

2019

Relationship Between SBA Loans, Personal Capital Finances, Government Regulations, and Business Profitability

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Walden University

College of Management and Technology

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Jennifer E. White

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Walden University
2019

Abstract

Relationship Between SBA Loans, Personal Capital Finances, Government Regulations, and
Business Profitability

by

Jennifer E. White

MBA, Webster University, 2005

BS, Saint Leo University, 2003

Doctoral Portfolio Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Business Administration

Walden University

August 2019

Abstract

Women-owned small businesses have grown 58% between 2007 and 2018. Some female owners of small businesses lack strategies to obtain financial capital to continue growth and raise profitability for their businesses. The purpose of this secondary data analysis was to examine the relationship between access to sources of financial capital, government regulations and business profitability. The resource-based theory was the theoretical framework for this quantitative ex-post facto study. Archival data from the 2016 Annual Survey of Entrepreneurs were collected. Data were analyzed using multiple linear regression. Results of the multiple linear regression analysis indicated a full model, containing two predictor variables ($2, n = 3233$). The results revealed a statistically significant relationship among financial capital, government regulations, and business profitability, $F(2, 3285) = 5.812, p < .003, R^2 = .004$. Although the full model is significant, financial capital and government regulation do not add significant predictive value to business profitability. The financial capital was positively correlated with business profitability at .912, and government regulations were negatively correlated at .001. The findings from this study can potentially influence positive social change to include the potential for women owners of small businesses to increase their profitability with several sources of capital they obtain from SBA loans and personal finances to assist with business profitability. Women owners of small businesses using the financial capital resources at the business start-up stage and during business growth, could improve economic growth for local communities.

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Dedication

To God be the Glory. Completion of this doctoral study would not be possible without the strength and guidance from my Lord and Savior Jesus Christ. I dedicate this achievement to the memory of my father, George M. White, who along with my mother instilled in me that no achievement is beyond reach if you are determined, dedicated and faithful.

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First, I would like to thank God for giving me the strength and determination to stay focus and achieve this great accomplishment. The completion of this doctoral study undoubtedly proves that if you put God first that all things are possible. I am forever grateful to my mother, Jannie G. White, for her love, encouragement, and support; my son, Wesley J, for his patience, being my cheerleader and taking this journey with me, and to my family for their support and understanding. I also want to acknowledge George R. White, my brother, for being my advisor, confident, and my inspiration.

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Section 1: Background and Context

Small businesses are the primary source of economic growth and innovation development in the United States economy (Mills & McCarthy, 2014). Given the vital role of small businesses in the economy and considering the relative financial risk and fragility of such enterprises, the U.S. government has historically used various means to mitigate financial and institutional challenges faced by small businesses (Cortes & McKinnis, 2012). Female small business owners have experienced many of these financial challenges, especially minority female business owners. As of 2017, there are approximately 2.2 million African American women-owned firms in the U. S. (American Express OPEN, 2017). In 2018, minority women accounted for 47% of all women-owned businesses, employing 2.2 million people and generating \$386.6 billion in revenues (American Express OPEN, 2018). Individual small firm behavior has a cumulative effect on regional economic performance, of which women-owned businesses are instrumental in terms of increased economic stability (Deller, Conroy, & Watson, 2017). As women increase in number as owners of small businesses, the impact on the economy will have a direct relationship with female business owners.

Historical Background

The U.S. Small Business Administration (SBA) has been a catalyst for small businesses, assisting with access to capital through delivering millions of loans, providing entrepreneurial development, and counseling (Small Business Administration, 2018). The SBA is a critical source of capital for African American entrepreneurs, the fastest growing segment of the nation's small business owners (VEDC, 2015). Coleman and

Robb (2014) stated that access to financial capital, a vital resource for growth-oriented firms, may be more of a challenge for women-owned firms. Obtaining adequate financing for minority women entrepreneurial firms is an important issue as it aids owners in terms of startup, expansion of the business, and competing in the industry to sustain market share (Krishnan, Nandy, & Puri, 2015). Without greater financial capital, African American female entrepreneurs risk growth performance.

There have been few studies that examine the lack of financial strategies by African American entrepreneurs to access SBA loans. Coleman and Robb (2013) indicated that female entrepreneurs raise small amounts of capital to finance their firms and are more reliant on personal funding. There is insufficient research that has focused on African American female entrepreneurs' financial strategies for financial business profitability. The primary data source for this study was the 2016 Annual Survey of Entrepreneurs (ASE). The ASE, conducted yearly, collects information from a sample of about 290,000 firms over the entire private nonagricultural U.S. economy (Foster & Norman, 2016). As the researcher of this study, I examined the relationship between financing strategies and financial performance.

Organizational Context

The SBA, established in 1953, recognized the unique requirements and problems in financing small business and is one of the most significant government mediations affecting businesses access to finance in the U.S. (Brown & Earle, 2017). The purpose of the SBA is to provide training, counseling, education, disaster relief, and financial aid, and assist businesses through Small Business Investment Centers (SBICs) and Small

Business Development Centers (SBDCs; Benson, Lies, Okunade, & Wunnava, 2011).

SBA programs now include financial assistance, management assistance, and specialized outreach to women and minorities (Small Business Administration, 2018). The administration offers financial support for small businesses through several loan guarantee programs.

Problem Statement

Some African American female entrepreneurs lack financial strategies and are impacted by government regulations which affect business profitability. Financial loans to African American females declined by 47% between 2009 and 2013; African Americans in 2015 constitute approximately 2% of loan approvals in the SBA's 7(a) program (VEDC, 2015). If female entrepreneurs do not seek or are not able to obtain external capital, their prospects for growing their firms are diminished considerably (Coleman & Robb, 2014). Limited and lacking financial strategies to access loans decrease the ability of African Americans and African American female entrepreneurs to achieve viability in reaching their full potential (Bates & Robb, 2013). Some African American female entrepreneurs are not able to acquire external financing for business profitability and lack strategies to access financial resources and are impacted negatively by government regulations which affect gain financial business profitability. The 2016 ASE served as the primary data source for this study. This particular dataset has not been used to examine the relationship between African American female entrepreneurs' financing strategies, government regulations, and financial business profitability.

Purpose Statement

The purpose of this quantitative ex-post facto study was to analyze the relationship between access to financial capital, government regulations, and financial business profitability. The targeted population consisted of secondary data involving African American women obtained from the 2016 ASE. The geographical location was the United States. The independent variables were access to financial capital with three levels of capital (loans, personal/family savings, and no financial capital) and government regulations. The dependent variable was financial business profitability in 2016. The implications for social change included the potential for African American female entrepreneurs to use financial strategies to obtain more significant financial resources through the SBA for business startup and growth. Findings from this study will potentially contribute to social change by promoting effective financial strategies for African American women and economic growth.

Research Question

RQ: Is there a relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), government regulations, and financial business profitability?

Hypotheses

H₀: There is no statistically significant relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), government regulations, and financial business profitability.

H₁: There is a statistically significant relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), government regulations, and financial business profitability.

Significance

The significance of this study to business practice was to provide an understanding of African American female entrepreneurs' financial strategies for business profitability. This study was to determine the relationship between African American female entrepreneurs' financing strategies and financial business profitability. A secondary data analysis of the 2016 ASE is of value for this study as it provided a unique opportunity to examine how specific groups, such as African American, Asian, Hispanic, Caucasian, Indian and etc., are performing in the economy and the business characteristics that distinguish those groups. A significant resource base theory can support entrepreneurs in terms of using intangible resources to gain strategies to access loans that are set aside by the SBA. The implications for positive social change include the potential for small business owners to improve their local community (where the home location of the business resides) by positively increasing the job market and economic growth.

Theoretical Framework

The theoretical framework for this study was the resource-based theory (RBT). Penrose formulated the RBT that focused on the roles of resources that impacted organizational growth through physical resources a firm would purchase, lease, or produce (Kellermans, Walter, Crook, Kemmerer, & Narayana, 2016). The firm's

performance is affected by firm-specific resources and capabilities that is needed for the daily functioning of the business (Tabares, Alvarez, & Urbano, 2015; Wernefelt, 1984). Firms can achieve sustainable competitive advantage from resources such as capital; assets, and resources owned by firms can explain the differences in performance (Saffu & Manu, 2004). For this study, the application of the RBT will link women entrepreneurs' strategies for accessing the resources of SBA loans and personal capital funds. The RBT will connect how African American female entrepreneurs use key resources and the value of those resources create competitive advantages for superior growth performance for their small business. Figure 1 depicts a graphical model of the RBT as it applies to examining financial business growth for entrepreneurs. The graphical model shows how the *capabilities* of the firm, funding and government regulations, attribute to the *competitive advantage*, business profitability.

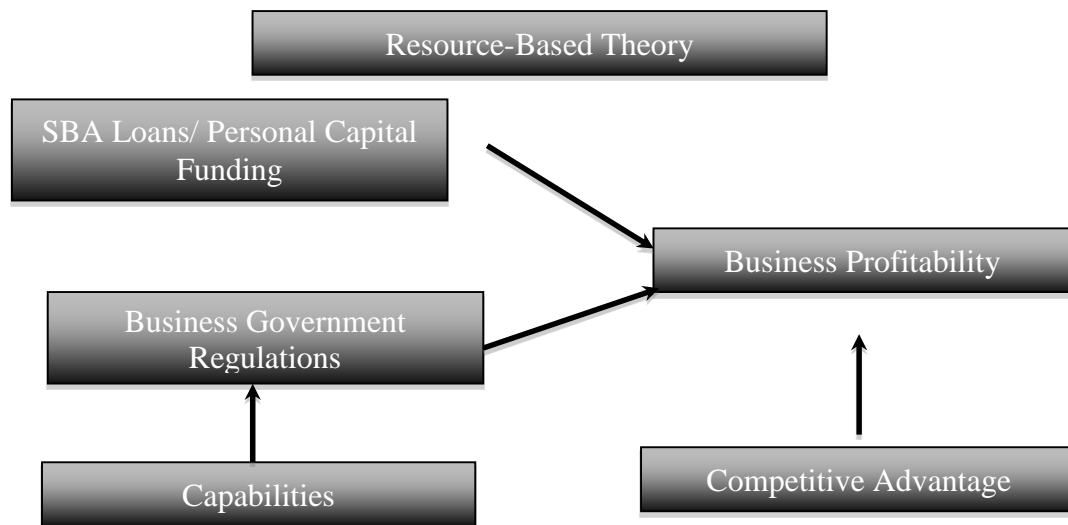


Figure 1. Graphical model of RBT, examining resources for financial business growth.

Representative Literature Review

The United States of America has one of the largest economic systems in the world based on its gross domestic product (GDP) size (Awan, 2014). Small businesses contribute to innovation, job creation, development, and equitable income distribution (Raeesi, Dastranj, Mohammadi, & Rasouli, 2013). Small businesses are classified as businesses with less than 500 employees (Martin, 2017). Small firms produce half of private GDP, employ half the private workforce, and are the source of most job creation in the U.S., accounting for roughly two-thirds of new net private sector jobs from the 1990s (Chow & Dunkelberg, 2011). The purpose of this quantitative ex-post facto study is to analyze the relationship between African American female business owners and strategies to access small business financing. The research question that will guide the study is: Is there a relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), government regulations, and financial business profitability? Inadequate access to financial capital is a constraint strain on the growth of minority and women-owned businesses (Barr, 2015).

African American females' inability to access capital has the potential to prevent consumption and investments, limiting growth opportunities for woman-owned small businesses (Nkundabanyanga, Kasozi, Nalukenge & Tauringana, 2014). Female business owners lack strategies that potentially will lead to high financial growth for profitability. Women seek personal finances and other resources that are far less than the bank lending capital and start their businesses with #5,000, whereas men start with \$135,000 (National Women Business Council, 2014). Female business owners are constrained by

barriers such as limited access to finance, which impedes both growth and development (Ahmad & Muhammad, 2015; Shmailan, 2016). This empirical literature will pull together research involving small businesses owned by women and strategies for profitability.

Key words used to search in this study were: *African American women, bank lending, business growth, business owners, business performance, business start-up, credit and lending, entrepreneurship, financial strategies, financial capital, financial policies, financial stability, job creation, minority business owners, personal finances, resource-based theory, resources based view SBA loans, small business finance, small business policies changes, small business strategies, small-medium enterprises, Small Business Administration, women business owners, and women small business strategies.*

Only those articles that were directly related to the study were further reviewed for the literature review. For this study, articles from 2012 to 2018 were used. Older articles for the study were needed for the historical background of the study. There will be a combination of research material used from Walden University Library databases such as ABI/Inform Collection, Accounting, Tax & Banking Collection, Business Source Complete, EBSCOHost, ProQuest Central, ProQuest Dissertations & Theses Global, SAGE Premier, SAGE Research Methods Online, Science Diet, and Ulrich's Periodicals Directory along with research material from the SBA, US Census Bureau, National Association of Woman Business Owners, and National Small Business Association. This doctoral study lists 182 references, 61 of which were published within the last 5 years. Below is a breakdown of reference sources for the doctoral study and literature review.

