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RELATIONSHIP BETWEEN GENERATIONS OF ENTREPRENEURS AND
ENTREPRENEURIAL TRAITS

by

IHSAN EKEN

A DISSERTATION

submitted to the Faculty of the University of the Incarnate Word
in partial fulfillment of the requirements
for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

UNIVERSITY OF THE INCARNATE WORD

May 2017

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by
Ihsan Eken

ACKNOWLEDGMENTS

Education has always been a sacred means to me. I have tremendous respect for educators who dedicate their lives to educate new and older generations to get them ahead. I would like to thank those three brilliant educators who made this doctoral dissertation possible. First of all, I would like to thank and express my sincere gratitude to Dr. Osman Ozturgut, Dean of Research and Graduate Studies at UIW, who has been a tremendous mentor for me. I would also like to thank my committee members Dr. David S. Fike and Dr. Adam A. Guerrero for their valued input that helped me with my research methodology and kept me on track.

Throughout the doctoral program, I came to realize that the synonym of success is sacrifice. People must sacrifice in order to attain success or accomplish a task. Sacrificing has become a core concept for me and my parents. We have sacrificed the “togetherness” as a family for over two decades in order for me to reach this level of achievement. This sacrifice includes not being with them during religious celebrations, birthday parties, weddings, and funerals. However, with this achievement, I believe that all of these sacrifices ultimately made sense.

Therefore, I would like to dedicate this dissertation to my father, Dr. Hasan Eken, and my mother, Mrs. Nuriye Eken, who have been an endless source of support and encouragement throughout my education. They have always loved me unconditionally and educated me to work hard for the things that I aspire to achieve. I love you Eken family.

RELATIONSHIP BETWEEN GENERATIONS OF ENTREPRENEURS AND ENTREPRENEURIAL TRAITS

Ihsan Eken, DBA

University of the Incarnate Word, 2017

This quantitative descriptive study investigated the relationship between 3 different generations of entrepreneurs and entrepreneurship traits. The specific purpose of this study was to investigate the relationship between entrepreneurial traits and generations of U.S. entrepreneurs in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) Texas, to see whether generational differences are associated with entrepreneurial traits. 3 different generations of entrepreneurs were investigated in the study: baby boomers, generations Xers, and millennials. The research aimed to contribute beneficial insights to their understanding in enterprising potential and differentiate themselves in entrepreneurial traits in (a) need for achievement, (b) need for autonomy, (c) creative tendency, (d) calculated risk taking, and (e) locus of control. The GET2 test was used to collect the data to analyze the differences and similarities between generations of entrepreneurs and entrepreneurial traits at EO in Texas' major cities.

The study used descriptive statistics (frequencies, percentages, means, and standard deviations) to analyze the question 1 and question 2. An ANOVA test was used to address the question 3 to see whether there are significant differences in entrepreneurial trait scores between generations. And lastly, a 5-multiple regression test was employed for the question 4 to see whether there are significant differences in entrepreneurial trait scores between generations after

controlling the effects of covariates. A total of 117 entrepreneurs responded the survey invitation who deal with operating small-business companies and are registered at Entrepreneurs' Organization as self-employers in South, North, East, and central Texas.

Overall, collected data from 117 entrepreneurs showed that 103 (88% of total population) entrepreneurs tend to have a medium level of enterprising tendency. According to Caird (2013), entrepreneurs who tend to have medium enterprising tendency scores, have strengths in some of the enterprising characteristics in some contexts. However, entrepreneurs with medium enterprising tendency can be regarded as an "intrapreneur" who sets up and runs innovative projects as employees within an existing organization (Caird, 2013).

Overall, results from the research question 3 showed that there is no statistically significant difference at the $p < .05$ in the mean scores on four Total Entrepreneurial Trait scores across the three generation groups. The researcher failed to reject the null hypothesis as the p value of total GET2 scores was larger than .05 ($p > .05$). And results from the research question 4 showed that neither in the first nor final model, statistically significant difference in the Total Need for Autonomy and Total Locus of Control scores between generations after controlling the effects of covariates was detected. There is no significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates.

Based on the findings in this study, it was recommended that future researchers can extend this study as a qualitative or mix-method study with various elements of entrepreneurial traits, to explore the relationship between generations of entrepreneurs and entrepreneurial traits to develop a more comprehensive study. New research studies may be conducted by prospective researchers by changing the setting in order to explore different entrepreneurial tendencies and

abilities, have larger sample size to understand the entrepreneurial traits amongst various groups, and increase entrepreneurs' productivities in local or global environments.

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Chapter One—Overview

Context of the Study

“If you hear a voice within you saying ‘you are not a painter’ then by all means paint and that voice will be silenced.”

-Vincent Van Gogh

“Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.”

-Albert Einstein

The United States has become the world’s most entrepreneurial, dynamic, and flexible economy as opposed to other countries (Decker, Haltiwanger, Jarmin, & Miranda, 2014).

Providing individuals a freedom to easily and quickly start a business (Sadeghi, 2008), holding a higher self-employment rate (Rupasingha & Goetz, 2013), and having numerous small firms that create tremendous amounts of jobs (Audretsch, 2002) to name a few are reasons why the United States is considered as leading the most dynamic economy in the world. Zimmerer, Scarborough, and Wilson (2008) asserted that economic growth and prosperity rely on entrepreneurs who focus merely on reaching success by creating and marketing innovative, customer-focused products and services. The importance, benefits, and virtuosity of entrepreneurship, on the growth of the U.S. economy, have been theoretically and scientifically recognized by numerous research studies (Banda, 2007).

The term entrepreneur was first used in an economic context in 1755 (Banda, 2007). Since then, the study of entrepreneurship has increased, kept its popularity, and has been an interesting research topic for many books and articles within economics (Banda, 2007; Kerr, Nanda, & Kropf, 2014). Many psychologists, anthropologists, sociologists, and economists have contributed new definitions of entrepreneurship into their academic research fields (Banda, 2007). For instance, Zimmerer et al. (2008) defined entrepreneur as “one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by

identifying significant opportunities and assembling the necessary resources to capitalize on them” (p. 3). As a new contribution to this research field, this study focuses on the relationship between different generations of entrepreneurs and entrepreneurial traits, and how entrepreneurs from different generations differ in entrepreneurial traits in the creation, assessment, development of entrepreneurs, or operation of new ventures (McGourty, 2009). Zemke, Raines, and Filipczak (2000) stated that “there is a growing realization that the gulf of misunderstanding and resentment between older, not so old, and younger employees in the workplace is growing and problematic” (p. 1).

The statistical data of the U.S. Census Bureau (2015) stated that the population of the United States, since 2010, tends to be larger, older, and racially and ethnically more diverse than ever before. According to the 2015 U.S. Census Bureau report, the United States hosts a population of 321.4 million people and there is a 3.9% growth in a population of 281.4 million people since 2010. How could the United States sustain the most dynamic economy in the world with such a large population? The answer to this question is embedded in the importance of having a tremendous amount of small-businesses which enhance local economic growth and quality of life, and new job opportunities in the United States (Bednarzik, 2000; Decker et al., 2014; Hathaway & Litan, 2014; Longenecker & Schoen, 1975; Olson, 1987; Rupasingha & Goetz, 2013; Scales, 2011). According to the U.S. Small Business Administration’s (SBA) 2014 statistics, the number of small-businesses, owned and operated by different generations of entrepreneurs, has quickly increased and the rate of failures for small businesses has dropped while big corporations are downsizing. Small Business Administration (2014) reported that 28 million small-businesses created 56 million jobs across the United States in which real gross

domestic product (GDP) grew at an annual rate of 5% in the third quarter of 2014. These are findings reported since 2003.

From 1946 to present, nearly five decades, the United States has seen racially, ethnically, and economically different generations of entrepreneurs. Different generations of entrepreneurs who distinguish themselves in “perspective on work, distinct and preferred ways of managing and being managed, idiosyncratic styles, and unique ways of viewing such work-world issue as quality and service” (Zemke et al., 2000, p. 25) have vividly contributed largely to today’s economic growth (BLS, 2016). For instance, some successful entrepreneurs from different generations such as Bill Gates, co-founder of Microsoft PC software company, Mark Zuckerberg, co-founder of Facebook the social networking website, and many other independent entrepreneurs have contributed new merchandise and services to the United States to make it more efficient and beneficial.

A positive relationship between entrepreneurship and economic growth has empirically been detected by many economists as a result of entrepreneurs from different generations establishing small businesses in the United States (Banda, 2007; Batabyal & Nijkamp, 2012; Galindo & Picazo, 2013; Glaeser, Kerr, P., & Kerr, 2015). The important role of entrepreneurs from different generations in the U.S. economy has been taken into consideration in this study. Three different generations of entrepreneurs and five different entrepreneurial traits are examined to determine whether generational differences affect entrepreneurial traits. Analyzing the characteristically different generations of entrepreneurs (Baby Boomers, Generation Xers, and Millennials) and their entrepreneurial traits (need for achievement, need for autonomy, creative tendency, calculated risk taking, and locus of control) may shed a new light on their perspectives on business activities.

Statement of the Problem

As previously stated that entrepreneurs have substantially contributed to local economic growth, quality of life, and the workforce to the United States economy positively. Furthermore, Stephens, Partridge, and Faggian (2013) suggested that higher levels of entrepreneurship in rural and remote regions is a key means to increasing economic growth. To enhance or at least keep the United States economic growth steady, the need of addressing, understanding and analyzing generationally diverse entrepreneurs and their distinguished characteristics has come out of necessity. Previous research studies reported that failure to understanding generational differences may result in misunderstanding and miscommunication, conflict in the workplace, and lower employee productivity (Fyock, 1990; Adams, 2000).

Generations differ from each other in values and views, workplace aspirations, politics, music, sports, movie heroes, dreads, hopes, fears, delights, and disappointments (Zemke et al. 2000) while generations that were born in the same time period share common historical experiences, economic and social conditions, and technological advances (Spector, 2008). Lancaster and Stillman (2002)'s theory claims that three different generations of entrepreneurs, Baby Boomers, Generation Xers, and Millennials, have their own work ethics and they tend to be diverse in today's high-performance workplace. Therefore, three different generations of entrepreneurs' characteristics are needed to be analyzed. These characteristics are as follows: need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control (Caird, 2006). Measuring and analyzing these entrepreneurial characteristics among different generations of entrepreneurs may contribute beneficial insights to their understanding in enterprising potential and differentiate themselves in entrepreneurial traits. Entrepreneurship has become a powerful factor in the United State economy in which it is believed that economic

growth, dynamic workforce, and wealth reside in the hands of entrepreneurs. As the scope of small-business increases in the United States, paying attention to entrepreneurship in local business has been increasing and has been a challenge among different generations of entrepreneurs.

Purpose of the Study

The purpose of this study is to investigate the relationship between entrepreneurial traits and generations of U.S. entrepreneurs in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) Texas, to see whether generational differences are associated with entrepreneurial traits.

Research Questions and Hypothesis

Regardless of gender and ethnicity, local entrepreneurs from different generations, the Baby Boomers, Generation Xers, and Millennials, in major cities in Texas (San Antonio, Dallas, Austin, and Houston) were selected as the research subjects based on their entrepreneurial traits: need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control.

The central questions for this research are:

- (1) What are the distributions of entrepreneurial traits of entrepreneurs?
- (2) What are the distributions of generations represented by entrepreneurs?
- (3) Is there a significant difference in entrepreneurial trait scores between generations?

Hypothesis: Using one-way ANOVA in the Null (H₀) and Alternate (H₁), the hypotheses are:

- H0: There is no significant difference in entrepreneurial trait scores between generations.
- H1: There is a significant difference in entrepreneurial trait scores between generations.

(4) Is there a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates?

Hypothesis: Using five multiple regression analyses in the Null (H0) and Alternate (H1) the hypotheses are:

- H0: There is no significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates.
- H1: There is a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates.

Definition of Terms

Generation: “A special cohort-group whose length approximates the span of a phase of life and whose boundaries are fixed by peer personality” (Strauss & Howe, 1991, p. 60).

Baby Boomers: Born between the years -1946 and 1964 (Lancaster & Stillman, 2002)

Generation X: Born between the years 1965 - and 1980 (Lancaster & Stillman, 2002)

Millennials: Individuals who were born between the years - 1981 and 1999 (Lancaster & Stillman, 2002)

Small-Business: Is a business that is “profit oriented and is independently owned and operated with fewer than 500 employees in non-manufacturing industries which makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials or labor” (SBA, n.d.).

Entrepreneur: “Is one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying significant opportunities and assembling the necessary resources to capitalize on them” (Scarborough & Zimmerer, 2005, p.3).

Entrepreneurship: “The scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (Shane & Venkataraman, 2000, p. 218).

Need for achievement: McClelland (1953) defined this trait as “an arousal when there is competition with a standard of excellence in situations where performance may be assessed for success or failure” (as cited in Caird, 1990a, p. 141).

