data sample before and after they had access to microfinancial resources. The analysis provided the background of the financial situations before the onset of microfinance. Similarly, Beck et al. (2017) gave empirical

evidence to show that relationship lending alleviates credit constraints during a cyclical downturn. The positive effect of relationship lending in an economic downturn is strongest for smaller firms in regions where the drop is more severe. Researchers have studied personality factors in the field of management, although not from actions surrounding finance (Barrick & Mount, 1991).

Mares and Dlasková (2016) concluded that small businesses are vital for the national economies of all countries. As such, credit exposure, in part, determines the success of small- and medium-sized enterprises (Mares & Dlasková, 2016). However, other factors, such as motivation, growth expectancy, access to funds, consultancy, and business obstacles, can also affect business success. While various researchers concluded that the success of small business owners is their ability to secure capital, entrepreneurs could rely on trust and self-discipline as preconditions to secure capital for their businesses (Amatego & Caesar, 2017). Entrepreneurial personality traits related to business success were high emotional stability, openness to experience, and conscientiousness (Hachana et al., 2018). Furthermore, startup capital, agreeableness, and extraversion positively predicted entrepreneurial success, while neuroticism negatively predicted entrepreneurial success (Baluku et al., 2016). However, extraversion moderated the relationship between startup capital and entrepreneurial success, highlighting the importance of interpersonal skills in small businesses. Personality dimensions—such as self-efficacy, need for achievement, entrepreneurial alertness, and business planning—when combined with financial capital and resources and entrepreneurial orientation are highly associated with business creation and success (Frese & Gielnik, 2014).

Despite the previous research regarding personality traits as predictors of success in small businesses (Baluku et al., 2016; Frese & Gielnik, 2014; Mares & Dlasková, 2016), there remained a gap in the literature regarding the personality traits of small business owners and their ability to secure microloans (Hachana et al., 2018). Hachana et al. (2018) recommended that future researchers use a qualitative approach to explore how personality traits can explain the success and failure of entrepreneurial ventures. Additionally, Baluku et al. (2016) suggested examining the moderating effects of conscientiousness and neuroticism on the relationship between startup capital and entrepreneurial success. As such, this study focused on examining how the personality traits of small business owners relate to the ability to secure microloans for their business needs.

Problem Statement

Small businesses often struggle to secure financing (Krishnan et al., 2014). Access to small loans is one of the primary sources of external financing for small businesses. Loans are critical for helping small businesses maintain cash flow, hire new employees, purchase equipment, and grow (Mills & McCarthy, 2014).

It was not known if and how the personality traits of small business owners were related to their ability to secure microloans for their business needs. Microfinance loans have been on the rise since the 1970s, becoming an important developmental tool for assisting small businesses in times of need. The general problem was that it was not known why some small business owners can secure small loans to finance their small businesses while others cannot. The specific problem was that factors such as perceived

negative individual characteristics might precipitate the failure of small business owners in securing microloans. The study filled the gap in the literature, revealed through a synthesis and review of published scholarly research in Chapter 2, by focusing on the recommendations of previous research. Particularly, Hachana et al. (2018) and Baluku et al. (2016) suggested that researchers explore how personality traits can explain the success and failure of entrepreneurial ventures and examine the moderating effect of conscientiousness and neuroticism on the relationship between startup capital and entrepreneurial success. The study addressed the gap regarding how personality traits relate to small business owners' ability to secure microloans for their business needs.

Purpose of the Study

The purpose of this quantitative, nonexperimental, correlational study was 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 were the participants' levels of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as measured by the Big Five Inventory (John & Srivastava, 1999). The definition of the dependent variable was whether the participants could secure microloans for their business needs. The study controlled for demographic indicators of age, gender, and ethnicity. The sample was small business owners who lived in the United States. I used Survey Monkey Audience to solicit participants who met these criteria.

Research Questions and Hypotheses

The following research questions and hypotheses were addressed in this study:

Research Question 1: Is there a relationship between the personality traits and neuroticism of small business owners and the ability to secure microloans for their business needs?

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.

H_a1. 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.

Research Question 2: Is there a relationship between the personality traits and extraversion of small business owners and the ability to secure microloans for their business needs?

H₀2. The personality traits do not significantly correlate to extraversion 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.

H_a2. The personality traits do significantly correlate to extraversion 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.

Research Question 3: Is there a relationship between the personality traits and openness of small business owners and the ability to secure microloans for their business needs?

H₀₃. The personality traits do not significantly correlate to openness 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.

H_{a3}. The personality traits do significantly correlate to openness 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.

Research Question 4: Is there a relationship between the personality traits and conscientiousness of small business owners and the ability to secure microloans for their business needs?

H₀₄. The personality traits do not significantly correlate to conscientiousness 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.

H_{a4}. The personality traits do significantly correlate to conscientiousness 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.

Research Question 5: Is there a relationship between the personality traits and agreeableness of small business owners and the ability to secure microloans for their business needs?

H₀₅. The personality traits do not significantly correlate to agreeableness 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.

H_{a5}. The personality traits do significantly correlate to agreeableness 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.

I defined the independent variables of personality traits as the participants' levels of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as measured by the Big Five Inventory (John & Srivastava, 1999). The dependent variable was whether the participants were able to secure microloans for their business needs. I controlled for the demographic indicators of age, gender, and ethnicity. The personality traits stemmed from the big five. Specifically, neuroticism is a personality trait that incorporates a tendency to experience frequent and intense negative emotions in response to various sources of stress, such as anxiety, fear, irritability, anger, and sadness (Barlow et al., 2014). Extraversion is a personality trait that incorporates aspects of an individual such as being talkative, sociable, ambitious, and assertive (Zahra & Wright, 2016). Openness to experience is an attribute that characterizes an individual who is willing to embrace novel experiences and ideas (Allen & DeYoung, 2017). Conscientiousness is the characteristic of individuals who are dependable and demonstrate perseverance and hardwork. Individuals associated with this attribute are overly anxious, worried, embarrassed, and emotional (John & Srivastava, 1999). Finally, agreeableness characterizes people who are trusting, courteous, cooperative, forgiving, tolerant, and soft-hearted (Hancock, 2016).

Theoretical Foundation

One theory served as the foundation for this research study: the big five theory. The big five and concept of the big five theory have been growing for many years. The big five are broad categories of personality traits (Goldberg, 1993). Derived from Allport's (1937) seminal list of 4,000 personality traits, the big five 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. These five domains comprise the most-known personality traits and represent the basic structure behind all personality traits. Goldberg refined these personality traits to understand and explain why individuals make the decisions they do. Since then, many studies assessed change in the big five personality traits (neuroticism, extraversion, openness, conscientiousness, and agreeableness) in different contexts. For the purpose of this study, the big five-factor theory explained 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.

The big five factor theory aligned with the notion that small business owners' personality traits may directly affect their ability to secure financing for their business. Personal traits of small business owners are important in determining their suitability to receive credit from lenders and financial institutions. Generally, economists have emphasized the specific attributes of entrepreneurs in the determination of their ability to

secure loans and their potential to repay the loans (McGuinness & Hogan, 2016). Furthermore, lenders have focused on the relationship between entrepreneurs' personal attributes and finances. The big five model is imperative in the determination of the economic outcomes of entities. This theoretical framework was applicable in determining the role of personality traits in entrepreneurs' and financial lenders' outcomes and actions.

Theorists of the five-factor model suggest that certain personality traits are associated with the amount of unsecured debt and financial assets advanced to entities (Dlugosch et al., 2018). The application of the big five allows lenders and financiers to determine if the entrepreneurs in question will be able to service credit advanced to them. Personality traits, such as extraversion and openness to a certain level of experience, are correlated with personal finances (Eddleston et al., 2016). From these perspectives, entrepreneurs who possess these attributes will most likely manage their personal finances better than those who do not. The big five model provided a general framework for examining the effects of personality traits and the potentiality of such individuals to become entrepreneurs.

Theoretical analysis of the big five personality traits showed the rationale for entrepreneurs making the decisions and their ability to handle personal finances. In contrast, small business owners faced imminent difficulties obtaining finances for their microenterprises since many lenders are reluctant due to the risk involved (Rostamkalaei & Freel, 2017). Essentially, the big five personality traits enable lenders to assess the suitability of entrepreneurs to get microfinance loans. Therefore, the big five-factor

theory collaborated with the proposition that the personality traits of small business owners had a bearing on their ability to secure finances for their enterprises.

Nature of the Study

I used quantitative methodology with a nonexperimental, correlational design to conduct this study. The quantitative method involves testing predetermined hypotheses through statistical analysis of the relationships among variables (Johnston et al., 2014). The nonexperimental design is appropriate when normal experimental procedures, such as random sampling, random assignment, and experimental manipulation, are not applicable or feasible (Field, 2013). Because of the lack of randomly assigned groups and the inability to manipulate variables, this design was appropriate for the present study. Researchers use correlational design when relational inferences rather than causal inferences are made. I used this methodology and design to collect and analyze objective data using the big five inventory (John & Srivastava, 1999) and a demographic questionnaire to answer the research questions. The collected data represented the demographic indicators, as well as the independent variables of personality traits and the dependent variable of ability to secure microloans. A binary logistic regression generated the answers to the research questions.

Definitions

Agreeableness: Agreeableness characterizes people who are trusting, courteous, cooperative, forgiving, tolerant, and soft-hearted (Hancock, 2016). I measured this continuous independent variable with the Big Five Inventory (John & Srivastava, 1999).

Conscientiousness: Conscientiousness is the characteristic of individuals who are dependable and demonstrate perseverance and hardwork. Individuals who are associated with this attribute are overly anxious, worried, embarrassed, and emotional. Emotionally stable people are more likely to be robust entrepreneurs due to their high tolerance for stress. I measured the continuous independent variables with the Big Five Inventory (John & Srivastava, 1999).

Creditworthiness: Creditworthiness is the judgment of a creditor on an entity's current and future potentiality and their inclinations to honor debts as agreed upon by the lender. Credit history, the character of an entity, and credit rating typically influence creditworthiness (Liang et al., 2016).

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

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

Openness to experience: Openness to experience is an attribute that characterizes an individual who is open to novel experiences and ideas. Individuals open to experiences are imaginative, reflective, and innovative (Allen & DeYoung, 2017). As it was a

continuous independent variable, I measured openness to experience with the Big Five Inventory (John & Srivastava, 1999).

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

Microloans: Microloans are typically very small loans that bear low-interest rates and are usually short-term. Lenders extend these loans to individuals who are self-employed in microenterprises or business startups, which have low capital requirements (Taiwo et al., 2016). Participants indicated whether they were able to secure a microloan, and this was 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 traits are the habitual patterns of an individual's behavior, emotions, and temperament (Hancock, 2016).

Social-economic status: Social-economic status is a combination of the social and economic perspectives used to measure the financial and economic position of an individual or an entity. Typically, the individuals' social-economic perspectives reveal their well-being in terms of creditworthiness and quality of life. Income levels and educational standpoint measure the social-economic status of an individual (Hussain et al., 2018).

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).

Assumptions

The rationale for carrying out the study was to evaluate the implications of personal traits on the ability of small business owners in the rural United States to obtain capital for their business. I assumed that those small business owners located in the rural regions of the United States would be more interested in using the provided information in their businesses. I assumed that small business owners in the rural United States would want to use the information provided to understand the impact of personality traits and funding. I also assumed that the participants responded to the survey questions in an honest manner. I informed participants that their participation was strictly voluntary and that their individual responses were not linked back to them; thus, response bias was limited.

Scope and Delimitations

The scope of this study involved the ability of small business owners to obtain funding from financial institutions and how that related to the personal attributes of small business owners. The scope of the study covered small business owners in the rural United States and excluded those not in rural areas. Additionally, I limited the study to the big five inventory measures of personality traits, as well as the business owners' age, gender, and ethnicity. The study included no other aspect of the business or business owner.

Limitations

The study applied the quantitative approach in data collection to determine the statistical relationship between the personality traits of individuals and their ability to secure loans. While this approach allowed for examining variables, which may have a bearing on the likelihood of small business owners to attain credit, it did not give a general representation of the participants' perspectives as a qualitative approach would. Additionally, using a nonexperimental design meant that the study was limited in the application of inferences, as researchers cannot make causal inferences in nonexperimental studies.

Significance of the Study

Significance to Theory

This study was imperative in adding to the existing literature on the relationship between the personal attributes of entrepreneurs and the ability to secure microloans. The big five and concept of the big five theory have been growing for many years. The big five are broad categories of personality traits (Goldberg, 1993), with the model suggesting that certain personality traits are associated with the amount of unsecured debt and financial assets advanced to entities (Dlugosch et al., 2018). While the current literature had overly focused on the challenges facing microenterprises in sourcing for finance for their enterprises, this study added to the existing school of thought on the effects of personal attributes on the success of small enterprises. Small enterprises have faced difficulties in accessing funding from financial institutions. According to Zahra and Wright (2016), there was a need for more emphasis on the reasons as to why some small

firms can secure microloans while others are unsuccessful. Therefore, this study was vital in contributing to the current literature on the sustainability of microenterprises and their potentiality to attain microcredit.

Significance to Practice

This study enabled business owners to better understand the implications of their personal attributes on their ability to secure funding for their microenterprises (Chen et al., 2017). In addition, the results emphasized the individual skills and attributes that are imperative in the success of microenterprises. Furthermore, the study allowed microenterprises to reevaluate their personal attributes when seeking microloans.

Significance to Social Change

This study may contribute to the improvement of social-economic conditions of small business owners in rural settings. The study may be imperative in affecting positive social change, leading to improved quality of life. In turn, small business owners may see the importance of behavioral change, which adds more value to their business as well as improves their economic positions.