Table 1

Breakdown of Sources for Entire Document

Reference type	Total Sources within 5 years	Total
Research-based peer-reviewed journal	36	92
Government sources	5	7
Other/Books	20	86
Total	61	185

Table 2

Breakdown of Literature Review Sources

Reference type	Total Sources within 5 years	Total
Research-based peer-reviewed journal	30	45
Government sources	5	7
Other/Books	13	43
Total	48	95

RBT

The theoretical framework is the lens through which the researcher uses to connect the literature with the study results and methodology. The RBT focused on the roles of resources that enable or constrain organizational growth through physical items a firm purchased, leased, or produced for itself (Kellermans et al., 2016). A small firm

should be able to use its resources to begin a competitive strategy in order to become a viable asset to the economy.

The RBT, valuable strategic tool, was developed in the context of the traditional market economy, primarily relating to physical capital (Galabova & Ahonen, 2011). Firms can achieve sustainable competitive advantages from intangible resources such as strategic planning, management skills, tacit knowledge, and capital (Saffu & Manu, 2004). The RBT framework bridges connections between small businesses, using their strategies to seek all the resources that will gain them competitive advantages.

The RBT positions management as the key driver of the strategic plan to recognize, develop, and deploy resources for business owners (Clulow, Barry, & Gerstman, 2007). Key resources exhibiting specific characteristics enable small businesses to implement strategies which meet the needs of customers, and enhances the firm's competitive advantage (Clulow et al., 2007). The RBT is divided into two subcategories: tangible or intangible resources; tangible resources include capital, access to capital, and location, while intangible resources consist of knowledge and entrepreneurial knowledge (Ferreira, Azevedo, & Ortiz, 2009; Lockett & Wild, 2014; Tabares et al., 2015). The key resources in this study will be in the form of intangible (government regulations) and tangible (financial capital) assets. Figure 2 shows the RBT as it applies to examining financial business growth for entrepreneurs. The graphical model shows how the *capabilities* of the firm, funding and government regulations, attribute to the *competitive advantage*, business profitability.

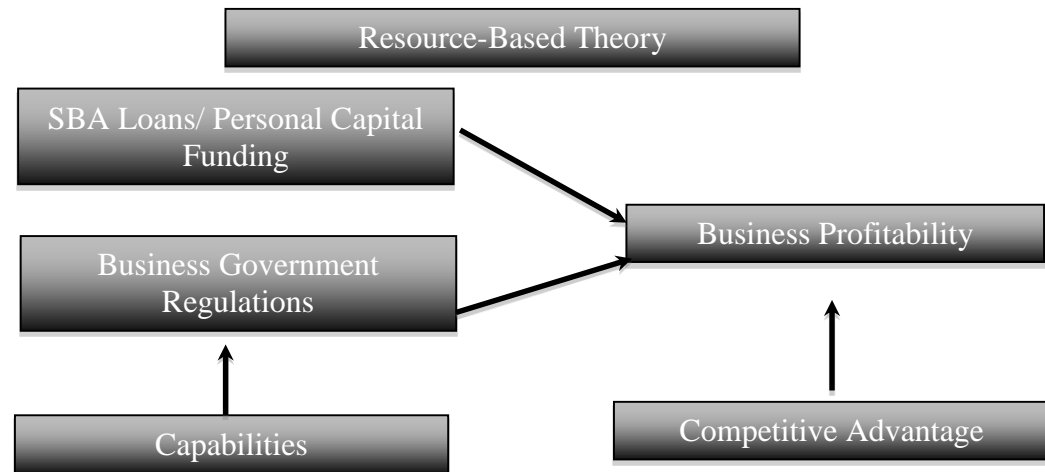


Figure 2. Graphical model of resource-based theory as it applies to examine resources used by entrepreneurs for financial business growth.

Firms can be seen as a bundle of resources that shape preferred strategies consistently with the capability of firms to exploit resources and generate competitive advantage (Angelo, 2018). The competitive advantage of the RBV is business profitability, the dependent variable. The RBT explores how small businesses can build, access, control, and leverage firm-specific resources for sustainable competitive advantage. Scope and size of a firm is an important determinant of its export activities, as size alternates the magnitude of managerial and financial resources and the firm's strength in the domestic market (Kazlauskaite et al. 2015). Lacking material resources, new businesses have relied on their resourcefulness by focusing more on intangible resources than tangible resources (Alonso, Bressan, & Sakellarios, 2015; Kazlauskait et al. 2015). Intangible resources that small businesses can rely on are governmental regulations that would enhance their business position such as . Tangible resources would be finances that they receive from grants, loans, and personal savings.

Small businesses can look to their strengths and weaknesses to gain access to resources. Regaining the use of SWOT analyses (strength, weakness, opportunities and threats) or a business model can reveal resources that will aid in competitive advantage. Jay Barney's 1991 RBT framework illustrated that firms gain a sustained competitive advantage by implementing strategies which help them exploit internal strengths in response to environmental opportunities and external threats to minimize internal weaknesses (Alonso et al., 2015). The RBT emphasizes intangible, difficult-to-imitate resources capabilities, as it acknowledges that the availability of tangible resources is a necessary condition for firms to reach their strategic goals (Pergelova & Angulo-Ruiz, 2014). Using resources that are internal and external will enhance the competitive advantage of small businesses, promoting innovation, increased performance, and profitability.

RBT and Financial Capital

Financial capital resources is small businesses' asset to offset liabilities and acquire other assets that the firm must have to achieve growth (Owusu, Hassan, Osman, Ismail, & Latif, 2017). External relationships between an organization and its suppliers, customers, and other constituencies can also be thought of as a function of the strength of its networks, which are needed to gain legitimacy and access to resources (Chrisman, Chua, & Kellermanns, 2009). Women-owned small businesses are known to receive limited access to financial resources, which impacts their potential for profitability.

Additional capital for new ventures, government loans, and equity can therefore enhance the ability of new small businesses to access those resources that will allow them

to build capabilities and attain competitive advantage (Pergelova & Angulo-Ruiz, 2014). There is a need for African American women business owners to explore strategies of businesses owners to finance their businesses because lack of financial resources are a key factor in the high failure rate of small business growth (Owusu, Hassan, Osman, Ismail, & Latif, 2017). Financial resources have a direct impact on the survival and growth of a firm.

Entrepreneurs with sufficient monetary assets are more likely to secure necessary assets for their firm (Byrd, Ross, & Glackin, 2013; Owusu, Ismail, Osman, & Kuan, 2019). The higher an entrepreneur's financial resources, the greater their chances of profitability. Although business owners may have adequate financial resources, it is imperative that they understand and strategize how they will use their funding for the greatest potential earnings. More specifically, the availability of financial capital becomes more valuable when it is properly managed to produce good outcomes like growth, performance, and profitability (Adomako & Danso, 2014; Owusu et al., 2019). Business owners who are financially literate have a higher chance of profitability and growth of their firm. Individuals with more financial knowledge are more likely to engage in a variety of recommended financial practices (Adomako & Danso, 2014), thus increasing the chances of retaining, strategically positioning, and profiting from their business.

The availability of financial capital for entrepreneurs enhances the pursuit of resource-intensive growth strategies (Adomako & Danso, 2014). Business owners who have measurable strategic goals for their businesses are at a higher competitive advantage. Possessing adequate financial knowledge or a strategic plan may not

necessarily translate into firm performance or profitability without the key essential ingredient of finances (Adomako & Danso, 2014). It will take financial literacy, business strategies, and adequate financing to ensure a higher potential of business profitability.

RBT and Government Regulations

Resources should be valuable to reduce cost or increase revenue streams (Angelo, 2018). Small businesses lacking valuable tangible resources can successfully replicate successful small business tangible resource position by reviewing their strategic plan and financial analysis (Lui, Timothy, & Gao, 2010). The majority of small businesses would benefit from allying with other small businesses to gain competitive advantage, which turns into profitability for both firms.

The RBT addresses the central issue of how superior performance can be attained relative to other small businesses in the same market and from acquiring and exploiting unique resources of the firm (Saffu & Manu, 2004). Unique resources such as regulatory reforms for small businesses could impact the business negatively or positively. How regulations impact business growth may not always rely on owner's strategic plan? The RBT along with competitive advantage allows small business owners to look at how firms operate and build resources and capabilities within the constraints of the institutional environment in which they operate, as government policies are key elements in terms of external conditions in which entrepreneurship develops (Smallbone, Welter, Voytovich, & Egorov, 2010). Pergelova and Angulo-Ruiz (2014) stated that formal institutions such as banks, could affect resource flow for new businesses, and consequently the formation of competitive advantage. Laws and regulations and special

programs such as preferential funding and guarantee systems can affect the level of resources available for new firms (Pergelova & Angulo-Ruiz, 2014). Government regulations have been set in place to aid in assisting new and small firms in terms of availability to access funding.

Secondary Theoretical Framework

The pecking order theory (POT) also contributes to the theoretical framework of this study. Under the POT, there is a strict ordering or hierarchy of sources of finance first. This result from adverse selection issues which arise when the firm has more information about its value than providers of funds; these adverse selection issues are absent when retained earnings are used as the marginal source of funds and are greater for equity than debt finance (Frank & Goyal, 2005; Myers, 1984). The result is that firms will have a preference for internal sources of funds followed by debt and then, when such sources are exhausted, equity finance will be used (Benito, 2003). For small enterprises, it is best to look at internal sources of financing before external. This shows that the firm is in a good position of growth. Figure 3 illustrates a graphical model of the POT hierarchy beginning with internal financing and moving to external financing equity. It shows that small business owners need to focus on the internal financing of the business before going to other financial capital sources.

The POT suggests that small firms have a preference order for capital used to finance their businesses (Chen & Chen, 2011). The theory can positively impact small businesses accessing capital and assist with a solid financial structure. It is the preference for small enterprises to finance from their retained earnings then going to debt; this is at a

lower cost to the small firm making it manageable for the firm (Holmes & Kent, 1991; Lopez-Gracia & Sogorb-Mira, 2008). Small and medium enterprises occasionally, especially during and after an economic decline, undergo what can be called a finance gap; this involves the enterprise not being able to acquire capital or external financing (Domenichelli, 2008; Holmes & Kent, 1991). When a firm is not able to acquire capital or external financing, there lifespan is limited and is based solely on the revenue of the business for growth.

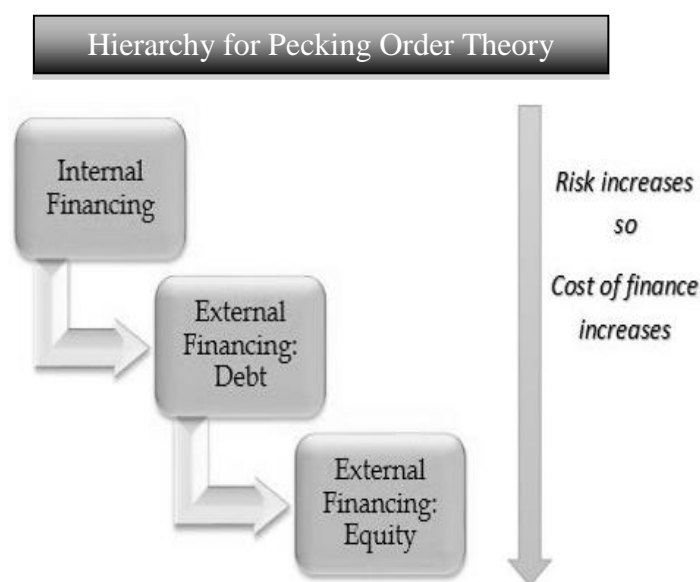


Figure 3. Graphical model of the hierarchy for the POT.

The POT predicts that rapidly growing firms are likely to have insufficient earnings to finance all their growth internally and they will seek external financing (Acedo-Ramirez, Ayala-Calvo, & Navarrete-Martinez, 2017). Prior research has demonstrated that the POT is more suitable for justifying the financial choice for new small businesses, which is attributed to the importance of internal/external debts vs

internal/external equity (Fourati & Affes, 2013). Paul, Whittam, and Wyper (2007) determined that external equity should not be viewed as expensive, but rather as good value as a well-chosen investor can add business skills and social capital. The POT would suggest that start-up firm's obtain external financing for them to have a higher chance of profitability (Paul, Whittam, and Wyper, 2007). The POT is used as a secondary theory for this study as it does fully support the existing small businesses.

Background of Problem

Some African American female entrepreneurs lack financial strategies and are impacted by government regulations to gain business profitability. Financial loans to African American females declined 47% between 2009 and 2013; African Americans in 2015 constitute approximately 2% of loan approvals in the SBA's 7(a) program (VEDC, 2015). Some African American female entrepreneurs are not able to acquire external financing for business profitability. If women entrepreneurs do not seek, or if they are not able to obtain, external capital, their prospects for growing their firms are diminished considerably (Coleman & Robb, 2014). Limited and lack of financial strategies to access loans decrease the ability for African Americans, along with African American female, entrepreneurs to achieve viability in reaching their full potential (Bates & Robb, 2013). Lack of financial strategies promotes the closure or downgrade of the business.

