Examining the Relationship Between The Quantities of Active Small Business Lending Institutions and The Quantities of Active Small Businesses per City in the State of New York

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Examining the Relationship Between The Quantities of Active Small Business Lending Institutions and The Quantities of Active Small Businesses per City in the State of New York

Abstract
Inadequate small business lending services within a city similarly produces low quantities of active small business owners (SBOs) within the city. Research pertaining to the relationship between quantities of active small business lenders per city within the State of New York and quantities of active SBOs per city within the State of New York is scarce and must be further examined. The purpose of the quantitative study is to examine the relationship between small business lenders per city and SBOs per city throughout the State of New York. In accordance with House's (1971) path-goal theory, the performances of active small business lending institutions per city sets an incentivized path to lead the performances of active small businesses per city towards the ultimate goal of business longevity and success. The dyadic relationship becomes interdependent. Data for the quantities of SBOs per city in the State of New York positively correlates with data for the quantities of small business lending institutions per city within the State of New York. While the top half of New York State cities (based on quantities of small business lenders per city) produces an insignificant correlational outcome, the bottom half of cities indicates that no relationship exists. Results from the study provide important information for economic development and improvement for the City of the New Rochelle, New York and other cities in the United States facing similar economic crisis from small business failure.

Document Type
Dissertation

Degree Name
Doctor of Education (EdD)

Department
Executive Leadership

First Supervisor
Richard Maurer

Second Supervisor
Pamela Davis

Subject Categories
Education

This dissertation is available at Fisher Digital Publications: https://fisherpub.sjfc.edu/education_etd/372
Examining the Relationship Between

The Quantities of Active Small Business Lending Institutions and

The Quantities of Active Small Businesses per City in the State of New York

By

Sue Ann T. Guy

Submitted in partial fulfillment

of the requirements for the degree

Ed.D. in Executive Leadership

Supervised by

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December 2014
Dedication

The dissertation is dedicated to my family for their patience and support through the completion of my doctoral journey. May God bless you and sustain you always.
Abstract

Inadequate small business lending services within a city similarly produces low quantities of active small business owners (SBOs) within the city. Research pertaining to the relationship between quantities of active small business lenders per city within the State of New York and quantities of active SBOs per city within the State of New York is scarce and must be further examined.

The purpose of the quantitative study is to examine the relationship between small business lenders per city and SBOs per city throughout the State of New York. In accordance with House’s (1971) path-goal theory, the performances of active small business lending institutions per city sets an incentivized path to lead the performances of active small businesses per city towards the ultimate goal of business longevity and success. The dyadic relationship becomes interdependent.

Data for the quantities of SBOs per city in the State of New York positively correlates with data for the quantities of small business lending institutions per city within the State of New York. While the top half of New York State cities (based on quantities of small business lenders per city) produces an insignificant correlational outcome, the bottom half of cities indicates that no relationship exists. Results from the study provide important information for economic development and improvement for the City of the New Rochelle, New York and other cities in the United States facing similar economic crisis from small business failure.
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Chapter 1: Introduction

Introduction to the Study

Small business owners (SBOs) were highly-attracted to one particular, commonly-expected outcome from business management: business longevity and success (Kibassa, 2012). Yet still, more than 30% of small businesses failed around the United States after only three years (Jay, 2012). While failure was due to a number of reasons, lack of funding or financing was one of the most common reasons (Ames, 1983). While small business longevity and business creation flourished in some cities across the country, business failure was paramount within other cities nationwide.

For example, the City of New Rochelle, New York experienced a surge in small business failure during the recent five years (City of New Rochelle, 2012). In comparison, small business sustainment and new startups increased during the same time period within the adjacent City of Yonkers, New York (City of Yonkers, 2013). What caused such a disparity in small business performances between neighboring cities of the same State? House’s (1971) path-goal theory suggests that the quantity of local small business lending institutions per city was a factor.

Small business lending institutions in each city fulfilled the important task of providing small business loans when SBOs needed financial support to sustain business operations (Nickels, McHugh, & McHugh, 2012). “Central to the turnaround in SBA lending has been increased outreach to, and participation by, lending partners across the United States” (United States National Economic Council, 2011, p. 13). The United States
National Economic Council (2011) reported that increases in the quantity of successful businesses nationwide strengthened the United States economy. In addition to small business creation, lasting small businesses were essential for increasing total quantities of SBOs per city over time. SBOs frequently depended on small business loans for business longevity and success (Nickels et al., 2012). Only lenders that became certified by the United States Small Business Administration to provide small business loans were considered small business lending institutions (or small business lenders). As a government-based financial incentive, small business loans were offered only through local, certified small business lending institutions (United States National Economic Council, 2011). The City of New Rochelle, however, was one New York State city that did not effectively retain small business lending services.

The United States Small Business Administration (2011) reported that there were no active small business lending institutions established within the City of New Rochelle, New York. As small business productivity remained a critical function for stabilizing any municipality’s economic environment, internal fiscal reports disclosed that the City of New Rochelle was in economic crisis (City of New Rochelle, 2012; Longley, 2012). The lack of certified small business lenders to finance SBOs in the City of New Rochelle did (or did not) relate to the lack of SBOs that attained business longevity and success. According to House’s (1971) path-goal theory, the absence of small business lenders within a city contributed to a lower quantity of active small businesses within the city.

Path-goal theory explained that when the leader was first motivated to set an incentivized path for the follower to attain goals, only then was the follower motivated to efficiently attain goals (House, 1971). House (1971) instructed that leaders: (a) defined all
goals, (b) clarified the entire path, (c) removed any obstacles, and (d) provided support as necessary. The theory described the existence of interdependency within the leader-follower dyadic relationship, where mutual dependency on the performances of counterparts was continuous for attaining incentives. Motivation to act by either counterpart within the relationship (i.e., the leader or the follower) naturally increased or decreased correspondingly. Similarly, a positive correlation was anticipated between quantities of small business lenders per city (as leaders) and quantities of SBOs per city (as followers) throughout the State of New York. The dyadic relationship between small business lenders and SBOs was incentivized by the offering of small business loans—an extrinsic motivator.

Outcomes from performances within the dyadic relationship were mutually-desirable by counterparts (House, 1996). Small business lending institutions relied on the SBO’s effort to apply for available financing to facilitate small business longevity and success. In turn, SBOs depended on access to financing provided by small business lenders towards obtaining business longevity and success.

**Problem Statement**

The absence of small business lending institutions within a city signified the absence of small business lending services in the city as well (Nickels et al., 2012). Inadequate small business lending services within a city similarly produced a low quantity of active SBOs within the city, in accordance with of House’s (1971) path-goal theory. Research pertaining to the relationship between quantities of active small business lenders per city in New York State and quantities of active SBOs per city in the State of New York was scarce and required further examination.
Certain cities, such as the City of New Rochelle in the State of New York, relied on SBO sustainability for economic stability (United States National Economic Council, 2011). However, the City of New Rochelle had not retained any lenders certified for small business loans, which provided necessary financial support to SBOs (United States Small Business Administration, 2011). The devastation created from the absence of small business lending institutions within the city was apparent from the city’s economic environment.

The City of New Rochelle had approximately 1,477 registered small businesses supporting approximately 77,606 residents (United States Census Bureau, 2014). Municipal reports posted on the city’s website disclosed that the city’s economic environment was unstable during the previous five years (City of New Rochelle, 2012). In 2011, the city was unable to close an estimated $8 million financial gap. At the beginning of 2012, the unemployment rate for the City of New Rochelle soared to 9.5% before stabilizing at a high 8.7% by 2013 (United States Census Bureau, 2014). Reports from the City of New Rochelle (2012) informed that vast amounts of property foreclosures and a scarcity of real estate construction projects—the city’s secondary source of business income at 13% of the marketplace—rose steadily since the national mortgage crisis of 2008 (City of New Rochelle, 2012). SBOs in New Rochelle, New York were not able to adapt to changes in the marketplace—a necessary feature for all small businesses as per Rugaber (2012). In the City of New Rochelle (2012), countless local small businesses in the construction and real estate industries amassed financial losses. Revenues to the city government from property taxes dwindled due to continuous property foreclosures. Decreases in sales tax revenues collected by the city government conveyed decreased
product and service sales at local small (and large) businesses throughout the fiscal (City of New Rochelle, 2012).

In comparison, the City of Yonkers, New York—an adjacent city to the City of New Rochelle—boasted a productive small businesses economy that was predominantly stable within the last five years. The City of Yonkers was identified as the fourth largest city in the State of New York and contained only one certified lending institution for small businesses (United States Small Business Administration, 2012). The small business lender approved 225 small business loans in 2011. With a population of approximately 198,449 residents in Yonkers, New York, there were approximately 6,159 registered small businesses citywide. The unemployment rate in 2011 reached a high of 9.2%, but quickly stabilized to 7.6% by 2013 (United States Census Bureau, 2014). A strategic income tax increase (in conjunction with increasing quantities of businesses and increasing employment rates) permitted the City of Yonkers to immediately cover an estimated $9.5 million financial gap in 2013, establishing a sound financial budget for the municipality heading into the 2014 fiscal (McKay Wilson, 2014). Although close in proximity, the economic environment for the City of Yonkers was more productive proportionately than that of the City of New Rochelle.