Summary and Transition

The theoretical perspectives analyzed herein illustrate that the personal attributes of small business owners have a bearing on their ability to secure funding from financial institutions (Dlugosch et al., 2018). The insight from the analysis showed a need for a positive social change among investors and small business owners to attain microloans from financial institutions. The purpose of this quantitative, nonexperimental, correlational study was to explore how the personality traits of small business owners

related to their ability to secure microloans for their business needs. The scope of the study included small business owners in rural locations of the United States. I collected data using a survey-based nonexperimental design and analyzed the data using a binary logistic regression.

Chapter 2 will contain an exhaustive review of the literature pertaining to the key concepts and variables under investigation. Chapter 3, the methodology chapter, details the research design and the nature of the present study. Chapter 4, the results, will include an overview of the findings from the data collection process. Finally, Chapter 5 will include a discussion of the findings, recommendations for further research, and implications for practice.

Chapter 2: Literature Review

Small businesses often struggle to secure financing for their financial needs (Krishnan et al., 2014). While some concrete elements, like credit score and personal finance history, influence funding (McGuinness & Hogan, 2016), it is not known whether and how personal characteristics influence why some small business owners are able to secure small loans to finance their small businesses while others do not. This study addressed the gap in the literature by extending the work of Baluku et al. (2016) and Hachana et al. (2018), who recommended that future researchers explore how personality traits might explain the success and failure of entrepreneurial ventures as well as examine the moderating effect of conscientiousness and neuroticism on the relationship between startup capital and entrepreneurial success.

The specific problem was that factors such as perceived negative individual characteristics may precipitate the failure of small business owners in securing microloans. The purpose of this quantitative, nonexperimental, correlational study was to examine how the personality traits of small business owners related to their ability to secure microloans for their business needs. The independent variables of personality traits were the participants' levels of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as measured by the Big Five Inventory (John & Srivastava, 1999). The dependent variable was whether participants were able to secure microloans for their business needs. I controlled for the demographic indicators of age, gender, and ethnicity.

This chapter will briefly discuss the history of microloans and the big five theory. The literature search strategy, theoretical foundation, literature review, and conclusions

follow. In all, this chapter provides a foundation of knowledge for the study and a rationale for conducting the research.

Literature Search Strategy

During the initial stages of this study, I researched the history of microlending in small businesses. Next, I focused on personality traits, specifically the seminal work of Goldberg (1993) with the big five theory of personality. I reviewed peer-reviewed articles from Walden University library databases, including ABI/INFORM, Business Source Complete, Emerald Insight, SAGE Journals, Science Direct, ProQuest, EBSCOhost, and Google Scholar. A combination of keywords related to concepts in the literature were used: *microfinance, microloans and small business, personality traits and loans, personality traits and SME success, personality traits and obtaining capital, entrepreneurship and personality traits, and microloans and developing countries*. The majority of the articles used in this research were published within the last 5 years.

Theoretical Foundation

The theoretical foundation for the present study was the big five theory of personality. The big five theory indicates that five domains of personality exist: neuroticism, extraversion, openness, conscientiousness, and agreeableness. Initially derived from Gordon Allport's (1961) seminal list of 4,000 personality traits, the big five was a model created to understand the relationship between personality and academic behaviors. After its inception, other researchers began studying relationships between large numbers of known personality traits.

Using the big five theory to assess executives, Goldberg (1981) indicated that the big five domains contained the most-known personality traits and represented the basic structure behind all personality traits. McCrae and Costa (1987) refined these personality traits to explain individuals' decision-making processes.

The body of literature has led to an established conception of the five personality traits. Experts and scholars have examined the use of the big five from multiple lenses and in various disciplines and industries. Many consider the big five personality traits model, also referred to as OCEAN (openness, conscientiousness, extraversion, agreeableness, and neuroticism), a universal test because it provides a quantifiable means of understanding personality traits. OCEAN measures the degree a person's expression of a particular trait.

The Big Five Personality Traits

In psychology, the big five personality traits are a model of measurement to assist in determining and predicting behaviors and actions based on a person's characteristics. Suggested subcomponents of the big five personality traits considered as part of an established hierarchy of superordinate factors are associated with positive versus negative personality traits (Kozubíková et al., 2018). All five traits are aligned with representing a single level of hierarchy following the lexical hypothesis (Sackett & Walmsley, 2014). Each set trait has subdivisions collected based on the relationship of facets appearing as a sublevel hierarchical aspect of a person's characteristic traits and are measured by the Big Five Aspects Scale. Figure 1 shows the subtraits valuable in determining the success or failure of small business ventures.

Figure 1*Big Five Scale*

Neuroticism	Agreeableness	Conscientiousness	Extraversion	Openness/ Intellect
Volatility	Compassion	Industriousness	Enthusiasm	Openness
Withdrawal	Politeness	Orderliness	Assertiveness	Intellect

Statistical evidence justified aspects currently associated with the big five personality traits (Kozubikova et al., 2015; Parks-Leduc et al., 2015). Contemporarily, many researchers have assessed change in the big five personality traits in different contexts. Farrington (2012) conducted a study to investigate whether a relationship exists between possessing certain personality traits and small business success. The five-factor model of personality, extraversion, conscientiousness, openness to experience, agreeableness, and neuroticism was the focus. The findings show that individuals with high levels of personality traits, such as extraversion, conscientiousness, and openness to experience, are more likely to have successful small businesses. Moreover, Azucar et al. (2018) evaluated how the big five traits related to consumption habits, preferences, and motivations. Azucar et al. examined each trait as a specific means for targeting audiences, finding that people were attracted to items in ads that were associated with their personality traits. In business, it is common to use factor analysis with the basic five personality traits to derive those positive traits that will help make a business successful.

In this study, I used the big five-factor theory to explore 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. Recent researchers (e.g., Baluku et al., 2016; Farrington, 2012; Hassan et al., 2016) have extended the big five traits to business relationships. For example, research established that each personality trait and associated subtraits were related to successful entrepreneurship (Espíritu-Olmos & Sastre-Castillo, 2015). Reviews of each personality trait and its relation to business are in the following sections, which provide a foundation for the present study.

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 of unpleasant feelings of anxiety, depression, anger, embarrassment, and insecurity. Neurotic individuals are prone to mood swings, emotional instability, and self-consciousness. Displaying this personality trait can cause business owners distress and complicate their navigation of difficult situations (Baluku et al., 2016).

Antonicic (2015) found that an entrepreneur's ability for technology acclimation was associated with openness to experience, consistent with Farrington (2012), and neuroticism; acclimation, in turn, related to the business success. Based on previous research regarding the connection between neuroticism and small business owners' ability to secure microloans, I developed the following hypothesis:

*H*₀1. 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.

*H*_a1. 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.

Extraversion

Extraversion refers to personality traits, such as sociability, gregariousness, talkativeness, assertiveness, and activity (Baluku 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, in which people interact with others and foster relationships. Additionally, extroverts enjoy entrepreneurship because it requires adventure, ambition, risk-taking, impulsiveness, and self-confidence (Baluku et al., 2016). Experts consider extraversion a mostly positive personality trait (De Bortoli et al., 2019; Gambetti & Giusberti, 2017; Pang et al., 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 extraversion. Based on previous research regarding the connection between extraversion and small business owners' ability to secure microloans, I developed the following hypothesis:

*H*₀₂. The personality traits do not significantly correlate to extraversion 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.

*H*_{a2}. The personality traits do significantly correlate to extraversion 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.

Agreeableness

Agreeableness is being empathetic, kind, cooperative, trusting, gentle, forgiving, and tolerant (Farrington, 2012). Additionally, it is associated with affection, generosity, mildness, self-sufficiency, emotional maturity, and attentiveness to others. These traits can bring both positive and negative outcomes to business owners. For instance, high levels of agreeableness may negatively affect business owners' abilities to negotiate challenging deals and influencing others successfully. However, this personality trait can become a success factor in service-oriented enterprises.

Additionally, business owners with high levels of agreeableness are more likely to have higher social capital, which may be advantageous for obtaining funding from institutions (Baluku et al., 2016). Quantifiable actions between people (e.g., small community banks and small business owners) determine the social capital of a given community (McCrae & Costa, 1987; Robledo et al., 2015). Therefore, those who are agreeable might have an easier time building relationships with individuals providing funding in small banking enterprises.

Ayoade Ezekiel et al. (2018) found a relationship between agreeableness, extraversion, neuroticism, and conscientiousness, and commitment to business; openness to experience did not affect the commitment of entrepreneurs. The authors explained that entrepreneurs should identify their personality traits and improve those with adverse effects regarding commitment attributes. Based on previous research regarding the connection between agreeableness and small business owners' ability to secure microloans, I developed the following hypothesis:

H₀₅. The personality traits do not significantly correlate to agreeableness 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.

H_{a5}. The personality traits do significantly correlate to agreeableness 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.

Conscientiousness

Under the big five, conscientiousness refers to dependability, carefulness, thoroughness, organization, and responsibility (Farrington, 2012). Individuals who are conscientious are hardworking and self-disciplined, with a strong need to reduce uncertainty. Additionally, conscientious individuals have leadership skills and thus are very capable of managing businesses (Baluku et al., 2016).

Conscientiousness can significantly influence personal behaviors and success. Ali (2019) collected survey data from 613 currently enrolled college students regarding innovative thinking and satisfaction with life perceptions. The answers were measured

using a 5-point Likert scale with 1 for *very dissatisfied* and 5 for *very satisfied*. Findings showed that conscientiousness was a positive trait in terms of success, innovative thinking, and satisfaction with life perceptions. Conscientiousness may relate to increased psychological capital, which can increase entrepreneurs' levels of effort toward achieving business goals (Baluku et al., 2016).

Ranwala and Dissanayake (2016) attempted to identify the impact of the big five personality traits on entrepreneurial inclination. The results of their study showed that entrepreneurial inclination related positively to openness to experience, extraversion, neuroticism, agreeableness, and conscientiousness for participants with a significantly higher propensity for these specific personality traits. Based on previous research regarding the connection between extraversion and small business owners' ability to secure microloans, I developed the following hypothesis:

H₀₄. The personality traits do not significantly correlate to conscientiousness 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.

H_{a4}. The personality traits do significantly correlate to conscientiousness 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.

Openness to Experience

Openness to experience is associated with originality, open-mindedness, artistry, insightfulness, imaginativeness, and intelligence (Farrington, 2012). This trait determines whether a person is likely to seek out new ideas and think creatively; however, it can also

influence practical-mindedness and efficiency. Individuals who are open-minded tend to have a strong need for change; therefore, leaders who are open to new experiences often take risks that can be positive for the business. This trait can help entrepreneurs understand customer needs and learn how to deal with competition and market trends. Individuals with openness to experience tend to question the current ways of doing business. This questioning, in addition to higher intellectual capacity, often allows individuals who are open to experience and identify new opportunities (Baluku et al., 2016).

Hachana et al. (2018) compared men and women to determine what relationship each of the five personality traits had with success. The findings showed that the most significant personality factors associated with business success were openness to experience and conscientiousness; men and women were equal in these traits. Agreeableness, which was more associated with women, related less closely to success. While neuroticism did not correlate with business success, the trait was higher in women than men. Extraversion, higher in men, had no effects on entrepreneurial success. The authors concluded that entrepreneurial success was related to openness to experience, conscientiousness, and agreeableness. Based on previous research regarding the connection between openness to experience and small business owners' ability to secure microloans, I developed the following hypothesis:

H₀₃. The personality traits do not significantly correlate to openness 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.

H_{a3}. The personality traits do significantly correlate to openness 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.

Application to the Proposed Study

The present study implemented the big five theory of personality for explaining whether personality traits of small business owners are related to their ability to secure microloans for their business needs. However, other experts find the use of the big five personality traits less substantial to predict successful enterprise in entrepreneurship (Ayala & Manzano, 2014; Liu et al., 2015; Ren & Zhu, 2016). Many experts suggest that using Maslow is more appropriate for the determination of an entrepreneur's success.

Maslow is one of the most recognized psychologists whose works permeated business school studies, real-world business examples, and leadership books. Maslow believed the traditional psychological community essentially ignored human beings. For example, Freud's perspective on the human psyche was a top-and-bottom idea with a main psychiatric focus being the neuroses, which often came from childhood trauma (Ren & Zhu, 2016).

Skinner pioneered the concept of behaviorism in psychology based solely on the premise that scholars could learn the most about human behavior through studying lab rats. Maslow focused more on the study of people who were psychologically unhealthy and concentrated on their higher percentage for success rather than failure. Through this focus, Maslow helped create the human potential movement during the 1960s, which many businesses noticed and used in their management programs (Liu et al., 2015).

The foundation of Maslow's theory is the hierarchy of needs pyramid. This theory presumes that "the human being is a wanting animal and rarely reaches a state of complete satisfaction except for a short time. As one desire is satisfied, another pops up to take its place. [A] satisfied need is not a motivator of behavior" (Maslow, 1987). Maslow suggested that thought processes are part of a person's self-actualization traits, providing the opportunity to make one's own choices, maximizing the human potential.

The recognition of those specific relationship facets indicates the application of Maslow's philosophies. For example, using Maslow's theory of self-actualization, a redesigned job may offer a psychological boost in self-esteem, allowing the employee to recognize that they have worth in the eyes of their boss. Using a two-factor theory of motivation and hygiene, an employee will find satisfaction in the reward of more responsibility with the assumption that there is a relationship between satisfaction of a job and the increase in productivity due to motivating factors (Liu et al., 2015). With a theory of needs, the employee experiences the drive to succeed and therefore expresses a desire to be the best for the very reason of being rewarded with more responsibility.