Need for autonomy: Johnson, Marks, Matthews, & Pike (1987) defined this trait as “attributes of independence self-confidence” (as cited in Caird, 1990a, p. 142).

Creative tendency: Schumpeter (1950) defined this trait as risk-bearing “entrepreneurial function in terms of revolutionary innovation of new products or new processes to improve products” (as cited in Caird, 1990a, p. 141).

Calculated risk-taking: Caird (1991a) defined calculated risk-taking as “the ability to deal with incomplete information and act on a risky option, that requires skill, to actualize challenging but realistic goals” (p. 179).

Locus of control: Weinstein (1969) conceptualized this trait as “responsibility for success and failures is due to ability and effort rather than to task difficulty, luck, fates, powerful others or being in the right place at the right time” (as cited in Caird, 1990a, p. 142).

Summary of Methodology

This study intended to explore different generations of entrepreneurs’ entrepreneurial traits through the General Measure of Enterprising Tendency (GET) test, which was first

developed in 1987-1988 by Sally Caird and Cliff Johnson at Durham University Business School. Due to extensive interest in this tool, Caird (2006) revised the original test to make the GET2 test, which has been widely used with an average of 1,000 users per month, and the GET2 test has been adopted by over 80 institutions and organizations in over 30 countries.

This study was a quantitative study, in which correlation was analyzed between different generations of entrepreneurs and entrepreneurial traits. The reason of relying on the quantitative research was that the numerical demonstration of collected data provides articulate interpretation of the phenomena. Creswell (2012) describes one of the characteristics of quantitative research, which is aligned with this study, as “analyzing trends, comparing groups, or relating variables using statistical analysis, and interpreting results by comparing them with prior predictions and past research” (p. 13). In this quantitative study, the researcher used a proven, valid, and reliable instrument to measure variables and utilize multiple statistical procedures to form objectivity in order not to influence the results by avoiding biases or personal opinions into the study (Creswell, 2012).

A quantitative descriptive study was used as an appropriate research design and research method to collect, analyze, and interpret data to acquire empirical evidence about the purpose of the study. The research was a contribution to the business academic studies about self-awareness of today’s entrepreneurs from different generations in (a) need for achievement, (b) need for autonomy, (c) creative tendency, (d) calculated risk taking, and (e) locus of control. In this quantitative descriptive study, a reliable and valid survey instrument GET2 was used to collect data from participants who are currently associated with the Entrepreneurs’ Organization (EO) in San Antonio, Dallas, Austin, and Houston. Sekaran and Bougie (2013) stated that “surveys are

useful and powerful in finding answers to research questions through data collection and subsequent analyses” (p. 240).

Theoretical Framework

This descriptive study was guided by the theoretical framework of entrepreneurial tendencies that was provided by Caird (2006) whose previous research studies found that enterprising individuals who are believed to have high entrepreneurial tendencies displayed high scores in GET2 test. Caird (2013) underlined the importance of GET2 that “the basic premise of the test is that the enterprising person shares entrepreneurial characteristics, and that these characteristics may be nurtured via education and training, and assessed” (p. 3). The GET2 test was adopted for this study in order to determine the differences and similarities between generations of entrepreneurs and entrepreneurial traits at EO in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston), Texas.

Lyons, Lynn, and Bhaird (2015) purported that “trait approach assumes that the entrepreneur has a unique personality with discernible psychological characteristics, and if a method of locating these characteristics were to be developed, researchers would be able to locate entrepreneurs in a sample” (p.139). Caird’s (2006) entrepreneurial tendency test was substantially aligned with this correlational study, as the test was aimed to identify and correlate the key characteristics of different generations of entrepreneurs at EO in the major cities in Texas. Validity and reliability of GET2 was demonstrated in previous studies by other scholars (Caird, 1990a, 1991a, 1993, 2006; Dada, Watson, & Kirby, 2015; Demirci, 2013; Estay, Durrieu, & Akhter, 2013; Lyons et al., 2015). Estay et al., (2013) reported that the internal coherence coefficients ρ were used instead of Cronbach α to measure the reliability of their test which resulted in above .8. while the coefficients of convergent validity were close or superior to .5. In

assessing reliability, the results of Cronbach's alpha coefficient for different samples were satisfying for researchers (.811 and .785) while GET tests results indicated that the criteria for internal consistency was met (Dada et al.,2015; Demirci, 2013). Cromie (2000, p. 22) underpinned the test model that "a comprehensive, accessible, easy to administer and score, and, though additional work is needed to verify its psychometric properties, some studies have found that the GET test has criterion and convergent validity and good internal consistency" (as cited in Lyons et al., 2015, pp. 143,144).

Overall, this study was supported by a theoretical framework that focused on the theory of enterprising tendency (trait theory) adopted from Caird (2006) in order to investigate if any of entrepreneurial traits possibly vary among local entrepreneurs from different generations. Each generations, Baby Boomers, Generation Xers, and Millennials, has their unique entrepreneurial traits as this study intended to distinguish by utilizing the GET2 instrument. The instrument of GET2 is comprised of five traits in conjunction with 54 questions which are associated with need for achievement, need for autonomy, creative tendency, calculated risk taking, and locus of control.

Contribution to the Field of Business

A variety of studies have been referenced in this study in order to provide useful information for practitioners, policy makers, and future researchers. This study intended to explore whether there is a correlation between generations of entrepreneurs and entrepreneurial traits. In this study, participants were entrepreneurs with small businesses. The study also intended to make contribution to the academic literature by profiling Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) Texas region entrepreneurs.

Entrepreneurship has become a powerful factor in the U.S. economy in which it is believed that economic growth, dynamic workforce and wealth reside in the hands of entrepreneurs. As the scope of small-business increases in the United States, paying attention to entrepreneurship in local business has been increasing and has been a challenge among different generations of entrepreneurs. Different generations of entrepreneurs display different characteristics in self-employment roles. Thus, it should be an essential factor for policymakers, local economic development departments, to understand to what extent generations' differences are associated with entrepreneurial traits, in order to receive a higher quality of output from entrepreneurs in the Southwest, Northeast, Center, and Southeast Texas metropolitan regions.

The research was presented as a quantitative descriptive study of entrepreneurs from different generations and entrepreneurial traits by utilizing the GET2 instrument. Future researchers could extend this study as a mix-method study with various elements of entrepreneurial traits, to explore the relationship between generations of entrepreneurs and entrepreneurial traits in order to develop a more comprehensive study. For future research, in addition to the knowledge obtained from this study, new research studies may be conducted by prospective researchers by changing the setting in order to increase entrepreneurs' productivities in local or global environments.

Limitations of the Study

The limitation of the study was based on three major benchmarks: (a) investigating a correlation between generations of entrepreneurs and entrepreneurial traits, (b) generations who are distinguished by Baby Boomers, Generation Xers, and Millennials, (c) entrepreneurs who consider themselves as self-employed and run small-businesses in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) Texas metropolitan regions. The

study was limited to investigating the generations of entrepreneurs and entrepreneurial traits while previous/current research studies either focused merely on students in business schools or clustered around educating individuals who want to be taught to be a better entrepreneur (Lazear, 2005; Macko & Tyszka, 2009; McGourty, 2009; Morris, Webb, Fu, & Singhal, 2013).

The study employed a reliable questionnaire developed by Caird (2006) that had only been validated in entrepreneurial research studies. The questionnaire consists of five entrepreneurial characteristics in conjunction with a total of 54 questions which was sent out to local entrepreneurs via Survey Monkey. The research subjects were chosen from local entrepreneurs in the Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) Texas metropolitan regions where the current total population was 5,997,991 (U.S. Census Bureau, 2016).

Though the study was aimed to reach its purpose, there were several unavoidable limitations that were needed to be taken into account. The following are the limitations of the study:

- 1) The research study will be restricted in Southwest, Northeast, Center, and Southeast Texas metropolitan regions of the United States.
- 2) A survey instrument will be relied upon in data collection process.
- 3) Entrepreneurs with small business owners may not have enough time to fill out the survey properly.
- 4) The study will include participants from different generations such as Baby Boomers, Generation Xers, and Millennials.
- 5) Data will be self-reported.

Chapter Two—Literature Review

Introduction

Boote and Beile (2005) state that “to advance our collective understanding, a researcher or scholar needs to understand what has been done before, the strengths and weaknesses of existing studies, and what they might mean” (p.3). Furthermore, Boote and Belie (2005) underline the importance of the literature review that a scholar or researcher is not going to be able to perform a significant research study without understanding of this area, and yet, lack of understanding prior research studies will also be a disadvantage for a researcher. Boote and Belie (2005) asserted that “to be useful and meaningful, education research must be cumulative; it must build on and learn from prior research and scholarship on the topic” (p.3). Therefore, a review of associated literature needed to be done in this study to examine the related existing studies and foundations.

The purpose of this research study was to provide an understanding of the relationship between generations and entrepreneurial traits, and contribute new, productive and dynamic concepts into the business area. A variety of studies have been referenced in this research study in order to underpin and compare information regarding interactions between generations and entrepreneurial traits. In chapter 2, this research further provides an in-depth presentation of generation of entrepreneurs, entrepreneurial traits, and a discussion of how entrepreneurs from different generations distinguish themselves in entrepreneurial traits. The benefits of this study would be providing entrepreneurs from different generations, such as Baby Boomers, Generation Xers, and Millennials, an interpretation, assessment, a comparison, and a chance of measuring their potential entrepreneurial traits within the framework of: (a) need for achievement, (b) need for autonomy, (c) creative tendency, (d) calculated risk taking, and (e) locus of control among

EO in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston), Texas. The information in this literary review was gathered over an eight-week time period beginning November 3, 2016. Research articles that are used for this study were peer reviewed from the “Business Source Complete”, available at the University of the Incarnate Word’s library. The sources of the literature included: Primo Search, ProQuest, EBSCO, SAGE Journals, ERIC, and the research library of the University of the Incarnate Word. The research books that are used for this research study were provided by the library of the University of the Incarnate Word. Reviewed sources are stated to be from the years between 1974 and 2016.

Generation

The term generation has sociologically been conceptualized and articulated by well-known generational scholars that have done most of the revolutionary work in this field (Strauss & Howe, 1991; Zemke, Raines, & Filipczak, 2000). They define generation as a “a cohort-group whose length approximates the span of a phase of life and whose boundaries are fixed by peer personality” (Strauss & Howe, 1991, p. 60). In this definition, Strauss and Howe underlined peer personality as “a generational persona recognized and determined by (1) common age location; (2) common beliefs and behavior; and (3) perceived membership in a common generation” (p. 64) to find the boundaries and identify a generation. In the twenty-two years period, generations shares a set of collective attitudes such as “family life, sex roles, institutions, politics, religion, lifestyle, and the future. It can be safe or reckless, calm or aggressive, self-absorbed or outer-driven, generous or selfish, spiritual or secular, interested in culture or interested in politics” (Strauss & Howe, 1991, p. 63).

According to Zemke et al. (2000), having “the mix of race, gender, ethnicity, and generation make today’s American workforce unique and singular” (p. 1). Zemke et al. (2000)

further added that “the three generations that occupy today’s workplace and the fourth generation that is entering it are clearly distinguishable by all these criteria – their demographics, their early life experiences, the headlines that defined their times, their heroes, music, and sociology, and their early days in the workplace” (p. 17). However, misunderstanding and hatred could be a problem between older, not so old, and younger generations in the workforce that needs to be addressed and confronted (Zemke et al., 2000).

Just like in today’s American workforce, each generation of entrepreneurs displays its own generational personality as well. Strauss and Howe (1991) state that these “personalities are arrayed in a generational constellation that changes according to a predictable generational cycle. Projecting the cycle is a new way to predict consumer attitudes and lifestyles” (p. 25). Zemke et al. (2000) asserted that “understanding generational differences is critical to making them work for the organization and not against it” (p. 17).

In the phase of literature review, generational differences, particularly the differences between generations of entrepreneurs defined variously as Baby Boomers generation, Generation X, and Generation Y (millennial generation), are widely discussed in the light of well-known scholarly publications (Lancaster & Stillman, 2002; Strauss & Howe, 1991; Zemke et al. 2000). The three different generations were elaborated on in the phase of literature review with the intention of bridging the gap in the literature among entrepreneurship traits, such as need for achievement, need for autonomy, creative tendency, calculated risk taking, and locus of control, to unveil the relationship among these variables and how they affect entrepreneurial outcome. Understanding and bridging the gap between the different generations of entrepreneurs and entrepreneurial traits could help out the future entrepreneurs. Because, each different generation has its distinctive work ethics, perspectives on work, managing and idiosyncratic styles, and

approach to work-world issues such as quality, and service (Zemke et al. 2000). According to McCrindle and Wolfinger (2009), “the insights and applications that follow from robust generational analysis is of great value to business leaders, educators, and parents” (p. 1). Table 1 presents a comparison of the various generations in conjunction with the different chronological schemes that was defined by the sources listed in the first column.