**Theoretical Rationale**

House’s (1971) path-goal theory originated from Vroom’s (1964) expectancy theory. Expectancy theory proposed that desirability or attraction for performance outcomes motivated individuals to perform (Vroom, 1964). Positive valences, or incentives, effectively produced increased performance levels, while negative valences frequently discouraged performance. Path-goal theory explained that when a follower’s
path to attain a specific goal was incentivized by a leader, the follower’s level of
motivation to attain the path’s goal was increased (House, 1971). The leader initially
established the satisfactory path for the follower. Behaviors of the leader increased or
decreased with the performance levels of followers. If the leader’s motivation to set the
path was lacking, then the follower’s motivation to perform towards the goal was also
lacking. The parallel behaviors within the dyadic relationship signified a positive
correlation (House, 1971). Increasing the leader’s performance levels increased the
follower’s performance levels as well (Lunenburg, 2011). House (1971) focused on
developing beneficial features prevalent within the leader-follower dyadic relationship
towards ensuring the satisfaction or desirability of outcomes for both counterparts. As
described by path-goal theory—the primary theory of the study, the follower’s path
towards a goal was led by (or dependent on) the leader’s motivation to first provide the
path at all (House, 1971).

Path-goal theory emphasized that followers were effectively motivated to attain
goals when performances were rewarded by the leader (House, 1971). The leader’s failure
to incentivize the path suppressed the follower’s motivation to perform. Followers and
leaders both benefitted from the followers’ successful attainment of goals: (a) followers
were satisfied by the incentives integrated within the path by leaders, and (b) leaders were
satisfied by the followers’ attainment of leader-established goals. As the follower attained
goals, the satisfied leader then repeated the action, forming an interdependent relationship
between the two counterparts (Thorndike, 1911). Thorndike’s (1911) law of effect
identified that behaviors producing positive outcomes were naturally repeated.
Nationwide, certified small business lending institutions per city led initiatives to ensure small business longevity. The United States National Economic Council (2011) reported that small business loans were one of the three most-interesting financial incentives to SBOs. As implied by House’s (1971) path-goal theory, the availability of certified lending institutions that provided small business loans per city motivated local SBOs to apply for financing when necessary. SBOs were then able to effectively sustain operations for achieving business longevity and success. As the performances of small business lenders increased, the performances of SBOs also increased. Mutual dependency on the performances of counterparts within the dyadic relationship was continuous for the attainment of incentives. Lasting small businesses contributed to increased quantities of total active SBOs per city over time (United States National Economic Council, 2011). Interdependency between small business lenders and SBOs per city in the State of New York offered a strategy to combat small business failure throughout the United States.

**Statement of Purpose**

The purpose of the quantitative study was to investigate the existence of a significant correlation between: (a) quantities of small business lenders per city in the State of New York, and (b) quantities of SBOs per city in the State of New York. Increased quantities of small business lending institutions per city did or did not set the path to a goal of increased quantities of SBOs per city in the State of New York.

**Research Questions**

1. Was there a significant relationship between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city within the State of New York?
2. Was the relationship between quantities of small business lending institutions per city and quantities of SBOs per city significantly different for the top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of cities in the State of New York?

**Significance of the Study**

Approximately 51% of small businesses across the United States failed in 2012 (Jay, 2012). While the high rate of small business failure was attributed to various causes, inadequate business financing was widespread (Ames, 1983). Various cities within the United States did not consist of lending institutions certified to provide small business loans to local SBOs. Inefficient small business lending services negatively impacted the economic environment of cities throughout the United States (United States National Economic Council, 2011). A deficiency of available small business lending institutions discouraged the motivation levels of SBOs to apply for small business loans when necessary, as supported by House’s (1971) path-goal theory.

SBOs that failed to obtain necessary small business loan funds were more inclined to experience small business failure (Green, 2013). Quantities of active small businesses then decreased per city over time. Increased small business failure rates within various types of municipalities decreased the productivity and stability of the municipality’s economic environment (United States National Economic Council, 2011). For example, in cities such as New Rochelle, New York, there were no active, certified lending institutions to provide small business loans to SBOs. Small business failure in the City of New Rochelle had increased during the previous five years (City of New Rochelle, 2012). Economic conditions in the city were unstable and the city’s government needed to mend
an $8 million deficit at the time. Unemployment rates for the city hit a detrimental 9.5% in 2012 (United States Census Bureau, 2014). The city was in need of economic improvement. Results from the study provided important information for economic development and improvement for the City of the New Rochelle and other cities in the United States facing similar economic crisis from small business failure.

Exploring the relationship between quantities of small business lenders per city and quantities of SBOs per city in New York State was the objective of the study. In accordance with path-goal theory, a significant positive correlation between the two variables conveyed that motivation to act within the dyadic relationship increased or decreased similarly between counterparts. A significant negative correlation between the two variables informed that the performance levels of SBOs per city were inversely related to the performance levels of small business lending institutions per city within the State of New York. Minimal quantities of SBOs within a city were (or were not) related to low or no quantities of certified small business lenders throughout the city.

Small businesses that obtained necessary financial support effectively attained business longevity, reducing small business failure and increasing quantities of small businesses locally and nationwide (Nickels et al., 2012). Increased quantities of productive SBOs per city facilitated economic stability within municipalities (United States National Economic Council, 2011).

**Definitions of Terms**

**Behaviorism.** Behaviorism analyzed the effect of cognitive functions through observable behaviors, actions and performances of individuals (Skinner, 1938; Watson, 1925). Patterns in observable behaviors objectively and scientifically assessed
psychological processes (Drucker, 1974). In the study, behaviors depicted the levels of motivation to perform (or performance levels).

**Business failure.** Business failure was defined when a small business was forced to terminate operations, no longer selling products or services to any entity (Klein, 1999). Business failure included businesses that: discontinued ownership, dissolved by asset liquidation, filed bankruptcy, failed to keep up operations, or disposed to circumvent further losses. In the study, business failure was the opposite of business longevity and success.

**Dyadic relationship.** A dyadic relationship consisted of a pair of individuals or entities; two counterparts within a relationship or system (i.e., a leader and follower relationship). Naturally or by natural phenomenon, the performances of counterparts within effectively-incentivized, dyadic relationships were interdependent—mutually dependent on the performances of counterparts to attain incentives. Examples of dyadic relationships comprising of social counterparts included: employee-employer relationships, spousal relationships, team relationships, client-vendor relationships, international relationships, etc. (Bertalanffy, 1950).

**Extrinsic motivator.** Extrinsic motivators stimulated performance from external sources (Lewin, 1946). Types of extrinsic motivators included: money, government, family, drugs, hobbies, employment, sex, alcohol, exercise, friends, vacations, crime, children, etc. Extrinsic motivators produced weaker effects than intrinsic motivators (Maslow, 1954).

**Financial incentives.** A financial incentive was a form of extrinsic motivator that satisfied economic safety needs (Lewin, 1946; Maslow, 1954). Financial incentives were
positive valences—positive performance outcomes (Vroom, 1964). Through research and analyses, the United States National Economic Council (2011) identified the three most desirable types of financial incentives for SBOs in the United States: cash grants, Federal tax breaks and small business loans. The small business loan—a government-based financial incentive—was the sole type of incentive noted throughout the study.

**Intrinsic motivator.** Intrinsic motivators stimulated performance from internal sources (Lewin, 1946). Types of intrinsic motivators included: thirst, physical strength, fear, hate, beauty, pain, self-determination, envy, faith, tiredness, trauma, drives, prejudice, health, achievement, desires, hunger, love, etc. Intrinsic motivators produced stronger effects than extrinsic motivators (Maslow, 1954).

**Level of motivation (or performance).** Motivation was stimulation, either intrinsically or extrinsically, to respond in the form of an action, behavior or performance (Lewin, 1946; Thorndike, 1911). Motivation defined willingness to perform. Motivation, as a form of cognitive function, was perceived through the behaviors of individuals (Skinner, 1938; Watson, 1911). Throughout the study, levels of motivation were interchangeable with performance levels.

**Small business lending institution.** A small business lending institution (or a small business lender) was an organization licensed or certified by the United States Small Business Administration to provide various types of small business loans to small business owners (Nickels et al., 2012).

**Small business owner (SBO).** The United States Small Business Administration (2013) defined a small business as one that was independently owned and operated, was organized for profit, and was not dominant in its field. Depending on the industry, size
standards eligibility derived from either the average number of employees from the preceding 12 months or the sale volume averaged over a 12-year period (United States National Economic Council, 2011).