Ren and Zhu (2016) examined how the business world has perceived Maslow's hierarchy, recognizing that striving for this self-actualization is part of many companies' goal-driven ideals. Many seek to be the best in their respective business. At the same time, employees often look for meaning while customers pursue a transforming experience; even investors and stakeholders want to make a difference with their investments. In such an environment, business owners and management may forget that a company is a collection of individuals (Ren & Zhu, 2016). The use of Maslow's pyramid

allows businesses to remember that the fundamental core of any business entity requires human endeavor and that people's behaviors and actions garner success. Emphasizing Maslow's theory of needs, entrepreneurs will utilize these stages so their employees recognize their potential within the company they worked for. Psychologically, the tendency for businesses is to focus on deficits, but that this does not offer an opportunity for transformation to a more optimal state of being or productivity. Maslow's theory focuses on meeting the most basic needs to acquire a strong desire and motivation to pursue other achievements. Maslow's theory was not appropriate for this particular study because the focus was to determine which of the five personality traits affected the ability of the small business owner to access capital.

The big five theory of personality and related research seems to align with the notion that small business owners' traits may directly affect their ability to secure financing. Farrington (2012) and Baluku et al. (2016) indicated that the big five personality fundamentally influences people's success in business, which indicates that personal traits of small business owners may influence lenders' and financial institutions' determination of credit-worthiness. Generally, economists have emphasized specific attributes of entrepreneurs in determining their ability to secure and repay loans (McGuinness & Hogan, 2016). Still, researchers have not assessed whether and how personality traits influence these decisions.

Because of its wide-ranging, proven application in business contexts, the big five theoretical framework may help determine the roles of personality traits in leading to specific outcomes and actions taken by entrepreneurs and financial lenders. The big five-

factor model suggests that certain personality traits (openness, extraversion, conscientiousness, and agreeableness) are associated with the amount of unsecured debt and financial assets that may be advanced to entities (Dlugosch et al., 2018). In previous research, personality traits, such as extraversion and openness, were correlated with personal finances (Eddleston et al., 2016). Therefore, entrepreneurs who possess these attributes will most likely manage their personal finances better than those who do not.

The literature review was valuable because small business owners face imminent difficulties obtaining finances for their microenterprises since many lenders are reluctant due to the risk involved (Rostamkalaei & Freel, 2017). Essentially, the big five personality traits may enable lenders to assess the suitability of entrepreneurs to get loans from microfinancing. Lenders have overly focused on the relationship between the personal attributes of entrepreneurs and their personal finances (Kerr et al., 2018). From the perspectives of lenders and financiers, the application of the big five may help them determine if the entrepreneurs in question will be able to repay credit advanced to them. Fossati et al. (2011) conducted a study to determine the reliability and validity of the Big Five Inventory. The findings suggested that the Big Five Inventory is a succinct measure of the big five personality traits and provides satisfactory reliability and validity. Additionally, Baluku et al. (2016) conducted a study to determine whether the personality of owners of microenterprises matters for the relationship between startup capital and entrepreneurial success by using the five-factor model. The results suggested that startup capital, agreeableness, and extraversion positively predicted entrepreneurial success, while neuroticism negatively predicted entrepreneurial success. Extraversion, however,

moderated the relationship between startup capital and entrepreneurial success. The Big Five Inventory was a reliable tool for measurement in this study.

Review of the Literature Related to Key Concepts and Variables

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 et al., 2017; Cole & Sokolyk, 2016; Fracassi et al., 2016). These investigations have led some researchers to examine the relationship between personality traits and small business success (Anwar et al., 2017; Ayoade Ezekiel et al., 2018; Baluku et al., 2016; Viinikainen et al., 2017). However, the literature related to the key variables and concepts demonstrated the need for research to examine 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 and the big five personality traits associated with success and failure in small businesses.

These guiding topic headings led to a discussion of leadership traits in small business owners. 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 five 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 hold 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 et al., 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 the required skills, education, and performance expectations of the position (Estedad et al., 2015; Hazudin et al., 2015; Omorede et al., 2015). Another facet for the potential leader would be management and leadership knowledge, which provides critical development and experience in the position. These tenets promote effectiveness in 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; Estedadi et al., 2015; Omorede et al., 2015). These include the great man theory, which purports that leaders can rise when

there is a great need. The great man theory suggests that through the study of great past leaders, individuals can learn and emulate the respective skills attributed to their exceptional leadership abilities (Chan et al., 2015). Another popular theory is Lewin's (1998) leadership styles, including autocratic, democratic, and laissez-faire. According to Lewin, autocratic leaders make all decisions on their own without consulting 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—in other words, the decision would not change with information from others. The laissez-fair leadership style minimizes the leaders' decision-making ability 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 their involvement in decision-making. Such leadership works especially well when a close-knit group of managers must continuously work together.

Other researchers have examined the role of personality qualities and traits in leadership success. Leaders must have specific personality qualities, including 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 a small business owner's behavior toward success (Kozubíková et al., 2015; Parks-Leduc et al., 2015; Sackett & Walmsley, 2014). However, some argue that the success of individuals with certain personality traits indicates the need for quality education and leadership abilities (Obschonka & Stuetzer, 2017; Robledo et al., 2015).

Big Five Personality Traits and Motivation in Business

Researchers have assessed the relationship between personality traits and success in the business enterprise (Farrington, 2012; Obschonka & Stuetzer, 2017). The overriding question of whether big five personality traits affect success has been observed by multiple researchers (Ali, 2019; De Bortoli et al., 2019; Gambetti & Giusberti, 2017; Hassan et al., 2016; Kerr et al., 2018; Palazzeschi et al., 2018; Pang et al., 2016). Specifically, correlative studies from multiple experts in different industries and disciplines have observed factors that prompt motivation based on a person's characteristics (Anwar et al., 2017; Chatterjee & Das, 2015; Murugesan & Jayavelu, 2017; Ranwala & Dissanayake, 2016). Researchers have examined key personality traits associated with motivation and performance, and therefore, with business success.

Conscientiousness is one of the key personality traits related to success and motivation. Hassan et al. (2016) measured the work performance of 612 microfinance employees to determine whether conscientiousness was associated with success. The researchers used a descriptive, hypotheses testing design and interviewed the participants in one-on-one settings. Findings stemmed from collected data subcategorized into five dimensions of conscientiousness, including orderliness, self-discipline, dutifulness, self-efficacy, and striving for achievement. Kerr et al. (2018) examined baseline models using personality traits from the big five models and self-efficacy, need for achievement, innovativeness, and locus of control to determine positive outcomes in entrepreneurial behavior. The comprehensive literature examination produced 23 studies used in a meta-analysis to determine patterns of probability for personality traits associated with

successful entrepreneurship versus managers. According to Kerr et al., conscientiousness was most common with entrepreneurs but not with managers.

Extraversion also influences performance. Since extraversion is associated with positive behaviors like enthusiasm and assertiveness, most scholars suggested that this personality trait correlates with successful entrepreneurship. Palazzeschi et al. (2018) examined the personality correlations of extraversion with 204 Italian workers employed in different health care fields. Palazzeschi et al. used the High Entrepreneurship, Leadership, and Professionalism Questionnaire (HELP-Q), which identifies personality traits associated with entrepreneurship, leadership, and professionalism, and scored answers on a 5-point Likert scale. The authors also used the Big Five Questionnaire with 132-item questions scored on a 5-point Likert scale. Palazzeschi et al. found that key factors driving successful end results were less associated with personality factors and more developed based on the combination of personalities working together for a professional and complimentary organizational culture. The need for managing employees stemmed from an emphasis on leaders developing with training the means to increase employee flexibility, resilience, and enthusiasm for engaging in the job daily.

Chan et al. (2015) observed the relationships between professional and entrepreneurial leadership and the big five personality traits with aspects of motivation. The researchers compared two sample populations ($N = 396$ and $N = 272$) of undergraduate students to determine which traits prompt leadership motivational factors. Chan et al. examined each sample of participants 1 year apart with the administration of personality measures alongside motivational scales for business leadership,

entrepreneurship, and professional success. The measurement method was a 35-adjective marker survey scored on a 1 through a 9-point Likert scale. The authors found that proactive personality traits (agreeableness, extraversion, and conscientiousness) were associated more significantly with entrepreneurial and leadership motivation but unrelated to the motivations found in professionalism. From the correlative data based on the two samples during the 1-year gap, Chan et al. concluded that success in entrepreneurship and leadership based on motivational factors have significantly similar personality traits. In contrast, such personal characteristics have no effect on professionalism determination. The influences of personality traits on motivation may further lead to business success, as indicated in the following section.

Big Five Personality Traits Associated with Business Success and Failure

Some researchers have found varied results regarding the influence of the big five personality traits and business success. Farrington (2012) conducted a study to investigate whether a relationship exists between possessing certain personality traits and business leadership success. Farrington used convenience sampling to select 383 business leaders who completed the Big Five Inventory and provided self-reported inventories of personality traits associated with success. Big five personality traits were the independent variables, and perceived business performance was the dependent variable. The results showed a relationship between small business success based on financial performance and extraversion, conscientiousness, and openness to experience. Farrington also found that growth performance was associated with all personality traits except agreeableness. Farrington concluded that participants who perceived their business was successful

scored higher on positive personality traits, such as conscientiousness, openness to experience, and extraversion.

Personality traits might also relate to factors associated with business success, like acclimation to advancing technologies (Antonicic et al., 2013). Antonicic et al. (2013) suggested that since the findings expressly analyzed the success factor of business and related with past literature, the big five personality traits were significant in such success, the advancement of technology was relevant in associating the entrepreneur's business traits, and correlation was observed with such success factors. Antonicic et al. contrived a model of personality-driven technological development based on big five personality traits and tested each participant using interaction-based structured questions on a survey scored on a 5-point Likert scale (Antonicic, 2015). The findings showed two specific personality traits predictive of acclimation of technology: openness to experience, which had a positive impact, and neuroticism, which had a negative impact. Overall, Antonicic (2015) noted that an entrepreneur's ability for technology acclimation was associated with openness to experience, consistent with Farrington (2012), but also with neuroticism; acclimation, in turn, related to the business success (Antonicic, 2015).

Researchers have examined relationships among the big five personality traits and other factors that might influence business success. For example, there have been investigations of gender and its relation to personality traits and entrepreneurship (Hachana et al., 2018; Obschonka & Stuetzer, 2017; Omoredede et al., 2015). To explore the effect of personality traits and entrepreneurial inclination on undergraduate business students, Ranwala and Dissanayake (2016) attempted to identify the impact of the big

five personality traits on entrepreneurial inclination. The authors collected data from 237 students through a structured questionnaire with an assessment based on an independent samples *t* test from the questions related to extraversion, conscientiousness, openness to experience, agreeableness, and neuroticism. The findings showed that entrepreneurial inclination related positively to openness to experience, extraversion, neuroticism, agreeableness, and conscientiousness among participants with a significantly higher propensity for these specific personality traits. However, the findings also exhibited that a relationship between such traits based on gender was weaker for females than males. Such concluding findings led the authors to suggest that entrepreneurial inclination was affected by both gender and personality traits.

Like Ranwala and Dissanayake (2016), Hachana et al. (2018) examined how the big five personality traits and gender affected entrepreneurial success. The researchers surveyed 174 entrepreneurs, posing questions related to their personality traits and their business success. Hachana et al. compared men and women to determine what relationship each of the five personality traits had with success. The findings showed that the most significant personality factors associated with business success were openness to experience and conscientiousness; men and women were equal in these traits. Agreeableness, which was more associated with women, was less significantly related to success. While neuroticism did not relate to success in business, the trait was higher in women than in men. Extraversion, higher in men, had no effects on entrepreneurial success. The authors concluded that entrepreneurial success was related to openness to experience, conscientiousness, and agreeableness. The findings related to openness to

experience aligned with Antoncic et al. (2013) and Farrington (2012) and were consistent with Farrington for conscientiousness but inconsistent for agreeableness. Moreover, certain personality traits were related to gender, although mostly those not related to success (Hachana et al., 2018).

Ayoade Ezekiel et al. (2018), similar to Hachana et al. (2018), conveyed that individual small business leaders' personality, behavior, and characteristics are determinants of success. The authors surveyed 369 participants recruited from small business associations. The researchers entered data into SPSS 20 and an Amos 22 to discern the relationship between personality traits and commitment to their business. The results showed a relationship between agreeableness, extraversion, neuroticism, and conscientiousness and commitment to business; openness to experience did not affect the entrepreneurs' commitment. The authors explained that entrepreneurs should identify their personality traits and improve those that have adverse effects on commitment attributes.

Further, the field that entrepreneurs are entering may be important in understanding the relationship between personality and success. Felder et al. (2018) examined protocols for successful entrepreneurship in health care businesses and their association with personality traits that pushed the entrepreneur toward success. The researchers explored a sample population ($N = 42$) of single-proprietorship successful health care clinics to determine what brought about the success of each business. Each clinic had been in business for more than 10 years and was classified under the DBA of small business enterprise, as all had fewer than 25 employees. The business owners

participated in semistructured interviews to discuss their reasons for success. A significant number (92%) claimed they were aggressive in their business practices and did not ignore the continued need for self-discipline in personal interest, not patient care. The collected data showed that clinics in the sample population that were successful (profitable) had business owners with the personality traits of aggressiveness, confidence, enthusiasm, and motivation.

The relationship between big five personality traits and business success is not uncontested. Research has indicated that personality traits affect success in entrepreneurial intent and perception; however, some experts claim personality only affects the motivation to succeed, not the success itself (Oyeku et al., 2014; Staniewski et al., 2016; Viinikainen et al., 2017). Moreover, while some experts find the big five personality traits more comprehensive when explaining how entrepreneurs are successful, others assert that personality traits beyond just the big five have merit (Leutner et al., 2014). For example, personality traits considered part of the big five, such as extraversion, openness to experience, conscientiousness, and agreeableness, are considered relevant to entrepreneurial success; however, other traits are also associated, such as responsibility, aggression, and motivation (Viinikainen et al., 2017).