Table 1

Generational Dates Reported in Various Sources

Source	Generations		
	Baby Boomers	Generation Xers	Millennials
Howe and Strauss (2000)	(1943–1960)	(1961–1981)	(1982–2000)
Lancaster and Stillman (2002)	(1946–1964)	(1965–1980)	(1981–1999)
Martin and Tulgan, 2006	(1946–1960)	(1965–1977)	(1978–2000)
Oblinger and Oblinger (2005)	(1947–1964)	(1965–1980)	(1981–1995)
Zemke et al. (2000)	(1943–1960)	(1960–1980)	(1980–1999)

Baby Boomers. Many researchers have adapted different birth years for each generation in the field of generational studies. For instance, Baby Boomers’ birth dates have a range of 1946–1964 (Lancaster & Stillman, 2002; Martin & Tulgan, 2006; Oblinger & Oblinger, 2005; U.S. Census Bureau, 2014). Strauss and Howe (1991) and Zemke et al. (2000) consider Baby Boomers as those born between 1943 and 1960. “There really is no magic birth date that makes you a part of particular generation” (Lancaster & Stillman, 2002, p. 59). This research study utilized the dates proposed by Lancaster & Stillman (2002) who state that Baby Boomers were born between the years 1946 and 1964. The reason of relying on Lancaster & Stillman (2002)’s age range in three generations was that their long-time investigations illustrated the generation gap and general communication failures across generations in workplaces. Lancaster & Stillman, workplace culture experts, studied many years how the generations work together in the nation’s organizations in order to increase work productivity.

The Baby Boomers, as the generation of Americans, is commonly believed to have begun at World War II which was marked by one of the largest generations in U.S. history (Lancaster & Stillman, 2002; U.S. Census Bureau, 2014). As its name “boom” implies, this generation remarkably boomed American economy, education, housing, and science and was featured in *Fortune* magazine as “the Great American Boom” in 1946 (Strauss & Howe, 1991). It is believed that a generation of 80 million Americans born between 1946 and 1964 which formed a Baby Boomer generation (Lancaster & Stillman, 2002). At present in 2016, the Baby Boomers are at the age of between 52 and 70. The Boomers generation witnessed and participated in the political and social turbulent of their time such as the Vietnam War, the women’s and human rights movement, the Kennedy and King assassinations, Watergate and the sexual revolution (Adams, 2000; Lancaster & Stillman, 2002).

The generation of Baby Boomers in the United States was intended to elaborate more on their work habits and ethics rather than breaking down on literature of sociology. Baby Boomers are believed to be competitive (Lancaster & Stillman, 2002), optimistic, team orientated, healthy, workaholic, and had personal gratification (Zemke et al., 2000) at work and in their organizations. The Baby Boomers are highly motivated in doing a “stellar career” in their salary, title, recognition, and perks (Lancaster & Stillman, 2002; Sandeen, 2008). Wiedmer (2015) portrayed the Baby Boomers as independent, well established and goal-oriented generations as they believe in power, hierarchical structure, and rankings which resulted in earned significant positions of responsibility and authority in the workforce for them. “They are genuinely passionate and concerned about participation and spirit in the workplace, about bringing heart and humanity to the office, and about creating a fair and level playing field for all” (Zemke et al. 2000, p.79). The Baby Boomers are also less likely to change jobs when they view their current

job negatively, as compared with generation Xers (Lancaster & Stillman, 2002; Wiedmer, 2015; Zemke et al. 2000). This generation is the first to be educated and graded as opposed to other generations (Lancaster & Stillman, 2002; Wiedmer, 2015; Zemke et al. 2000).

Generation X. This generation is also called Gen X, Gen Xers, Post-Boomers, Twenty-Something's, Baby Busters (Wiedmer, 2015), and The Thirteenth generation, because it is the 13th generation to know the American nation and flag (Howe & Strauss, 1991; Keeling, 2003). Using a range of birth years has helped many researchers to define and differentiate generations. Many researchers have set up different birth years for this generation as well. For instance, Generation X is referred to as those who were born between the 1960s and 1980s (Lyons & Kuron, 2013; Zemke et al. 2000), between 1961 and 1981 (Howe & Strauss, 1991; Keeling, 2003; Ryan, 2004; Sandeen, 2008; Wiedmer, 2015), and lastly between 1965 and 1980 (Lancaster & Stillman, 2002). This research study utilized the dates proposed by Lancaster & Stillman (2002) who stated that Generation Xers were born between the years 1965 and 1980, following the Baby Boomer generation.

The Generation X was born after the Western Post-World War II Baby Boomers when the United States experienced severe economic recessions during this time period, due to the existence of lower birth rates, as opposed to previous Baby Boomers (Martin & Tulgan, 2006; Wiedmer, 2015; Zemke et al., 2000). According to U.S. Census Bureau (2014), Generation Xers contribute a population of 84 million people in the United States. The Generation Xers are, at present in 2016, at the age of between 36 and 51. Therefore, sometimes differentiating whether some individuals are Generation Xers or late Boomers could be difficult. According to Zemke et al. (2000), asking individuals where they were when John F. Kennedy was shot could be the best question to determine their generation. If they are not old enough to remember when John F.

Kennedy was shot, they are then probably part of Generation X. As a solution to this, the researcher asked participants to indicate their age range in demographic questionnaire in the survey (Baby boomers: 52-70, generation Xers: 36-51, millennials:18-35).

According to Zemke et al. (2000), this “middle child” generations’ birthing recession significantly caused weak-workforce, robust job market, and economic panic in Generation X time period. Generation Xers were the resilient survivors both economically and psychologically, although characteristically pessimistic, independent, self-reliant, and skeptical (Sandeem, 2008; Zemke et al., 2000). They have a sense of being thrown out of job without warning, logic, and apology by corporations (Zemke et al., 2000). They are more apt to job hop than previous generations due to being too skeptical (Wiedmer, 2015). Generation Xers are very technologically savvy and have strong technical skills (Lancaster & Stillman, 2002; Strauss & Howe, 1991; Zemke et al., 2000). They have reached the era of computer, video games, internet, digital TV, and cell phones that prove that Generation Xers are adaptable to change (Zemke et al., 2000). According to Zemke et al. (2000), being well acquainted with technology makes Generation Xers more eligible than the Baby Boomers. Therefore, Generation Xers who are working in high-tech companies are most likely supervising the Baby Boomers who would question about the work ethic and commitment of the Generation Xers. Some well-known Generation X members, “Michael Dell at Dell Computer, Jeff Bezos at Amazon, David Lauren at Swing Magazine, Jerry Yang and David Filo at Yahoo, are already heading up their own companies” (Zemke et al., 2000, pp.94-95).

Generation Y (Millennials). Generation Y is also known as the Echo Boom, the Baby Busters, Generation Next (Lancaster & Stillman, 2002), the Internet Generation, Nintendo Generation, Generation 2001 (Zemke et al., 2000), and Millennials (Howe & Strauss, 2000; Lancaster & Stillman, 2002; Zemke et al., 2000). Different birth year parameters have been set by different researchers, for this generation. For instance, Millennials are referred to as those who were born between 1980 and 2000 (Zemke et al., 2000), 1981 and 1999 (Lancaster & Stillman, 2002), and 1982 and 2000 (Strauss & Howe, 1991). This research study adopted the dates proposed by Lancaster & Stillman (2002) who stated that Generation Y was born between the years 1981 and 1999 followed by the Baby Boomers generations and Generation Xers. Wiedmer (2015) stated that a generation of 71 million Millennials, born since the Boomers, forms the largest generational cohort group. According to United States Census Bureau (2015), Millennials have reached 83.1 million in numbers, and they represent more than one quarter of the nation's population. Millennials are currently between the ages of 17 and 35.

The Millennials have witnessed several historical incidents that include the death of Princess Diana, the World Trade Center attacks, the Columbine High School shootings, and the Oklahoma City federal building bombing (Wiedmer, 2015; Zemke et al., 2000). This generation is talented in using technology that has been a part of their lives (DeMaria, 2013; Howe & Strauss, 2000; Lancaster & Stillman, 2002; Murray, 2015; Zemke et al., 2000). As a result of Millennials having grown up with the Internet, cell phones, text messaging, and social media (Murray, 2015), differentiating them from prior generations, they are considered "Internet Pioneers" (DeMaria, 2013). Being "Internet Pioneers" and having an innate capability to use technology, Millennials, who are the first to be born when Internet and cell phones already existed, have the opportunity to be a transformational generation (DeMaria, 2013). According to

Lancaster and Stillman (2002), many industries recruit young Millennials to take advantage of their technical knowledge while they are still in school. Having this talent made American companies shift their focus to children that means they wanting to hire younger employees (Howe & Strauss, 2000).

According to Howe and Strauss (2000), the Millennials are confident, rule followers, racially and ethnically diverse, optimistic and cooperative team players, while the Baby Boomers display individualistic characteristics and Generation X parents have a tendency to be pessimistic. Millennials are very much interested in making “parallel careers”, as compared to Boomers who are highly motivated to build “stellar careers”, and Generation Xers who are seeking to build “portable careers” (Lancaster & Stillman, 2002). For the Millennials, maintaining “parallel careers” does not mean that they are job-hoppers, as defined by Generation Xers. The Millennials are multitaskers and more apt to recycle their skills and talents that enable them to learn several jobs simultaneously, and personal preferences in order to keep up with their organizations’ evolving structure (Lancaster & Stillman, 2002).

The Millennials expect further supervision and feedback (Sandeen, 2008; Wiedmer, 2015), mentoring, and appreciate being graded, evaluated, and ranked throughout their lives (Sandeen, 2008). According to Lancaster and Stillman (2002), however, technology has become a big factor in the work lives of Millennials, in which they can easily access information that they need to know rather than asking their mentors when something goes wrong. Zemke et al. (2000) asserted that the Millennials’ ability to use technology will make them the best-educated generation, as compared to others.

Entrepreneurship and Traits

Entrepreneurs from different generations and entrepreneurial traits were the focus of this research study. The topic of entrepreneurship is not a new phenomenon and its reputation is ever-increasing in the business field. Conceptualizing the term entrepreneurship has been ongoing since 1755 (Banda, 2007) by numerous scholars to contribute new definitions, terms, and beneficial information into different disciplines. However, interest in entrepreneurship has never been greater than in the twenty-first century (Zimmerer & Scarborough, 2005). As Zimmerer and Scarborough predicted back in 2005, the future of entrepreneurial activity is outstanding as entrepreneurs continue launching their businesses at high levels. This has caused large companies to continue downsizing and focusing on transitioning to small-businesses in order to sustain market share. Interest in entrepreneurship has steered many researchers toward consensus on the importance of entrepreneurial activity in promoting considerable local economic growth, enhancing quality of life, expanding the job market, reduction in poverty, and unemployment rates in the U.S. economy (Audretsch, 2002; Banda, 2007; Batabyal & Nijkamp, 2012; Bednarzik, 2000; Brereton, 1974; Decker et al., 2014; Demirci, 2013; Galindo & Picaz, 2013; Glaeser, Kerr, P., & Kerr, 2015; Longenecker & Schoen, 1975; Minniti, 2008; Picazo, Martin, & Soriano, 2012; Rupasingha & Goetz, 2013; Stephens et al., 2013; Zimmerer & Scarborough, 2005). This literature review was designed to contribute to our understanding of entrepreneurship and entrepreneurial traits as described by Caird (2006).

According to Hisrich (2014), the definition of entrepreneurship tends to vary depending on whether it is viewed from an economic, psychological, anthropological, historical, sociological, or management perspective. Hisrich (2014) stated entrepreneurship from these different disciplines in the following definition:

To an economist, an entrepreneur is one who brings resources, labor, materials and other assets into combinations that make their value greater than before, and also one who introduces changes, innovations and a new order. To a psychologist, such a person is typically driven by certain forces- need to obtain or attain something, to experiment, to accomplish or perhaps to escape authority of others. To one businessman, an entrepreneur appears as a threat, an aggressive competitor, whereas to another businessman, the same entrepreneur may be an ally, a source of supply, a customer or someone who creates wealth for others, as well as finds better ways to utilize sources, reduces waste, and produces jobs others are glad to get. (p. 8)

Regardless of how different disciplines describe what entrepreneurship means, in the phase of this literature review, the study focused solely on the characteristics of entrepreneurs. It is commonly agreed and statistically proven with statistical hypothesis tests ($p < .05$) by many scholars that entrepreneurs take risks (Estay et al., 2013; Lazear, 2005; Zhao, Seibert, & Lumpkin, 2010; Zimmerer & Scarborough, 2005), have a high tendency toward innovation (Audretsch, 2002; Banda, 2007; Batabyal & Nijkamp, 2012; Brereton, 1974; Dada et al., 2015; Estay et al., 2013; Galindo & Picazo; Stephens et al., 2013; Olson, 1987; Scales, 2011), are self-employed (Banda, 2007; Bednarzik, 2000; Lazear, 2005; Rupasingha & Goetz, 2013), are profit and growth oriented (Banda, 2007; Estay et al., 2013; Galindo & Picazo, 2005; Longenecker & Schoen, 1975; Olson, 1987; Sadeghi, 2008; Shane & Venkataraman, 2000; Zhao et al., 2010; Zimmerer et al., 2008), and have a higher sense of self-efficacy or confidence (Brereton, 1974; Dada et al., 2015; Estay et al., 2013; Morris et al., 2013; Lyons et al., 2015; Macko & Tyszka, 2009).