**Chapter Summary**

For the study, data for two variables were analyzed for the existence of a significant correlation: (a) quantities of small business loan providers per city in the State of New York, and (b) quantities of small businesses (SBOs) per city in the State of New York. Performance levels within the dyadic relationship between the leader (i.e., quantities of small business lending institutions per city) and the follower (i.e., quantities of SBOs per city) increased or decreased similarly, in agreement with House’s (1971) path-goal theory.

Leaders effectively motivated the performances of followers towards goals, when leaders were first motivated to set incentivized paths for followers to attain goals. The performance of the leader positively correlated with the performance of the follower. Path-goal theory inferred that quantities of SBOs per city positively correlated with quantities of small business lending institutions per city in the State of New York. Future decreases in small business quantities per city (or increases in small business failure rates) were strategically avoidable by simply increasing quantities of small business lenders per city. A literature review of path-goal theory is presented in Chapter 2.
Chapter 2: Review of the Literature

Introduction and Purpose

The study sought to determine if a significant relationship existed between quantities of small business owners (SBOs) per city and the quantities of small business lending institutions per city within the State of New York. House’s (1971) path-goal theory inferred that behavioral outputs of counterparts within an incentivized, dyadic relationship positively correlated. As leaders established an effective path for followers, followers were able to attain goals effectively. The leader within the relationship was first motivated to set the incentivized path (i.e., the leader’s performance). The follower was then able to achieve goals successfully (i.e., the follower’s performance). Mutual dependency on the performances of counterparts continuously to attain incentives conveyed interdependency within the dyadic relationship. Interdependency, which was inherent to path-goal theory, reiterated a positive correlation between the behaviors of counterparts within an incentivized, dyadic relationship. In accordance with path-goal theory, the study’s counterparts (i.e., quantities of small business lenders per city and quantities of SBOs per city within the State of New York) positively correlated, increasing or decreasing correspondingly over time.

Review of the Literature

Behavioral theory, or behaviorism, was a 20th century theory that analyzed cognitive function through observable behaviors, actions or performances (Skinner, 1938; Watson, 1925). A behavior represented any measurable, quantified output (e.g., days absent from work, percent changes in stock prices, quantities of active small business
lenders within a city, etc.). The theory maintained that patterns in behaviors objectively and scientifically disclosed psychological processes of individual (Drucker, 1974).

Behaviorists were more concerned with scrutinizing over the details, parts or components of a system, as opposed to evaluating the system overall (Bertalanffy, 1950; Skinner, 1938). The behaviors, actions or performances implied in the study included: (a) quantities of active small business lending institutions per city in the State of New York, and (b) quantities of active SBOs per city within the State of New York. Did the actions of small business lenders to increase establishments within cities throughout the State of New York correlate with the behaviors of local small businesses to sustain operations? Was there a significant relationship between the counterparts? Unfortunately, there was a lack of literature correlating quantities of small business lenders per city and SBOs per city in the State of New York.

As a type of government-based financial incentive, small business loans were offered by certified small business lenders to extrinsically stimulate SBO attainment of business longevity and success. Extrinsic motivators, unlike intrinsic motivators, were accepted or rejected by choice—a form of conative or voluntary cognitive processing (Lewin, 1946; Neisser, 1967). Intrinsic motivators were not accepted or rejected by choice, but driven solely by involuntary cognitive processes called information processing. While information processes were automated or predetermined, conative processes were manual or directed. Historically, many types of extrinsic motivators were used to stimulate the willingness of SBOs to perform (United States National Economic Council, 2011).
The United States National Economic Council (2011) historically researched and strategized methods to motivate SBOs’ achievement of business success. The agency reported three types of financial incentives that were most-interesting to small businesses: small business loans, cash grants, and Federal tax breaks (United States National Economic Council, 2011). Although there were other types of financial incentives available for SBOs nationwide, the small business loan was the sole incentive discussed in the study.

Businesses (small, medium or large) were described as financial entities in the economic marketplace (Nickels et al., 2012). Small business loans were considered highly-desirable performance outcomes (or incentives) that satisfied the economic safety needs of small businesses (Maslow, 1954; Porter & Lawler, 1968; Smith, 1759, 1776; United States National Economic Council, 2011; Vroom, 1964). Increases in the amounts or types of the small business loans strengthened the SBO’s overall desirability for the incentive (or positive valence), while increasing the SBO’s level of motivation to perform (Lunenburg, 2011; Vroom, 1964).

Vroom’s (1964) expectancy theory was the foundation for House’s (1971) path-goal theory. Expectancy theory rationalized that attraction to performance outcomes motivated individuals to perform (Vroom, 1964). An individual’s motivation to act depended on desirability for expected outcomes from actions. Expected outcomes from actions were intrinsic or extrinsic motivators, such as: self-determinism, recognition, challenging future tasks, annual bonuses, an enjoyable work environment, etc. (Adelfer, 1969; Deci, 1971; Lewin, 1946; Ouchi, 1981; Vroom, 1964). Both positive expected outcomes (or incentives) and negative expected outcomes (or punishments) motivated
individuals to perform (Skinner, 1938; Vroom, 1964, 1990). Unexpected or lackluster outcomes usually remained ineffective for motivating individuals.

The attraction to an expected outcome was called a valence. Incentives, or positive types of valences, effectively motivated an individual’s performance (Vroom, 1964). As denoted by Vroom’s (1964) expectancy theory, expectancy (i.e., effort to perform the task satisfied the expected performance), instrumentality (i.e., performance of the task was certain for the reward), and valences (i.e., the attraction to the outcomes from performing the task) were all variables that impacted motivation levels to perform a task efficiently. Measurements for variables were perceived by the motivated individual.

Performance outcomes increased or decreased an individual’s motivation to perform as the individual perceived positive valences (i.e., positive performance outcomes) or negative valences (i.e., negative performance outcomes) from performance (Maslow, 1954; Porter & Lawler, 1968; Skinner, 1938; Vroom, 1964). An incentive was effective, if and only if, the individual perceived a positive attraction to the incentive (Porter & Lawler, 1968). The conditional was maintained within the multiplier effect inherent to expectancy theory’s force of motivation formula: Force of Motivation ($MF$) = Expectancy * Instrumentality * Valence (Vroom, 1964). A person chose to accept (or reject) an expected extrinsic outcome (e.g., a lackluster annual bonus), which increased (or decreased) the individual’s performance. Vroom specified that an individual perceived that fulfillment of the task was achievable for the reward (instrumentality = $I$). The individual perceived that attempting to complete the task satisfied an expected level of performance for the reward (expectancy = $E$). Valences ($V$) measured the individual’s perceived value of rewards or punishments from completing the task. The effort (or
motivation) to perform a task was rewarded as expected, which summarized expectancy theory (Vroom, 1964; 1990).

The mathematical model for expectancy theory utilized a quantitative formula for the force of motivation \( MF = EIV \), where \( .00 \leq E \leq +1.00 \), \( .00 \leq I \leq +1.00 \) and \( -1.00 \leq V \leq +1.00 \). Motivation force was a function of multiplying the variables of expectancy \( E \), instrumentality \( I \) and the valence \( V \) (Vroom, 1964). If an individual was indifferent to the outcomes of an action, where valence equals \( .00 \), then the individual did not display any motivation (called amotivation) (Deci & Ryan, 1985). For example, \( MF = .12 \times .56 \times .00 = .00 \). Valences of indifference (or zero valences) conceivably produced cognitive dissonance—a level of discomfort or conflict felt when faced with opposing or different scenarios for motivation (Festinger, 1957). Theoretically, an individual was not motivated to perform without first being either attracted or repulsed by the aggregate of expected performance outcomes (Vroom, 1964). Without attraction to expected outcomes, force of motivation equaled \( .00 \). The individual’s perception of positive or negative valences was essential for motivating performance.

Incentives satisfied an individual’s needs and, consequently, motivated the individual to perform (Maslow, 1954; Porter & Lawler, 1968; Vroom, 1964). Vroom agreed with Taylor that performance measurements were necessary for evaluating individuals, especially employees (Taylor, 1911; Vroom, 1990). In a hypothetical example, an employee’s valence for the year-end bonus was high (e.g., \(+.80\) ). The employee was then highly motivated to work 156 total extra hours throughout the year to receive the desirable bonus. The extrinsic year-end bonus was perceived by the employee as an incentive for increased work performance. If the valence for the year-end bonus was
low (e.g., −.76)—perhaps due to the employer’s cutbacks in compensation throughout the organization, then the employee was less motivated to work extra hours throughout the year. The employer quantitatively evaluated the employee’s perceived force of motivation by measuring the employee’s increased positive behaviors or performances (e.g., 156 extra hours worked for the fiscal). Expectancy theory quantified an individual’s perceived force of motivation to perform (Vroom, 1964).