For example, some experts have evaluated a set of specific individual characteristics, grit, as a predictor of entrepreneurial success (Butz et al., 2018; Kozubíková et al., 2018). Butz et al. (2018) defined *grit* as maintaining strong efforts to pursue success in long-term goals and work through stagnation or adversity. The authors collected data through surveys from a sample population ($N = 500$) of undergraduate

students to ascertain perceptions of what makes for successful entrepreneurship. Results showed that grit was a mediator for predictive effects of conscientiousness and neuroticism, which was considered indicative of entrepreneurial intent and preparation for business success. The data led the authors to conclude that recognition of grit was fundamentally associated with the participants' perceptions of intent and success in business. However, the concept of grit can be placed under the subdimensions of conscientiousness.

Small Business Access to Capital

Small business lending is defined as the ability of a small business to raise funds through external debt financing (Cole & Sokolyk, 2016; Jagtiani et al., 2016; Mills & McCarthy, 2014). Experts recognize the contributions of small businesses 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 & R athke-D oppner, 2015; Obebo et al., 2018; Taylor, 2017). Small and medium-sized enterprises (SMEs) are continually vulnerable based on limitations for funding potential. SMEs are usually the first to lose business in the event of a global or national economic crisis.

Financial capital provides firms with the necessary leverage and is fundamentally situated to enhance, grow, and improve businesses. Krishnan et al. (2015) conducted a research study that provided evidence that greater access to financing can significantly allow financially constrained businesses to invest in projects they otherwise would not be able to attain. Fracassi et al. (2016) conducted a regression research study using data on

startup loan applicants from a lender. The results suggested that startups receiving funding are significantly more likely to survive, enjoy higher revenues, and create more jobs than their counterparts that did not.

However, these sources of funding are becoming less available. Byrd et al. (2013) evaluated 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. Mills and McCarthy (2014) also discerned the problems of small businesses in borrowing from financial institutions. Through the Small Business Association, the authors pulled data that exhibited over 30 million small businesses in the United States and compared to data found through the U.S. Census Bureau related to what small businesses mostly use types of lenders. From these data, the authors established what types of lending institutions were most likely to provide funds for small businesses. The findings showed that traditional lenders were the least likely, with new online entrant lenders more prone to providing acceptance for loans. Based on the data, Mills and McCarthy concluded that online markets for loan businesses had evolved to such a level that serving the small business community was predominant for many entrepreneurs when searching for loan options.

Partially, decreasing availability of funding is due to the risk of providing capital for SMEs. DeYoung (2015) presented a retrospective evaluation of recent research studies conducted in the United States to determine who bore the most risk when funding small businesses. The author explained that openness is tangential to intellect, and

intellect provides perception and reasoning abilities for cognitive exploration.

Subsequently, these abilities result in success because such persons are willing to explore, discover, experiment, interpret, and accept certain fundamental self-failings. These recognized failings prompted individuals to take risks, accepting the associated success or failure outcomes. Risks associated with lending to small businesses usually are spread over three sectors (entrepreneurs, bank lenders, and taxpayers), and the level of risk-bearing varies depending on the current business cycle.

Alternative methods of funding may provide SMEs the opportunities to gain capital. For example, Berger et al. (2017) conducted a study using novel survey data on U.S. small businesses from 1993–2012 to examine whether small banks can better provide financial support to small businesses than large banks. The evidence suggested that small banks' comparative advantage is most substantial when local economic conditions are worse. Small banks alleviate financial constraints for small businesses by providing liquidity insurance to relationship borrowers. Jagtiani et al. (2016) similarly found a lack of funding available for small businesses from the larger corporate banking entities than with smaller, more personal community banks. Further, while community banks lend to small business entrepreneurs, many banks ceased operation due to a lack of clients or economic failure. Such issues have become more disconcerting for small business entrepreneurs as they must work with the larger banks. As large banking firms have continued to grow and push out the smaller community banking establishments, small businesses had a higher likelihood of failure.

One method of reducing risk is through strong bank-borrower relationships.

Overall, the level of risk is lower when bank-borrower relationships are stronger. Jagtiani et al. (2016) examined the connection between relationships within the lending enterprise of the community bank and small business entrepreneurs obtaining microloans. The authors found that community members expected personal relationships with their bankers. The small business entrepreneurs were unhappy with the services received from the new banking personnel, claiming there were no personalized, hands-on services. Similarly, Beck et al. (2017) provided empirical evidence to show that relationship lending alleviates credit constraints during the cyclical downturn. The positive impact of relationship lending in an economic downturn is most substantial for smaller firms in regions where the downturn is more severe. The importance of relationships may highlight the influence of personality in loan decisions for another lending alternative, microloans, which reduces risks and improves access to funding for SMEs.

Importance of Microloans for Small Business Owners

Microloans, or microfinance, encompass similar features of other loan options, except that individuals receiving such loans are typically small business owners unable to secure a primary source of borrowing or finance (Brau & Woller, 2004). However, small business owners are often not treated the same regarding microloan availabilities. Microfinance is a key part of the finance world, yet the core elements of microfinance highly differ from the definition of finance itself. Microfinance is not part of mainstream financial arenas, nor is it often found in entrepreneurship finance literature. Microfinance

or microloan are provisional for businesspeople who are low-income or even unemployed and have no other means for financial lending services.

Microfinance may significantly influence the success of SMEs. Obebo et al. (2018) used a cross-sectional survey to determine if small enterprises failed due to the financial exclusion or limited loan capabilities due to shortages in operating funds. The authors examined data collected from the 2016 FinAccess Dataset and observed the abilities and risks from owners of small enterprises. The data indicated positive effects on the performance of the owners who were able to garner microfinance funding. Banerjee et al. (2015) conducted a research study that provided evidence of the impact of microfinance by conducting the financial situations of the data sample before and after they had access to microfinance resources. The authors found that this impact was substantial, as the success stemmed from receiving the microloan and only when the owners recognized their financial situations were dire. Conversely, Kariv and Coleman (2015) observed the impact small business microloans had on new company performance. The authors used longitudinal data from the Panel Study of Entrepreneurial Dynamics and examined whether the benefit of a microloan superseded the benefit of a bank loan. No significant findings suggested that microloans or bank loans prompted any given successful endeavor. Business performance was not determined by where the money came from but by how the entrepreneur obtained and put it to use.

Factors Influencing Small Businesses' Receipt of Microloans

Because loans and credit are essential for small business success, it is important that small business owners be able to procure this funding. Therefore, understanding the

factors that influence the receipt of microloans is essential. Among the elements that researchers have investigated are gender, environmental factors, and personality.

Gender

Some researchers claim that gender plays a significant role in determining whether the loan company or bank gives money to a small business owner (Eddleston et al., 2016; Murugesan & Jayavelu, 2017; Obebo et al., 2018; Pablo-Marti et al., 2014; Robledo et al., 2015). Eddleston et al. (2016) examined whether male entrepreneurs obtained financing from banks more easily than female entrepreneurs. Eddleston et al. examined the norms of attitudes toward women in business who ask for loans from lending entities using a survey instrument with questions focused on represented services from small community banks. Eddleston et al. distributed the survey to 300 entrepreneurs, 201 of whom responded: 31% female and 69% male. Male entrepreneur participants reported receiving funding more often than female entrepreneur participants. Such reasons for this gender bias, based on the data reported in the survey, included the communication of reasons for a banker who significantly recognized funding needs with the male participants.

Other experts have explored this same phenomenon observing the perceptions of women entrepreneurs concerning accessing bank credit and loans (Chowdhury et al., 2018; Dean et al., 2019). For example, Chowdhury et al. (2018) observed female entrepreneurs working in developing countries and their perceptions of barriers to banking loans. The primary objectives were determining what factors were influential in receiving loans from commercial banks based on businesswomen's acceptance of such

loans. With a sample of 152 female entrepreneurs, the authors solicited data in a mixed-method form. Chowdhury et al. collected quantitative survey data via closed-ended questions on a 5-point Likert scale, with 1 as *strongly disagree* and 5 as *strongly agree*. Qualitative data stemmed from in-depth interviews of 15 randomly selected women from the 152 participants, and the researchers used content analysis to interpret the qualitative data. The participating businesswomen perceived that they were not receiving approval on loans due to their gender based on men in the banking industry's bias within the banking industry. While the general assumption was a stereotyped belief that women were less likely to be successful in small business, the authors found four specific themes given by the participants as reasons for loan denial—bank financing, interest rate, and banking environment—based on the attitude of the bankers as moderately accepting of women in business. Chowdhury et al. suggested that changes in the authoritative and supporting organizations of female entrepreneurs could potentially assist in reorganizing banking acceptance and action plans for supporting them.

Murugesan and Jayavelu (2017) also examined the role of gender and its general influence on both personality traits and self-efficacy concerning entrepreneurial intent and business success. The authors used Saucier's Mini Markers inventory to examine the eight adjective factors for personality traits in a sample population ($N = 248$) of college students representative of future business leaders. This population included 60% men and 40% women, who completed a questionnaire to determine self-efficacy based on the respondent's answers. The authors measured answers using a 5-point Likert scale. The overall results showed that women scored higher in such traits as agreeability,

conscientiousness, and extraversion, but also in neurotic traits, such as moody, jealous, fretful, and temperamental. The male participants showed a significantly higher propensity for success with the personality traits associated with self-efficacy and in accordance with such stereotypes as men having a stronger determination on entrepreneurial intentions equaling successful outcomes. The authors suggested that future studies expand the number of participants in the sample to avoid generalization. This expansion of participants will also allow for observation of gender-sensitive barriers when determining if there is an equal grounding to avoid female traits being valued based on stereotyped male traits. Obebo et al. (2018) also found significant constraints in microfinancing for women compared to men, and such obstacles continually created a significant lack of diversity in small business owners.

Environmental Factors

Taylor (2017) examined a sample population ($N = 27$) of U.S.-based small business owners to determine reasons for receiving or being turned down for microloans offered by the Federal Reserve Bank of New York. The author used a survey instrument with questions relating to the participants' borrowing habits and analyzed the collected data, finding eight common themes for participants unable to receive funding. The results showed that funding was influenced by the uncertainty of the current economic climate, lack of collateral, gender or ethnic bias, bad credit history, high operating expense with the slow promise of growth, lack of cash flow, the type of business, and owner's unclear understanding of the financing processes. Suggested reasons beyond personality traits were results for Taylor's examination and led the author to conclude environmental

elements were more likely than personality to result in a person not receiving a microloan.

Personal History and Personality

Lenders have focused on the relationship between the personal attributes of entrepreneurs and their finances (Caliendo et al., 2016). The authors then implemented a regression gap design measuring the causal impact of receiving a loan. Entrepreneurs were more likely to receive loan funding based on the interaction between themselves and the loan officer with personality traits part of the equation. Similarly, Kariv and Coleman (2015) determined that the perceived motivation of the entrepreneur was the basis for qualifying for bank loans and microfinance.

The determination of whether to provide a loan based on personality traits may have some grounding beyond lenders' personal biases. Some researchers have linked the big five personality traits to the amount of unsecured debt and financial assets advanced to entities (Chen et al., 2017; Dlugosch et al., 2018). Traits such as extraversion and openness to a certain level of experience were correlated with personal finances (Eddleston et al., 2016). Similarly, Robledo et al. (2015) examined how much influence the big five personality traits and self-efficacy have on the intent of entrepreneurs regarding gaining new capital. The authors presented five hypotheses associated with four of the big five traits, finding that openness, extraversion, conscientiousness, and agreeableness were all positives related to such entrepreneurial intentions. While Robledo et al.'s study was a two-fold analysis, the sample population for this first part included 667 students, with over half being male. The use of Saucier's Mini Markers inventory

provided by Singh and DeNoble (2003) provided data inclusive of eight adjectives based on each personality factor. Considering the difference in gender personality traits as a norm, the authors classified markers for garnering capital based on the participant's perceptions of what entailed success in receiving such financial accommodations. Robledo et al. found through the collected data that personality traits were intrinsic, such as extraversion, openness, and agreeableness, in whether or not capital was gained but not necessarily based on the gender, but more so on those positive traits of openness, extraversion, conscientiousness, and agreeableness. However, it is not known whether and how personality traits are specifically tied to microloan decision-making in the business industry.

Summary and Conclusions

The primary purpose of the current study was 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; Kozubíková et al., 2015; Parks-Leduc et al., 2015; Sackett & Walmsley, 2014); in contrast, other experts ventured to claim critical leadership skills beyond personality characteristics in business practices were the predominant means for success (Estedadi et al., 2015; Hazudin et al., 2015; Omorede et al., 2015). Personality traits affect entrepreneurial intent (Oyeku et al., 2014; Staniewski et al., 2016; Viinikainen et al.,

2017), with the intent considered a trigger for success and consequently attributed to securing a microloan (Anwar et al., 2017; Ayoade Ezekiel et al., 2018; Chatterjee & Das, 2015; Hachana et al., 2018; Leutner et al., 2014; Murugesan & Jayavelu, 2017; Ranwala & Dissanayake, 2016).

The most consistently cited personality traits related to entrepreneurial motivation and success were conscientiousness and openness to experience (Antonicic et al., 2013; Ayoade Ezekiel et al., 2018; Farrington, 2012; Hachana et al., 2018; Ranwala & Dissanayake, 2016). Researchers also indicated the importance of gender (Hachana et al., 2018; Ranwala & Dissanayake, 2016) and field (Felder et al., 2018) in understanding the relationship between personality and success. Researchers also evaluated how access and availability of capital and capital loan companies influenced entrepreneurs in small businesses (Berger et al., 2017; Cole & Sokolyk, 2016; Jagtiani et al., 2016; Mills & McCarthy, 2014). Findings from expert studies showed support for borrowing related to the type of financial institute, with community banks more prone to accepting and granting requests for loans from small business owners (Byrd et al., 2013; Fracassi et al., 2016; Krishnan et al., 2015; Mills & McCarthy, 2014). Many studies found the decline of the community bank was problematic for small business entrepreneurs (Banerjee et al., 2015; Barrick & Mount, 1991; Beck et al., 2017; Jagtiani et al., 2016; Robledo et al., 2015), but also indicated the importance and potential for relationship-based banking, and further supported the need to examine the role of personality in lending decisions.