To examine the entrepreneurial characteristics of the generations of entrepreneurs in the Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) Texas metropolitan regions of the United States, GET2 test, that was redeveloped in 2006 by Caird, was adopted to determine the differences and similarities, in the context of enterprising tendency, among Baby Boomers, Generation Xers, and Millennials. According to Caird (2006),

enterprising persons share entrepreneurial characteristics. Parallel to this, GET2 test, also measures key characteristics of entrepreneurial people who are associated with entrepreneurial behavior and the entrepreneurial act itself. The key characteristics of entrepreneurs which are the five dependent variables for this study are: need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control.

Need for achievement. McClelland (1953) asserted that entrepreneurs with high motivation are characterized by the need for achievement by which entrepreneurs are driven (as cited in Caird, 1990a). The need for achievement associated with motivation stems from an individual's desire for excellence while excellence is derived from personal accomplishments (Caird, 2006; Johnson, 1990; Nistler, Lamm, & Stedman, 2011). As a foundation of motivation, the need for achievement is recognized as an important characteristic of entrepreneurs (Demirci, 2013). Entrepreneurs with a high need for achievement score have a strong desire to be successful and are highly committed to getting things done (Caird, 2006). Previous research studies conducted by several scholars indicated that there is a significant relationship between the need for achievement and entrepreneurship (Collins, Hanges, & Locke, 2004; Johnson, 1990; Shaver, 1995). McClelland (1968) underlined that the high need for achievement is associated with certain attributes. For example, possessing self-awareness, determination, motivation, and decision making abilities, and being energetic, innovative, a risk-taker, and responsible (as cited in Caird, 1990a).

Need for autonomy. According to Watkins (1976), in Caird, 1990a, the need for autonomy is the strongest reason for entrepreneurs to start a business. Broeck, Vansteenkiste, Witte, Soenens, and Lens (2010) defined autonomy as the inherent need or desire of individuals to feel volitional and to experience a sense of choice and psychological freedom when

performing an intended task to be accomplished. Hackman and Oldham (1976) defined autonomy as “substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out” (as cited in Broeck et al., 2010, p. 258). Entrepreneurs with test results showing a high need for autonomy often display dissatisfaction and a feeling of discomfort when expected to work within the constraints, boundaries, and business rules that were previously established (Demirci, 2010). According to the 2006 research results by Caird, and the 2008 results by Raposo, Paco, and Ferreira, entrepreneurs with a high need for autonomy are independent, that is, preferring to work alone, self-expressive, individualistic and unresponsive to group pressure, leaders, unconventional, opinionated, and determined.

Creative tendency. The entrepreneurial trait of creative tendency is one of the core driving forces that plays a crucial role that is associated with innovation and entrepreneurship (Caird, 2006; Demirci, 2010). According to Caird (1991a), the definition of creative tendency should involve imagination, innovation, curiosity, and versatility. Demirci (2010) described successful entrepreneurs as “those who can develop new ideas, seize the gaps in the market and create value through bringing ideas and resources together in a different way” (p. 24). An enterprising person should have a broad horizon regarding new ideas, new products and processes such as new technologies, businesses, projects, organizations, have a tendency for constructive problem solving, and look at life in a different way from others (Caird, 2006).

Calculated risk-taking. As it has been discussed earlier in the literature phase, one of the very inherent parts of entrepreneurial behaviors is risk-taking. The role of risk in entrepreneurial behavior was first pointed out by Cantillon in 1755 (as cited in Caird, 1991a; Zhao et al., 2010). Entrepreneurs who are wise and calculate and assess the risk involved in the initiative, often take

into consideration the risk-taking option when their decisions are made under uncertainty, driven by the lack of knowledge and information (Demirci, 2010). Atkinson (1957), as cited in Caird (1991a), underlined the importance of being a moderate risk-taker by suggesting that it is a function of strength of the motive to achieve or avoid failure which, according to Demirci (2010), differentiates between gambling and calculated risk-taking. According to Caird (2006), an enterprising person should be opportunistic and be seeking information and expertise when taking risks as these characteristics would be valued in any initiative. Entrepreneurs who are scored as high calculated risk-takers have the following qualities: decisiveness, self-awareness, are analytical and goal-oriented, and possess effective information management skills (Caird, 2006).

Locus of control. Reviewing the literature on entrepreneurial traits, many scholars have made important contributions to enterprising tendency in the locus of control. This psychological behavior is known as one of the dominant psychological traits in which individuals have control over their own life and are responsible for the outcomes of the decisions they make (Dada et al., 2015; Demirci, 2010; Lyons et al., 2015). Weinstein (1969) argued that individuals with an internal locus of control tend to be responsible for successes and failures, and attribute outcomes to his or her own ability and effort while individuals with an external locus of control attribute outcomes to task ease or difficulty, luck, fate, the influence of powerful others (such as doctors, the police, or government officials) or being in the right place at the right time (as cited in Caird, 1991a). Beugelsdijk (2007) stated that “success is not a matter of luck and having connections, but of hard work” (p.196). According to Caird (2006), individuals with an internal locus of control are opportunistic, self-confident, proactive, determined and express a strong-willed control over life, and self-belief, that is, equating the results achieved with the effort made.

Theoretical Framework

In the literature review, two different topics, generations and entrepreneurship traits, were described through the point of view of several scholars, from a variety of disciplines such as psychology, anthropology, sociology, and economics. The results of previous research studies conducted by those scholars have made substantial contributions to this research study in the context of definitions of generations, entrepreneurship, and entrepreneurship traits. Enterprising Tendency Theory is the selected theoretical framework for this study. This theory which was chosen in an effort to test the theory, resulting from prior research findings, on entrepreneurship traits.

The idea of *When Generations Collide* that was designed by Lancaster and Stillman (2002) was adopted for this research study to understand how the different generations think, understand one another and act in the workplace. According to Lancaster and Stillman (2002), bridging the generation gaps at work by understanding the differences can provide a colossal advantage when it comes to recruiting, retaining, managing, and motivating before or after generations. Lancaster and Stillman's (2002) theory was described in the literature review as a set of distinctive characteristics among the three generations of Baby Boomers, Generation Xers, and Millennials.

The theory of Enterprising Tendency (trait theory) that was created and developed by Caird (2006) was addressed in this correlational research study. The entrepreneurial trait theory claims that the entrepreneurs have distinctive perceivable psychological characteristics that can be nurtured via education and training, and assessment through GET2 test. The test that reliability and validity were proofed by many scholars includes five dependent variables that are need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of

control with 50 questions. According to Caird (2006), individuals can involve themselves in an enterprise activity when they are highly motivated (to achieve something themselves) by a good idea and will manage risks, information and uncertainties because they believe they can succeed.

Summary

The literature review aimed to provide an in-depth understanding of three generations of entrepreneurs, entrepreneurial traits, and how entrepreneurs from different generations distinguish themselves in entrepreneurial traits. The chapter of literature review has been broken down into two categories: Generations and entrepreneurial traits. In the first phase of the literature review, differences between generations were introduced to readers respectively as Baby Boomers, Generation Xers, and Millennials.

The literature review began with the definition of generation. It was generally agreed by many well-known generational scholars upon the definition of generation. According to scholars, generations display different characteristics behavior from each other in values and views, workplace aspirations and perspectives, politics, music, sport, and disappointments etc. However, still, generations that were born in the same time period share common historical experiences, economic and social conditions, and technological advances. Generational literature focused entirely on portraying the three different generations and how to differ and manage those generations in the workplace (Table 2). Understanding the gap among the different generations of entrepreneurs could help out many organizations in the context of increasing recruitment, retention, and productivity. Because, as Zemke et al. (2000) pointed out, each generation displays distinctive work ethics, perspectives on work, managing and idiosyncratic styles, and approach to work-world issues such as quality, and service.

Shifting to the entrepreneurial literature, entrepreneurship and entrepreneurial traits were the focus of the study. It is also generally agreed by many scholars from a wide array of disciplines upon the importance of entrepreneurial activity in promoting considerable local economic growth, enhancing quality of life, expanding the job market, reduction in poverty, and unemployment rates in the U.S. economy. It is commonly and statistically proven with statistical hypothesis tests ($p < .05$) by many scholars that entrepreneurs take risks, have a high tendency toward innovation, are self-employed, are profit and growth oriented, and have a higher sense of self-efficacy or confidence.

Finally, to end this chapter, entrepreneurial traits: need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control were addressed (Table 3). To summarize all, need for achievement, as an important characteristic of entrepreneurs, refers to motivation which stems from an individual's desire for excellence. The need for autonomy is attributed to psychological freedom and being independent when performing an intended task to be accomplished. Creative tendency, one of the core driving forces, refers to imagination, innovation, curiosity, and versatility. Calculated risk-taking, one of the integral parts of entrepreneurial behaviors, is an essential factor for entrepreneurs when their decisions are made under uncertainty, driven by the lack of knowledge and information. And lastly, locus of control was addressed in the literature. In this entrepreneurial trait, individuals have control over their own life and are responsible for the outcomes of the decisions they make. Individuals with a high internal locus of control score believe in being responsible for successes and failures, and attribute outcomes to his or her own ability and effort. Alternatively, individuals with an external locus of control attribute outcomes to task ease or difficulty, luck, fate, powerful others or being in the right place at the right time.

Table 2

Lancaster and Stillman's Generational Differences

Factor	Baby Boomers	Generation Xers	Millennials
Attitude Overview	Optimistic They believe in possibilities, and often idealistically strive to make a positive difference in the world. They are also competitive and seek ways to change the system to get ahead.	Skeptical The most misunderstood generation, they are very resourceful and independent and do not depend on others to help them out.	Realistic They appreciate diversity, prefer to collaborate instead of being ordered, and are very pragmatic when solving problems.
Description	Numbered at 80 million, the largest of the groups, Boomers were born between 1946 and 1964. They were influenced by Martin Luther King, JFK, Gloria Steinem, and The Beatles. Places such as the Hanoi Hilton, Woodstock, and Kent State resonate for this group. Television changed their world dramatically. In general, they can be described as optimistic. This was the generation that believed anything was possible—that they really could change the world.	Born between 1965 and 1980, this relatively small (46 million) segment of the workforce saw the likes of Bill Clinton, Al Bundy, Madonna, Beavis and Butthead, and Dennis Rodman make headlines during their formative years. Their world shape changed to include the former Soviet Union, Lockerbie, Scotland, and the Internet—in fact, this is the generation that, more than any other, is defined by media and technology. For Gen- Xers, the watchword is skepticism—this group puts more faith in the individual, in themselves, than in any institution, from marriage to their employer.	The youngest members of what will be the next Boomer wave, some 76 million Millennials were born between 1981 and 1999. Although they are just starting to trickle into the workforce, this group grew up with everybody from Prince William to Winky Tinky, Felicity, Marilyn Manson, Venus and Serena Williams, and Britney Spears. They have already lived through Columbine, the Columbia Space Shuttle disaster, and September 11. Stillman and Lancaster describe this group as realistic, confident, and pragmatic. Raised by optimistic Boomers, Millennials feel empowered to take positive action when things go wrong.
Work Habits	-They have an optimistic outlook. -They are hard workers who want personal gratification from the work they do. -They believe in self-improvement and growth	-They are aware of diversity and think globally. -They want to balance work with other parts of life. They tend to be informal. -They rely on themselves. -They are practical in their approach to work. -They want to have fun at work. -They like to work with the latest technology.	-They have an optimistic outlook. -They are self-assured and achievement focused. -They believe in strong morals and serving the community. -They are aware of diversity.

Note. From Handbook of Research on Educational Communications and Technology (p. 301) by Spector, J. M., 2008, New York: Lawrence Erlbaum Associates. Copyright (2008) by Taylor & Francis Group, LLC.