Almost a decade later, House’s path-goal theory provided a practical approach for applying Vroom’s expectancy theory within the workplace or business environment (House, 1971; Vroom, 1964). The theory offered an in-depth justification for incentivizing leader-follower relationships within organizations (House, 1971). House (1971) claimed that leaders: (a) defined all goals, (b) clarified the entire path, (c) removed any obstacles, and (d) provided support as necessary. Path-goal theory (also called path-goal theory of leadership effectiveness) directed leaders to clearly set a satisfactory path towards goals within the organization for motivating followers’ effective attainment of goals.

The path established by the leader successfully led the follower towards goals (House, 1971). Followers, such as subordinates, were motivated to perform by the leader when perceiving: (a) they were capable of efficiently performing all tasks within their job roles (expectancy), (b) their efforts resulted in attainment of certain anticipated benefits and rewards (instrumentality), and (c) valuable rewards for completing the tasks (the valence) (Northouse, 2013). The employer (or leader) strove to motivate employees (or follower) by satisfying their needs internally and externally of the workplace, including their financial needs (the path) (House & Mitchell, 1974; Porter & Lawler, 1968). At which point, satisfied followers responded by choosing to perform the tasks required by
the leader (the goal). Lunenburg (2011) later added that, if necessary, altering or changing the performance levels of the leader similarly impacted the performance levels of the follower.

As leaders established effective paths for followers to achieve goals, followers’ performance levels became increasingly effective (House & Mitchell, 1974). Northouse stated:

In brief, path-goal theory is designed to explain how leaders can help subordinates along the path to their goals by selecting specific behaviors that are best suited to subordinates’ needs and to the situation in which subordinates are working. By choosing the appropriate style, leaders increase subordinates’ expectations for success and satisfaction (Northouse, 2013, p. 138).

Path-goal theory focused on the followers’ work environment and matched the leader’s behaviors with the needs of the followers (House & Mitchell, 1974). The theory concurred with other prominent theories of the mid-1900s (i.e., Herzberg’s motivation-hygiene theory, McGregor’s theory x and y, and Locke’s goal-setting theory), which supported incentivizing the workplace by instituting multiple satisfactory outcomes internally to stimulate the follower’s optimal performance (Herzberg, 1959; House & Mitchell, 1974; Locke, 1966; McGregor, 1960). Incentives were embedded or integrated within the work environment to produce employee job satisfaction—a positive valence and intrinsic motivator.

When leaders fostered a satisfactory work environment that was conducive to the positive expected performance outcomes of employees, employees became highly-motivated (with minimal input by management) to perform at maximum productivity for
sustaining the incentivized workplace (House & Mitchell, 1974). Northouse (2013) recommended types of incentivizes that were extrinsic motivators for the workplace: employee year-end bonuses, effective human resources function within the organization, effective tools and technologies to support employee performance, 24-hr tech support, employee benefits and paid vacation time, employee training and development workshops, online employee information and announcements, monthly employee achievement awards, quarterly staff meetings, financial budgets for departments, handbooks and open-door policies, among others. Employees’ positive valences for the satisfactory workplace (i.e., job satisfaction) instituted by the employer became the ultimate incentive to motivate optimal job performance (Herzberg, 1959; House & Mitchell, 1974).

An incentivized workplace that provided job satisfaction (the path) increasingly motivated followers to effectively perform towards the leaders’ goals (Herzberg, 1959; House & Mitchell, 1974; Ouchi, 1981). House (1971) recommended that leaders set clear and practical paths that satisfied followers’ needs and supported followers’ attainment of goals, which then incentivized path. The willingness of satisfied followers to achieve the leader’s goals as a perceived necessity within the leader-follower relationship increasingly satisfied the leader (House & Mitchell, 1974; McGregor, 1960). The leaders’ need to motivate followers then diminished over time as satisfaction with employee (or follower) productivity increased (Herzberg, 1959; McGregor, 1960; Taylor, 1911).

As the leader satisfied the follower’s needs to perform (the incentivized path), the motivated follower satisfied the leader’s goals within the leader-follower relationship. Path-goal theory surmised that leaders and followers were a pair of counterparts that functioned within a dyadic relationship, such as a network or system (Bertalanffy, 1950;
Bertalanffy’s (1950) general systems theory specifies that systems, such as dyadic relationships, were either effective from positive outcomes or dysfunctional from negative outcomes. Since a workplace exemplified a type of system, the employer-employee relationship within the workplace was considered a type of dyadic relationship or system.

Path-goal theory clarified that the leader’s behavior or performance to fulfill the follower’s job requirements in the workplace was the actual incentive that motivated followers to perform within the dyadic relationship (House & Mitchell, 1974). When employers integrated incentives within the workplace to enhance employee performance, employee job satisfaction from the incentivized workplace consistently fueled attainment of the employer’s goals (House, 1996; Maslow, 1954; Porter & Lawler, 1968; Vroom, 1964). Employees perceived that incentives (positive valences) were received for performing within the workplace towards attainment of the employer’s goals. The effort made by employees to perform at work satisfied the path instituted by the employer to achieve goals (expectancy). The employees’ work performances attained the employer’s goals (instrumentality).

Followers were then continuously motivated by the extrinsic or intrinsic incentives provided within the workplace by the leader to attain goals (House, 1996). Goals set forth by the leader in the workplace were continuously attained. The leader, who became satisfied by the follower’s successful attainment of goals, was then motivated to repeat the follower’s path within the dyadic relationship (House, 1996; Thorndike, 1911). Thorndike’s (1911) law of effect postulated that behaviors producing pleasant responses naturally repeated, while behaviors producing unpleasant responses naturally ceased. Law
of effect maintained theory of evolution, which affirmed the prevalence of natural selection when unpleasant behaviors naturally became extinct (Darwin, 1859; Thorndike, 1911).

The leader’s increased performance levels led the increased performance levels of followers (House, 1996; Lunenburg, 2011). Leaders were increasingly satisfied with the performance improvements of followers. Satisfied leaders were then repeatedly motivated to incentivize the followers’ path, which was reciprocated by the followers’ continuous motivation to achieve goals. While followers continually depended on leaders to set incentivized paths, leaders continually depended on followers to satisfy the paths’ goals (House, 1996; Thorndike, 1911). The leader and follower within the dyadic relationship were mutually attracted to the incentives produced from the counterpart’s satisfactory performance. Repetition of satisfactory performances (or productivity) then naturally occurred between counterparts within the incentivized, dyadic relationship (Bertalanffy, 1950; House, 1996; Thorndike, 1911). Mutual dependency on the satisfactory performances of counterparts naturally reoccurred for continuous attainment of incentives within the dyadic relationship. The phenomenon conveyed the existence of interdependency—a byproduct of path-goal theory. In accordance with path-goal theory, counterparts of interdependent dyadic relationships were effectively motivated by mutual attainment of incentives (Northouse, 2013).

Relationships within the workplace were forms of interdependent dyadic relationships (Bertalanffy, 1950). Employer-employee counterparts, for example, continually depended on each other’s performances to sustain an effectively-incentivized workplace system, whereas attainment of positive valences remained mutually-dependent
on the counterparts’ performances (Bertalanffy, 1950; House, 1996; Thorndike, 1911). Performance outcomes of successful paths benefitted both the leader and the follower within the system (House, 1996). Since interdependency signified that the follower’s performance levels increased (or decreased) correspondingly with the leader’s performance levels within the dyadic relationship, the behaviors of counterparts were parallel or correlated positively (Bertalanffy, 1950; Creswell, 2013; House, 1996). Performances of leaders increased with the performances of followers (Lunenburg, 2011). Lunenburg (2011) instructed leaders to increase managerial performance levels first towards effectively increasing the performance levels of subordinates. Multiple interdependent dyadic relationships strategically integrated throughout an organization attained an overall system of superior outputs that encompassed: optimal productivity, substantial profitability and exponential organizational growth (Nickels et al., 2012; Ouchi, 1981).

The extraordinary effect of the strategy was exemplified in organizations such as Google Inc. (2014). Employees of Google are comfortably-motivated to regularly work long hours towards satisfying the company’s goal of becoming a competitive and innovative global brand. Employees freely utilized the company’s spas, gyms and art galleries, among other on-site features (or fringe benefits), at any time after the long workday. Employees were expected to attain work targets and deadlines. The employer’s assurance of employee job satisfaction within the workplace motivated the employees’ unwavering dedication and commitment to company’s goals and targets (Google Inc., 2014). Employees were continually dependent on the employer’s performance to successfully set the incentivized path (i.e., the workplace). The employer remained
continually dependent on the employees’ performances to successfully attain the company goals (i.e., competitive and innovative global branding). Interdependency, as a derivative of path-goal theory, existed at Google Inc.

House’s (1971) path-goal theory supported that active small business lenders (as leaders): (a) defined the goals to be attained by SBOs from financing, including business longevity and success; (b) clarified the path or process for SBOs to attain small business loans; (c) removed any obstacles for SBOs to obtain necessary financing to sustain operations, and; (d) provided support to SBOs for obtaining small business loans. The performance of active small business lenders to provided accessible small business loans led the performance of SBOs to obtain necessary financing for the sustainment of business operations. The effective performances of counterparts within the dyadic relationship were interdependent, since continual reliance on the counterpart’s performance for incentives was mutual within the relationship. In accordance with path-goal theory, performances of counterparts within the relationship also increased or decreased correspondingly, indicating a positive correlation (House, 1996).