Minority female small business owners face major challenges when accessing capital. Barriers, such as limited access to finance, which impedes both growth and development, constrained women business owners (Ahmad & Muhammad, 2015; Shmailan, 2016). Women-owned businesses lag in revenue and employment, earning a

dollar while their male counterpart earns \$2.30 (McManus, 2017). Women accessing growth capital is a challenge which results in less than 3% of women-owned businesses crossing over the million-dollar revenue mark (Zimmerman, 2015). The business problem with African American women-owned small business is they lack financial strategies used to access greater financial capital for growth, expansion, and to sustain in the market or local government (Ahmad & Muhammad, 2015; NWBC, 2014). The downfall of African American women accessing the greater financial stability for profitability would impact the economy as they have a substantial percentage of small businesses in the U.S.

Small Business Administration

The mission of the Small Business Administration (SBA) is to provide training, counseling, education, disaster relief, and financial aid, and to assist businesses through SBICs and SBDCs (Benson, Lies, Okunade & Wunnava, 2011). The financial aid through lending that the SBA offers aids small businesses to start-up and grow their firms. The Small Business Administration has seen an all-time record of lending support in 2011, with approximately \$30 billion to help 60,000 small businesses (Brown & Earle, 2017). The SBA identifies that starting a small business can be complicated and offer assistance that includes financial assistance. The SBA strives to assist small and medium size enterprises (SMEs) to attain the financing that will help them stay functioning during economic strife.

The administration has been pushing to demonstrate its concern for small businesses as it looks to repair relations with the business community and spur job growth; the SBA estimated in 2011 that small companies generate about two-thirds of

new jobs in the country at which unemployment rate remained elevated at 8.9% (Sparshott, 2011). Small-Medium enterprises' access to capital must be one of the priorities of all governments if SMEs are to attain their full potential by moving from start-ups to growth-oriented business firms (Yeboah & Koffie, 2016). Congressional interest in the Small Business Administration's access to capital programs has increased in years leading up to 2016, primarily because assisting small business in accessing capital is viewed to enhance job creation and economic growth (Dilger, 2016). The SBA has several programs to support small businesses, including loan guaranty programs to enhance small business access to capital.

The contracting programs to increase small business opportunities in federal contracting; direct loan programs for businesses, homeowners, and renters to assist their recovery from natural disasters; and small business management and technical assistance training programs to assist business formation and expansion (Dilger, 2016). The Small Business Administration has several programs to support small businesses, including loan guaranty programs to enhance small business access to capital; contracting programs to increase small business opportunities in federal contracting; direct loan programs for businesses, homeowners, and renters to assist their recovery from natural disasters; and small business management and technical assistance training programs to assist business formation and expansion (Dilger, 2016). These programs were established to create security support for small businesses. The SBA loan program offers 6 main loans with different qualifications and criteria; table 3 displays the types of loan programs offered by the SBA.

Table 3

SBA Loan Programs

SBA Loan Program	Loan Amount	Loan Term	Interest Rate	Best For
SBA 7(a) Loan Program	Up to \$5 million	5 to 25 years	Prime +2.25% to Prime +4.75%	General business financing needs; capital up to \$5 million
SBA 504/CDC Loan Program	Up to \$14 to \$20 million	10 or 20 years	Around 5%	Buying commercial real estate or equipment
SBA CAPLines Loan Program	Up to \$5 million	5 or 10 years	Prime +2.25% to Prime +4.75%	Companies that need a line of credit that can be used again
SBA Export Program	Up to \$5 million	3, 7, 10, or 25 years	6% to 10%	Export businesses that need to finance their export activity
SBA Microloan Program	Up to \$50,000	6 years	8% to 13%	Businesses with small capital needs up to \$50,000
SBA Disaster Loan Program	Up to \$2 million	30 years	4% to 8%	Companies that have been impacted by a declared natural disaster.

Note. From “SBA lending program criteria, loan term, and interest rate.”

The SBA offers six different types of loans for small businesses which are listed in Table 3; SBA 7(a) and SBA 504 are the two largest categories that is acquired from small businesses (Brown & Earle, 2016). The SBA 7(a) loan program guarantees loans made by participating in commercial lending institutions and offers available loan maturities up to 10 years for working capital (Box, 2011; Small Business Administration,

2018). In the 2018 fiscal year, financial institutions large and small provided approximately \$25.4 billion in approvals to about 60,350 small businesses nationwide through the SBA 7(a) program (Barlas, 2019). The SBA 504 loan program is the second widely used program. In the fiscal year of 2018, the SBA approved 5,874 504/CDC loans amounting to nearly \$4.8 billion (Dilger, 2019). Dilger (2019) reports that by the end of the 2018 fiscal year, there were 56,601 504/CDC loans with an unpaid principal balance of approximately \$25.8 billion. This indicates that when small businesses are acquiring credit or access to capital, then are presumably in a financial disadvantage to pay the loan back unless they have strategic plan on utilization of the funds.

Women Business Owners

For a small business to be classified as a woman-owned business, a woman must own, manage, and operate at least 51% of the business (Herrington, 2016). As of 2018, the growth rate of women-owned businesses has increased by 58% since 2007 and 6% since 2017 (U.S. Census Bureau, 2018). Women-owned businesses, which represent a rapidly growing segment of the US economy, own 36% of the total small businesses in the US (McManus, 2017; Mijid, 2013; Powell & Eddleston, 2013). Although women are growing at a fast rate in business ownership, they are still an underserved segment in the US economy with business ownership. Women-owned small firms have been known to receive limited access to financial resources, which would impact their potential for profitability. Figure 4 shows the percent of business owned by women in 2017, the information was provided by the Small Business Administration. The figure shows that

African American women owned 59% of the small businesses in 2017, the highest number of minority women owned businesses.

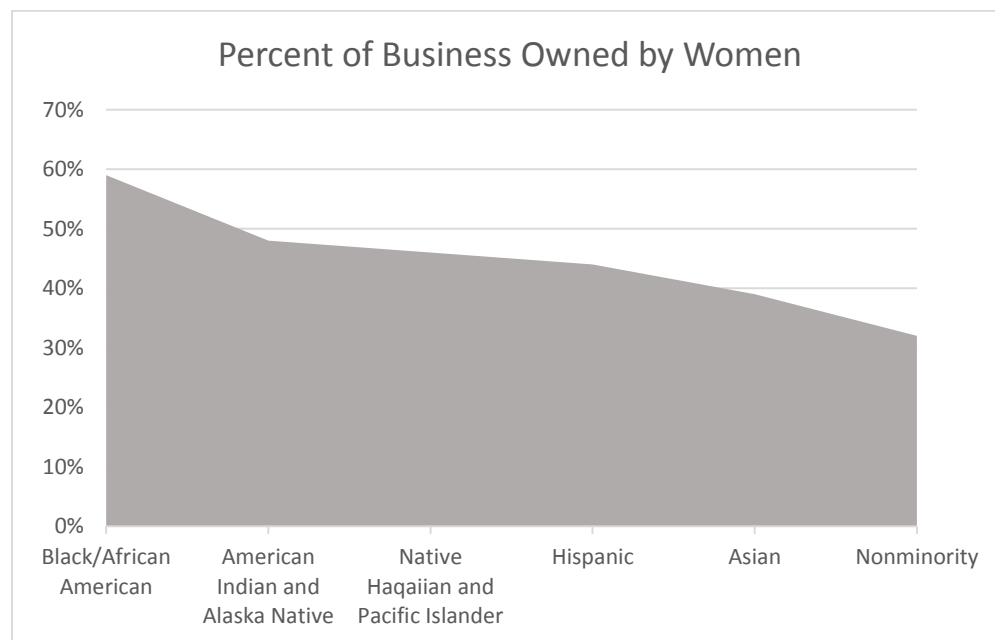


Figure 4. Percent of businesses owned by women in 2017.

Historically, women have not had an equal opportunity to access financial capital as their male counterparts due to the systematic bias against women business owners. Initiating and sustaining a business is a significant undertaking, but women small business owners face additional obstacles, such as lack of resources, family responsibilities, and stereotyping (Fairlie & Robb, 2009; Sharafizad, 2018). The stereotyping of women often finds them less aggressive or competitive than their male counterparts which is believed to be the attribute to being less successful. Attributes such as competitiveness, self-confidence, aggressiveness and ambition are often seen as characteristics of a successful business owner, and women business owners (Sharafizad, 2018). Developing entrepreneurial activity among women has had an important impact

on wealth and job creation across the country (Blotnicky & Findlay-Thompson, 2014). More women are encouraged to become entrepreneurs and start up their enterprise. Entrepreneurship allows women an avenue to earn a living and provide for their families through the operation of a small enterprise (Bullough, 2013). Entrepreneurship gives women entrepreneurs' a sense of belonging and ownership of what they can call their own.



Figure 5. Women business owners: Hurdles for financing.

Women have not always been at the forefront of starting anything outside of the home, even going to get an education. There is a positive link between entrepreneurship education and entrepreneurship effectiveness, and business owners who have the level of competence, skills and knowledge of business are more likely to maintain and grow their business (Sharafizad, 2018). Gender role expectations have traditionally limited women's access to the education needed to develop marketable skills and to income-earning opportunities (Bullough, 2013). The female role was to take care of the home and

children while the male role was to provide for the family financially. Over the past decade, women now have an educational background, raise healthier families, and participate in household economics and finances (Bullough, 2013). Now with more women going into the workforce and playing dual roles, the dynamics of the families have drastically changed. Figure 5 displays the biggest hurdles that women business owners face when entering into the industry. The diagram shows that 74% of women biggest obstacle is not being able to find funding.

Inadequate access to financial capital that has hindered the growth of their business constrained minority women business owners (Barr, 2015). In a 2011 study of National Institutes of Small Business Innovation and Research (SBIR) grants found that women-owned businesses were 16% less likely to attract private investments dollars compared to companies owned by men (Wiederhold, 2014). Small companies are much more sensitive to swings in the economy, have higher failure rates, and have fewer assets to collateralize the loan (Mills & McCarthy, 2014). When small business owners look for startup financing and funds for business expansions, they start with family and friends. But many have started looking at financial institutions.

A critical factor that promotes women to start a business is the autonomy and flexibility regarding of work schedule and number of hours worked (Thebaud, 2015). Women are influenced to become entrepreneurs due to the work-life balance that it creates for them and the well-being of their family. Women who start a business out of the desire to create a better work-life balance may be sensitive to creating the same work environment for their employees (Adkins, Samaras, Gilfillan & McWee, 2013). Women

business owners are operating businesses in almost every industry, such as manufacturing, retail, and technology; they seem to populate more in the service industry. Female business owners tend to gravitate to the service industry more than any other sector (Blotnick & Findlay-Thompson, 2014). Woman-owned small businesses are empirical---that keeps the United States economy rising.

Despite the rapid growth in the number of businesses owned by African American women in the United States, African American women business owners remain underrepresented in the business population overall (Mijid, 2015). While the number of women-owned businesses have rose 58% from 2007 to 2018, minority women owned businesses have grown nearly three times that rate (American Express OPEN, 2018). The lack of African American woman owners would impact the economy in such a negative way that it would dampen the economy.

Government Regulations

Small business in the United States and almost in every country must abide by government regulations. The United States of America has one of the largest economic systems in the world based on its gross domestic product (GDP) size (Awan, 2014). The U.S. GDP is large, partially due to the small and medium enterprises good and services. Women-owned businesses have a high impact on the service industry (McManus, 2017). In some countries, the local government holds ownership of all small enterprises. Small businesses are established for the primary purpose of producing goods and services to the local community that is in the interest of the entrepreneur that is establishing the enterprise. So why do we need to get the government involved? Many supporters of free

markets acknowledge that some government intervention may be necessary to protect consumers and owners, promote competition, enforce contracts, and protect private property rights (Lewis, Richardson, & Corliss, 2014). There have been studies to show the impact of government regulations on the performance of small businesses.

Government regulations has been known to hinder or demolish small businesses. Governmental regulations often frustrate entrepreneurs and obstruct their entry into the business market (Raeesi, Dastranj, Mohammadi, and Rasouli 2013). Small businesses do carry a burden from regulations that are implemented by the government (Lewis et al., 2014). A few studies have examined how regulations promote business performance by contributing to the creation of market opportunities and by influencing the implementation of business practices that improve efficiency and competitiveness (Kitching, Hart, & Wilson, 2015). Due to the many regulations that directly and indirectly affect the small-medium enterprise industry, it causes some of the enterprises to get swallowed by regulations that are geared at larger businesses.

Government regulations have been a barrier for small businesses entry and have an adverse impact on the growth of businesses. Different regulations, including taxation laws, environmental regulations, lending, licensing, loan obtaining, and others are challenges for small businesses (Raeesi, Dastranj, Mohammadi, and Rasouli 2013). The extensive empirical literature has assessed how the regulatory environment for business affects a broad range of economic outcomes at both the macro and micro levels-including productivity, growth, employment, trade, investment, access to finance and the informal economy (Doing Business, 2014). The regulatory environment can impact the

small business positively or negatively depending on how the owners approach the regulatory policies.