The literature also showed the need for further examination of personality in understanding lending decisions. Lenders consider personality and personal factors in

making lending decisions (Kariv & Coleman, 2015). Moreover, extraversion and openness correlated with personal finances (Eddleston et al., 2016). Other experts found that the personality traits of openness to experience and conscientiousness were integral in successfully securing outsourced funding and success within an owner's business (Obschonka & Stuetzer, 2017; Omorede et al., 2015).

However, researchers have not evaluated personality factors relative to establishing a loan for small business entrepreneurs. Many experts considered the role of gender just as influential in such endeavors (Eddleston et al., 2016; Murugesan & Jayavelu, 2017; Pablo-Marti et al., 2014; Robledo et al., 2015). Given the expansion of women in business ownership, such perceptions of the general influence of personality traits as well as self-efficacy regarding loans were noted as a significant biasedness in a significant number of studies (Chowdhury et al., 2018; Dean et al., Eddleston et al., 2016; Murugesan & Jayavelu, 2017). Other experts considered predicting success in small businesses in terms of receiving loan funding based on behavioral traits rather than personality characteristics (Liu et al., 2015; Ren & Zhu, 2016). The assumptions found with these examinations correlated to such perceptions of how personalities were the driving force behind behaviors that enhanced business practices.

Chapter 3 will explain the principal methodology used in the current research study's quantitative, nonexperimental, correlational design. I will examine and analyze the data for results in Chapter 4 and discuss the findings and conclude the study in Chapter 5.

Chapter 3: Research Method

The purpose of this quantitative, nonexperimental, correlational study was to examine how the personality traits of small business owners relate to their ability to secure microloans for their business needs. Small business owners face imminent challenges arising from access to capital for their businesses. The problem that this study addressed is that it was 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. By addressing the problem and fulfilling the purpose, I addressed the gap regarding how personality traits relate to small business owners' ability to secure microloans for their business needs.

The details of the chosen research methodology and design will be provided in Chapter 3. The sections in Chapter 3 include (a) research design and rationale, (b) study population, (c) sampling and sampling procedures, (d) procedures for recruitment, participation, and data collection, (e) instrumentation, (f) data analysis plan, (g) threats to validity, and (h) ethical procedures. The chapter will end with a summary of the information discussed about this quantitative correlational research design.

Research Design and Rationale

I used a quantitative, nonexperimental, correlational study. A researcher uses quantitative methodology to determine the existence of relationships or causality between two or more variables using numerical data (Johnson & Christensen, 2019). A quantitative approach was appropriate for this study because the purpose was to examine relationships between variables that are numerically measurable. The independent

variables in this study included the personality traits of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as measured by the Big Five Inventory (John & Srivastava, 1999). The dependent variable was the ability to secure a microloan. The covariates in this study were age, gender, and ethnicity. The independent, dependent, and covariate variables were numerically measurable; therefore, a quantitative methodology was aligned with the purpose and research questions of this study.

The research design for this study was nonexperimental and correlational. Quantitative research can be conducted using experimental or nonexperimental approaches (Johnson & Christensen, 2019). An experimental approach requires a researcher to use a controlled environment where participants are randomly assigned to conditions, and the independent variable is manipulated. On the other hand, a nonexperimental approach involves an uncontrolled setting wherein variables are measured as they naturally occur. For this study, I used a nonexperimental design because it was more appropriate to address the research questions. An experimental design was not appropriate for this study as the focus was to identify the relationships between variables without manipulating the independent variables (Hoe & Hoare, 2012).

More specifically, I used a correlational research design, an approach used to explore the direction or the strength of the relationship between the independent and dependent variables. Based on the purpose of the study, the independent variables included personality traits (specifically, the participants' levels of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as measured by the Big Five Inventory). The dependent variable was whether the participant was able to secure

microloans for their business needs. The study controlled for demographic indicators of age, gender, and ethnicity, variables that were aligned with the purpose and research questions of the study. Through a correlational design, I was able to determine either a positive or negative relationship between variables. Therefore, a correlational research design was appropriate for this study.

Methodology

This section of Chapter 3 includes discussions about the different methods and procedures to be implemented in addressing the purpose and research questions of this study. This section contains the details of the population, sample and sampling procedures, procedures for recruitment, participation, data collection procedures, and instrumentation.

Population

The general population of this study included 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 questions focused on the personality traits of business owners in terms of obtaining microloans. Moreover, the variables of interest included personality traits, specifically the participants' levels of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as well as the ability to secure microloans for business owners' respective businesses. Therefore, the best individuals to obtain data from were small business owners in the United States.

Sampling and Sampling Procedures

The sampling frame of this study was small business owners in the United States contacted through SurveyMonkey. To be included in the study, individuals must have owned a registered small business and live in the United States. A small business was defined as having a maximum of 1,500 employees or a maximum of \$38.5 million in average annual receipts (Berisha & Pula, 2015). This study excluded individuals transitioning to new ownership within the next 6 months. I determined the eligibility of the participants by asking a set of screening questions based on the inclusion and exclusion criteria during the recruitment phase.

In determining the sample size for quantitative research, power analysis is a common technique. In several quantitative studies that focus on personality traits, power analysis has been used (Donnelly & Twenge, 2017; Pallesen et al., 2017). A power analysis was conducted using G*Power for two-tailed binary logistic regression (see Appendix A). Based on recommendations by Cohen (1988), a power of 80% was selected for this study. Moreover, a medium effect size ($OR = 1.72$) was used based on common practices for different quantitative power analyses performed to determine sample sizes (Gignac & Szodorai, 2016; Lipsey, 1990; Wilkinson et al., 2017). The level of significance was set at 5%, the typical standard for statistical significance. The minimum required sample size based on these parameters was 177.

Procedures for Recruitment, Participation, and Data Collection

Procedures for Recruitment

Convenient purposive sampling was used to recruit participants for the study. Convenient purposive sampling refers to a recruitment process where the participants are selected in a targeted and convenient manner based on a set of eligibility criteria (Nath et al., 2019). Participant recruitment was conducted through SurveyMonkey, an online survey service with its own participant pool. I provided SurveyMonkey with the study eligibility criteria; the service then distributed the survey to eligible individuals within its participant pool.

Those who were eligible received a copy of the informed consent form on the first page of the survey. The informed consent included information about the purpose of the study, nature of participation, length of participation, confidentiality, and the risks involved. The informed consent form assured the participants that involvement was strictly voluntary, explained study expectations, and emphasized the participant could refrain from answering a question or withdraw from the study at any time without penalty or repercussion. The goal of the informed consent process was to ensure that potential respondents were aware of their rights and roles as participants in the study. Those who agreed with the contents of the informed consent endorsed an item at the bottom of the page to indicate their willingness to participate.

Data Collection Through Online Survey

After recruitment and informed consent procedures, participants completed the online survey. All participants who agreed to the informed consent page of the survey

were directed to the survey, which comprised 44 questions from the Big Five Inventory. Participants also answered a question asking if they had secured a microloan for their business, as well as three demographic questions (age, gender, and ethnicity).

I allotted 7 days for the participants to answer the survey to minimize waiting time. I sent reminders to the participants prior to closing the survey. I closed the survey after 7 days when the target number of participants had been reached.

Instrumentation and Operationalization of Constructs

The main instrument for this study was for measuring the personality traits of business owners; these traits include levels of extraversion, agreeableness, openness, conscientiousness, and neuroticism, as measured by the Big Five Inventory (John & Srivastava, 1999; see Appendix B). The big five are broad categories of personality traits (Goldberg, 1993). The big five model suggests that certain personality traits are associated with the amount of unsecured debt and financial assets advanced to entities (Dlugosch et al., 2018).

In the Big Five Inventory scale, extraversion is a personality trait that incorporates aspects, such as being talkative, sociable, ambitious, and assertive (Zahra & Wright, 2016). Agreeableness characterizes people who are trusting, courteous, cooperative, forgiving, tolerant, and soft-hearted (Hancock, 2016). Openness to experience is an attribute that describes an individual who is open to novel experiences and ideas. Individuals who are open to experiences are imaginative, reflective, and innovative (Allen & DeYoung, 2017). Conscientiousness is the characteristic of individuals who are dependable and demonstrate perseverance and handwork. Neuroticism is a personality

trait that incorporates a tendency to experience frequent and intense negative emotions in response to various sources of stress, with the negative emotions including anxiety, fear, irritability, anger, and sadness (Barlow et al., 2014).

The Big Five Inventory is composed of 44 short phrases that include trait adjectives known to be prototypical markers of extraversion, agreeableness, openness, conscientiousness, and neuroticism (Chiorri et al., 2016). Respondents rate each of the short phrases on a 5-point, Likert-type agreement scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). These adjectives are accompanied by elaborative, clarifying, or contextual information. For validation purposes, the Big Five Inventory has been evaluated and shown adequate internal consistency, test-retest reliability, and clear factor structure. John et al. (2008) reported reliability coefficients of .86 for extraversion, .79 for agreeableness, .82 for conscientiousness, .87 for neuroticism, and .83 for openness. The Big Five Inventory has also demonstrated high convergent validity, with correlations with other big five measures (i.e., the Trait Descriptive Adjectives and NEO Five-Factor Inventory) ranging from .83 to .99. The Big Five Inventory has been translated into 29 different languages and administered into 56 nations; the five-dimensional structure has proved robust across major regions of the world (Chiorri et al., 2016). The instrument is freely available to use for research purposes and does not require permission to use.

The dependent variable in this study (ability to secure microloans) was operationalized by responses to a single survey question that asked, “Did you secure a

microloan for your business?” The response options for this question were yes or no. The resulting dependent variable was a dichotomous (nominal-level) variable.

The covariate variables (age, gender, and ethnicity) were operationalized using single multiple-choice questions on the survey. The response options for age included 18–35 years, 36–55 years, and 56 or more years. The response options for gender were male and female. The response options for ethnicity included White, Black, Hispanic, Pacific Islander, and Native American.

Data Analysis Plan

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

Research Question 1: Is there a relationship between the personality traits and neuroticism of small business owners and the ability to secure microloans for their business needs?

*H*₀1. 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.

*H*_a1. 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.

Research Question 2: Is there a relationship between the personality traits and extraversion of small business owners and the ability to secure microloans for their business needs?

*H*₀2. The personality traits do not significantly correlate to extraversion 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.

*H*_a2. The personality traits do significantly correlate to extraversion 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.

Research Question 3: Is there a relationship between the personality traits and openness of small business owners and the ability to secure microloans for their business needs?

*H*₀3. The personality traits do not significantly correlate to openness 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.

H_{a3}. The personality traits do significantly correlate to openness 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.

Research Question 4: Is there a relationship between the personality traits and conscientiousness of small business owners and the ability to secure microloans for their business needs?

H₀₄. The personality traits do not significantly correlate to conscientiousness 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.

H_{a4}. The personality traits do significantly correlate to conscientiousness 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.

Research Question 5: Is there a relationship between the personality traits and agreeableness of small business owners and the ability to secure microloans for their business needs?

H₀₅. The personality traits do not significantly correlate to agreeableness 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.

H_{a5}. The personality traits do significantly correlate to agreeableness 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.

The subsections that follow provide descriptions of the data preparation and analysis procedures.

Data Preparation and Cleaning

To begin the data organization and analysis, I transferred the electronic spreadsheet file containing the collected data to SPSS. Participants with missing responses were removed from the data prior to analysis. The independent variables included in the analysis were extraversion, agreeableness, conscientiousness, neuroticism, and openness (as measured by the Big Five Inventory). Mean scores for each variable dimension of the Big Five Inventory were computed to prepare the data for analysis. These scores were checked for outliers by computing standardized values. Tabachnick and Fidell (2013) suggested that standardized values greater than 3.29 in magnitude may indicate outliers. Outliers were removed prior to analysis. The dependent variable was the ability to secure microloans (yes or no). The covariates in the analysis were age, gender, and ethnicity.

Descriptive Statistics

The mean scores for the independent variables of extraversion, agreeableness, conscientiousness, neuroticism, and openness (as measured by the Big Five Inventory) were continuous variables. Descriptive statistics computed for the continuous variables included means, standard deviations, skewness, and kurtosis. The dependent variable (ability to secure microloans) and covariate variables (age, gender, and ethnicity) were categorical variables. Descriptive statistics computed for the categorical variables

included frequencies and percentages. A power analysis was conducted in G*Power to determine the achieved statistical power in the final sample.

Inferential Statistics

To address the hypotheses, a binary logistic regression analysis was conducted. A binary logistic regression is appropriate when the research involves determining the relationships between one or more independent variables and a single dichotomous dependent variable while controlling for one or more covariate variables (Stevens, 2009). Before interpreting the results of the regression, the assumption of no multicollinearity among the variables was tested by calculating variance inflation factors. Stevens (2009) suggested that variance inflation factor greater than 10 indicate the presence of severe multicollinearity. Variables would have been removed if severe multicollinearity had been detected.

In this analysis, the independent variables were the five personality traits measured by the Big Five Inventory (neuroticism, extraversion, openness, conscientiousness, and agreeableness), and the dependent variable was whether or not participants had secured a microloan for their business (yes or no). The covariate variables included in this analysis were age, gender, and ethnicity. All variables were entered into the regression model in a single step. The significance of the overall regression model was determined using a chi-square test at a significance level of .05. If the overall regression model had been significant, the individual regression coefficients for each of the personality traits would have been interpreted to address each of the hypotheses. To address RQ1, the p value for the neuroticism regression coefficient was

examined, and the null hypothesis was rejected if the p value was less than .05. To address RQ2, the p value for the extraversion regression coefficient was examined, and the null hypothesis was rejected if the p value was less than .05. To address RQ3, the p value for the openness regression coefficient was examined, and the null hypothesis was rejected if the p value was less than .05. To address RQ4, the p value for the conscientiousness regression coefficient was examined, and the null hypothesis was rejected if the p value was less than .05. To address RQ5, the p value for the agreeableness regression coefficient was examined, and the null hypothesis was rejected if the p value was less than .05. Odds ratios and confidence intervals were calculated to determine how levels of each personality trait affected the odds of securing a microloan.