Performance levels (or quantities) of small business lenders per city in the State of New York were expected to mutually increase and decrease with the performance levels (or quantities) of local SBOs. Lunenburg (2011) emphasized that increasing the performance levels of the leader correspondingly increased the performance levels of the follower. In the study, the performance of each counterpart was represented by their quantities—a behaviorist approach. Quantities of active small business lenders per city in the State of New York represented the behaviors by active and accessible certified lenders per city to provide local SBOs with small business loans. Quantities of active SBOs per
city in the State of New York represented the behaviors by active SBOs per city to attain business longevity and success.

According to path-goal theory, performances of small business lending institutions per city in the State of New York positively correlated with performances of local SBOs per city in the State of New York. The relationship of counterparts within the incentivized, dyadic relationship was parallel—increasing (or decreasing) together throughout the State of New York. Cities in the State of New York with lacking quantities of SBOs needed to increase in quantities of small business lenders to improve the economic environment.

In the study, House’s (1971) path-goal theory was the framework used to examine the relationship between quantities of small business lenders per city and the quantities of SBOs per city in the State of New York. As path-goal theory implied that interdependent, dyadic relationships between leaders and followers produced positive correlations, the study theorized that the relationship of SBO and small business lender counterparts also positively correlated. The analysis of data within the study determined if a significant correlation between the quantities of small business lenders per city and the quantities of SBOs per city in the State of New York was positive, negative or non-existent.

Chapter Summary

The chapter presented a detailed review of literature for examining the incentivized, dyadic relationship between quantities of small business lenders per city and quantities of SBOs per city within the State of New York. In accordance with House’s (1971) path-goal theory, the performance levels of small business lenders per city led the performance levels of SBOs per city towards business longevity and success within the dyadic relationship. Certified small business lenders provided small business loans to
support SBO longevity (leader’s performance). SBOs, in turn, effectively applied for available small business loans to sustain operations (follower’s performance). Small business loans were financial incentives used to extrinsically stimulate small business longevity and success, while supporting national growth rates of small businesses (United States National Economic Council, 2011). Increased quantities of SBOs nationwide contributed to economic stability throughout the United States.

Quantities of small business lenders per city and quantities of SBOs per city within the dyadic relationship mutually depended on the performances of counterparts repeatedly for attaining incentives, producing interdependency within the relationship. Consequently, path-goal theory indicated that performance levels of counterparts within the dyadic relationship positively correlated, increasing or decreasing respectively (House, 1996). Details of the methodology used for the correlational research study are described in Chapter 3.
Chapter 3: Research Design Methodology

General Perspective

The study was conducted using a correlational research design which computes and measures the relationship between two or more quantitative variables (Creswell, 2013). Creswell (2013) imparted that correlational analyses produced a statistical outcome used to describe the degree of association (or relationship) between two variables. While some correlations aimed to explain, others predicted. Correlations compared or associated any two types of variables in the form of collected, numerical data (e.g., scores, ratings, measurements, etc.). An association of any two variables will yield a positive, negative or zero statistical outcome (Creswell, 2013).

Creswell (2013) imparted that outcomes for the Pearson correlational statistic ($r$) indicated the direction (i.e., +/-) and degree of the relationship (i.e., .00 – 1.00). Statistical outcomes ranged from $-1.00 \leq r \leq +1.00$. Outcomes that were negative integers illustrated an inverse linear or curvilinear relationship, whereas one variable increased and the other variable decreased. Positive integers demonstrated a linear or curvilinear parallel relationship, where both variables increased or decreased mutually. The closer the positive or negative outcomes were to +/-1.00, the stronger the relationship between the two variables. Outcomes closer to .00 were considered weak statistical measures. A statistical outcome of .00 revealed that no correlation existed between the variables. When no correlation existed between variables, there was no linear (nonlinear) or no curvilinear pattern for the plotted data. Statistical outcomes of $r = +/- .66$ and higher were considered strong and significant correlations (Creswell, 2013).
For the study, numerical data for quantities of active small business lending institutions per city in the State of New York (variable #1) was correlated with numerical data for quantities of active SBOs per city within the State of New York (variable #2). In accordance with House’s (1971) path-goal theory, New York State cities with more small business lenders (as leaders) conveyed higher amounts of small businesses (as followers). Similarly, the top half of New York State cities with higher quantities of small business lenders were expected to compute a significantly different statistical outcome between variables than the bottom half of New York State cities with lower quantities of small business lenders. Data for the pair of variables were analyzed to inform two hypotheses or research questions:

1. Was there a significant relationship between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city within the State of New York?

2. Was the relationship between quantities of small business lending institutions per city and quantities of SBOs per city significantly different for the top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of cities in the State of New York?

There was a corresponding null hypothesis for each of the research questions above. The probability that a statistical outcome was significant (i.e., probability \( p < 5\% \) chance that the correlational outcome had error) justified either accepting or rejecting the null hypothesis for the research question (Creswell, 2013). The associated null hypotheses were:
1. $H_01$: A significant relationship did not exist between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city within the State of New York.

2. $H_02$: The relationship between quantities of small business lending institutions per city and quantities of SBOs per city was not significantly different for the top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of cities in the State of New York.

The correlational research design addressed the theoretical rationale of the study, since the association of the two variables supported (or contradicted) premises pertaining to House’s (1971) path-goal theory: (a) performance levels within the dyadic relationship of small business lenders and SBOs mutually increased (or decreased); (b) cities with higher quantities of small business lenders reflected higher quantities of SBOs, producing stronger positive correlational outcomes, and; (c) counterparts within the dyadic relationship were interdependent. In accordance with path-goal theory, the performances of available and active small business motivated the performances of SBOs to obtain financing for business longevity, increasing the quantities of active small businesses per city throughout New York State. More productive cities conveyed greater small business lending activities (United States National Economic Council, 2011).

A positive correlation between counterparts reiterated the practicality of House’s (1971) path-goal theory and provided a solution to the problem of small business failure nationwide. A negative correlation refuted the claims of path-goal theory. Lunenburg (2011) claimed that increased performance levels of leaders similarly increased performance levels of followers. If increased quantities of small business loan providers
within each city of the State of New York positively related to increased quantities of SBOs per city, then rates of small business longevity and success in New York State strategically improved over time by continually increasing quantities of local small business lenders. The City of New Rochelle’s small business economy, for example, began to mirror that of the City of Yonkers. Significant disparities no longer existed within the relationships of small business lenders and SBOs per city throughout the Great State of New York, once quantities of small business lenders were increased city by city statewide.

**Research Context and Participants**

The data analyzed for the correlational research study was obtained from preexisting data files presented by the United States Small Business Administration. Numerical data indicating the quantities of active small business lending institutions per city in the State of New York (variable #1) that was used for the quantitative study derived from the data source: Small Business Lending Institutions in New York Using Call Report Data, June 2011 (United States Small Business Administration, 2011). Small business lending data for SBOs was provided to the United States Small Business Administration from the Federal Depository Insurance Corporation (FDIC) for 164 small business lending institutions across the State of New York.

Numerical data for the quantities of active SBOs per city in the State of New York (variable #2) used for the study was derived from the data source: Number of Firms, Number of Establishments, Employment, and Annual Payroll by Enterprise Employment Size for Metropolitan Area, NAICS Sectors: 2011 (United States Small Business Administration, 2011). Data for small business establishments were reported to the United
States Small Business Administration from the United States Census Bureau. SBO quantities for the City of New Rochelle and the City of Yonkers were obtained indirectly from the United States Census Bureau (2014). Data sources for both variables were publicly available online. Data for a convenient sample of cities in the State of New York (i.e., $n = 34$) was used for the study’s analyses. Participants included small business lending institutions within cities of New York State during the year 2011 and SBOs within cities of New York State during the year 2011. The numerical data pertaining to quantities of small business lending institutions per city and quantities of SBOs per city was correlated for statistical outcomes that were positive, negative or zero.

**Instruments Used in Data Collection**

For the correlational research study, Microsoft Excel software was used to retain and analyze data collected from: (a) the Small Business Lending Institutions in New York Using Call Report Data (variable #1), and (b) the Number of Firms, Number of Establishments, Employment, and Annual Payroll by Enterprise Employment Size for Metropolitan Area (variable #2) (United States Small Business Administration, 2011). Cronk (2012) recommended that various types of software, such as Microsoft Excel and SPSS, were capable of managing large amounts of data, analyzing data thoroughly and illustrating data clearly and cohesively.