Small-Medium enterprises' access to capital must be one of the priorities of all governments if SMEs are to attain their full potential by moving from start-ups to growth-oriented business firms (Yeboah & Koffie, 2016). The extensive empirical literature has assessed how the regulatory environment for business affects a broad range of economic outcomes at both the macro and micro levels-including productivity, growth, employment, trade, investment, access to finance and the informal economy (Doing Business, 2014). The Small Business Deregulations Taskforce indicated several areas of government business regulation in which the recording, along with reporting requirements for small businesses was excessive (Lewis, Richardson, & Corliss, 2014). A few studies have examined how regulations promote business performance by contributing to the creation of market opportunities and by influencing the implementation of business practices that improve efficiency and competitiveness (Kitching, Hart, & Wilson, 2015). Many regulations do have specified exemptions for very small business due to the financial hardships that rules can create (Calcagno & Sobel, 2014). Small businesses have a platform to allow them to voice their concerns about the regulatory compliance set by the government.

The Regulatory Flexibility Act of 1980 (RFA) was enacted to address the disproportionate burden of regulations on small business (Small Business Administration, 2018). The government also sets guidelines and monitors the employment of small businesses. Jobs in the US declined 14.1% in 2014 in establishments with fewer than 50

employees, compared with 9.5% in businesses with 50 to 500 employees, as the overall employment decreased 8.4% (Mills & McCarthy, 2014). According to studies by the SBA, small firms with fewer than 20 employees annually spend 45% more per employee than larger firms to comply with federal regulations (Coratolo, 2010). The owners of many small businesses say economic uncertainty and inflationary pressures have led them to delay hiring and capital expenditures (Mattioli & Needleman, 2011). With weak sales, small businesses are slashing jobs. In January 2010, small companies eliminated 3,000 jobs, according to Automatic Data Processing (ADP), the world's largest payroll processor (McKee, 2010). During the first phase of the 2007-2009 recession, which lasted for the first half of 2008, the recession was not deep as measured by the decline in gross domestic product (GDP) or the rise in unemployment (Labonte, 2010). The unemployment rate was the longest running rise in a recession since World War II. Unemployment rates reached a high of 10.1% in October 2009, increasing five percent in December 2007; approximately eight million jobs were lost (DeWolf & Kummer, 2009). As small businesses cut jobs, the other rising issue is unemployment claims insurance.

The economy stalled, and the official unemployment rate hovering stubbornly around 9%, many small businesses are struggling to understand how unemployment insurance premiums are determined (Mount, 2011). Mount goes on to state (2011) that federal government charges employers a base rate of 0.6% of the first \$7,000 of each employee's wages each year. The creation of small businesses is a key component to the growth of the economy. Small and Medium-sized Enterprises (SMEs) are major contributors to the economy of most countries, but under the 'credit crunch,' it has been

suggested that many SMEs are facing a range of difficulties (Yigui & Shumin, 2010).

Unless policymakers implement practical solutions to the problem, the small business sector will receive far less bank credit than previously received, hampering the economy for years to come (Shane, 2011). The rise in new policies to allow small businesses to access sources of financial capital for growth has risen. Policymakers have allocated millions of dollars for small enterprises to continue to grow.

Access to Financial Capital

Access to credit can create economic opportunities for women; however, women entrepreneurs face a significantly higher challenge than men in gaining access to financial services (Isaac, 2014). Women entrepreneurs can obtain financial backing from financial institutions, but it comes with challenges that discourage women entrepreneurs. Women who successfully gain approval for debt financing from financial institutions tend to receive shorter-term funding, which represents the small loan sizes and higher interest rates (Johnson, 2017). Guaranteed loan programs that are governed under the SBA provide important resources for private lending for minority and women business owners. The State Small Business Credit Initiative (SSBCI) provides flexible support to state- and locally run programs that use public funds to leverage private funding for small businesses (Barr, 2015). This initiative has been able to help with building businesses that would otherwise be economically distressed.

In the first quarter of 2013, small businesses saw gradual strengthening in the overall economy as borrowing conditions in the United States continue to improve slightly with small business loans outstanding valued at \$584.3 billion (Williams, 2013).

With the United States facing the most severe economic crisis in more than 70 years, small businesses are confronted with a frozen lending market and limited access to the capital they need to survive and grow in the critical time (Dilger, 2016). Growing numbers of companies are caught between vendors demanding faster payment and customers taking longer to pay.

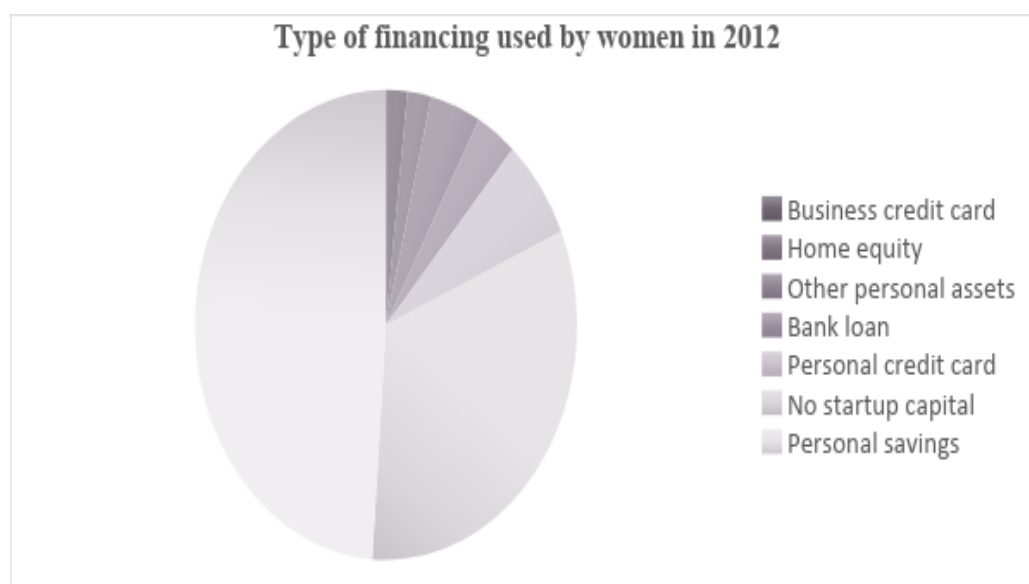


Figure 6. “SBA Office of Advocacy” by US Census Bureau, Survey of Business Owners, 2012.

Dilger (2016) stated that small firms may have a hard time obtaining loans because they have little credit history and lenders may be reluctant to lend to small firms with innovative products because it might be difficult to collect enough reliable information to correctly estimate the risk for such products. Access to financing continues to be one of the most significant challenges for the creation, survival, and growth of small and medium enterprises especially innovative ones (Dilger, 2016). Obtaining financing is also a challenge for women business owners. The flat economy, reduced business equity values and the resulting impact on credit and collateral have

made capital formation for small businesses through bank financing difficult to obtain (Geho & Frakes, 2013). Lack of access to credit also affects small businesses disproportionately as banks were continuing to tighten standards for loans to small businesses, while standards for large companies were unchanged (Byrd, Ross & Glackin, 2013; McKee, 2010). Banks were hesitant to conduct lending partnerships with small businesses; but bank lending was only one option of many for small businesses to access capital.

Access to different sources of funding depends on a variety of the firm's characteristics such as firms risk level, firm size and age, maturity level and amount of funds nature of ownership (Cincera & Santos, 2016). Women-owned businesses were 16% less likely to attract private investments dollars compared to businesses owned by men (Wiederhold, 2014). Small businesses are much more sensitive to swings in the economy, have higher failure rates, and have fewer assets to collateralize the loan (Mills & McCarthy, 2014). When small business owners look for startup financing and funds for business expansions, they start with family and friends. But many have started looking at financial institutions. The key deposit services for small businesses are business checking and savings accounts, and the core credit services are business lines of credit, business loans and credit cards (Kennickell, Kwast, & Pogach, 2015). Women are likely to use less financing than men to start up a business. According to the data in the US Census Bureau by Survey of Business Owners (Small Business Administration, 2016) personal savings was the largest form of financing used by women at 51%. Several sources of capital are accessible to small businesses.

Acquiring sources of capital to grow your small enterprise can be strenuous as each source has different requirements. Accessing finance for firms with growth opportunities and entrepreneurs with ideas helps improve income distribution and promotes growth (Nkundabanyanga, Kasozi, Nalukenge & Tauringana, 2014). The inability to access capital has the potential to prevent consumption and investments limiting the growth opportunities for small businesses (Nkundabanyanga et al. 2014). Almost 90% of small businesses use some form of credit with 60% being from bank loans (Laderman & Reid, 2011). The high percentage of businesses using credit shows that small businesses were relying on bank lending to assist with stabilizing their organization.

Credit conditions for small firms are less than optimal for small businesses leaving owners weary of how they will access lending during a hardship with the economy. With the US subprime crisis of 2007, commercial banks were forced to raise capital requirements to protect themselves against investment risk losses (Rodriguez & Goodwin, 2015). Small firms depend heavily on banks as a source of credit and capital. The rise in bank lending requirements led to the decrease in small businesses obtaining bank loans. The flat economy, reduced business equity values and the resulting impact to credit and collateral has made capital formation for small businesses through bank financing difficult to obtain (Geho & Frakes, 2013). Shortly after the recession that occurred in 2007-2009, bank lending to small firms in the U.S. fell substantially (Kiser, Prager, & Scott, 2016). Leaving many small businesses to seek refuge of survival in other

areas, which some small business owners could not sustain growth. Figure 7 shows the difference bank lending to small and large businesses for 2 decades (1995-2015).

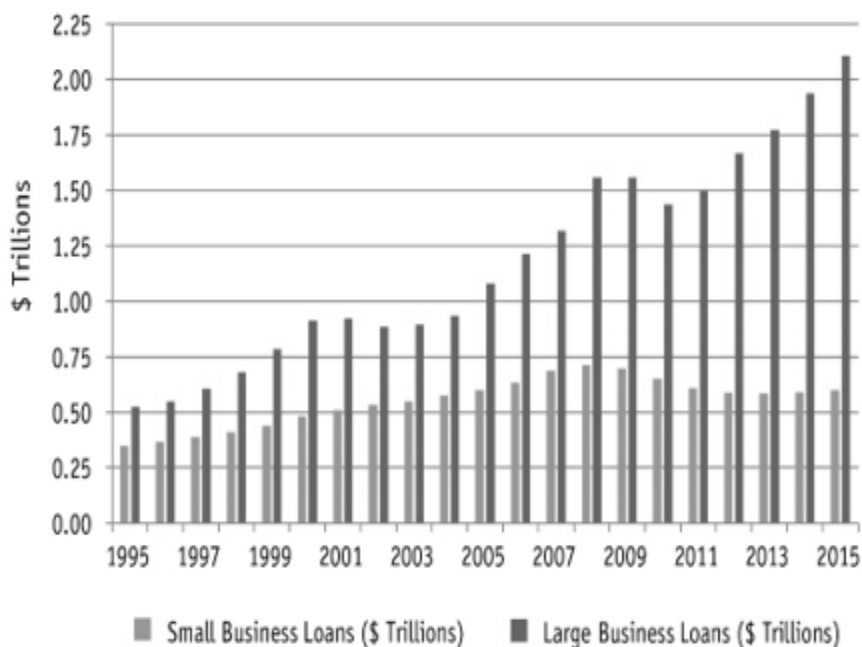


Figure 7. Bank Lending to Small and Large Businesses. From “To Grow New Businesses, Improve Access to Credit,” by D. Brown, & E. Liner. 2016, Third Way.

Many factors have contributed to the decline in small business lending, including lower demand for credit by firms whose business declined during the recession; diminished credit quality or collateral quality of firms seeking credit; a general tightening of credit standards by banks; the deteriorating financial condition of some banks; and increased scrutiny of bank lending decisions by bank examiners (Kiser, Prager, & Scott, 2016). The key deposit services for small businesses are business checking and savings accounts, and the core credit services are business lines of credit, business loans and credit cards (Kennickell, Kwast, & Pogach, 2015). Bank lending coupled with small business loan defaults set a large stage for tightened lending standards which made it

difficult for small businesses to secure loans (Geho & Franks, 2013). Shane stated (2011) that the decline in bank lending to small businesses during a slowdown is larger than the corresponding drop in bank lending to large companies. In 2007, 38% of new loans went to small businesses, but by 2009, that percentage had shrunk to 26%; also in 2007, 41% of new lending dollars went to small businesses, but by 2009, that share had fallen to 35% (Shane, 2011). Examination of the Federal Reserve's Senior Loan Officer Opinion Survey (SLOS) on Bank Lending Practices provides a clear picture as it relates to lending standards for small business; a record 74.5% of banks reported tightening lending standards in the fourth quarter of 2008 with a record 92.7% reporting increased spreads on those loans (Coratolo, 2010). During the 2008 financial crisis, small businesses were less able to secure bank credit because of a 'perfect storm'; in 2009, banks made 1.6 million new loans to small businesses, 3.6 million fewer than they made in 2007, a drop of 69% (Mills & McCarthy, 2014; Shane, 2011). The decline of the financial industry affected the small business sector for several years.