Threats to Validity

External Validity

External validity refers to the extent to which the results of a study can be generalized to other situations and other people. To address generalizability, I used SurveyMonkey to obtain a representative sample of small business owners. The sampling and data collection procedures were reviewed by the dissertation committee members and described in enough detail so that the study may be replicated by other researchers. Moreover, I included 196 eligible participants from the SurveyMonkey participant pool to ensure the data were representative of the target population of the study.

Internal Validity

Internal validity refers to the level of confidence that changes in the dependent variable are attributable to the independent variables as opposed to confounding

variables. As this was a nonexperimental correlational study, threats associated with experimental or comparative studies, such as history, maturation, statistical regression, diffusion of treatments, and testing effects, were not applicable. In a correlational study, however, confounding factors cannot be completely ruled out as alternative explanations for any relationships found between the independent and dependent variables. In this study, the demographic factors of age, gender, and ethnicity were controlled for to enhance internal validity. Selection bias was another potential threat in this study, as individuals who chose to participate in the survey could have systematically differed from individuals who chose not to participate. To help reduce selection bias, participants were assured that their participation was voluntary and their answers would be kept confidential. This confirmation could have increased the likelihood that participants would provide honest responses and reduced the potential for response bias. Also, to help ensure the internal validity of the study, I made sure participants answered the survey independently to avoid possible interaction effects due to the influences of others when rating the items in the survey.

Construct Validity

Construct validity refers to the degree to which the study instruments measure the constructs they are purported to measure. To ensure construct validity in this study, a psychometrically validated instrument (i.e., the Big Five Inventory) was selected to measure the personality traits of interest. The Big Five Inventory has been evaluated and has shown adequate validity and reliability (Chiorri et al., 2016). John et al. (2008) reported reliability coefficients of .86 for extraversion, .79 for agreeableness, .82 for

conscientiousness, .87 for neuroticism, and .83 for openness. The Big Five Inventory has also demonstrated construct validity, with correlations with other big five measures (i.e., the trait-descriptive adjectives and NEO Five-Factor Inventory) ranging from .83 to .99. Additionally, statistical conclusion validity was addressed in this study by conducting a power analysis to determine the minimum number of participants needed to obtain statistically valid results and by testing the statistical assumptions of binary logistic regression (i.e., presence of multicollinearity).

Ethical Procedures

To adhere to the necessary ethical principles in conducting the study, I followed the guidelines listed in the Belmont Report, which stated that human participants are given respect, beneficence, and justice. The risk to participants in this study was minimal per the Walden University Institution Review Board (IRB) standards. I had to obtain IRB approval before conducting any interaction with the participants and data collection through surveys. Furthermore, I anticipated minimal interaction with respondents mostly due to using an online survey method of data collection.

All participants must have undergone the informed consent process to ensure their awareness of the rights and roles of respondents to the study. Informed consent was obtained prior to the collection of data, and respondents had the opportunity to refuse or end their participation at any time during the study. Potential participants were informed about the purpose of the study and the types of questions the survey would contain. Additionally, participants knew that participation was voluntary, and they could have withdrawn from the study at any time without consequence. I understood the need to

obtain the appropriate IRB review and compliance for specific review and consent requirements prior to conducting the study.

The identity of the participants was kept anonymous during the entire study. No personally identifying information was collected, and I used identification numbers to represent each participant. The collected data were stored as an Excel file on a password-protected computer or a locked storage cabinet accessible only to me. Data will be stored for a period of 5 years after the conclusion of the research, after which time all data will be deleted.

Summary

The discussion in Chapter 3 was focused on providing the details of implementing a quantitative correlational research design to address the purpose and research question of this study. In this chapter, I presented the general population of this study: small business owners in the United States. From the population, a sample was obtained through convenient purposive sampling and included individuals who owned a registered small business and lived in the United States. This study excluded individuals transitioning to new ownership within the next 6 months. There were 196 eligible business owners who participated in an online survey. The data were collected using the Big Five Inventory to address the purpose and research questions, with subsequent analysis using binary logistic regression. The findings from implementing the data collection and analysis procedures will be presented in Chapter 4.

Chapter 4: Results

It was not known if and how the personality traits of small business owners are related to their ability to secure microloans for their business needs. The purpose of this quantitative, nonexperimental, correlational study was to examine how the personality traits of small business owners relate to their ability to secure microloans for their business needs. The following research questions and hypotheses were addressed in the analysis:

Research Question 1: Is there a relationship between the personality traits and neuroticism of small business owners and the ability to secure microloans for their business needs?

*H*₀1. 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.

*H*_a1. 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.

Research Question 2: Is there a relationship between the personality traits and extraversion of small business owners and the ability to secure microloans for their business needs?

*H*₀2. The personality traits do not significantly correlate to extraversion 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.

H_{a2}. The personality traits do significantly correlate to extraversion 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.

Research Question 3: Is there a relationship between the personality traits and openness of small business owners and the ability to secure microloans for their business needs?

H₀₃. The personality traits do not significantly correlate to openness 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.

H_{a3}. The personality traits do significantly correlate to openness 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.

Research Question 4: Is there a relationship between the personality traits and conscientiousness of small business owners and the ability to secure microloans for their business needs?

H₀₄. The personality traits do not significantly correlate to conscientiousness 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.

H_{a4}. The personality traits do significantly correlate to conscientiousness 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.

Research Question 5: Is there a relationship between the personality traits and agreeableness of small business owners and the ability to secure microloans for their business needs?

H₀₅. The personality traits do not significantly correlate to agreeableness 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.

H_{a5}. The personality traits do significantly correlate to agreeableness 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.

Chapter 4 contains the results of the data collection and analysis conducted to address the research questions. First, this chapter presents a discussion of the data preparation and descriptive findings followed by the results of the hypothesis testing. Finally, this chapter concludes with a summary of the results.

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.

Prior to the analysis, mean scores for each variable dimension of the Big Five Inventory (neuroticism, extraversion, openness, conscientiousness, and agreeableness) were computed according to the instrument author's instructions. This involved

calculating the mean of the responses to the items pertaining to each dimension after reverse-scoring appropriate items.

These scores were checked for outliers by computing standardized values. There were no scores with standardized values greater than 3.29 in magnitude, indicating that no outliers were present.

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 was 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	<i>n</i>	%
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
Multiracial 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

Note. Source: SPSS.

The Big Five Inventory was used to collect data for the continuous variables of neuroticism, extraversion, openness, conscientiousness, and agreeableness. Means, standard deviations, minimum and maximum values, skewness, and kurtosis were computed for these variables. Table 2 displays descriptive statistics for the scores on each dimension of the Big Five Inventory. Participants in this sample scored highest on conscientiousness ($M = 3.96$, $SD = 0.72$) and lowest on neuroticism ($M = 2.71$, $SD = 0.86$).

Table 2*Descriptive Statistics for Personality Dimensions*

Variable	<i>M</i>	<i>SD</i>	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
Openness	3.84	0.61	2.20	5.00	-0.36	-0.25
Conscientiousness	3.96	0.72	2.33	5.00	-0.12	-1.27
Agreeableness	3.82	0.65	2.22	5.00	-0.20	-0.78

Note. Source: SPSS.

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

Table 3*Reliability for Personality Dimensions*

Variable	Number of items	Cronbach's alpha
Neuroticism	8	.82
Extraversion	8	.72
Openness	10	.74
Conscientiousness	9	.80
Agreeableness	9	.72

Note. Source: SPSS.

An a priori power analysis conducted using G*Power for two-tailed binary logistic regression (see Appendix A) was based on a power of 80%, a medium effect size ($OR = 1.72$), and a 5% level of significance. The minimum required sample size based on

these parameters was 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 is that the dependent variable is dichotomous. This assumption was met, as the dependent variable in this analysis is whether or not participants had secured a microloan for their business (yes or no). The second assumption of binary logistic regression is that there are one or more independent variables. This assumption was met, as there were five independent variables (neuroticism, extraversion, openness, conscientiousness, and agreeableness) as well as three covariate variables (age, gender, and ethnicity). The third assumption is that the observations are independent. This assumption was met, as each observation in the data was collected from a unique participant (i.e., no participants completed the survey more than once). The fourth assumption of binary logistic regression is that there is a linear relationship between the continuous independent variables and the logit of the dependent variable. This assumption was tested using the Box-Tidwell test, which involves determining 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	<i>B</i>	<i>SE</i>	χ^2	<i>p</i>	<i>OR</i>
Neuroticism	3.35	2.66	1.58	0.209	28.40
Extraversion	4.06	4.28	0.90	0.343	57.82
Openness	7.93	6.79	1.36	0.243	2773.52
Conscientiousness	-5.19	7.93	0.43	0.513	0.01
Agreeableness	-1.65	7.50	0.05	0.826	0.19
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
Openness x LN(openness)	-3.30	2.94	1.26	0.262	0.04
Conscientiousness x LN(conscientiousness)	2.00	3.40	0.35	0.556	7.40
Agreeableness x LN(agreeableness)	0.27	3.28	0.01	0.934	1.31
Age: 36–55 years	0.11	0.43	0.07	0.795	1.12
Age: 56 or more years	-1.33	0.58	5.29	0.021	0.26
Gender: Male	1.17	0.37	9.86	0.002	3.22
Ethnicity: Non-White	0.52	0.45	1.37	0.241	1.69

Note. LN() indicates the log-transformed value of the variable in parentheses. Source:

SPSS.

The final assumption of binary logistic regression is that there is no multicollinearity among the independent variables. This assumption was tested by calculating variance inflation factors (see Table 5). All variance inflation factors were below 10, 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
Openness	1.49
Conscientiousness	2.83
Agreeableness	2.43
Age	1.30
Gender	1.09
Ethnicity	1.08

Note. Source: SPSS.

Hypothesis Testing

The following research questions and hypotheses were tested in the analysis:

Research Question 1: Is there a relationship between the personality traits and neuroticism of small business owners and the ability to secure microloans for their business needs?

H_01 . 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.

H_a1 . 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.

Research Question 2: Is there a relationship between the personality traits and extraversion of small business owners and the ability to secure microloans for their business needs?

H₀2. The personality traits do not significantly correlate to extraversion 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.

H_a2. The personality traits do significantly correlate to extraversion 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.

Research Question 3: Is there a relationship between the personality traits and openness of small business owners and the ability to secure microloans for their business needs?

H₀3. The personality traits do not significantly correlate to openness 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.

H_a3. The personality traits do significantly correlate to openness 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.

Research Question 4: Is there a relationship between the personality traits and conscientiousness of small business owners and the ability to secure microloans for their business needs?

H₀₄. The personality traits do not significantly correlate to conscientiousness 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.

H_{a4}. The personality traits do significantly correlate to conscientiousness 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.

Research Question 5: Is there a relationship between the personality traits and agreeableness of small business owners and the ability to secure microloans for their business needs?

H₀₅. The personality traits do not significantly correlate to agreeableness 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.

H_{a5}. The personality traits do significantly correlate to agreeableness 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.

To address the research questions and hypotheses, a binary logistic regression was conducted. In this analysis, the independent variables were the five personality traits measured by the Big Five Inventory (neuroticism, extraversion, openness, conscientiousness, and agreeableness), and the dependent variable was whether or not participants had secured a microloan for their business (yes or no). The covariate variables included in this analysis were age, gender, and ethnicity. All variables were entered into the regression model in a single step.

The statistics for the results of the binary logistic regression included the chi-square test for the overall model (chi-square value and p value) and the regression coefficients for each independent variable in the model (B and p values). The individual regression coefficients corresponding to the personality dimensions (neuroticism, extraversion, openness, conscientiousness, and agreeableness) were assessed at a significance level of .05. If the p value for the regression coefficient was less than .05, the null hypothesis was rejected. 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 indicated that, collectively, the independent variables and covariates significantly predicted participants' ability to secure microloans.

Table 6

Omnibus Test of Model Coefficients

Test	χ^2	df	p
Model	52.87	9	< .001

Note. Source: SPSS.

The statistics for the model summary are presented in Table 7. The Cox-Snell and Nagelkerke R squared measures provide estimates of the proportion of variance in the dependent variable explained by the independent variables. Approximately 24% of the variance in the dependent variable was explained by the model according to the Cox-Snell statistic, and approximately 32% of the variance in the dependent variable was explained by the model according to the Nagelkerke statistic.

Table 7*Model Summary*

Step	-2 log likelihood	Cox & Snell R^2	Nagelkerke R^2
1	203.77	.24	.32

Note. Source: SPSS.

Table 8 displays how participants' responses on the dependent variable (whether or not they secured a microloan) were classified by the model (predicted responses) versus participants' actual (observed) responses. The model correctly classified 101 out of the 125 participants who reported that they did not receive a microloan., and 38 out of the 71 participants who reported that they did receive a microloan. The overall percentage of correct classifications was 70.9%.

Table 8*Classification Table*

Observed	Predicted		Percentage correct
	Did not receive loan	Received loan	
Did not receive loan	101	24	80.8
Received loan	33	38	53.5
Overall percentage			70.9

Note. Source: SPSS.

Because the overall model was significant, individual regression coefficients were examined to answer each research question and hypothesis. The regression coefficients for neuroticism, extraversion, openness, conscientiousness, and agreeableness were examined to address Research Questions 1–5, respectively. Table 9 displays the results for the individual regression coefficients.