**Procedures for Data Collection and Analysis**

Data for the two variables in the quantitative study was copied and recorded from applicable sources (i.e., the Small Business Lending Institutions in New York Using Call Report Data, and the County Business Patterns Report of the Number of Firms, Number of Establishments, Employment, and Annual Payroll by Enterprise Employment Size for
Metropolitan Area) to a Microsoft Excel worksheet by columns for analysis. The data was edited and correctly aligned as necessary for accurate analyses after being transferred from sources. Data was then sorted by quantities of small business lenders within the Microsoft Excel worksheet before research computations began. Small business lenders were considered the leaders within the dyadic relationship between counterparts, as described by House’s (1971) path-goal theory.

The computational function for a Pearson correlation was available within the Microsoft Excel software. The computation was applied to the two columns of data for the quantitative study: (a) quantities of small business lenders per city in New York State, and (b) quantities of SBOs per city in New York State. Results for the Pearson correlation was automatically generated by the Microsoft Excel software and displayed at the designated output location within the worksheet. The results of analyses for the study are presented in Chapter 4.
Chapter 4: Results

Research Questions

Quantities of small business owners (SBOs) per city in the State of New York related (or did not relate) to quantities of small business lenders per city. The quantitative study examined whether or not a relationship existed. The two research questions investigated were:

1. Was there a significant relationship between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city within the State of New York?

2. Was the relationship between quantities of small business lending institutions per city and quantities of SBOs per city significantly different for the top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of cities in the State of New York?

Common within correlational research studies, there were associated null hypotheses for the study’s two research questions. The null hypotheses corresponding to each of the research questions above were:

1. \( H_{01} \): A significant relationship did not exist between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city within the State of New York.

2. \( H_{02} \): The relationship between quantities of small business lending institutions per city and quantities of SBOs per city was not significantly different for the
top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of cities in the State of New York.

**Data Analyses and Findings**

The analysis of data for the study supported the primary hypothesis (or research question), identifying that a strong, significant parallel relationship existed between quantities of small business lenders per city and SBOs per city within the State of New York. For the second research question, the data used for the study informed that higher quantities of small business lenders per city in the State of New York did not significantly correlate with higher quantities of SBOs per city (i.e., the top 50% of cities). Similarly, there was no relationship between quantities of small business lenders per city and quantities of SBOs per city in New York State for cities with lower (or zero) quantities of small business lenders (i.e., the bottom 50% of cities).

Data for a convenient sample of 34 New York State cities was used for the study. Table 4.1 summarized the correlational analyses relevant for each research question. Appendix A provided a table of the data analyzed for both variables in the study.

Table 4.1

<table>
<thead>
<tr>
<th>Summary of Correlational Analyses</th>
<th>Statistical Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Analyses</td>
<td>n</td>
</tr>
<tr>
<td>All Cities in the State of New York</td>
<td>34</td>
</tr>
<tr>
<td>Top 50% of Cities in the State of New York</td>
<td>17</td>
</tr>
<tr>
<td>Bottom 50% of Cities in the State of New York</td>
<td>17</td>
</tr>
</tbody>
</table>

*Notes. n = number of cities. r = correlation statistic. p = level of significance (α = 0.05)*
The results or findings of analyses for the first research question generated a correlational outcome, \( r(34) = +.98, p = .01 \). The close proximity of the statistical outcome to +1.00 indicated a very strong positive correlation between variables (Creswell, 2013). Not only did a strong, positive relationship exist between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city, but the relationship was significant. Using a \( p \)-test of \( \alpha = .05 \), the .01 level of significance revealed that the statistical outcome had less than a 5% probability of error (or \( p < 5\% \))—an acceptable standard for correlational outcomes. The associated null hypothesis for the research question was then rejected. According to Creswell (2013), the strong, significant relationship suggested causality: that increasing quantities of active small business lenders within a city increased the quantities of active SBOs within that city.

Findings for the second research question varied, but failed to align with the theoretical rationale for the research question. Of the convenient sample of 34 New York State cities used for the study, the top 50% of cities (i.e., \( n = 17 \))—based on quantities of small business lenders—yielded an insignificant, positive correlational outcome, \( r(17) = +.98, p = .23 \). The bottom 50% of cities in New York State (i.e., \( n = 17 \)) produced no correlation, \( r(17) = .00, p = .00 \). Although the statistical outcomes for the top and bottom halves of New York State cities appeared quite different, the statistical outcome for the top half of cities was not significant. The null hypothesis for the second research question was not rejected because at least one of the two applicable outcomes was not significant. Procedural necessities for analyses conceivably impacted the outcomes of the second research question.
Data used for quantities of SBOs per city required additional preparation for analysis. According to the United States Small Business Administration (2011), the United States Census Bureau provided census data of individuals and business entities nationwide to the United States Small Business Administration for further analyses and reporting. Most of the United States Census Bureau data for quantities of individuals or businesses was formatted into regions called Metropolitan Statistical Areas (MSAs). MSAs combined or grouped data from multiple densely-populated municipalities within close proximity. MSA regions were formulated to represent approximated economic outputs of densely-populated, adjacent municipalities within the United States. The United States Small Business Administration (2011) clarified that two or more adjacent, densely-populated municipalities (e.g., towns, villages, cities, States, etc.) within the United States commonly equated a single MSA region. For example, Poughkeepsie-Newburgh-Middletown, New York was a single Metropolitan Statistical Area that encompassed the three adjacent, densely-populated cities of: Poughkeepsie, New York; Newburgh, New York, and; Middletown, New York (United States Small Business Administration, 2011).

Extracting quantities of SBOs per city from MSA regional data for several cities in the State of New York was required for the study. MSAs were separated using weighted averages from the population sizes of underlying municipalities. When groupings within an aggregate amount were not equivalent in size, weighting data was a procedure to correctly represent the various contributions or allocations of each grouping within the whole quantity (Vogt & Johnson, 2011). Since MSA regional data was combined based on the population sizes for underlying municipalities, the data was likewise separated based on population sizes. Data for the population size of each underlying municipality was
obtained from the United States Census Bureau (2014). Numerical data for SBO quantities of 19 New York State cities used within the study were closely approximated by applicable weighted averages. There were a total of 62 chartered cities within the State of New York (New York State Library, 2014). Actual data for active SBO quantities per city for all 62 chartered cities within the State of New York was not attainable for the study. The study obtained data for a convenient sample of 34 cities in the State of New York. While some of the data used for quantities of SBOs per city was actual and not approximated, separating MSA data for SBO quantities per city permitted the use of an increased sample size for analyses within the study.

Summary of Results

In the correlational study, results for the primary research question concurred with the study’s theoretical framework. A strong positive relationship, $r(34) = +.98$, $p = .01$, existed between quantities of active small business lenders per city and quantities of active SBOs per city within the State of New York. The statistical outcome for the relationship was significant, rejecting the associated null hypothesis for the first research question.

The theoretical framework was not supported by the results of the second research question. While the top 50% of cities in New York State (based on quantities of small business lenders per city) generated an insignificant statistical outcome, $r(17) = +.98$, $p = .23$, the bottom 50% of cities yielded a statistical outcome of zero, $r(17) = .00$, $p = .00$. Since the statistical outcome for the top half of cities was found insignificant (i.e., $p = .23$), the null hypothesis was not rejected for the second research question. The relationship between the two variables was not significantly different for the top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of
cities in the State of New York. Chapter five discusses the study’s results and provides an overview of the study.
Chapter 5: Discussion

Introduction

A significant, positive correlation is found for the relationship between quantities of active small business lenders per city and quantities of active small business owners (SBOs) per city in the State of New York. As quantities of small business lenders per city increase, quantities of SBOs per city increase. Inadequate quantities of small business lenders within a city positively correlate with inadequate quantities of SBOs per city. The United States National Economic Council (2011) explains that increased quantities of small business lending institutions provide increased levels of necessary support to small business owners in need of financing to attain business longevity and success. Since many cities in the United States rely on SBOs to facilitate economic stability within the municipality, increased rates of small businesses failure (or low quantities of SBOs) citywide becomes harmful for the local economy (United States National Economic Council, 2011). Cities, such as Yonkers, New York, that comprise of at least a one local small business lender continue to experience economic growth (City of Yonkers, 2013). Cities, such as New Rochelle, New York, are encouraged to strategize for the availability of active small business lending institutions locally towards improving the city’s economic environment (City of New Rochelle, 2012).

The quantitative study examines whether or not a relationship exists between quantities of small business lenders per city in the State of New York and quantities of SBOs per city. The initial research question investigates: Is there a significant relationship between quantities of small business lending institutions per city within the State of New
York and quantities of SBOs per city within the State of New York? Results for the first research question reveal that a significant positive correlation, $r(34) = +.98$, $p = .01$, exists between quantities of small business lenders per city and quantities of SBOs per city for the study’s convenient sample of 34 cities in New York State. The associate null hypothesis for the first research question is then rejected. The strong, significant correlational outcome suggests causality (Creswell, 2013).