Large banks approved 17.3% of small business loans in May 2013, representing a 7.1% increase from one year ago, in May 2012; however, many companies continue struggling to secure credit, especially those pursuing smaller loan sizes (Baker, 2013). Baker, a writer for Black Enterprise, states (2013) that the Small Business Administration (SBA) data shows as far back as 2009, small-dollar loans accounted for 80% of SBA-guaranteed lending which in 2013, that figure has dropped to less than 55%. Unlike large banks and community banks, credit unions have increased the amount of lending they do for small business. Small businesses loans declined 27% from 2008 to 2013 with large

banks only approving 17.3% of loans; roughly 60% of small businesses were denied a bank loan, nearly 95% of small firms under \$5 million in sales did not apply for a loan due to bank hesitancy (Baker, 2013; Shane, 2013). Small business owners hesitated to seek out bank loans due to the rapid decline in bank lending as a result of the downward U.S. economy.

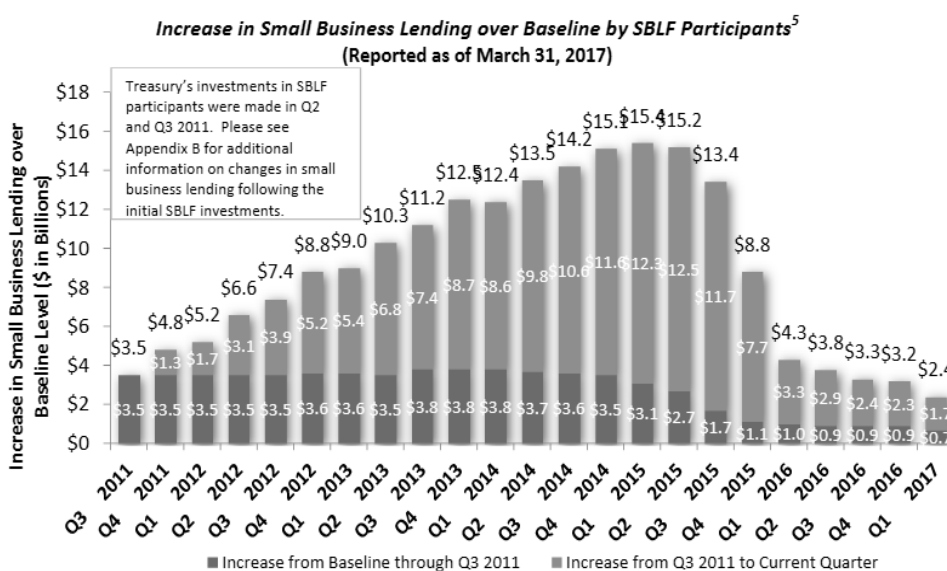


Figure 8. Small business lending growth. From “Report of SBLF Participants’ Small Business Lending Growth,” by Congress quarterly report, 2017.

During the 2007 to 2010 financial crisis timeframe, when small business lending decreased, credit union business lending rose in terms of the percentage of their assets (Arora, 2017). Small enterprises are now able to rely on financial institutions to assist them with stability during a stifled economy. From 2010 to 2014, credit unions have increased lending to small businesses by 39.2% (Walker, 2016). As credit unions increased their lending, community banks reduced by 5.6% during the same period of 2010-2014 (Mills & McCarthy, 2014; Walker, 2016). Banks with assets of at least \$1

billion were required to report the geographic distribution of their small business lending, provide information about the number, and track loans under \$1 million in size (Byrd, Ross & Glackin, 2013). Congress provided the SBA with additional resources to expand its lending to small businesses to aid in financial resources.

The Small Business Lending Fund's (SBLF) was designed to address ongoing effects of the financial crisis on small businesses by providing short-term authority to the Secretary of the Treasury to make capital investments in financial institutions in order to increase availability of funds to small businesses (Dilger, 2017). The SBLF participating in community banks and community development loan funds (CDLFs) increased their small business lending by \$12.5 billion over baseline levels through the end of the 4th quarter of 2013, which represents a \$1.3 billion increase over the prior quarter (Bevens, 2014). Figure 8 shows the SBLF report of increase lending to small businesses from 2012 to 2017. With this historical data, it demonstrated the strengthening of the governmental assistance to small businesses.

The Government Accountability Office (GAO) established eight primary requirements that established the basis for federal incentives to small firms in the private sector (Geho & Franks, 2013). The GAO promoted the Troubled Asset Relief Program, known as TARP, which is a government program to aid small businesses. Geho & Franks (2013) state that the Department of the Treasury along with the Federal Reserve System created TARP program to assist small businesses in having access to credit. Table 4 displays the GAO report which covers the provisions, summary and requirements of the American Recovery and Reinstatement Act of 2009 (ARRA).

Table 4

GAO Report

Summary of ARRA Administrative Provisions and Primary Requirements		
Provision	Summary	Requirement
Provision 501	Fee Reductions	Temporary reduction of elimination of fees
Provisions 502	Economic stimulus lending program	SBA guarantee up t 90% of qualifying loans made by SBA lenders
Provisions 503	Establishment of SBA secondary market guarantee authority.	Allows SBA to establish a secondary market guarantee for pools of first-lien 504 loans
Provisions 504	Stimulus for community development	Authorizes SBA to refinance a limited number of certain existing loans to new 504 loans
Provisions 505	Increasing small business investment	Increases the max amount of outstanding leverage available to a small business investment
Provision 506	Business stabilization program	Creates a new program that allows SBA to guarantee loans of \$35,000 or less
Provision 508	Surely bonds	Increases the max contract amount for a SBA bond guarantee from \$2 million to \$5 million
Provision 509	Establishment of SBA secondary market lending authority	Primary requirements authorize broker-dealers that operate in the SBA secondary market.

Note. "Financing for Small Business in a Sluggish Economy vs Conflicting Impulses of the Entrepreneur." by P. Geho, & J. Frakes. Entrepreneur Executive, 2013, 18.

Transition

Section 1 was an introduction of the study that included the background of the study, the problem and purpose statement, and research questions. The first section also included the theoretical framework and significance. In Section 1, the problem statement for this research was introduced. The problem statement addressed African American women entrepreneurs lack strategies to obtain SBA loans. Also, in this section was the

professional literature review that relates articles pertaining to the research. Section 1 addressed the purpose of this study and gave insight to some rationale importance of economic deterioration on the small businesses.

Section 2 will address the purpose of the research, the role of the researcher, and purpose and sampling along with data collection. Section 2 will go further in details with the research method and design as well as discuss the data collection for the study. In depth data collection information such as instruments, techniques and organization techniques will be discussed in Section 2. Section 3 will address the findings of the dataset and recommendations for future research.

Section 2: Project Design and Process

The purpose of this study was to analyze the relationship between African American female entrepreneurs' strategies to access capital funding and government regulations to gain business profitability. This section will begin with the methodology and design and will include several research elements that pertain to the study. Details involving methodology, data collection techniques, methods for organizing the data, and data analysis techniques are discussed in this section.

Method and Design

Method

The purpose of this quantitative ex-post facto study was to analyze the relationship between access to financial capital, government regulations, and financial business profitability. The targeted population were African American women obtained from the 2016 ASE. The geographical location was the United States. The independent variables were access to financial capital, with three levels (loans, personal/family savings, and no financial capital) and government regulations. The dependent variable was financial business profitability. The implications for social change included the potential for African American female entrepreneurs to use financial strategies to obtain more significant financial resources through the SBA for business start-up and growth. Findings from this study can potentially contribute to social change by promoting effective financial strategies for African American women and economic growth.

The research question that was explored in this study was: Is there a relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), government regulations, and financial business profitability?

The following are the hypotheses for the study.

H₀: There is no statistically significant relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), government regulations, and financial business profitability.

H₁: There is a statistically significant relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), government regulations, and financial business profitability.

The quantitative methodology was used for this study. Quantitative research explains phenomena through numerical data that are analyzed using mathematically-based methods with statistics (Bhawna & Gobind, 2015; Creswell, 2009). Most quantitative studies use statistics as the major index of the null hypothesis significance test (Chang & Chang, 2010). Quantitative research involves establishing a representation of what consumers do or think; it has a firm intellectual platform that derives from the physical sciences (Barnham, 2015). The qualitative and mixed methodologies were not the best fit for this study for the following reasons. The qualitative method reveals aspects of phenomena through complexity, breadth, or range of occurrences rather than numbers as its data analysis (Curry, Nembhard, & Bradley, 2009). The qualitative methodology allows researchers to be creative both in terms of data collection and analysis. The mixed methodology would not be appropriate for this study as it uses both

approaches concurrently or sequentially to give a deeper understanding of the phenomenon of interest, and this study will only reveal life phenomena. The quantitative methodology is the essential methodology to use for this study that will document the relationship between variables.

Quantitative research usually seeks to establish causal relationships between two or more variables, using statistical methods to test the strength and significance of the relationships (Apuke, 2017; Fraser Health Authority, 2011). Using the quantitative methodology will be useful in this study, although there are advantages and disadvantages. Advantages with using quantitative methodology include the use of statistical data as a tool for saving time and resources, as well as replicability of the research (Daniel, 2016). A disadvantage to conducting a quantitative research is that predetermined working strategies do not encourage imaginative, critical, and creative thinking (De Vaus, 1996). All data are geared toward supporting or rejecting predetermined paradigms (Daniel, 2016). Although there are pros and cons in terms of conducting quantitative research, use of the research in the most effective way will be beneficial to the study.

Design

The research design of the study is the overall framework plan or structure (Giuffre, 1997). To achieve the purpose of this study, an ex post facto design was used. Ex post facto research is ideal for conducting social research when it is not possible or acceptable to manipulate the characteristics of human participants (Simon & Goes, 2013). The design has its advantages and disadvantages. The challenge with the ex post facto

design is understanding the foundation of inference from the evidence collected; the lack of control and assurance of equality between groups creates a potential for misattribution of any differences observed (Allen, 2017). Challenges that are associated with the ex post facto design can be eliminated by knowing the background of the dataset that will be used.

Data were collected using the archival data collection technique. Secondary data analysis refers to using data previously collected by someone else for another primary purpose (Johnston, 2014). An advantage of using secondary data analysis is it helps cover a broad array of topics from reputable organizations, and many existing data sets have been designed to capture policy-relevant outcomes (Vartainian, 2011). A disadvantage is that those who collected the data may not share one's interest and may not have collected all of the data one needs to address research questions (McKnight & McKnight, 2011). When using any type of dataset that has not collected all of the data that would address the research question, the researcher is prompted to collect additional data.

Data were extracted from a data file from the U.S. Census Bureau. The dataset used in this study is survey data, and incomplete responses are almost impossible to avoid. There are several ways of dealing with missing data your surveys: (a) summary of reweighting technique, (b) drop method, (c) hot deck method, and (d) multiple imputation (Langkamp, Lehman, & Lemeshow, 2010). When using datasets that have been developed with multistage sampling schemes, missing data techniques also must address the issue of complex survey design so that results may be generalizable to the larger target population (Langkamp et al., 2010). McKnight and McKnight (2011) described a

five-step comprehensive plan to conceptualize and handle missing data: (a) understanding, (b) preventing, (c) diagnosing, (d) treating, and (e) reporting treatment methods and potential implications. Multiple linear regression analysis is a statistical method for investigating the relationship between variables, where the goal is to obtain an approximate function between the response of interest and one or more independent variables (Junior, Silva, Baccarini, & Mendes, 2018). Multiple linear regression was conducted to analyze the archival data from the 2016 Annual Survey of Entrepreneurs.

The U.S. Census Bureau, Kauffman Foundation, and Minority Business Development Agency (MBDA) collaborated to create the ASE. This annual survey is conducted for small businesses that are located in the United States. The ASE samples about 290,000 firms with paid employees over the entire private nonagricultural U.S. economy and collects information on up to four owners of those firms and characteristics of these firms (Foster & Norman, 2017). The purpose of the ASE is to provide information on selected economic and demographic characteristics for businesses and business owners by ethnicity, race, and veteran status (U.S. Census Bureau, 2018). Collection for the 2016 ASE begun June 2016 and ended August 2017; information for the survey was released August 2018 (US Census Bureau, 2018). The ASE consists of questions from the 2012 Small Business Owners (form SBO-1) with additional questions about sources of capital and financial barriers that are asked each survey year (Foster & Norman, 2017). The 2016 ASE is the best dataset for the study as it includes questions on business finance relationships and regulations for profitability, which aligns with the research question.