Table 3

Entrepreneurial Trait Scores

	Low	Medium	High
Need for achievement	<p>Low score is ranked between 0-6. Achievement may not be one of your high priorities. Perhaps setting up and running an enterprise would be too much hard work and commitment. Perhaps you prefer to take life at a more even pace.</p>	<p>Medium score is ranked between 7-9. You probably wish to consider 'tried and tested' enterprising ideas that fit in with your lifestyle.</p>	<p>High score is 10-12.</p> <ul style="list-style-type: none"> - An orientation towards the future, -Reliance on your own ability, - An optimistic rather than a pessimistic outlook, - A strong task orientation, - Effective time management, - Results-oriented with yourself and others, - Restlessness, driven and energetic, -Opinionated in defense of your ideas and views, -Determination to ensure your objectives are met even when difficulties arise, -Responsible and persistent in pursuit of aims, -Oriented towards challenging but realistic goals, -Willingness to work long and hard when necessary to complete tasks.
Need for autonomy	<p>Low score is ranked between 0-2. You probably prefer to be advised about managing your work and would not enjoy the responsibility of taking charge of an enterprise.</p>	<p>Medium score is ranked between 3. You may be happy to work as an intrapreneur as a valuable member of an organizational team. If you start your own enterprise, you may need to cultivate Stronger independent leadership qualities. Starting a business is not the only option for you. You would be probably equally happy to work as an employee as part of an organizational team or on your own projects.</p>	<p>High score is 4-6.</p> <ul style="list-style-type: none"> -Independence, preferring to work alone especially if you cannot be top dog, -Self expressive, feeling a strongly need to do your own thing your way, rather than work on other people's projects, -Individualistic and unresponsive to group pressure, - Leadership, preferring to be in charge and disliking taking orders, - Unconventional, and prepared to stand out as being different to others, - Opinionated, having to say what you think and make up their own mind about issues, - Determination, strong willed and stubborn about your interests.
Creative tendency	<p>Low score is ranked between 0-6. You would probably look to others for entrepreneurial ideas but are probably content with proven, traditional approaches to business</p>	<p>Medium score is ranked between 7-9. You probably wish to consider tried and tested enterprising ideas that are more straightforward to implement and fit in with your lifestyle.</p>	<p>High score is 10-12.</p> <ul style="list-style-type: none"> - Imaginative, inventive or innovative tendency to come up with new ideas, - Intuitive, being able to synthesis ideas and knowledge, and make good guesses when necessary, - Change-orientated, preferring

or enterprise.

Calculated risk taking

Low score is ranked between 0-6. You are not happy about taking on any risk and perhaps you have too many responsibilities or too few personal resources to allow you to feel comfortable about taking financial or business risks.

Medium score is ranked between 7-9. You would probably be happiest with tried and tested enterprise ideas, less risky enterprising ideas, or business ideas where a partner takes the risks (even if that might include sacrificing some of the potential rewards).

novelty, change and challenges with a dislike of being locked into routines,

- Versatile and able to draw on personal resources for projects or problem solving,
- Curious and interested in new ideas.

High score is 10-12.

- Decisive, being able to act on incomplete information and good at judging when incomplete information is sufficient for action,
- Self-awareness with the ability to accurately assessing your capabilities,
- Analytical, being good at evaluating the likely benefits against the likely costs of actions,
- Goal-oriented, setting yourself challenging but attainable goals,
- Effective information management using information to calculate the probability that your actions will be successful.

Locus of control

Low score is ranked between 0-6. You may have experienced some knocks to your self-confidence which led you to doubt that your personal qualities and efforts will help you to achieve your aims in life. You believe that luck and fate will determine what happens to you in life, and determination and hard work will not make much difference.

Medium score is ranked between 7-9. Although you have some entrepreneurial qualities, if you wish to start a business you may need to develop your self-confidence and enterprising skills to make a success of the venture. You may need to exert greater control over the development of your ideas. Self-confidence could be strengthened by developing specific business or project management skills in areas that you feel could be improved. Without greater self-confidence, you may over-rely on others, such as partners or clients, and this could engender greater business risk.

High score is 10-12.

- Opportunistic, seeking and taking advantage of opportunities,
- Self-confidence with the belief that you have control over your destiny and you make your own luck, rather than being controlled by fate,
- Proactive, taking personal responsibility to navigate problems that arise to achieve success on your terms,
- Determination and express a strong-willed control over life,
- Self-belief, equating the results achieved with the effort you make.

Total entrepreneurial trait scores

Low (0-26)

You are not highly enterprising in your present activities. This suggests that you would probably prefer to work in employment. Perhaps you prefer to support

Medium (27-43)

You are likely to have strengths in some of the enterprising characteristics and may be enterprising in some contexts. At this time, you probably are unlikely to set up an innovative growth-

High (44-54)

Your enterprising tendency is high. This means that you have a tendency to start up and manage projects; this could be your own business venture, within your employing organization or your community. You may recognize the

enterprise rather than take a lead.

oriented global business, and may be able to express your enterprise either within employment as an intrapreneur, or in your leisure time through voluntary community projects.

following qualities in yourself:

- You like to be in charge;
- You will seek opportunities and use resources to achieve your plans;
- You believe that you possess or can gain the qualities to be successful;
- You are innovative and willing to take a calculated risk to achieve your goals successfully.

The most enterprising people set up projects more frequently, set up more innovative projects and are more growth-oriented which means that they are opportunistic and good at utilizing resources, including human, technological, physical and organizational resources.

Note. From General measure of Enterprising Tendency test www.get2test.com by Caird, S., 2013, United Kingdom. Copyright (2013) by Sally Caird.

Chapter Three—Methodology

Overall Approach and Rationale

Chapter 3 elaborated on and justifies the intended research methodology utilized in a descriptive study of generationally different entrepreneurs with small business owners in Texas' metropolitan regions in the United States. The population in the study included entrepreneurs with small business owners who are currently living in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston), Texas. And sample will be drawn from EO. The target participants were presented to review and acknowledge a detailed consent form, which asked them if they were willing to participate in the study. All respondents that participated in the study were held in confidence. This research study intended to analyze three different generations of entrepreneurs (Baby Boomers, Generation Xers, and Millennials) and their entrepreneurial traits through GET2 test to investigate how generations differ from one another in entrepreneurial traits. This study was a quantitative research study, in which correlation was analyzed between the generations and entrepreneurial traits. The reason of relying on the quantitative research was that the numerical demonstration of collected data provides a more articulate interpretation of the phenomena.

Creswell (2012) underlined the importance of the quantitative method approach that is the process of collecting, comparing groups, analyzing, interpreting, and documenting the results of an intended study, using statistical analysis by comparing acquired results with prior predictions and past research, while qualitative research method is designed for an inquiry approach useful for exploring and understanding a central phenomenon. In this quantitative research study, the objective hypothesizes by examining the relationship among variables were

measured, typically through instruments, so that numbered data were analyzed using statistical procedures.

The study rejected the applicability of an experimental design, because there were no attempts to manipulate any of the independent variables (Creswell, 2012). However, a descriptive research was the most suitable design to investigate the problem. According to Creswell (2012), descriptive research design helps researchers indicate and summarize general tendencies in the data. For example, mean, mode, and median, provide an understanding of how spread of scores, such as variance, standard deviation, and range, and provide insight into a comparison of how one score relates to all others such as z scores and percentile rank.

A quantitative descriptive study was utilized as an appropriate research design and research method to describe the enterprising tendencies of three different generations of entrepreneurs by collecting, analyzing, and interpreting data to acquire empirical evidence. The research was a contribution to the business academic studies about competences of today's generations of Baby Boomers, Generation Xers, and Millennials entrepreneurs in need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control. In this quantitative study, reliable and valid survey instruments were used to collect data from participants who are currently associated with EO in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston), Texas.

Setting

San Antonio is located on an area of 368.6 square miles in South Central Texas, at approximately 140 miles northwest of the Gulf of Mexico, and 150 miles northeast of the city of Laredo on the Mexican border (San Antonio Chamber of Commerce [SACC], 2016). The Milken Institute and The Brookings Institute have recognized the city of San Antonio as one of 2015's

best-performing cities and the strongest-performing economies among the 100 largest metropolitan areas in the United States, as the city is ranked as number one in growing strong, doing business, high employment and low unemployment levels (as cited in San Antonio Economic Development foundation [SAEDF], 2016). According to SAEDF, City of San Antonio, and SACC (2016), San Antonio, the seventh largest city in the United States. and the second largest in Texas, is anticipated to grow at an annual pace of about 4% and grew by 8% between 2010 and 2016, as the city is projected to grow an additional 7% through the year 2021. Diversity is the key factor of the city's robust economic structure, as it can help work with diverse cultures (SACC and City of San Antonio, 2016). Its strategic and accessible geographic location have enabled the city to play a dynamic role in both commerce and culture between the east and west coasts and the Gulf of Mexico (City of San Antonio, 2016). The city's growth industries include: aerospace, financial services, government and military, healthcare & biosciences, hospitality & entertainment, information technology and cybersecurity, manufacturing, transportation and logistics (City of San Antonio & SAEDF, 2016).

According to U.S. Bureau of Labor Statistics (2016), San Antonio's civilian labor workforce in July 2016 was 1,125,996 with an associated unemployment rate of 4% which is representing approximately 59,000 people as the city holds a population of 1,469,845 people (U.S. Census Bureau, 2016). Furthermore, 15 area colleges and universities graduate approximately 25,000 students that enter the workforce each year (SAEDF, 2016). Given the importance of doing business in San Antonio, the GET2 survey, data collection and analysis was conducted in the southwest US metropolitan region, San Antonio, Texas.

According to city of Houston, Houston is the fourth most populous city in the nation (trailing only New York, Los Angeles and Chicago), and is the largest in the southern U.S. and

Texas. Houston has a 2015 population of 2,296,224 million and covers 8,778 square miles (U.S. Census Bureau, 2016). According to U.S. Census Bureau (2016), the metro area's population of 5.95 million in 2010 is 6th largest among U.S. cities. If Houston were an independent nation, it would rank as the world's 30th largest economy (City of Houston, 2016). According to U.S. Bureau of Labor Statistics (2016), Houston has reached second in employment growth rate and fourth in nominal employment growth among the 10 most populous metro areas in the United States. In 2006, the Houston metropolitan area was featured first in Texas and third in the United States within the category of “Best Places for Business and Careers” in Forbes magazine (City of Houston, 2016). Houston hosts more than 5,000 energy related firms and is considered by many as the Energy Capital of the world. Houston's economy has a broad industrial base in the energy, aeronautics, and technology industries and 23 Fortune 500 companies are headquartered in Houston (City of Houston, 2016). The Port of Houston is the 9th largest port in the world. The Port handled 220 million short tons of domestic and foreign cargo in 2010 (City of Houston, 2016).

Dallas is the 3rd largest city in Texas and the 9th largest city in the United States, and is located at the center of the Dallas-Fort Worth-Arlington metropolitan area (City of Dallas, 2016). Dallas has a 2015 population of 1,300,092 and covers 6,490 square miles (U.S. Census Bureau, 2016). According to Encyclopedia.com (2016), Dallas has become a financial and cargo center serving the oil wells after oil discovery in 1930 in east Texas which caused a boost in the Dallas economy. According to Dallas Regional Chamber (2016), Dallas-Fort Worth holds about 43% of the state's high tech workers, along with 13 privately-held companies which are headquartered in the area, with at least \$1 billion in annual revenues. City of Dallas (2016) reported that Dallas entered the 21st century a center for banking, oil, cotton, and high technology.

The capital of Texas, Austin, is the 14th largest city in the United States and is located in central Texas (AustinTexas.gov, 2016). Austin has a 2015 population of 931,830 and covers 271.8 square miles (U.S. Census Bureau, 2016). According to AustinTexas.gov (2016), Austin hosts many high-tech and other companies, such as Forestar Group and Whole Foods Market, which are headquartered here; AMD, Apple, Broadcom, Google, IBM, Intel, Qualcomm, ShoreTel, Synopsys and Texas Instruments have prominent regional offices here. According to U.S. Census Bureau (2016), Austin is the nation's second fastest growing economy with a GDP at a 5 percent rate in 2015.

Research Strategy

In this quantitative study, the researcher aimed to describe the major characteristics and objectives of this qualitative research under three chapters; the introduction, the review of the literature, and the methods (Creswell, 2012). In Chapter 1, purpose statements, research questions, and hypotheses, which are supported by the literature review (Chapter 2) to justify the importance of the research problem and provide a rationale for the purpose of the study. Research questions and hypotheses were designed as specific, narrow, and measurable in order to collect, analyze, interpret, and compare numeric data using statistical analysis from a large number of population, using the GET2 survey instrument with preset questions (Creswell, 2012). The research strategy of the proposal is followed by Chapter 3, the research methodology, on the basis of detailing the research study's overall approach and rationale, setting, research strategy, participants, instrumentations, data collection, ethical considerations, and data analysis.

A quantitative research study was performed in order to investigate the relationship between generations and entrepreneurial traits. This quantitative descriptive research study, specifically, aimed to understand to what extent generations of entrepreneurs display similarities

and differences in entrepreneurial traits. Using statistical analyses to describe critical characteristic traits of different generations of entrepreneurs, the study provided a description of the enterprising tendencies of San Antonio based entrepreneurs who deal with operating small-business companies as self-employers. According to Creswell (2012), quantitative data help researchers measure variables, provide particular numbers and results which assess the frequency and magnitude of trends, and present beneficial information to describe trends about a large number of people.