House’s (1971) path-goal theory asserts that if the leader first incentivizes the path for the follower, only then the follower effectively performs. Small business lending institutions per city perform the imperative role of providing small business loans when SBOs need financial support to sustain operations (Nickels et al., 2012). Small business productivity remains a critical component for stabilizing the economic environment of cities (and other types of municipalities) throughout the United States (United States National Economic Council, 2011). The study’s results convey that cities throughout the State of New York which welcome local small business lending institutions comprise of greater quantities of active SBOs citywide. Cities, such as New Rochelle, New York, are able to improve economic conditions as active small business lending institutions are developed locally. The City of New Rochelle becomes motivated to attain an economic environment mirroring the productivity of the City of Yonkers, New York. Over time, economic improvement per city becomes economic improvement nationwide, successfully decreasing rates of small business failure across the United States.

The second research question for the study explores: Is the relationship between quantities of small business lending institutions per city and quantities of SBOs per city significantly different for the top 50% of cities (based on quantities of small business
lenders per city) than for the bottom 50% of cities in the State of New York? Analysis of the relationship between variables for the top half of cities produces an insignificant positive correlation, while no relationship exists between variables for the bottom half of cities used in the study. The results of the study are incongruent with the second research question. Since at least one of the correlational outcomes between variables for the top and bottom halves of New York State cities is not significant, the associated null hypothesis for the second research problem is not rejected.

The top half of cities within the convenient sample produces an insignificant statistical outcome, $r(17) = +.98, p = .23$, between counterparts. While insignificant, the correlational outcome is slightly higher than the previous correlational outcome for all cities used in the study. The bottom half of New York State cities within the convenient sample computes no correlation, $r(17) = .00, p = .00$, between small business lenders per city and SBOs per city. Results for the bottom half of cities reflect that each of the 17 cities do not contain any small business lenders, while quantities of SBOs per city vary. Data for correlated variables must increase or decrease in order to convey a positive or negative statistical outcome (Creswell, 2013). Findings for the bottom half of New York State cities do not align with path-goal theory, since there is no increase or decrease of performance levels by the leader (quantities of small business lenders per city) within the specified data (House, 1971).

The inability to reject the null hypothesis for the second research question is impacted by limitations (i.e., procedural necessities for analyses) within the study. Two limitations of the findings include: (a) MSA data approximations; (b) the use of small sample sizes for analyses (i.e., $n = 17$). Since the New York State Library (2014) records
62 charter cities for the State of New York, replicating the study using data for all 62 cities (i.e., \( n = 62 \)) is recommended. Using the theoretical rationale for House’s (1971) path-goal theory, an examination of the relationship between quantities of small business loan approvals per city and quantities of SBO loan applications per city is also recommended.

Primary findings predominantly align with path-goal theory, implying that SBO performance per city within the States of New York corresponds with the existence of small business lending institutions citywide. Increasing the performance of the small business lender (as the leader) similarly increases the performance of the follower (as the follower) (House, 1971; Lunenburg, 2011). The powerful parallel relationship between quantities of small business lenders per city and quantities of SBOs per city throughout the State of New York implies that the two variables are related and presumably interdependent.

**Implications of Findings**

House’s (1971) path-goal theory instructs the leader to set an incentivized path to motivate the follower to attain goals. The leader initially: defines the path, clarifies the goals of the path, removes any obstacles from obtaining the path’s goals, and supports the follower throughout the path to attain the leader’s goals. The leader’s satisfaction with the follower’s increased performance levels motivates the leader to repeat the path (House & Mitchell, 1974; Thorndike, 1911).

Within the leader-follower relationship, the follower depends on the leader’s performance for positive valences (i.e., the incentivized path), as the leader depends on the follower’s performance for positive valences (i.e., the follower’s attainment of the path’s goals) (House, 1996; Vroom, 1964). The relationship between the leader and the follower
is interdependent—a dyadic relationship where counterparts mutually depend on corresponding performances for the continuous attainment of incentives (or outcomes that satisfy needs) (Bertalanffy, 1950; House, 1996; Thorndike, 1911). The leader and follower roles are theoretically interchangeable within the relationship (i.e., $\Delta MF_{Leader} \approx \Delta MF_{Follower}$) (House, 1996; Vroom, 1964). Within the dyadic relationship, performances by counterparts increase or decrease similarly, as the correlation between the leader’s behaviors and the follower’s behaviors remains positive. When the follower’s path to accomplish a goal is increasingly incentivized by the leader (leader performance), the follower’s motivation also increases to attain the path’s goal (follower performance) (House, 1996; Lunenburg, 2011).

As the results of the study convey, the dyadic relationship between quantities of small business lenders per city and quantities of SBOs per city within the State of New York is also parallel. Efforts to improve small business performances per city require increasing quantities of local small business lenders to finance SBO attainment of business longevity and success. The increased performance levels of small business lenders per city comparably increase the performance levels of SBOs per city throughout the State. Cities in New York State that include greater quantities of small business lenders sustain greater quantities of local small businesses.

Yonkers, New York, for example, locally houses a single certified small business lender, which approves 225 small business loan applications during the 2011 fiscal (United States Small Business Administration, 2011). The City of Yonkers reports higher levels of productivity proportionately (i.e., higher quantities of SBOs, higher tax revenues, lower unemployment rates, etc.) than neighboring New Rochelle, New York (City of New
Rochelle, 2012; City of Yonkers, 2013). The United States Small Business Administration (2011) disclosed that the City of New Rochelle does not include any certified small business lenders.

Creswell (2013) explains that strong positive or negative correlations suggest the existence of cause and effect (or dependency) between variables. The strong, significant statistical outcome of the study’s primary findings, $r(34) = +.98$, $p = .01$, convinces that quantities of active SBOs per city and quantities of active small business lending institutions per city within the State of New York are interdependent. Increases in quantities of small business lenders per city potentially cause increases in quantities of active SBOs per city within the State of New York. The statistical outcome is consistent with the features of interdependency, as depicted within House’s (1971) path-goal theory. While SBOs per city depend on local small business lenders to provide necessary financing to facilitate business longevity, small business lenders per city depend on local SBOs to actively apply for small business loans. New York State small business lenders per city and SBOs per city mutually depend on corresponding performances within the dyadic relationship to continuously attain incentives (or satisfactory outcomes).

Multiple interdependent, dyadic relationships within a network of social systems (path) continually optimize the productivity of the overall network (goal) (Bertalanffy, 1950; House, 1996; Thorndike, 1925; Watson, 1925). Comparable to other types of social systems, such as Google Inc., the interdependent, dyadic relationship between small business lenders and SBOs per city within the State of New York proposes a nationwide strategy: the development of small business lending institutions per city towards combatting small business failure across the United States—a network of social systems.
Limitations

There are two specific limitations of the study. Firstly, the United States Small Business Administration’s (2011) data which is used for analyses within the study derives from Metropolitan Statistical Areas (MSAs). The United States Small Business Administration receives most of the data from the United States Census Bureau formatted by MSA regions that reflect an approximated quantity of entities (i.e. people, businesses, etc.) within multiple adjacent, densely-populated municipalities. The creation of MSA regions integrates the population sizes of underlying municipalities (United States Small Business Administration, 2011).

When an aggregate amount consists of parts that are not equivalent in size, weighting data is a procedure to correctly divide the whole quantity into proportional parts (Vogt & Johnson, 2011). If MSAs represent combined quantities from multiple municipalities, then using weighted averages (based on population sizes of underlying municipalities) to separate the regions renders the individual quantities for each underlying municipality. Data for the population size of each underlying municipality derives from the United States Census Bureau (2014). An important limitation of using MSA data in the study is the approximations of extracted SBO quantities for each underlying municipality. There are 62 chartered cities in the State of New York (New York State Library, 2014). Actual data from the United States Small Business Administration for SBO quantities per city for all 62 cities within the State of New York is not attainable. Data for SBO quantities per city for several New York State cities in the study is approximated based on weighted averages.
Furthermore, although New York State has 62 chartered cities on record, data for the study is limited to a convenient sample of 34 cities (i.e., \( n = 34 \)). As indicated above, actual data from the United States Small Business Administration of SBO quantities per city for all cities within the State of New York is not attainable. The convenient sample size is further reduced to 17 cities (i.e., \( n =17 \)) for various analyses pertaining to the second research question, which renders insignificant findings.

**Recommendations**

While the study analyzes data obtained from a convenient sample of 34 cities within the State of New York, a replication of the study analyzing data from all cities in New York State is recommended. There are 62 chartered cities in the State of New York (New York State Library, 2014). Increasing (or changing) the quantity of data entries used in a replicated study produces different statistical outcomes (Creswell, 2013).