Table 5

2016 ASE Questions

Question Topic	2016 ASE Questions
I. Capital Funding	a. For the owner(s) you reported, what was the source(s) of capital used to start or initially acquire this business? If you did not report any owners, skip to Amount of Capital Needed to Start or Initially Acquire Business.
II. Outstanding Loans/ Financing	a. In 2016, was this business required to provide collateral or loan guarantee for any outstanding loan? b. In 2016, did this business make any purchases on account or using trade credits? Trade credits are invoice payment terms a business establishes with their suppliers allowing them to purchase goods or services now and pay at a later date. c. At any time during 2016, did this business need additional financing?
IV. Profitability	a. For 2016, did this business have profits, losses, or break even? b. For 2016, did each of the following negatively impact the profitability of this business? a. For 2016, what impact did each of the following types of government regulations have on this business's profitability?
V. Government Regulations	b. What impact did regulations have on the ability to initially start or acquire this business? c. During 2016, what impact did regulations have on expanding this business's operations, such as by increasing production, adding locations, or attaining new customers?

Note. From "2016 ASE Questionnaire," United States Census Bureau, 2016.

The 2016 ASE questionnaire covers a series of core questions that are grouped into owner information and business information questions. The core questions focus on the owner's age, education, citizenship, ethnicity, race, and veteran status. It also focuses

on the business operations, types of workers, plans for the firm, funding issues, and government regulations. This study will focus on selected questions from the dataset. In the dataset, it acknowledges the government regulations as employee hiring, worker's compensation, health insurance, business and professional licensing, building and renovations permits, health permits and inspections, and financial.

Reliability

The reliability section of the study addressed the researcher's dependability to ensure member checking of data interpretation, transcript review, and interview protocol. Reliability is the reassurance that another researcher investigating the same social problem would derive at the same findings (Ali & Yusof, 2011). Member checking procedures are able increase trustworthiness and provide audit trails for the data (Carlson, 2010). Member validation is the process of confirmation from the participants that the information provided is valid (Harvey, 2015). The research from this study may spark social change from the research and data that was collected. Member checking is critical to utilize when conducting research that will produce change (Koelsch, 2013). The primary researcher has conducted the proper member checking of the participants of the original study.

Original survey documents are reviewed by the primary researcher and the participant to ensure accuracy of the information stated. Creating an audit trail ensures that critical documentation is kept of all components of the study (Carlson, 2010). The researcher will be required to obtain all documentation of the processes and protocols followed by the primary researchers, including the questionnaire, all coding materials,

and any publications that are related to the data (Johnston, 2014). All documentation for the 2016 ASE is provided by the U.S. Census Bureau.

Validity

The major weakness of ex post facto design is the internal validity and the biggest risk to internal validity with ex post facto design is history (Giuffre, 1997). Missing data may also affect statistical validity or the extent to which statistical analyses allow one to make correct decisions about relationships in the data (McKnight & McKnight, 2011). Validity determines whether the research truly measures that which it is intended to measure or how truthful the research results are (Golafshani, 2003). In simple terms, validity acts in a manner to confirm that the research is verified and valid. Verification involves checking that a program does what is required of it; validation involves the application of tests that increase the reasonable probability that the relationships in a model are appropriate and that the model can help to tackle specified real-world problems, in other words, usability and perceived representativeness again (Lane, 2015). Reaching the data saturation for the research could increase the trustworthiness of the research.

Failure to reach data saturation has an impact on the quality of the research conducted and hampers content validity (Fusch & Ness, 2015). Credibility is the extent that the constructions adequately represent the participant's reality (Reilly, 2013). To establish credibility in the quantitative research, it is imperative that the information is not diverted from the original form. Theoretical implications which are grounded in the dataset is the conformability in the research (Reilly, 2013). A researcher will need to be

able to adequately describe the accounts so that those who wish to transfer the implications to another context can do so with an adequate data base is referred to as transferability (Reilly, 2013). Transferability will require detailed and descriptive documentation in order for the readers to be able to transfer the material.

Ethics

Approval to conduct this study was given by the Institutional Review Board (IRB) at Walden University. The IRB applies common rules and regulations to protect human research subjects regarding the consent process, balance of risks and benefits and protection of participant's privacy (Adams, Wongwit, Pengsaa, Khusmith, Fungladda, Chaiyaphan, Limphattharacharoen, Prakobtham & Kaewkungwal, 2013). The Belmont report has outlined justice, respect for persons, and beneficence are the three fundamental ethical principles for human subject's research (Brakewood & Poldrack, 2013). The dataset is a preexisting survey that was conducted by the AES. As the researcher of this study using the dataset, I will not have individual entrepreneurs' information. The Belmont report states that people should be able to make autonomous decisions and people with limited autonomy should be protected (Brakewood & Poldrack, 2013). The Census Bureau (2018) is not permitted to publicly release the responses in a way that could identify the business, organization, or institution. The information of the individuals who participated in the survey will be held by the primary survey organizer. Data that is collected by the researcher, will be held in a secure place for a minimal of 5 years from the date collected to protect confidentiality of participants. Participants'

consent forms will not be needed for secondary data analysis research. The IRB approval number is 03-01-19-0236802.

Transition and Summary

Section 2 began with restating the purpose of the study in the purpose statement and the research question. In Section 2, it went in-depth discussion of the method and design for the study. Further explanation was given on the research method and design that will be utilized in the study. The researcher used a quantitative post facto study method and design for the study. The detailed discussion of the 2016 ASE dataset was given. In Section 2, discussion of the ethics in research was stated with specific guidelines IRB (Institutional Review Board) was approved before the secondary data was analyzed for this study. In Section 3 will include the presentation of findings. This section will start with a brief overview of the purpose of the study. In this last section, it will give an implication of social change from the study.

Section 3: The Deliverable

Executive Summary

Small business owners need strategies for financial gain and strategies to use government regulations for profitability. Obtaining strategies such as access to growth capital is challenging for all small business owners, but especially female owners (Ahmad & Muhammad, 2015; Isaac, 2014). The focal point of the study was small business owners accessing financial capital and strategies using government regulations for business profitability. For this secondary data analysis, the US Census Bureau 2016 ASE was used as the primary dataset. The data contains types of financial capital that firms used and government regulations that assisted in terms of negative and positive profitability. The ASE samples included approximately 290,000 employer businesses which were in operation during 2016 (U.S. Census Bureau, 2018). In Section 3, I will discuss the purpose, goals, and objectives, overview of findings, and recommendations for the study.

Secondary Data Analysis

The purpose of this quantitative ex-post facto study was to analyze the relationship between access to financial capital, government regulations, and financial business profitability. The independent variables were access to financial capital, with three levels (loans, personal/family savings, and no financial capital) and government regulations. The dependent variable was financial business profitability in 2016. The findings from this study could contribute to social change by promoting effective financial strategies and promote economic growth for African American women

entrepreneurs. The findings from this study bring significance to the business strategies for profitability by providing an understanding of African American female entrepreneurs' financial strategies for business profitability. The study also determines the relationship between African American female entrepreneurs' financing strategies and business profitability.

Goals and Objectives

Women-owned employer firms in the United States increased by approximately 2.8% in 2016 to 1,118,863 from 1,088,466 in 2015 (US Census Bureau, 2018). The objective of this study is to determine if there is a correlation between financial strategies and government regulations for business profitability. The goal is to gain a clear understanding of the relationship between financial strategies, GRs, and profitability for business owners. The 2016 ASE dataset provided the opportunity to examine how specific groups are performing in the economy and the business characteristics that distinguish the groups. For this study, I determined the relationship between African American female entrepreneurs' financing strategies and financial business profitability. The RBT can support entrepreneurs in using intangible resources to gain strategies to access the loans that are set aside by the SBA. The implications for positive social change include the potential for small business owners to improve their home local community by positively increasing the job market and economic growth.

Overview of Findings

This study explored if African American female entrepreneurs lack strategies to access financial resources and are impacted negatively by GRs to gain FBP. I sought to

understand the relationship between small business owners' access to loans, personal finances, GRs, and profitability. The research question that was explored in this study was: Is there a relationship between AFC (loans/grants, personal/family savings, no financial capital), GRs, and FBP?

The following are the hypotheses for the study.

H₀: There is no statistically significant relationship between AFC (loans/grants, personal/family savings, no financial capital), GRs, and FBP.

H₁: There is a statistically significant relationship between AFC (loans/grants, personal/family savings, no financial capital), GRs, and FBP.

Presentation of the Findings

In this subsection, findings from the study and research questions are answered. I will discuss assumptions and present finding from descriptive statistics that will be followed by statistical results from the data analysis. Using multiple regression analysis provided the means to examine the relationship between the independent (access to financial capital, and government regulations) and dependent variable (profitability). Statistical Package for the Social Sciences (SPSS) is the software that I used to conduct the linear regression analysis and test the relationship between the variables. Based off of the data , the next couple of sections will answer the research question and hypotheses. Multiple linear regression was calculated to predict business profitability based on small business financial capital and government regulations. A significant regression equation found $F(2, 3285) = 5.812, p < .003$, and $R^2 = .004$. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted.

Descriptive Statistics

Data for the ASE comes from the year 2016 focusing on approximately 290,000 businesses in the United States. Table 6 indicates descriptive statistics for gender, ethnicity, race, and veteran status. The frequency of the demographics from the dataset is labeled as $N = 2646$. Following is Figure 9 which is a normal probability plot (P-P) of the regression standardized residuals for gender, ethnicity, race, and veteran status.

Table 6

Descriptive Statistics on Demographics

Variable	<i>M</i>	<i>SD</i>
Gender	3.29	11.954
Ethnicity	10.16	15.996
Race	42.90	35.628
Veteran	3.29	11.954

Note. Demographics frequency.

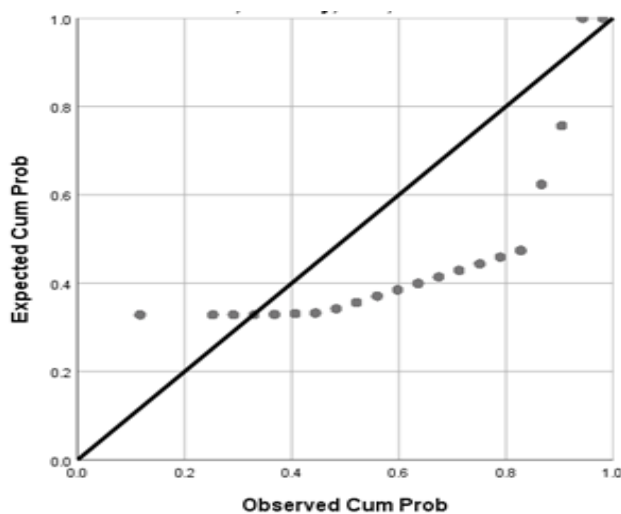


Figure 9. Normal P-P of regression standardized residuals for gender, ethnicity, race, and veteran status.

Table 7 includes descriptive statistics of the independent and dependent variables. Table 8 shows the correlation summary of the predictor variables and the dependent variables. The results of this multiple linear regression analysis indicated that the model of the 2 predictor variables (financial capitals and government regulations) were significantly statistical to the dependent variable (business profitability), with $(2, n=8927)$ = and $p < .001$. The correlation analysis in the linear regression illustrates the relationship between the two variables. The dataset predicated business probability is equal to $23.345 + .55 - .001$, where financial sources and government regulations are coded. Figure 7 indicates the histogram of the dependent variable (business profitability).

Table 7

Descriptive Statistics on Variables

Variable	<i>M</i>	<i>SD</i>
Profitability	25.00	17.081
Financial Capital	54.70	31.425
Government Regulations	31.25	18.501

Note. Predictor variables/dependent variable frequency.

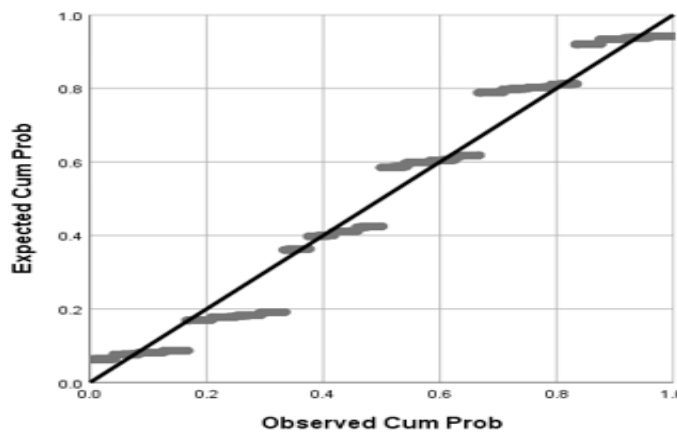


Figure 10. Normal P-P of regression standardized residuals for business profitability.