Participants. The process of selecting the appropriate individuals from a certain population as representative data is known as sampling (Creswell, 2012; Sekaran & Bougie, 2013). In this quantitative descriptive research study, samples which enable researchers to draw conclusions that are generalizable to the population was meticulously selected from a population of entrepreneurs at EO to apply and generalize the results from a small number of people to the entire different generations of entrepreneurs (Creswell, 2012; Sekaran & Bougie, 2013). According to Alreck and Settle (2004), “only a small fraction of the entire population usually represents the group as a whole with enough accuracy to base decisions on the results with confidence” (p.55). Each entrepreneur who are legally registered at EO in the southwest US metropolitan region, had an equal chance of being selected as sample subjects in the population that is called probability sampling (Creswell, 2012; Sekaran & Bougie, 2013).

The participants of interest in the research study consisted of three different generations: Baby Boomers, Generation Xers, and Millennials of entrepreneurs that operate small-business within fewer than 500 employees in major cities, Texas. Data was acquired using a web-based tool (Survey Monkey) in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) in metropolitan region, Texas with the titles of entrepreneur at EO. The

G*Power sample size calculator was used to determine minimum sample size for the study.

“Power and sample-size (PSS) analysis is a key component in designing a statistical study. It investigates the optimal allocation of study resources to increase the likelihood of the successful achievement of a study objective” (StataCorp, 2015, p.1). Using the G*Power sample size calculator, the suggested sample size yielded, after applying an 80% confidence level, α level at .05, and effect sizes at .30 and .15 for One-Way ANOVA and multiple regression analyses required a minimum sample size of 111 and 131 (see Table 4). The sample size was achieved from a population of 517 business owners.

Table 4

Sample Size

	One-Way Anova	Multiple Regression
Power (1- β err prob)	0.80	0.80
α err prob	0.05	0.05
Population size	517	517
Effect size f/f^2	.30	.15
Number of groups/predictors	3	3
Required sample size	111	131
Acquired sample size	117	

Note. Sample size was determined by using the sample size calculator at <http://www.gpower.hhu.de/en.html>.

Instrumentation. Two instruments that include specific questions allow the researcher to measure, observe, and document quantitative data in order to generalize the results from a small number of people to a large number (Creswell, 2012). According to Creswell (2012), the larger number of people examined in a quantitative study, the stronger the results attributing to a large number of people. This quantitative descriptive study will rely on two survey instruments: (1) demographic questionnaire, and (2) GET2 test, to collect, analyze, and interpret information from different generations of entrepreneurs about their entrepreneurial characteristics.

Administering a survey in the data collection process is often the most effective and dependable

way to gather information from a group or population (Alreck & Settle, 2004). According to Fink (2003), “a survey is a system for collecting information from or about people to describe, compare, or explain their knowledge, attitudes, and behavior” (as cited in Sekeran & Bougie, 2013, p.102).

GET2 test was adopted for this quantitative descriptive study to investigate the similarities and differences between generations of entrepreneurs and entrepreneurial traits in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) at EO. The reason of selecting the GET2 test for this study is that the test is generally recognized as one of the most useful, comprehensive, easy to access, administer, and score measures of entrepreneurial potential (Demirci, 2013; Lyons et al., 2015; Kirby & Ibrahim, 2011). Caird (2006) claimed that enterprising people with high entrepreneurial tendency scored high in GET2 test which was demonstrated in terms of validity and reliability in previous studies by other scholars (Caird, 1990a, 1991a, 1993, 2006; Dada et al., 2015; Demirci, 2013; Estay et al., 2013; Lyons et al., 2015) and development consultancies around the world. Caird’s (1991a, 1991b) findings demonstrated the construct validity and reliability of the test that was established by testing the measure on occupational groups. Findings were reported that entrepreneurs were significantly more enterprising than teachers, nurses, civil servants and clerical workers and lecturers and trainers, using t-tests for statistical analysis ($p < .05$).

As an additional supportive data from the subjects, the demographic data was gathered via email using a demographic questionnaire which is comprised of a one page source of general information about subjects. Alreck and Settle (2004) asserted the importance of the demographic data in a research study that is “demographics can be used to identify segments, groups, audiences, or constituencies of people who are both identifiable and behave in similar ways”

(p.24). Demographic questions covered gender, age, race, education level, type of business, number of years as a small business owner, and number of employees in a multiple choice format.

An approval was obtained from Institutional Review Board (UIW). The data was gathered via Survey Monkey including a consent letter, a demographic questionnaire, GET2 (Caird, 2006) test to measure generations of entrepreneurs' entrepreneurial traits. GET2 test is designed to measure five common traits of entrepreneurship: Need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control. GET2 test consists of a 54 item questionnaire that is measured on a two point scale where A for 'Tend to Agree', D for 'Tend to Disagree'.

Data collection. "Data collection methods are an integral part of research design" (Sekaran & Bougie, 2013, p.116). In quantitative data collection, the use of an instrument such as a questionnaire is one effective, dependable, and simple way to measure, observe, and document information (Alreck & Settle, 2004; Creswell, 2012). Participants with the titles of entrepreneurs were given the opportunity to participate in this study by filling out an online questionnaire that was distributed via email. The sample size was obtained by sending an online invitation link via Internet on social-media to 517 small business owners entrepreneurs and asking them to participate the online questionnaire software (Survey Monkey). The online questionnaire included a consent letter, asking whether or not participants would like to participate in this study, along with contact information if participants have possible questions, or additional questions and to report a problem that may be related to this study, demographic questionnaire, and a 54-item questionnaire. The internet was a main means for accessing the link to the questionnaire. The duration of the questionnaire could be no longer than 10 minutes and there are

no more than minimal risks associated with their participation in this research. Participants were not asked to provide their name or local address information to insure anonymity. The survey was sent to over 500 entrepreneurs in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) in metropolitan region, Texas. The data that was gathered by the questionnaire were analyzed in the section of descriptive statistics and correlation analyses was performed through SPSS.

Protection of Human Subjects: Ethical Considerations

During the process of surveying participants at EO, the researcher made significant effort to ensure that the people did not feel uncomfortable in any manner, and to emphasize that none of their personal information was disclosed in any way. Participation in this study was strictly voluntary and each participant will receive a letter of invitation to be a participant explaining the purpose and benefits, and risks if any, of the study and the role and time commitment of the participants. Complete anonymity was maintained. Names did not appear in any data collected, and participants were not be identified through the demographic data. According to Code of Federal Regulations (2009), participants have the right to privacy of their personal answers that have submitted in the form of surveys. The researcher made sure that all participants are kept anonymous. Therefore, an online confidentiality agreement was ready for the participants so that they understood how the researcher would utilize their answer.

Data Analysis

Conducting a survey and drawing conclusions from that was a process of gathering and analyzing data. The data collected for this study were analyzed descriptively. Descriptive statistics were employed to address the demographic characteristics of the participants in this study. The purpose of the descriptive analysis was to describe, present, and summarize the means

for all of the descriptive data such as the survey participants' demographic variables.

Demographic questionnaire was provided by the researcher to detect the profiles of the participants and be more comprehensive in identifying demographic differences among participants. Participants were asked questions concerning their gender, age, ethnicity, type of business, number of employees supervised, and number of years as a business owner.

Descriptive statistics were used to determine the distributions of entrepreneurial traits of entrepreneurs and the distributions of generations represented by entrepreneurs. Violation of assumptions were met for descriptive statistics in both research questions one and two.

According to Pallant (2013), prior to doing any of the statistical analyses, such as t-test, ANOVA, correlation etc., it is very substantial to check if any of the assumptions are violated by the individual test. Testing of assumptions requires acquiring descriptive statistics on variables, such as the mean, standard deviation, range of scores, skewness and kurtosis (Pallant, 2013).

Frequencies procedures were used to acquire descriptive statistics for categorical variables (e.g. gender, ethnicity, education, type of business). The distribution of scores on continuous variables was explored using skewness and kurtosis values. To assess the normality of the distribution of scores, Kolmogorov-Smirnov statistic was employed in both research questions. To detect the actual shape of the distribution for each group, histograms were used in both research questions.

The third research question was addressed using the analysis of variance test (ANOVA). "Analysis of variance is used to compare two or more means to see if there are any statistically significant differences among them" (Tabachnick & Fidell, 2013, p. 37). The ANOVA was used to compare the variances (variability) in entrepreneurial traits scores between the generations with the variability within each of the groups (Pallant, 2013). According to Pallant (2013), the ANOVA is used when researchers have one independent (three born generations groups)

variable and one dependent continuous (entrepreneurial traits) variable. The ANOVA was separately utilized for five different entrepreneurial traits as dependent variables while born generations were considered as independent variables.

For the last research question, multiple regression analysis was used to test the hypothesis whether there is a statistically difference in the Total Entrepreneurial Traits scores across three generations of entrepreneurs after controlling covariates. Multiple regression analysis technique that allows researchers to build a model that explore the relationship between one continuous dependent variable and a number of independent variables or predictors (Pallant, 2013). Multiple regression analysis suited the last question well because this analysis allowed the researcher to test whether adding a variable contributes to the predictive ability of the model, over and above those variables already included in the model (Pallant, 2013). According to Pallant (2013), there are three main research questions that multiple regression can be used to address: “how well a set of variables is able to predict a particular outcome”, “which variable in a set of variables is the best predictor of an outcome”, “whether a particular predictor variable is still able to predict an outcome when the effects of another variable are controlled for” (p. 155).

Chapter Four—Results

Introduction

The purpose of this study was to investigate the relationship between entrepreneurial traits and generations of US entrepreneurs in South, North, East, and central Texas, to see whether generational differences are associated with entrepreneurial traits. A quantitative research study was performed to investigate four major questions of: (1) the distributions of entrepreneurial traits of entrepreneurs (2) the distributions of generations represented by entrepreneurs (3) if there is a significant difference in entrepreneurial trait scores between generations (4) if there is a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates (see Table 5). This quantitative descriptive research study, specifically, aimed to understand to what extent generations of entrepreneurs display similarities and differences in entrepreneurial traits. Using statistical analyses to describe critical characteristic traits of different generations of entrepreneurs, the study provided a description of the enterprising tendencies of Texas' four major cities; San Antonio, Austin, Dallas, and Houston based entrepreneurs who dealt with operating small-business companies as self-employers.

Chapter four presented the findings from statistical analysis of collected data which was broken down into four sections. In the first section, the data collected for this study contains participants' demographic characteristics: gender, age, ethnicity, level of education, number of employees in the company, type of business, and number of years as a business owner. In the second section, descriptive analysis of the distributions of entrepreneurial traits of entrepreneurs and the distributions of generations represented by entrepreneurs were addressed in relationship to the primary and secondary research questions. In the third section, the data collected for this study contains a one-way analysis of variance (ANOVA) to identify and analyze whether there

are significant differences in the mean scores on the entrepreneurial traits scores (total need for achievement, total need for autonomy, total creative tendency, total calculated risk taking, and total locus of control as dependent variables) across the three age groups. Lastly, in the fourth section, five multiple regression was used to explore statistically significant differences between three generations while controlling for covariates.

Table 5

Research Questions, Hypothesizes and Related Statistic Tests

Research Questions	Hypotheses	Type of test
(1) What are the distributions of entrepreneurial traits of entrepreneurs?	No hypotheses are needed	Descriptive
(2) What are the distributions of generations represented by entrepreneurs?	No hypotheses are needed	Descriptive
(3) Is there a significant difference in entrepreneurial trait scores between generations?	H0: There is no significant difference in entrepreneurial trait scores between generations. H1: There is a significant difference in entrepreneurial trait scores between generations.	One-Way ANOVA
(4) Is there a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates?	H0: There is no significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates. H1: There is a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates.	Multiple regression

The questionnaire chosen for this study was GET2. The permission of administrating this survey was acquired from Dr. Caird, UK via e-mail. Measuring three different generations of entrepreneurs' enterprising tendencies through GET2 test helped the researcher to differentiate

the similarities and differences between different generations of entrepreneurs and entrepreneurial traits in need for achievement, need for autonomy, creative tendency, calculated risk taking, and locus of control. GET2 test is a survey instrument that is comprised of items with dichotomous response options – tend to agree or tend to disagree. The instrument measures levels of agreement. The scale and subscales were treated as continuous in compliance with research questions. The generation variable is a single variable with three categories: baby boomers, generation Xers, and millennials and the five entrepreneurial traits were treated as categorical (low, medium, high). The overall GET2 score is a number between 0 and 54. In the study, participants answered every question regarding the following two categories: demographic and five different entrepreneurial traits (enterprising tendencies). An analysis of the results revealed the demographics of the three different generations of entrepreneurs and unearthed findings regarding the four descriptive quantitative research questions.