Table 9

Regression Coefficients for Binary Logistic Regression Predicting Ability to Secure

Microloans

Variable	<i>B</i>	<i>SE</i>	χ^2	<i>p</i>	<i>OR</i>	95% CI
Neuroticism	-0.58	0.32	3.26	.071	0.56	[0.30, 1.05]
Extraversion	0.20	0.29	0.48	.490	1.23	[0.69, 2.18]
Openness	0.23	0.34	0.45	.500	1.26	[0.64, 2.46]
Conscientiousness	-0.61	0.40	2.31	.129	0.54	[0.25, 1.19]
Agreeableness	-1.04	0.42	6.01	.014	0.35	[0.15, 0.81]
Age: 36–55 years	0.02	0.41	0.00	.968	1.02	[0.46, 2.26]
Age: 56 or more years	-1.50	0.57	6.98	.008	0.22	[0.07, 0.68]
Gender: Male	1.23	0.36	11.53	< .001	3.43	[1.68, 6.99]
Ethnicity: Non-White	0.60	0.43	1.94	.164	1.83	[0.78, 4.27]

Note. Source: 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_{01}) 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_{02}) 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 3

The regression coefficient for openness was not significant ($B = 0.23, p = .500$). This indicates that openness was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis (H_{03}) 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 4

The regression coefficient for conscientiousness was not significant ($B = -0.61, p = .129$). This indicates that conscientiousness was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis (H_{04}) 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 5

The regression coefficient for agreeableness was significant ($B = -1.04, p = .014$). This indicates that agreeableness was significantly negatively correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The odds ratio (OR) suggests that for every one-point increase in agreeableness score, participants were 0.35 times as likely (i.e., 65% less likely) to secure a microloan. The null hypothesis (H_{05}) was rejected.

Summary

A binary logistic regression was conducted to address the research questions. For Research Question 1, the results indicated that that neuroticism was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis (H_01) 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_02) was not rejected. For Research Question 3, the results indicated that openness was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis (H_03) was not rejected. For Research Question 4, the results indicated that conscientiousness was not significantly correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis (H_04) was not rejected. For Research Question 5, the results indicated that agreeableness was significantly negatively correlated with the ability to secure microloans after controlling for age, gender, and ethnicity. The null hypothesis (H_05) was rejected. Chapter 5 will contain a discussion of these findings and suggestions for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

Microfinance loans are essential for small businesses to sustain and grow (Fracassi et al., 2016). Some business owners are able to secure microloans, whereas others are unable to do so. Previous researchers have examined several factors that influenced lending, including gender (Eddleston et al., 2016; Murugesan & Jayavelu, 2017; Pablo-Marti et al., 2014; Robledo et al., 2015) and behavioral traits (Liu et al., 2015; Ren & Zhu, 2016). Further, researchers have noted the relationship between the big five personality traits, specifically conscientiousness and openness to experience, and entrepreneurial intent and success (Antonicic et al., 2013; Ayoade Ezekiel et al., 2018; Farrington, 2012; Hachana et al., 2018; Ranwala & Dissanayake, 2016). It was, however, not known whether and how the personality traits of small business owners affected their ability to obtain financial aid.

The aim of this quantitative, nonexperimental, correlational study was to examine the big five personality traits of neuroticism, extraversion, openness, conscientiousness, and agreeableness as independent variables to determine their relation with small business owners' ability to secure microloans. Collectively, the five personality traits of the participants significantly predicted small business owners' abilities to secure microloans, whereas agreeableness was significantly negatively correlated with their ability to secure microloans. This chapter includes an interpretation of the findings of the present study, a discussion of the limitations of the study, and recommendations and implications for the field of study based on the findings.

Interpretation of Findings

The findings of this study determined a negative relationship between personality attributes related to agreeableness with the ability of small business owners to secure microloans, implying that the more agreeable an individual is, the less likely they are to successfully secure financing for their microenterprise. The personality traits of neuroticism, extraversion, openness, and conscientiousness were not significantly related to microenterprise owners' ability to secure financial aid. As per the overall regression model, the big five personality traits (independent variables) and age, gender, and ethnicity (control variables) collectively were found to significantly predict the ability of the participants to secure microloans.

The results of this quantitative study partially aligned with the findings of previous works related to small business enterprises. The big five personality traits of neuroticism, extraversion, openness, conscientiousness, and agreeableness (independent variables) have been widely investigated in neuroscience research (Allen & DeYoung, 2017). Several scholars have studied their relationships with various entrepreneurial aspects, such as success (Baluku et al., 2016; Hachana et al., 2018), commitment (Ayoade Ezekiel et al., 2018), and intentions (Bazkiaei, 2020; Ettis & Kefi, 2016; Murugesan & Jayavelu, 2017; Ranwala & Dissanayake, 2016; Zhao et al., 2010). Varying themes have emerged in the literature regarding the significance of these personality traits in different contexts. This study adds to this topic by presenting an analysis that shows only one (agreeableness) of the five traits to be significant in predicting microenterprise owners' ability to secure loans.

Collectively, the findings of this study indicate that the big five personality traits of neuroticism, extraversion, openness, conscientiousness, and agreeableness predicted the success of small businesses. Overall, the personality attributes that fall under the big five model were found to be significant predictors of the ability of U.S. microenterprise owners to secure loans. Because entrepreneurial success is often linked to the ability to secure funding, the findings of this study extend the work of researchers who previously correlated big five personality traits with entrepreneurial success. For example, my findings extend those of Baluku et al. (2016), who determined that start-up capital, extraversion, and agreeableness positively predicted entrepreneurial success, whereas neuroticism negatively predicted entrepreneurial success. These results are also similar to those of Ayoade Ezekiel et al. (2018), who observed a positive correlation between these personality traits and entrepreneurs' commitment.

However, the specific findings related to the regressions for individual personality factors were inconsistent in identifying agreeableness as the only statistically significant predictor of microloan receipt. Previous studies more frequently linked financial success to other big five traits, such as conscientiousness and openness to experience (Antonicic et al., 2013; Ayoade Ezekiel et al., 2018; Farrington, 2012; Hachana et al., 2018; Ranwala & Dissanayake, 2016). Similarly, in a study with small businesses in the Eastern Cape Province, Farrington (2012) determined all the big five personality traits, except neuroticism and agreeableness, showed significant positive correlations with financial performance; neuroticism exhibited a negative relation with growth performance; and agreeableness had no relationship (Farrington, 2012). Zhao et al. (2010) found that all big

five personality attributes except agreeableness were associated with entrepreneurial performance.

Nevertheless, similar to this study, Leutner et al. (2014) investigated the influence of the big five traits on entrepreneurial outcomes and observed that only extraversion and agreeableness showed significant effects. Although it was assumed that the relationship between business success and loan funding might illuminate the connections between the big five personality traits and small business owners receiving funding, the mixed nature of the overall findings indicated that these connections are not immediately relatable. Below, the findings of each regression are further compared with extant literature.

Neuroticism

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 a high level of neuroticism and entrepreneurial success in Tunisia. Similarly, in a study with microenterprise owners in Uganda, Baluku et al. (2016) 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. In the case of small- and medium-

scale enterprise owners, neuroticism was negatively linked with entrepreneurial commitment (Ayoade Ezekiel et al., 2018).

Although the results of these studies demonstrated 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.

Extraversion

The second research question involved the relationship between extraversion and small business owners' abilities to secure financing. 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 five model, only extraversion moderated the relationship between start-up capital and entrepreneurial success, and Ayoade Ezekiel et al. (2018) obtained a positive correlation between extraversion and entrepreneurial commitment. In a study with creative entrepreneurs from China, Gao et al. (2020) revealed that a moderate level of extraversion is the most suited for entrepreneurs' creativity, 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 my findings. The results of the present study did not indicate a significant relationship

between extraversion and small business owners' ability to secure financial aid, which aligned with some previous works related to extraversion and entrepreneurship.

Openness

The big five personality trait of openness was the focus of the third research question. The corresponding results showed that it was not significantly related to small business owners' ability to secure loans for their microenterprises. Again, this finding was in contrast to those of previous research works, which dominantly indicated a positive correlation between openness and entrepreneurship. Hachana et al. (2018), Antoncic (2009), and Antoncic et al. (2015) observed that openness to experience was positively related to entrepreneurial success, technological developments, and entrepreneurship, respectively. On the other hand, Ayoade Ezekiel et al. (2018) found that openness had an inverse relation with entrepreneurial commitment. The present findings indicated that lenders may not consider openness to experience as a factor in assessing the future success of prospective small business owners.

Conscientiousness

The personality trait of conscientiousness's relationship to small business owners' abilities to secure microloans was the focus of the fourth research question.

Conscientiousness was not found to be significantly related to the ability of small business owners to secure financing for their trade; this result differed from the majority of studies that have examined conscientiousness in the context of business.

Conscientiousness has been extensively studied in entrepreneurship research, possibly more so than the other four factors of the big five model, and it has mostly been

determined to be essential for entrepreneurial performance (Baluku et al., 2016). Hachana et al. (2018) found that conscientiousness had a significant effect on entrepreneurial success. Ayoade Ezekiel et al. (2018) observed a positive correlation between conscientiousness and entrepreneurial commitment. The strong support for the relationship between conscientiousness and business success, and its lack of relationship to small business owners' abilities to secure funding, may suggest a potential factor for lenders to consider that might improve their decision-making capabilities.

Agreeableness

As the fifth research question, the final personality trait of agreeableness was examined with regard to small business owners' ability to secure microloans. Agreeableness was the only personality trait found to be significantly related to the ability to obtain financing. In spite of research that suggested that agreeableness was a positive trait for business success (e.g., Ayoade Ezekiel et al., 2018; Baluku et al., 2016), the present findings indicated that agreeableness negatively predicted small business owners' receipt of loans. More commonly, researchers have determined that agreeableness was nonsignificant for entrepreneurial success (Farrington, 2012; Hachana et al., 2018; Zhao et al., 2010) and technological developments in business (Antoncic, 2009).

On the other hand, the findings were partially consistent with those of Baluku et al. (2016), who observed that agreeableness was a significant predictor of entrepreneurial success in that individuals high in agreeableness were determined to possibly not be suited in large businesses. In contrast, in case of microenterprises, a decent level of

agreeableness was found to be beneficial for developing meaningful customer relationships. The findings of the present study affirmed that individuals who are more empathetic, trusting, forgiving, and tolerant may be less likely to secure financing for their small businesses; therefore, the negative association between agreeableness and fitness to run businesses may extend to lenders' decision-making processes related to small businesses. The negative relationship between agreeableness and perceived fitness for business, as determined by loan receipt in the present study, suggested future researchers might be prescient to examine the relationship in more depth in future studies.

Several reasons may exist for the inconsistency between the findings of the present study and previous research. For example, although scholars have focused on small- and medium-sized businesses, their significance, and associated financial situations (Berisha & Pula, 2015; Krishnan et al., 2015; Mares & Dlasková, 2016; McGuinness & Hogan, 2016; Rostamkalaei & Freel, 2017), research on the owners' ability to secure loans for these businesses and the corresponding attributes of their personality has not been thoroughly conducted. Further, the variables of age, gender, and ethnicity that were considered as controls in the present study have not been systematically investigated in this context. Although the effect of gender on entrepreneurial inclination, intent, and success has been studied by some scholars (Hachana et al., 2018; Murugesan & Jayavelu, 2017; Ranwala & Dissanayake, 2016; Zhang et al., 2009), the moderating effect of gender on the relationship between personality traits and microenterprise owners' ability to secure loans has not been focused on in previous works. Age and ethnicity as factors in this context have been even more

overlooked. Therefore, introducing these variables may have highlighted some gaps in control variables in previous research. In that regard, the present study makes an appropriate contribution.

The hypotheses related to the personality traits of neuroticism, extraversion, openness, and conscientiousness could neither be confirmed nor be rejected in this study. These broad categories of personality dimensions were individually unable to significantly predict the ability of the participants to secure microloans. This could indicate that in the context of securing financing for businesses, these traits, with the exception of agreeableness, do not play a major role in the impression bank officials form of the business owners approaching them. On the other hand, the observations indicate the presence of confounding variables that may have contributed to the fact that a firm confirmation or rejection was not obtained for the majority of the hypotheses of the study. The educational background of the participants, as well as their physical and emotional state at the time of attempting to secure business loans, may have affected their apparent personalities and, by extension, the decision about their loan. However, as this is the first study investigating this particular relationship, the theoretical framework, study design, and final sample population may have significantly contributed to the specific results obtained. Narrow personality traits and intelligence and emotional quotients of microenterprise owners may be more predictive of their ability to secure loans than the broad personality categories given by the big five model.

Limitations of the Study

A quantitative correlational approach was adopted in the present study to determine the relationship between personality traits of small business owners and their ability to secure microloans based on the theoretical framework of the big five model. As such, the results did not provide a general, in-depth analysis of individual participants' personality traits like those of a qualitative study would; confounding variables, such as participants' background and education, may have affected the independent and dependent variables. The use of a nonexperimental design prevented causal inferences from being drawn. Although the study was controlled for age, gender, and ethnicity, the region of inhabitation of the sample population was not considered, limiting the generalizability of the results. Further, as the only options for gender identity were male or female, individuals who did not identify as either of the two were excluded from the sample. A sufficient number of participants were in the final study sample; however, the majority were White microenterprise owners, further limiting the generalizability of the associations obtained.

Recommendations

Small- and medium-scale businesses 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 the 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. These more detailed results 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 that includes participants who do not identify as male or female. Not only would this ensure that a higher number of individuals choose to voluntarily participate in the study, but 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 relationship between their personality traits and their ability to secure microloans for their businesses.

Although the study included individuals from various ethnicities, the final sample population dominantly comprised small business owners who were White. Black participants formed around 10% of the sample, and Hispanic participants contributed to around 2%, whereas Native Americans and Pacific Islanders were each represented by a single individual; multiracial and other ethnicity participants formed approximately 5% of the study sample. In this regard, the study could be extended to sample more persons from these underrepresented communities. The struggles of these individuals to secure loans are known to be higher than their White counterparts even in today's society, and it is essential that their perspective on the relation between personality traits and the ability

to secure loans be taken into account. In this direction, another possible future work could draw a more detailed comparison of the correlation between the big five traits and the ability to secure business financing solely based on ethnicity as the control variable. This would help bring to light the challenges specific to certain communities with respect to their small business financing. Diversifying the study sample and adopting suitable covariates are essential to more effectively examine various hypotheses related to this research topic.