Table 8

Correlations Summary for Predictor Variables

Profitability of the business		Financial Capital	Government regulations Impact on Profitability
Financial Capital	Correlation	1.000	-.004
	Significance (2-tailed)	.	.797
	df	0	3284
Government regulations impact on profitability	Correlation	-.004	1.000
	Significance (2-tailed)	.797	.
	df	3284	0

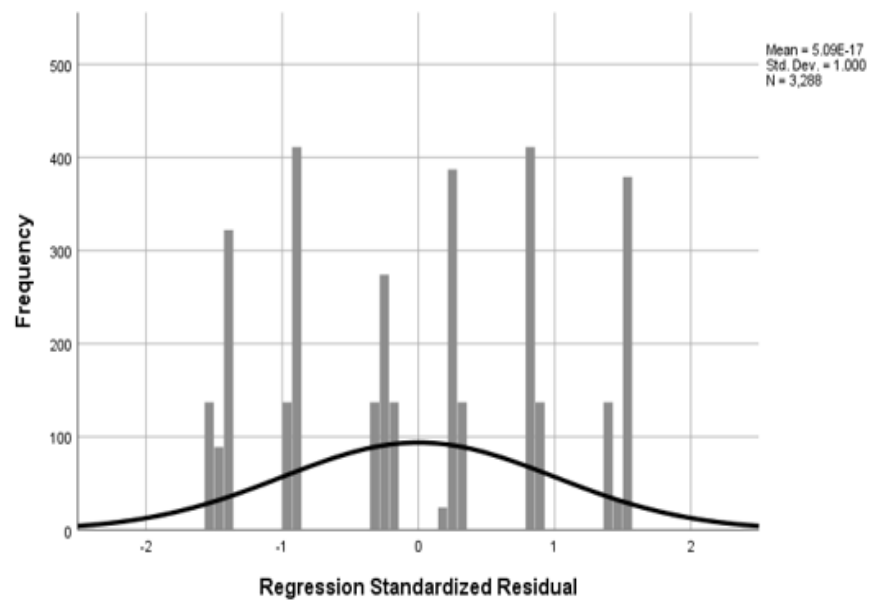


Figure 11. Histogram of business profitability.

Multiple Linear Regression Statistical Results

I conducted a standard multiple linear regression analysis, $\alpha = .05$ (two-tailed), to examine the relationship between financial capital, government regulations, and business profitability. Financial capital and government regulations were the predictor variables, whereas business profitability was the criterion variable. The β (standardized coefficients) specify how much the criterion variable is expected to increase or decrease. The model as a whole was able to significantly predict the predictor variables, $f(2, 3285) = 5.812, p < .003, r^2 = .004$. Therefore, the null hypothesis is applicable, and the alternative hypothesis is accepted. In the final model, financial capital showed significantly statistical, ($t = -.110, p < .912$) and accepted. Therefore determining that financial capital has a significant impact on business profitability. The government regulations predictor significantly statistical, ($t = 3.408, p < .001$), as applicable. Determining that government regulations does not have a significant impact on business profitability.

Table 9

Regression Analysis Summary for Predictor Variables

Business Profitability	B	SE B	β	95% C.I	
				UL	LL
Financial Capital	-.001	.009	-.002	0.18	-.020
Government regulations	.055	.016	.059	0.86	0.23

Note. B=unstandardized coefficient; SE B= standardized co-efficient; β = standardized coefficient, Dependent variable=Profitability of the business

Table 9 shows the multiple linear regression analysis of the predictor variables. Table 10 included a sample variable, negative impacts on government regulations. Although this variable was not a predictor of the dependent variable, it had relevance in the study as to what would reduce the amount of profitability in a small business. The B and β coefficients in the below chart indicated that the negative impact of government regulations was -.003 and -.002, respectively. These coefficients were less than the predictor variables.

Table 10

Regression Analysis Summary for Sample Variable

Variable	B	SE B	β	T	p
Financial Capital	-.001	.093	-.002	-.110	.912
Government regulations	.055	.016	.059	3.408	.001
Neg. Impact of government regulations	-.003	.028	-.002	-.092	.0927

Note. B=unstandardized coefficient; SE B= standardized co-efficient; β = standardized coefficient, Dependent variable=Profitability of the business

Access to Financial Capital

Access to and sources of financial capital were analyzed from the U.S. Census Bureau. The findings from the data analysis found the majority of small business owners obtain funding from personal/family savings of the owners. The descriptive statistics for AFC ($N=8927$) show the mean as 1689.91 and the standard deviation as 3061.823. I concluded linear regression on the financial capital predictor variable. An overall significant regression equation found $F(2, 3285) = 5.812, p < .003, R^2 = .004$. Table 10

shows the frequency of which sources of capital were used most frequently by small business owners. The findings for access to financial capital shows that the largest source of capital for small businesses comes from personal/family savings of owners.

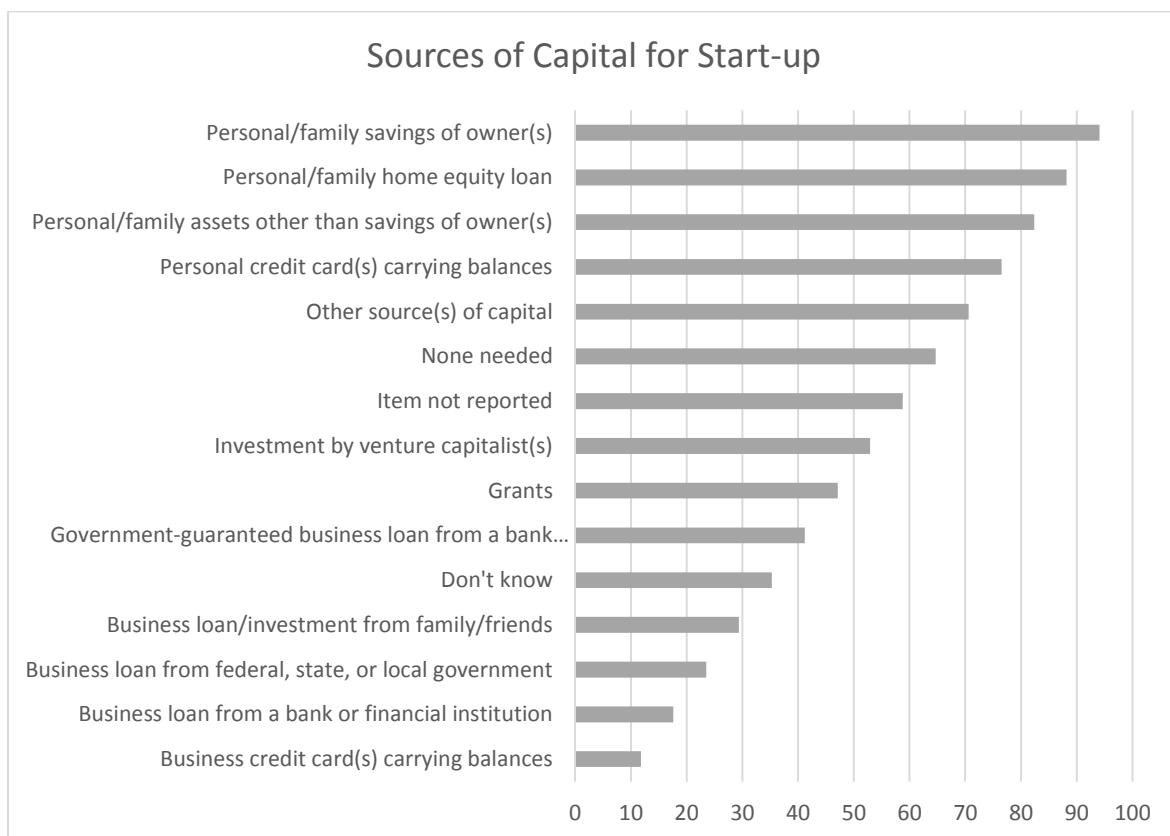


Figure 12. Sources of capital for startup.

The final model indicated that financial capital was significantly statistical, $p < .05$. The predictor variable determined the relationship between financial capital and business profitability was accepted. In Figure 12, sources of capital were analyzed; the chart determined that the most likely sources of capital use for startup was personal/family savings of the owner with home equity loan being the next highest. The least likely source of capital was by business credit cards that had previous balances. There was also a high number of business owners that stated they used personal/family

assets, not savings, for financial capital. Table 11 displays the regression analysis for the financial capital by sources of capital used by the small business owners. The table breakdown the sources of capital and its variance from mode and mean.

Table 11

Regression Analysis Summary for SFC Variables

SFC	Mode	Mean	Variance
Business credit card(s) carrying balances	.155	.155	1.931
Business loan from a bank or financial institution	-.092	-.092	1.931
Business loan from federal, state, or local government	.116	.116	1.931
Business loan/investment from family/friends	-.102	-.102	1.931
Don't know	.111	.111	1.931
Government-guaranteed business loan from a bank or financial institution	-.121	-.121	1.931
Grants	-.102	-.102	1.931
Investment by venture capitalist(s)	.024	.024	1.931
Item not reported	-.088	-.088	1.935
None needed	.160	.160	1.931
Other source(s) of capital	.044	.044	1.931
Personal credit card(s) carrying balances	-3.684E-5	-3.684E-5	1.931
Personal/family assets other than savings of owner(s)	-.019	-.019	1.931
Personal/family home equity loan	-.058	-.058	1.931
Personal/family savings of owner(s)	-.058	-.058	1.931

Note. Sources of financial capital = SFC

Government Regulations

The dataset for Government Regulations was analyzed using linear regression. The final model indicated that government regulation was negatively correlated with business profitability, $p < .001$. This statistically model indicates that the government regulations do not impact the business profitability of small businesses significantly. There was an additional dataset that was used to look further into the government regulations impact on business profitability and its effects on the small business. The government regulations were categorized with negative and positive impacts on the business and the government regulations that lead the business to profitability. The descriptive statistics for impacts of government regulation on profitability is ($N=44288/21147(m)$) shows the Mean as 33.035 and the Standard Deviation as 154.071.

Table 12

Government Regulations Descriptive Statistics

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
Impacts of government regulations	44288	33.035	154.071
Neg. Impact of government regulations	10281	2954.78	2467.165

Table 13

Regression Analysis Summary for Gov't Regulations Variables

Government Regulation	Mode	Mean	Variance
Business did not plan to expand	.001	.001	1.417
Regulations had a negative impact on business	.000	.000	1.417
Regulations had a positive impact on business	3.334	3.334	1.417

Figures 13 and 14 show the normal P-P and the Detrended normal P-P for the impacts of government regulations on profitability. The normal probability (P-P) charts display the normality and plotted points of the variables. The normal P-P plot is a graphical technique used in assessing if the data set is approximately normally distributed. The P-P charts are showing a positive, statistically significance for the variable. Figures 15 and 16 show the normal P-P and the Detrended normal P-P for the negative impacts of government regulations on profitability.

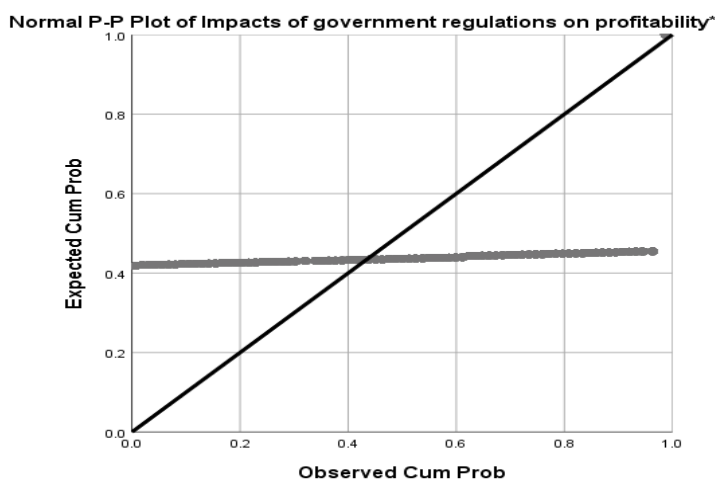


Figure 13. Normal P-P of the regression for IGR.

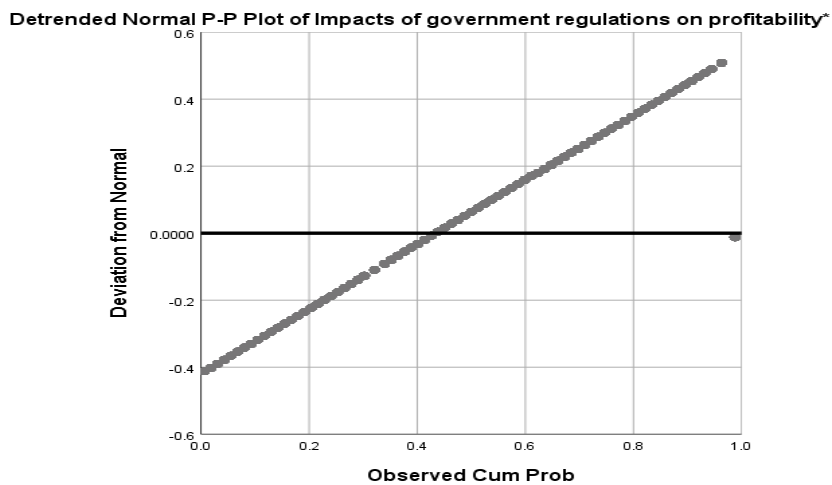


Figure 14. Detrended P-P of the regression for IGR.