Table 6

Entrepreneurial Traits Variables and Their Scores

	Related Questions	High Score	Medium Score	Low Score
Need for achievement	1, 10, 19, 28, 37, 46, 6, 15, 24, 33, 42, 51	10-12	7-9	0-6
Need for autonomy	3, 12, 21, 30, 39, 48	4-6	3	0-2
Creative tendency	5, 14, 23, 32, 41, 50, 8, 17, 26, 35, 44, 53	10-12	7-9	0-6
Calculated risk taking	2, 11, 20, 29, 38, 47, 9, 18, 27, 36, 45, 54	10-12	7-9	0-6
Locus of control	4, 13, 22, 31, 40, 49, 7, 16, 25, 34, 43, 52	10-12	7-9	0-6
Total		44-54	27-43	0-26

A descriptive data analysis was performed using an SPSS statistical software package for each of the three generational cohorts: Baby Boomers, Generation Xers, and Millennial Generations. The independent variable was the generations with three categories. The dependent

variables for the descriptive data analysis were as follows: need for achievement, need for autonomy, creative tendency, calculated risk taking, and locus of control. A “codebook” was created before collected data entered into SPSS software. A codebook “is a summary of the instructions you will use to convert the information obtained from each subject or case into a format that IBM SPSS can understand” (Pallant, 2013, p.11). In the codebook, each of the variables was defined, labelled, and abbreviated, and each of the responses was assigned a numeric code (e.g., Tend to Agree = 1, Tend to Disagree = 2). Dependent and independent variables were coded in SPSS in conjunction with individual responses. Each of the last two research questions were evaluated using a one-way ANOVA (question 3) to see if each entrepreneur traits score differed between the three generation groups and Multiple Regression Analysis (question 4) was conducted for three independents (dummy coded) and five dependent variables (see Table 5).

Demographic characteristics of the study participants

This section presents a description of the sample in terms of personal characteristics such as gender, age, ethnicity, level of education, and business background information such as number of employees in the company, type of business, and number of years as a business owner. This descriptive quantitative research analyzed and presented the data from the 117 active entrepreneurs who deal with operating small-business companies and are registered at EO as self-employers in South, North, East, and central Texas. Descriptive statistics were used to address the participants’ demographic characteristics in this study. Results of the distribution analyzes for the number of participants by gender are presented in Table 7. Of the 117 respondents, 37 (32%) were females and 80 (68%) were males.

Table 7

Gender

	Frequency	Percent
Female	37	32%
Male	80	68%

Table 8

Age

	Frequency	Percent
Millennials (18-35)	43	37%
Generation Xers (36-51)	50	43%
Baby Boomers (52-70)	24	20%

Descriptive statistics were also used to address the three different generations of entrepreneurs' demographic characteristics in age. Results of the distribution analyzes for the number of participants by age are presented in Table 8. The three different generations were selected using Lancaster & Stillman (2002) who state that Baby Boomers were born between the years 1946 and 1964 who are, at present, at the age of 52-70 (n=24, 20% of total response). This research study utilized the dates proposed by Lancaster & Stillman (2002) who state that Generation Xers were born between the years 1965 and 1980 who are, at present, at the age of 36-51 (n= 50, 43% of total response). Lastly, the cohort of Millennials was defined by Lancaster & Stillman (2002) as individuals who were born between the years of 1981 and 1999 who are, at present, at the age of 18-35 (n= 43, 37% of total response).

Table 9 illustrates the diversity of the three different generations of entrepreneurs. The participants were chosen in the data of the 117 active entrepreneurs who deal with operating small-business companies and are registered at EO as self-employers in South, North, East, and central Texas. With the exception of one missing response, most entrepreneurs were Hispanic or

Latino, accounting for 48% of the total. White/Caucasian made up 41% of the total, Asian or Pacific Islander 19%, and Black or African American 7%, and American Indian or Alaskan Native accounted for only 1% of the total.

Table 9

Ethnicity

	Frequency	Percent
American Indian or Alaskan Native	1	.9%
Asian or Pacific Islander	19	16.2%
Black or African American	7	6.0%
Hispanic or Latino	48	41.0%
White / Caucasian	41	35.0%
Prefer not to answer	1	.9%

The results show that the majority of the entrepreneurs that have responded to the survey have Bachelor's degrees (48 individuals). 20% of total respondents (24 individuals) have Master's degrees. 17% of total participants has associates degrees (20 individuals). Only 2% and 3% of participants respectively has professional (2 individuals) and doctoral degrees (3 individuals). Complete results were displayed in Table 10.

Table 10

Level of Education

	Frequency	Percent
High School/GED	10	8.5%
Some College	10	8.5%
Associates Degree	20	17.1%
Bachelor's Degree	48	41.0%
Master's Degree	24	20.5%
Professional Degree	2	1.7%
Doctoral Degree	3	2.6%

Table 11

Number of Employees in The Company

	Frequency	Percent
0-10	65	55.6%
11-50	35	29.9%
51-100	3	2.6%
101-200	3	2.6%
201-500	2	1.7%
More than 500	9	7.7%

Results of the distribution analyses for the number of participants by the number of employees in the company are presented in the Table 11. The results show the majority of the entrepreneurs (65 individuals) have between 0 and 10 employees accounted for 56% of total (rounded). Of the 117 respondents, 35 entrepreneurs have between 11-50 employees accounted for 30% of total (rounded). According to the results, of the 117 respondents, 3 entrepreneurs have between 51-100 (3% of total), 3 other entrepreneurs have between 101-200 (3% of total) employees, and 2 entrepreneurs have between 201-500 (2 % of total) employees in their companies. Table 11 indicates that of the 117 respondents only 9 entrepreneurs have more than 500 employees in their companies which ranks it 8% of total.

Table 12

Type of Business

	Frequency	Percent
Agriculture, Forestry, and Fishing	2	1.7%
Construction	18	15.4%
Manufacturing	13	11.1%
Retail Trade	29	24.8%
Finance, Insurance, and Real Estate	6	5.1%
Services	29	24.8%
Public Administration	1	.9%
Others	19	16.2%

Ten business establishments types were presented in the survey as demographic data. The 10 categorized business establishment types were adapted in United State Department of Labor website (2016). As can be seen from the descriptive statistics of participants' business background in Table 12, the report reveals the largest number of business types represented in the surveyed population were in the retail trade (29 individuals accounted for 25% of total) and service industries (29 individuals accounted for 25% of total). The second largest number of business type surfaced in the surveyed population was construction (18 individuals accounted for 15% of total). The third largest number of business type emerged in the surveyed population was manufacturing (13 individual accounted for 11% of total). Other industries were reported in the survey included agriculture, forestry, and fishing (two individuals, 2% of total), finance, insurance, and real estate (6 individuals, 5% of total), and public administration (one individual, .9% of total).

Table 13

Other (please specify)

	Frequency	Percent
Account rep.	1	.9%
Auto, and commercial window tint	1	.9%
Education	3	2.6%
Federal Government	1	.9%
HealthCare/ Hospital Services	1	.9%
Healthcare/Medical Maintenance	1	.9%
Infrastructure and retail	1	.9%
IT	1	.9%
Marketing and Promotions	1	.9%
Pharmaceuticals	1	.9%
professional mentor	1	.9%
Technology	1	.9%
Technology industry	1	.9%
University	1	.9%
Web Development	1	.9%

The participants were also given another option to define their type of business in the survey as Other (please specify). Beside the ten categorized business establishment types that were listed in the survey, participants could type their related answers. The participants answered the question with 15 different type of businesses that they were engaging in (See table 13).

Table 14

Number of Years as a Business Owner

	Frequency	Percent
0-5	32	27.4%
6-10	21	17.9%
11-15	17	14.5%
16-20	27	23.1%
21-30	17	14.5%
More than 30	3	2.6%

The distribution for the number of years as a business owner of respondents is presented in Table 14. The purpose of this demographic question was to display a range of years of participants' experience in the industry. Table 14 illustrates that the largest number of business owners has 0-5 years of business experience in their industry (32 individuals accounted for 27% of total). The second largest number of business owners has 16-20 years of business experience in their industry (27 individuals, 23% of total). And respectively, of the 117 respondents, 21 individuals have 6-10 years of business experience (18% of total), 17 individuals have 11-15 (14.5% of total), and 17 individuals have 21-30 years of business experience (29% of total). Lastly, three individuals have more than 30 years of business experience in their industry (3% of total).

Research question one. Having addressed the findings of the demographic characteristic and descriptive analysis of the three different generations of entrepreneurs, this section addresses the results and findings that are related to the four research questions. The first research question to be addressed for this research study was: What are the distributions of entrepreneurial traits of entrepreneurs? To answer this question, the researcher, for this study, utilized descriptive analysis which indicates general tendencies in the data, such as mean, mode, and median, the spread of scores, such as variance, std. deviation, and range, and a comparison method, such as z scores and percentile rank (Creswell, 2012) to describe the distributions of entrepreneurial traits of entrepreneurs.

A total of 117 entrepreneurs who deal with operating small-business companies and are registered at EO as self-employers in South, North, East, and central Texas, responded to the invitation to participate in this study (see Table 8). Entrepreneurial traits (enterprising tendency) questions were asked participants to examine the distribution of entrepreneurial traits within the three different generations of entrepreneurs. The participants were asked to indicate their level of agreement (Tend to Agree) and disagreement (Tend to Disagree) with each question.

Table 15

Descriptive Statistics for Entrepreneurial Traits

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Total need for achievement	117	6	12	9.85	1.643	-.650	.224	-.244	.444
Total need for autonomy	117	0	6	3.69	1.329	-.177	.224	-.309	.444
Total creative tendency	117	2	10	6.32	2.012	.087	.224	-.829	.444
Total calculated risk taking	117	2	12	8.09	1.817	-.822	.224	.632	.444
Total locus of control	117	2	11	8.89	1.265	-1.946	.224	7.258	.444

SPSS software version 24.0 was utilized to produce and analyze the descriptive statistics for the data collected on the study. “Attributes or characteristics of the population are generally normal distributed” (Sekaran & Bougie, 2013). According to Pallant (2013), Skewness, which

provides an indication of the symmetry of the distribution, and Kurtosis, which provides an indication of the peakedness of the distribution, values provide some information concerning the distribution of scores on continuous variables. Table 15 indicates that, overall, the score of Need for Achievement higher than any other entrepreneurial traits based upon the 12 items scale (mean: 9.85 out of 12 possible highest score). The second highest score belongs to Locus of Control based upon the same 12 items scale which accounted for 8.89 out of 12 possible highest score. Respectively, Total Calculating Risk Taking (8.09 out of 12 possible highest score) and Total Creative Tendency (6.32 out of 12 possible highest score). Total Need for Autonomy accounted for 3.69 in mean score which can only achieve a maximum score of 6. Total Need for Autonomy had a higher relative mean score than Total Creative Tendency when accounting for the maximum scores.

Normality of variables were assessed by both Skewness and Kurtosis. Table 15 shows that Skewness scores for need for achievement (-.650), need for autonomy (-.177), calculated risk taking (-.822), and locus of control (-1.946) are negative which means there is a tendency for values to cluster just to the right of the mean and the left tail is too long (Tabachnick & Fidell, 2013). Skewness score for creative tendency has a positive score (.087) which indicates that there is a tendency for values to cluster just to the left of the mean and right tail is too long (Tabachnick & Fidell, 2013).

Table 15 also provides Kurtosis scores for each entrepreneurial trait. Need for achievement (-.244), need for autonomy (-.309), and creative tendency (-.829) have negative kurtosis scores which indicate that a distribution that is too flat with many cases in the tails (Tabachnick & Fidell, 2013). However, calculated risk taking (.632) and locus of control (7.258) have positive kurtosis scores which indicate that a distribution that is too peaked with short and

thick tails (Tabachnic & Fidell, 2013). In the case of locus of control, the presence of one or two outliers may hide significant effects of generation and other covariates on average locus of control. As it can be seen in Table 15 and Figures 1,2,4,5, the data for need for achievement, need for autonomy, calculated risk taking, and locus of control are not normally distributed on the dependent variables. However, the score of creative tendency (.087) can be regarded as normally distributed because the score is not sufficiently far from 0 to generate any concern (see Figure 3).

There is another way to detect the normality of distributions on dependent variables. According to Pallant (2013), Kolmogorov-Smirnov statistic also assesses the normality of the distribution of scores. Pallant (2013) stresses that if the p value of the test is not significant ($p > .05$), then the data can be regarded as normal distributed. If the p value of the test is significant ($p < .05$), then the data can be regarded as not normally distributed. In the Table 16 that is labelled as test of normality, it can be seen that each entrepreneurial trait is significant ($p < .05$) which indicates that the data is not normally distributed on dependent variables. In other words, the significance p value indicates a violation of the assumption of normality (Pallant, 2013). However, when linear regression is run, we see that the residuals do appear to follow normal distributions, indicating that model assumptions are not significantly violated.