Further researchers should also focus on a qualitative approach to determine the relationship of the independent variables and covariates with the dependent variables examined in this study. With a sufficiently inclusive and diverse study sample, a qualitative study on small business owners' personality traits and their ability to secure microloans would provide a different perspective on the research topic. Self-reported analyses of the extent of neuroticism, extraversion, openness, conscientiousness, and agreeableness that participants possessed would be beneficial to understand the individuals' perceptions of why they were or were not able to obtain financing for their microenterprises. In addition, the rich, detailed data regarding lenders' choices might help to clarify the negative association between agreeableness and small business owners' abilities to secure funding.

Personality traits other than those that fall under the big five model, such as self-efficacy and focus, could also form the independent variables in studies examining the ability of microenterprise owners to secure loans for their businesses as the dependent variable.

Further, control variables such as the type of microenterprise (start-up or family-owned business) and the commodity of the enterprise in this context might provide insights into how business-related aspects and the owners' personalities influence the ability to secure financial aid. Future researchers in the area of big five research should also consistently include control variables in their models to account for whether and how demographics relate to and influence the personality traits' relationship to entrepreneurial success and opportunities.

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 for ensuring that they are successful in their financing ventures. Because of the extensive research connecting the big five 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 the big five personality traits and entrepreneurship. Prior to this study, the relationship between these traits and small business owners' ability to secure microloans with age, gender, and ethnicity as control variables, however, had not been investigated. The results of this study provided valuable insights on this contemporary relationship and extended the existing literature on small businesses, personality traits, and their correlation. These findings indicated that

individually, the majority of the big five personality traits do not significantly correlate with the ability of small business owners to secure microloans after controlling for age, gender, and ethnicity. In the present study, the independent variables and the control variables collectively significantly predicted the ability of small business owners to secure microloans. This finding has several implications in both practical and theoretical contexts.

Implications for Practice

The findings of the present study demonstrated that personality traits related to agreeableness, such as being trusting, forgiving, empathetic, and tolerant, were negatively associated with the individual's ability to secure business financing; an individual with a high level of agreeableness may be less likely to obtain financial aid for their business. Although the personality traits associated with agreeableness generally have a positive connotation, for business owners attempting to secure loans, agreeableness may be associated with the inability to be stoic in the face of entrepreneurial challenges. The findings of this study imply that to secure loans, small business owners might be in a better position if they are forbearing, cautious, and disciplined.

In this study, the other four personality traits of the big five model (neuroticism, extraversion, openness, and conscientiousness) were not significantly related to small business owners' ability to secure microloans. Although further research is required to form a general opinion, the results obtained in this work suggested that business owners need not focus on these aspects of their behavior when attempting to secure loans. Extraversion and openness to experience are usually considered positive traits in social

situations and contribute to the success of entrepreneurial ventures (Farrington, 2012). However, with relation to business owners' ability to secure microloans, these behavioral aspects were not found to be sufficiently significant. Similarly, personality traits related to conscientiousness, such as dependability, carefulness, thoroughness, organization, and responsibility, were not found to be significant in the context of securing business financing. Further, traits associated with neuroticism (anxiety, hostility, emotional instability), which dominantly negatively affect entrepreneurial relations, were not found to be important in the present context of the ability to secure financing.

Implications for Theoretical Framework

The theoretical framework of the big five model can be considered as sufficiently appropriate for studies on entrepreneurial personality. Further, on the basis of the present observations, the dependent variable (the ability of small business owners to secure financing) can be studied more rigorously by implementing other frameworks, such as trait emotional intelligence, core self-evaluations, and measure of entrepreneurial tendencies and abilities (Ahmetoglu et al., 2011; Judge et al., 2003; Petrides & Furnham, 2001). The results and inferences add to the existing big five personality trait literature, some of which presented significant relationships between all the big five personality traits with the corresponding dependent variable. In contrast, others indicated significant influences of three or fewer personality traits. Further research on the relationship examined here is essential, and this study formed a foundation on the basis of which future research works can be conducted. Specifically, scholars studying personality traits and small businesses in the United States can extend the observations of the present study

to surveys with modified sample populations and additional control variables. This study is also expected to serve as a reference for research on narrow personality traits and their relationship with small business owners' ability to secure microloans after the broad personality traits under the big five model have been accounted for.

The fact that the hypotheses on neuroticism, extraversion, openness, and conscientiousness could neither be confirmed nor be rejected raised an interesting point. This finding reiterated the urgent requirement of more extensive studies on the personality traits affecting microenterprise owners' ability to secure loans. This study could potentially serve as a starting point for research on this critical topic and is particularly noteworthy for scholars studying small- and medium-scale businesses in the United States. As further works are conducted, a comparison of future data and the results obtained in this study highlighted the importance of a diverse and inclusive study sample and underscored its effect on the study observations. The results of this study are informative for small business owners who are looking to approach banks for borrowing loans for their businesses.

Conclusions

The aim of the present study was to examine the relationship between the personality traits under the big five theoretical framework (neuroticism, extraversion, openness, conscientiousness, and agreeableness) and the ability of small business owners to secure microloans for their enterprises. A quantitative approach was adopted in this study, and a correlational and nonexperimental study design was implemented. The existing literature has substantially focused on the big five personality traits and the

significance of small-scale business. The correlation between these personality traits and entrepreneurial aspects of business owners has been the focus of several studies; some scholars have observed positive or negative correlations between individual traits and business aspects, whereas others have not found significant correlations. The findings of this study implied an overall significant effect of personality traits on small business owners' ability to secure microloans after controlling for age, gender, and ethnicity. Individually, out of the big five personality traits, only agreeableness was found to be significantly negatively correlated with the ability of the participants to obtain business financing. The results add to the existing research on similar associations, and the study indicated several directions for future works. Chapter 5 concludes this research study.

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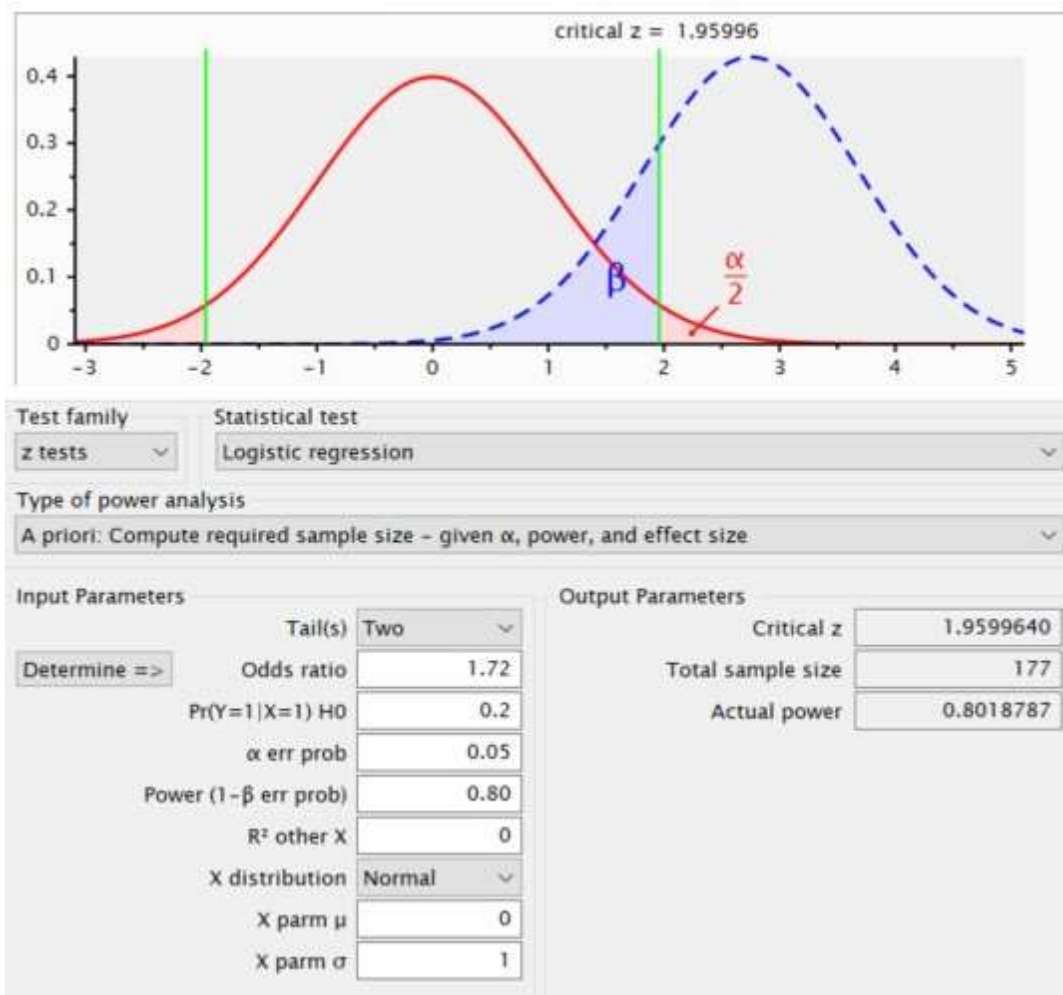
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Appendix A: G*Power Sample Calculation



Appendix B: Big Five Inventory

How I am in general

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which **you agree or disagree with that statement.**

1 Disagree Strongly	2 Disagree a little	3 Neither agree nor disagree	4 Agree a little	5 Agree strongly
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I am someone who...

1

1. __Is talkative
2. __Tends to find fault with others
3. __Does a thorough job
4. __Is depressed, blue
5. __Is original, comes up with new ideas
6. __Is reserved
7. __Is helpful and unselfish with others
8. __Can be somewhat careless
9. __Is relaxed, handles stress well.
10. __Is curious about many different things

11. __Is full of energy
12. __Starts quarrels with others
13. __Is a reliable worker
14. __Can be tense
15. __Is ingenious, a deep thinker
16. __Generates a lot of enthusiasm
17. __Has a forgiving nature

2

18. __Tends to be disorganized
19. __Worries a lot
20. __Has an active imagination
21. __Tends to be quiet
22. __Is generally trusting
23. __Tends to be lazy
24. __Is emotionally stable, not easily upset
25. __Is inventive
26. __Has an assertive personality
27. __Can be cold and aloof
28. __Perseveres until the task is finished
29. __Can be moody
30. __Values artistic, aesthetic experiences
31. __Is sometimes shy, inhibited

32. __Is considerate and kind to almost everyone

33. __Does things efficiently

3

34. __Remains calm in tense situations

35. __Prefers work that is routine

36. __Is outgoing, sociable

37. __Is sometimes rude to others

38. __Makes plans and follows through with them

39. __Gets nervous easily

40. __Likes to reflect, play with ideas

41. __Has few artistic interests

42. __Likes to cooperate with others

43. __Is easily distracted

44. __Is sophisticated in art, music, or literature

4

SCORING INSTRUCTIONS

To score the Big Five Inventory, you'll first need to **reverse-score** all negatively-keyed items: Extraversion: 6, 21, 31

Agreeableness: 2, 12, 27, 37

Conscientiousness: 8, 18, 23, 43

Neuroticism: 9, 24, 34

Openness: 35, 41

To recode these items, you should subtract your score for all reverse-scored items from 6. For example, if you gave yourself a 5, compute 6 minus 5 and your recoded score is 1.

That is, a score of 1 becomes 5, 2 becomes 4, 3 remains 3, 4 becomes 2, and 5 becomes 1.

Next, you will create scale scores by *averaging* the following items for each B5 domain (where R indicates using the reverse-scored item).

Extraversion: 1, 6R 11, 16, 21R, 26, 31R, 36

Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42

Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R

Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39

Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

SPSS SYNTAX

*** REVERSED ITEMS

RECODE

bfi2 bfi6 bfi8 bfi9 bfi12 bfi18 bfi21 bfi23 bfi24 bfi27 bfi31 bfi34 bfi35 bfi37 bfi41 bfi43
 (1=5) (2=4) (3=3) (4=2) (5=1) INTO bfi2r bfi6r bfi8r bfi9r bfi12r bfi18r bfi21r bfi23r
 bfi24r

bfi27r bfi31r bfi34r bfi35r bfi37r bfi41r bfi43r. EXECUTE .

*** SCALE SCORES

COMPUTE bfi_e = mean(bfi1,bfi6r,bfi11,bfi16,bfi21r,bfi26,bfi31r,bfi36) . VARIABLE

LABELS bfi_e 'BFI Extraversion scale score.'

EXECUTE .

COMPUTE bfi_a = mean(bfi2r,bfi7,bfi12r,bfi17,bfi22,bfi27r,bfi32,bfi37r,bfi42) .

VARIABLE LABELS bfi_a 'BFI Agreeableness scale score' .

EXECUTE .

5

COMPUTE bfi_c = mean(bfi3,bfi8r,bfi13,bfi18r,bfi23r,bfi28,bfi33,bfi38,bfi43r) .

VARIABLE LABELS bfi_c 'BFI Conscientiousness scale score' .

EXECUTE .

COMPUTE bfi_n = mean(bfi4,bfi9r,bfi14,bfi19,bfi24r,bfi29,bfi34r,bfi39) . VARIABLE

LABELS bfi_n 'BFI Neuroticism scale score' .

EXECUTE .

COMPUTE bfi_o = mean(bfi5,bfi10,bfi15,bfi20,bfi25,bfi30,bfi35r,bfi40,bfi41r,bfi44) .

VARIABLE LABELS bfi_o 'BFI Openness scale score' .

EXECUTE