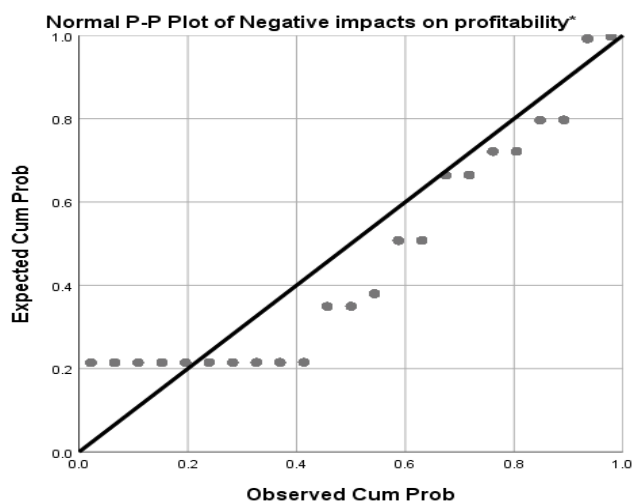


Figure 15. Normal P-P of the regression for NIP.

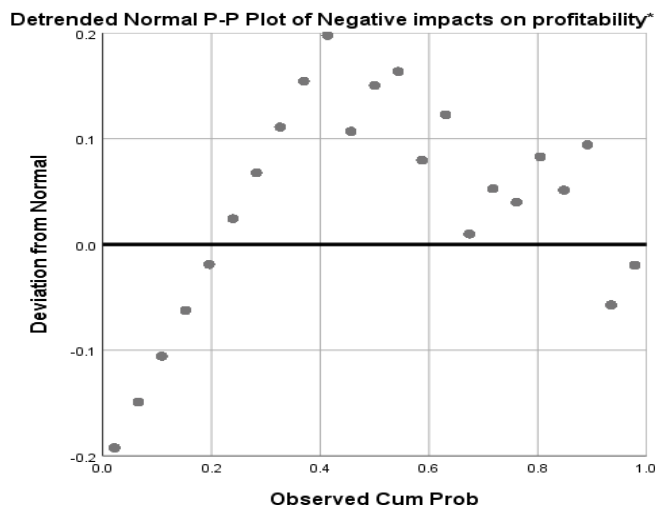


Figure 16. Detrended P-P of the regression for NIP.

Recommendations for Action

The purpose of this quantitative ex-post facto study was to examine the relationships between access to financial capital, government regulations, and financial business profitability. The study findings from the hypothesis testing indicate the Null Hypothesis H_1 was partially rejected in the data set. Null Hypothesis H_1 states that there is a statistically significant relationship between access to financial capital (loans/grants, personal/family savings, no financial capital), and financial business profitability was accepted. Financial capital has an impact on businesses being profitable.

The results of this study may be beneficial to scholars, small business owners, business leaders, and practitioners. Based on the research findings, the recommendations for action for small business owners are to (a) understand that access to financial resources from SBA are vital for growth and sustainability to the business, (b) determine the strategies for financial capital and government regulations knowledge that will gain profitability, (c) recognize the resources offered by the Small Business Administration

that will advance the business through competitive advantages, and (d) develop a strategic plan that will promote competitive advantage for profitability through the external and internal resources.

This study would also play a crucial role in government officials who mandate the government regulations for the Small Business Administration. Further analysis of the findings of the study identified evidence to support that the Small Business Administration does have an important position in aiding small businesses in financial assistance. Adequate financial resources are vital to the success of a small business. Potential and existing business owners need to have knowledge and resources to adequately obtain the financial capital for their business to have continuous growth.

Implications for Social Change

Despite the high risks of business failure, successful entrepreneurship is correlated with wealth, savings, job satisfaction, and economic mobility (Barr, 2015). Implications are expressed in terms of tangible improvements to individuals, communities, organizations, institutions, cultures, or societies, as the findings could affect social change/behavior. The implications for positive social change include the potential for women small business owners to improve the local community by positively increasing the job market and economic growth. The significance of this study to the business practice was to provide an understanding of African American female entrepreneurs' financial strategies for business profitability. Women small business owners utilizing the financial resources at business start-up and during business growth,

will have a significant impact of the profitability of their small business. This impact could be the determining factor of a business progressing or failure from financial loss.

This study intended to determine the relationship between African American female entrepreneurs' financing strategies and financial business profitability. The secondary data analysis of the 2016 ASE is of value for this study as it provided a unique opportunity to examine how specific groups are performing in the economy and the business characteristics that distinguish the groups (McManus, 2017). A significant resource base theory can support entrepreneurs in using their intangible resources to gain strategies to access the loans that are set aside by the SBA.

Skills and Competencies

For the past 5 years, I have researched the financial strategies that are used by small business owners to gain profitability. Small business entrepreneurs' strategies to gain profitability topic is essential to the life span of small business. The financial aspect of business start-up is essential in the longevity of the business. Assisting small businesses with financial reporting and the management of their overall finances has been a skill and service that I have provided for several years. Skillset that are used in the financial industry include interpersonal, communication, financial reporting knowledge, analytical skills, problem solving and technological skills. My skillset has been in supporting and managing small businesses in various industries such as nonprofit and healthcare with their financial services. Competencies that are needed in the financial field for small businesses are financial statement, financial analysis, capital budgeting, regulatory and legal of financial reporting, and financial lending. The experience from

this research employs me with a deeper level of knowledge of small businesses financial and governmental standpoint.

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Appendix A: 2016 ASE Questions

QUESTION TOPIC	2016ASE QUESTION
I. Capital Funding	<p>a. For the owner(s) you reported, what was the source(s) of capital used to start or initially acquire this business? If you did not report any owners, skip to Amount of Capital Needed to Start or Initially Acquire Business.</p> <p>b. For the owner(s) you reported, what was the total amount of capital used to start or initially acquire this business? (Capital includes savings, other assets, and borrowed funds of owner(s).)</p> <p>c. For 2016, what was the total amount of money this business received from family, friends, and employees?</p> <p>d. For 2016, what was the total amount of money this business borrowed from a bank or other financial institution, including business loans, a business credit card carrying a balance, or a business line of credit? <i>Include all draws on a business line of credit, even if paid off during the year.</i></p> <p>e. For 2016, what was the total amount of money this business received from angel investors, venture capitalists, or other businesses in return for a share of ownership in this business? <i>Your best estimate is fine. Please report in thousands. (An “angel investor” is an affluent individual who provides capital for a business start-up, usually in exchange for convertible debt or ownership equity.)</i></p>
II. Profitability	<p>a. For 2016, did this business have profits, losses, or break even?</p> <p>b. For 2016, did each of the following negatively impact the profitability of this business?</p>
III. Government Regulations	<p>a. For 2016, what impact did each of the following types of government regulations have on this business’s profitability?</p> <p>b. What impact did regulations have on the ability to initially start or acquire this business?</p> <p>c. During 2016, what impact did regulations have on expanding this business’s operations, such as by increasing production, adding locations, or attaining new customers?</p>

Appendix B: Correlations Involving Profitability of the Business

		Correlations		
		Profitability of the business code	Impact of regulations on expanding business operations*	Sources of capital used to start or acquire the business *
Pearson Correlation	Profitability of the business code	1.000	.059	-.002
	Impact of regulations on expanding business operations*	.059	1.000	.001
	Sources of capital used to start or acquire the business *	-.002	.001	1.000
Sig. (1-tailed)	Profitability of the business code	.	.000	.457
	Impact of regulations on expanding business operations*	.000	.	.482
	Sources of capital used to start or acquire the business *	.457	.482	.
N	Profitability of the business code	3288	3288	3288
	Impact of regulations on expanding business operations*	3288	3288	3288
	Sources of capital used to start or acquire the business *	3288	3288	3288

Appendix C: Frequency of Gender, Ethnicity, Race, and Veteran Status

	<u>Frequency</u>	<u>Percent</u>	<u>Cumulative</u> <u>Percent</u>
American Indian and Alaska Native	483	4.7	15.4
Asian	483	4.7	20.1
Black or African American	483	4.7	24.8
Equally Hispanic/non-Hispanic	483	4.7	29.5
Equally male-/female-owned	483	4.7	34.2
Equally minority/nonminority	483	4.7	38.9
Equally veteran/nonveteran	483	4.7	43.6
Female-owned	483	4.7	48.3
Hispanic	483	4.7	53.0
Male-owned	483	4.7	57.7
Minority	483	4.7	62.4
Native Hawaiian and Other Pacific Islander	483	4.7	67.1
Non-Hispanic	483	4.7	71.8
Nonminority	483	4.7	76.5
Nonveteran	483	4.7	81.2
Publicly held and other firms not classifiable by gender, ethnicity, race, and veteran status	483	4.7	85.9
Some other race	483	4.7	90.6
Veteran	483	4.7	95.3
White	483	4.7	100.0
Total	10281	100.0	

Appendix D: Frequency of Sources of Capital

	<u>Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
All firms	548	6.1	6.1
Business credit card(s) carrying balances	521	5.8	12.0
Business loan from a bank or financial institution	521	5.8	17.8
Business loan from federal, state, or local government	524	5.9	23.7
Business loan/investment from family/friends	522	5.8	29.5
Don't know	521	5.8	35.4
Government-guaranteed business loan from a bank or financial institution	521	5.8	41.2
Grants	526	5.9	47.1
Investment by venture capitalist(s)	523	5.9	53.0
Item not reported	548	6.1	59.1
None needed	523	5.9	65.0
Other source(s) of capital	522	5.8	70.8
Personal credit card(s) carrying balances	521	5.8	76.6
Personal/family assets other than savings of owner(s)	521	5.8	82.5
Personal/family home equity loan	522	5.8	88.3
Personal/family savings of owner(s)	521	5.8	94.2
Total reporting	521	5.8	100.0
Total	8927	100.0	

Appendix E: Coefficient Sources of Capital

Bayesian Estimates of Coefficients^{a,b,c} Sources of Capital

<u>Sources of Capital</u>	<u>Mode</u>	<u>Posterior</u>		<u>95% Credible Interval</u>	
		<u>Mean</u>	<u>Variance</u>	<u>Lower Bound</u>	<u>Upper Bound</u>
Business credit card(s) carrying balances	3822.547	3822.547	85381.101	3249.808	4395.287
Business loan from a bank or financial institution	3879.799	3879.799	85832.853	3305.547	4454.051
Business loan from federal, state, or local government	3787.974	3787.974	84491.714	3218.226	4357.722
Business loan/investment from family/friends	3911.989	3911.989	85381.101	3339.250	4484.729
Don't know	3832.201	3832.201	85832.853	3257.949	4406.453
Government-guaranteed business loan from a bank or financial institution	3832.201	3832.201	85832.853	3257.949	4406.453
Grants	3810.773	3810.773	83620.666	3243.969	4377.577
Investment by venture capitalist(s)	3807.780	3807.780	84934.079	3236.542	4379.018
Item not reported	3802.454	3802.454	75103.746	3265.290	4339.618
None needed	3849.665	3849.665	84934.079	3278.427	4420.903
Other source(s) of capital	3775.211	3775.211	85381.101	3202.471	4347.950
Personal credit card(s) carrying balances	3864.637	3864.637	85381.101	3291.898	4437.376
Personal/family assets other than savings of owner(s)	3864.658	3864.658	85381.101	3291.919	4437.397
Personal/family home equity loan	3849.654	3849.654	84934.079	3278.417	4420.892
Personal/family savings of owner(s)	3817.305	3817.305	85381.101	3244.566	4390.044
Total reporting	3879.783	3879.783	85832.853	3305.531	4454.035

a. Dependent Variable: Profitability of the business code

b. Model: Sources of capital used to start or acquire the business

c. Assume standard reference priors.

Appendix F: Coefficient Negative Impact on Profitability

Bayesian Estimates of Coefficients^{a,b,c} Negative Impact on Profitability

<u>Negative impacts on profitability</u>	<u>Mode</u>	<u>Posterior</u>		<u>95% Credible Interval</u>	
		<u>Mean</u>	<u>Variance</u>	<u>Lower Bound</u>	<u>Upper Bound</u>
Negative impact from access to financial capital	3854.636	3854.636	113655.016	3193.836	4515.437
Negative impact from changes or updates in technology	3854.650	3854.650	113655.016	3193.850	4515.451
Negative impact from cost of financial capital	3798.713	3798.713	113655.016	3137.913	4459.514
Negative impact from finding qualified labor	3854.650	3854.650	113655.016	3193.850	4515.451
Negative impact from government regulations	3798.713	3798.713	113655.016	3137.913	4459.514
Negative impact from late or nonpayment from customers	3854.636	3854.636	113655.016	3193.836	4515.437
Negative impact from other	3854.636	3854.636	113655.016	3193.836	4515.437
Negative impact from slow business or lost sales	3854.650	3854.650	113655.016	3193.850	4515.451
Negative impact from taxes	3854.636	3854.636	113655.016	3193.836	4515.437
Negative impact from unpredictability of business conditions	3798.713	3798.713	113655.016	3137.913	4459.514

a. Dependent Variable: Profitability of the business code

b. Model: Negative impacts on profitability

c. Assume standard reference priors.