Furthermore, analyzing the relationship between quantities of small business loan approvals per city and quantities of SBO loan applications per in for New York State is also recommended. Comparable to the study, quantities of small business loan approvals per city in the State of New York measure the performance levels or behaviors of small business lenders per city (as leaders) to provide financing to SBOs within the dyadic relationship for business longevity and success. Quantities of small business loan applications per city in the State of New York measure the performance levels or behaviors of SBOs per city (as followers) to obtain financing for business longevity and success within the dyadic relationship. According to path-goal theory, quantities of small business loan approvals per city also positively correlates with quantities of small business loan applications per city within the State of New York.
Conclusion

Business longevity and success are important goals for small business owners (Kibassa, 2012). Active small businesses positively impact local economies by: increasing tax revenues of local governments, providing jobs and employment to local citizens, providing product or services to local consumers, etc. (Nickels et al., 2012; United States National Economic Council, 2011). However, more than 30% of small businesses fail around the United States after only three years of operation (Jay, 2012). The United States National Economic Council (2011) emphasizes the negative impact small business failure has on local economies.

As quantities of active small businesses surge in some cities across the country, small business failure is epidemic within other cities nationwide (United States Small Business Administration, 2011). Small businesses in cities throughout the United States tend to require the financial assistance of local small business lenders to sustain operations, ensuring business longevity (Nickels et al., 2012; United States National Economic Council, 2011). The study examines the relationship between quantities of active small business lending institutions per city in the State of New York and quantities of active small business owners (SBOs) per city in the State of New York.

While the City of New Rochelle, New York, for example, experiences an increase in small business failure within the last five years, the adjacent City of Yonkers, New York boasts increases in small business sustainment and new startups during the same time period (City of New Rochelle, 2012; City of Yonkers, 2013). The disparity in productivity or performance levels by SBOs within the two neighboring cities is explained in the study using path-goal theory.
House’s (1971) path-goal theory directs leaders (or leading entities) to incentivize the path for following entities to effectively attain goals. Satisfied leading entities are then inclined to repeat the successful path for following entities to attain goals, producing an interdependent dyadic relationship between counterparts (Bertalanffy, 1950; House, 1996; Porter & Lawler, 1968; Thorndike, 1911). The performances (or the motivation to perform) of both entities respectively increase or decrease within the parallel relationship, signifying mutual dependency on the performances of counterparts for continual attainment of incentives. The follower continually depends on the leader to successfully incentivize the path, while the leader continually depends on the follower to successfully attain goals. Continuous satisfactory outcomes (i.e., incentives) from mutual performances of counterparts fuel an effective relationship (Bertalanffy, 1950; House, 1996; Vroom, 1964). Increasing the performances of leaders produce increases in the performances of followers (Lunenburg, 2011).

Alignment of the study with path-goal theory suggests that effective behaviors (or performance levels) of small business lending institutions lead the behaviors of SBOs towards success. Cities with increased performances (i.e., quantities) of small business lenders convey increased quantities of SBOs. Small business lenders per city set the incentivized path of providing small business loans for local SBOs to attain the goals of business longevity and success. Small business lenders continually repeat the effective path for SBOs when business longevity is attained successfully. Continuous attainment of business longevity and success from small business loans within the small business lender-SBO dyadic relationship fuels economic productivity nationwide.
The quantitative study analyzes the dyadic relationship between small business lenders and SBOs per city in New York State. The performance of each counterpart is measured as separate quantities per city—a behaviorist approach. The SBO’s high valence for small business loans is the extrinsic motivator, which incentivizes the SBO’s performance within the path towards goals. House’s (1971) path-goal theory upholds that the performance of the leader increases or decreases with the performance of the follower. Quantities of small business lending institutions per city positively correlate with quantities of SBOs per city within the State of New York. The incentivized, dyadic relationship between small business lenders and SBOs per city in New York State affirms interdependency between counterparts. The small business lender’s performance continually depends on the SBO’s performance for incentives within the relationship, as the SBO’s performance continually depends on the small business lender’s performance for incentives within the relationship.

The quantitative study uses a Pearson correlation to analyze numerical data for the two variables: (a) quantities of small business lenders per city in the State of New York, and (b) quantities of SBOs per city in the State of New York. Data for the quantities of active small business lenders by city throughout New York State and data for the quantities of active SBOs per city in the State of New York derives from the United States Small Business Administration (2011). Data is collected from a convenient sample of 34 cities in the State of New York. The Pearson correlation computes the strength of a relationship between variables, generating a statistical outcome between -1.00 and +1.00 (Cresswell, 2012). While negative statistical outcomes convey inverse relationships between variables, positive statistical outcomes inform of parallel relationships. An alpha
level of $\alpha = .05$ is selected to measure the significance of the correlational outcome, whereas a significant statistical outcome is less than .05. The significance of the statistical outcome determines whether or not the null hypothesis is rejected (Creswell, 2012). Microsoft Excel is used to collect and analyze the data for the study. Two research questions are under investigation:

1. Is there a significant relationship between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city within the State of New York?

2. Is the relationship between quantities of small business lending institutions per city and quantities of SBOs per city significantly different for the top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of cities in the State of New York?

In addition, there are associated null hypotheses for the two research questions. The null hypothesis corresponding to each of the research questions above is:

1. $H_{01}$: A significant relationship does not exist between quantities of small business lending institutions per city within the State of New York and quantities of SBOs per city within the State of New York.

2. $H_{02}$: The relationship between quantities of small business lending institutions per city and quantities of SBOs per city is not significantly different for the top 50% of cities (based on quantities of small business lenders per city) than for the bottom 50% of cities in the State of New York.

Findings for the primary research question in the study are consistent with path-goal theory. A significant positive correlation, $r(34) = +.98, p = .01$, exists between
quantities of small business lenders per city within the State of New York and quantities of SBOs per city. The corresponding null hypothesis is rejected. Findings for the study’s second research question are inconsistent with path-goal theory. An insignificant statistical outcome is produced for the relationship of the top half of cities in the State of New York, $r(17) = +.98$, $p = .23$, while no relationship exists for the bottom half of cities, $r(17) = .00$, $p = .00$. The associated null hypothesis is not rejected.

In agreement with House’s (1971) path-goal theory, the primary statistical outcome from the study conveys that quantities of small business lenders per city in the State of New York positively correlate with quantities of SBOs per city in the State of New York. The strong statistical outcome resulting from the study indicates possible causality: quantities of small business lenders per city influence quantities of SBOs per city in the State of New York. The significant positive correlational outcome reinforces the existence of interdependency between quantities of small business lending institutions per city and quantities SBOs per city in the State of New York.

Increased quantities of small business lenders per city in the State of New York increases quantities of local SBOs by providing financing to SBOs that apply (i.e., the path). As necessary, increased quantities of SBOs per city in the State of New York obtain financing offered by local, certified small business lenders towards achieving business longevity and success (i.e., the goal). The economic conditions of cities throughout the State of New York, such as the City of New Rochelle, blossom from increased performance levels of local, active small businesses lenders and local, active SBOs within the dyadic relationship. Continuous development of small business lenders per city throughout the United States reduces rates of small business failure nationwide.
Limitations of the study hinder rejection of the null hypothesis for the second research question. Several data entries for SBO quantities per city are extracted from Metropolitan Statistical Areas (MSAs). MSAs are regions that combine data for adjacent, densely-populated municipalities (United States Small Business Administration, 2011). Using weighted averages to dissect the data produces approximated SBO quantities for several cities. Additionally, there are 62 chartered cities within the State of New York (New York State Library, 2014). The inability to obtain data reflecting accurate quantities of SBOs for all 62 cities within the State of New York restricts the amount of data entries used for analyses. While analysis for the first research question utilizes a convenient sample of 34 cities in the State of New York, the second research question uses a convenient sample reduced to 17 cities. Results for the top half of cities, where \( n = 17 \), yield an insignificant statistical outcome.

Replicated studies using actual data for all 62 chartered cities in the State of New York is recommended. In accordance with House’s (1971) path-goal theory, analyzing the relationship between quantities of small business loan approvals per city and quantities of small business loan applications per city in the State of New York is also recommended. Results from the study provide important information for economic development and improvement for the City of the New Rochelle and other cities in the United States facing similar economic crisis from small business failure.
References


United States Small Business Administration. (2011). *Number of firms, number of establishments, employment, and annual payroll by enterprise employment size for*


Appendix A

Quantitative Data for Variables

Quantities of small business lenders per city in the State of New York and quantities of small business owners (SBOs) per city in the State of New York for the year 2011

<table>
<thead>
<tr>
<th>State</th>
<th>City</th>
<th>Small Business Lenders</th>
<th>SBOs</th>
</tr>
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<tr>
<td>NY</td>
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<td>159647</td>
</tr>
<tr>
<td>NY</td>
<td>Middletown</td>
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</tr>
<tr>
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</tr>
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<td>Troy</td>
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<td>4922</td>
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<tr>
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<td>State</td>
<td>City</td>
<td>Small Business Lenders</td>
<td>SBOs</td>
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<td>47</td>
</tr>
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*Note: n = 34. SBOs = small business owners. Adapted from Number of Firms, Number of Establishments, Employment, and Annual Payroll by Enterprise Employment Size for Metropolitan Areas by the United States Small Business Administration. Adapted from Small Business Lending Institutions in New York Using Call Report Data by the United States Small Business Administration. Copyright 2011, United States Small Business Administration.*