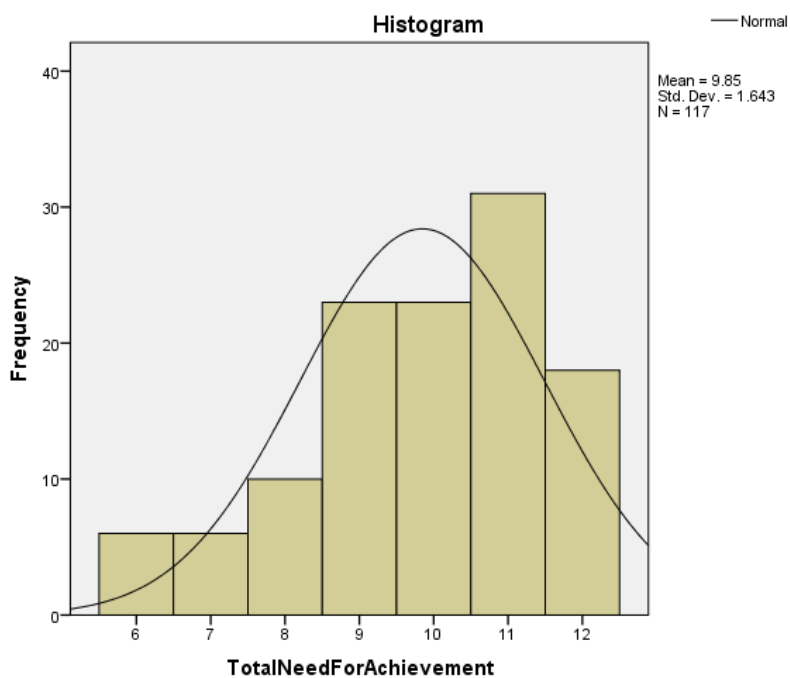


Figure 1. Histogram for need for achievement

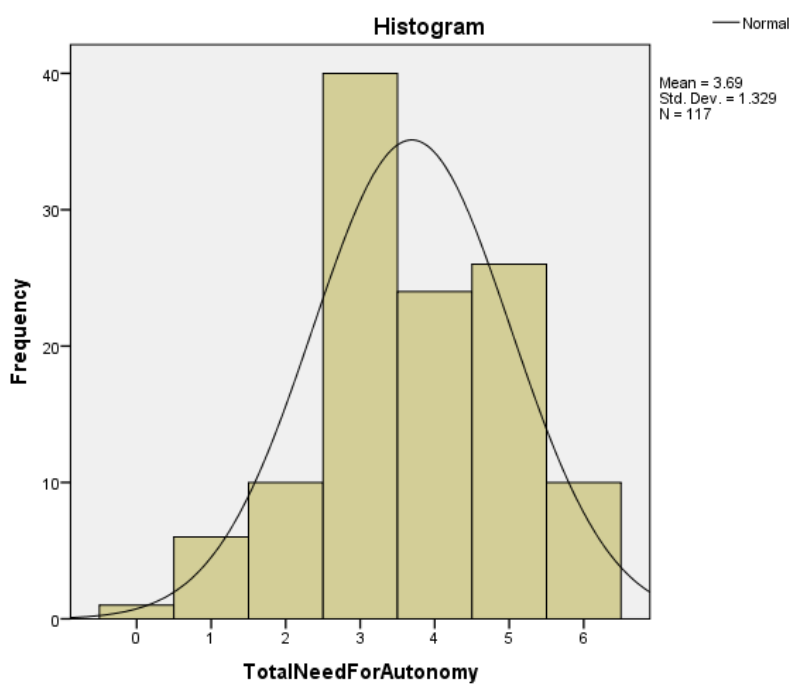


Figure 2. Histogram for autonomy

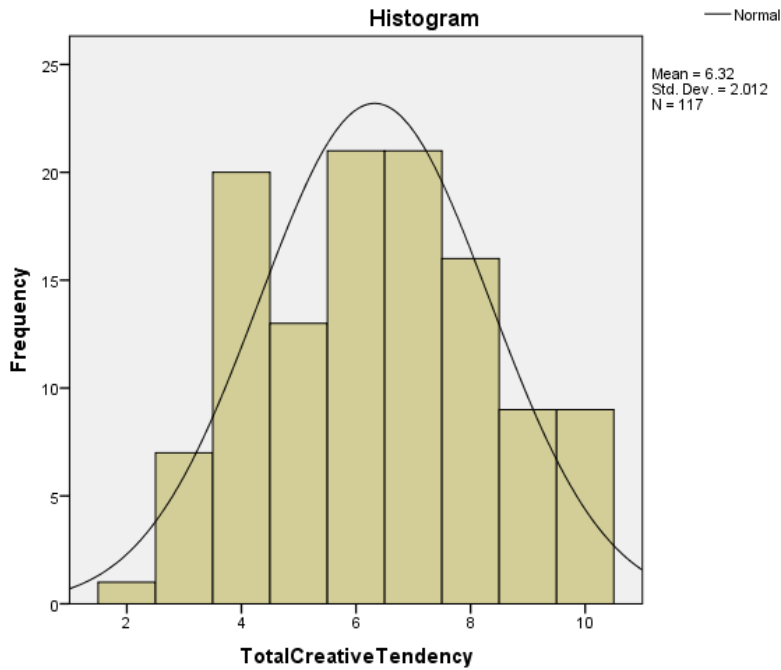


Figure 3. Histogram for creative tendency

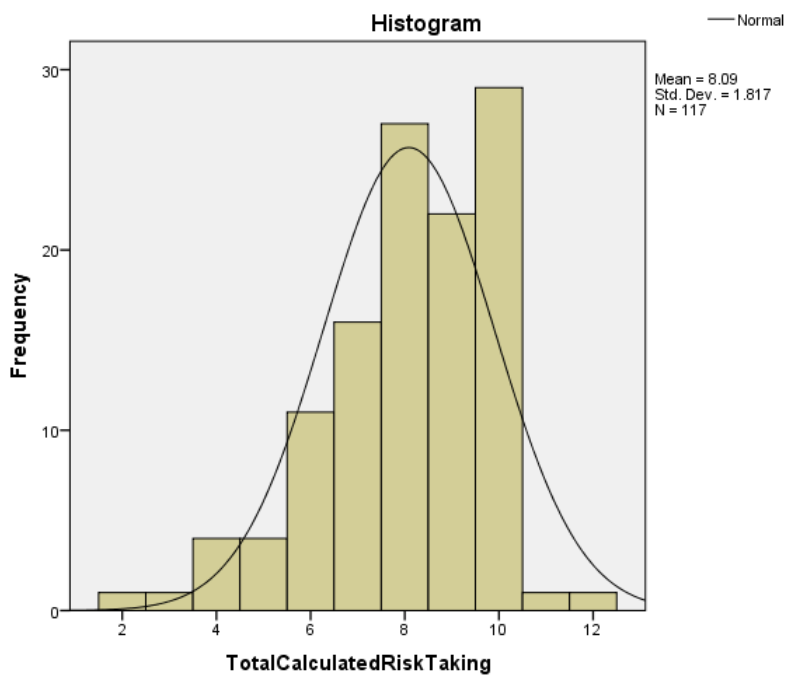


Figure 4. Histogram for calculated risk taking

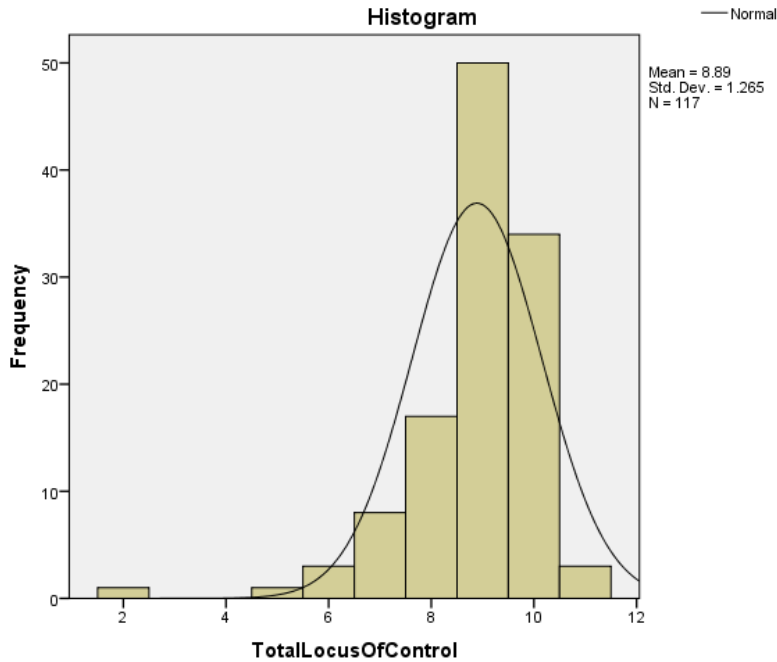


Figure 5. Histogram for locus of control

Table 16

Tests of Normality for Entrepreneurial Traits

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Total locus of control	.279	117	.000	.809	117	.000
Total need for achievement	.178	117	.000	.913	117	.000
Total need for autonomy	.186	117	.000	.932	117	.000
Total creative tendency	.115	117	.001	.955	117	.001
Total calculated risk taking	.165	117	.000	.921	117	.000

Research question two. In the study, the three generations that were incorporated under a single variable with three categories: baby boomers (1946-1960), generation Xers (1961-1980), and millennials (1981-1999), was the independent variable. It was important for the researcher to identify which entrepreneurs belong to which generation. Participants were asked to indicate their age in the survey. The level of entrepreneurial traits was incorporated under a single variable with three categories; high, medium, and low. The level of entrepreneurial traits was employed as a dependent variable. The score of five entrepreneurial traits (enterprising

tendencies) was scored as follows: the maximum score in General Enterprising Tendency is 54 which represents a high enterprising tendency scored between 44-54. Entrepreneurs who have a medium enterprising tendency was limited between 27-43 while entrepreneurs who have a low enterprising tendency was limited between 0-26 (see Table 6).

The second research question to be addressed for this research study was: what are the distributions of generations represented by entrepreneurs? To answer this question, descriptive statistical analyses were accompanied through cross-tabulations to study the association between the independent and dependent variables. “Descriptive studies are designed to gain more information about a particular characteristic within a particular field of study” (Simon & Francis, 2001, p. 27). A cross-tabulation tool was used for the collected data to analyze the extent to what each of the three generations’ entrepreneurial traits levels is and the frequency distribution of two categorical variables: generations and entrepreneurial traits levels (Pallant, 2013).

The frequency distribution of two categorical variables with three ordinal levels are presented in Table 17. Overall, collected data from 117 entrepreneurs showed that 103 (88% of total population) entrepreneurs tend to have a medium level of enterprising tendency. According to Caird (2013), entrepreneurs who tend to have medium enterprising tendency scores have strengths in some of the enterprising characteristics in some contexts. However, entrepreneurs with medium enterprising tendency are unlikely to set up an innovative growth-oriented global business (Caird, 2013). Moreover, they can consider themselves as an intrapreneur within employment, or they can work in their leisure time through voluntary community projects (see Table 3).

Table 17

Age: Low, Medium, High Crosstabulation

			Entrepreneurial traits levels			
			High	Low	Medium	Total
Age*	18-35	Count	5	1	37	43
		% within Age	11.6%	2.3%	86.0%	100.0%
		% within low, medium, high	50.0%	25.0%	35.9%	36.8%
		% of Total	4.3%	0.9%	31.6%	36.8%
	36-51	Count	4	3	43	50
		% within Age	8.0%	6.0%	86.0%	100.0%
		% within low, medium, high	40.0%	75.0%	41.7%	42.7%
		% of Total	3.4%	2.6%	36.8%	42.7%
	52-70	Count	1	0	23	24
		% within Age	4.2%	0.0%	95.8%	100.0%
		% within low, medium, high	10.0%	0.0%	22.3%	20.5%
		% of Total	0.9%	0.0%	19.7%	20.5%
Total		Count	10	4	103	117
		% within Age	8.5%	3.4%	88.0%	100.0%
		% within low, medium, high	100.0%	100.0%	100.0%	100.0%
		% of Total	8.5%	3.4%	88.0%	100.0%

Note. N = 117. *Age

Research question three. Having addressed the findings of the distributions of entrepreneurial traits of entrepreneurs and the distributions of generations represented by entrepreneurs, this section addresses the results and findings that are related to the third research question. The third research question to be addressed for this research study was: Is there a significant difference in entrepreneurial trait scores between generations. To answer this question, the one-way analysis of variance (ANOVA) was suitable for the third research question to determine whether there are significant differences in the mean scores on each of the entrepreneurial trait score across the three groups (Pallant, 2013). The three generations of entrepreneurs were asked to indicate their age in the survey and three generations were coded differently in SPSS software (see Table 18).

Table 18

Identifying the Three Different Groups of Generations

Generations	Born years	Generations age (at present)	Coded as in SPSS
Baby Boomers	1946-1964	52-70	3
Generations Xers	1965-1980	36-51	2
Millennials	1981-1999	18-35	1

A total of 117 entrepreneurs responded the survey invitation and indicated which generation they belong to (see Table 18). The participants were asked to indicate their level of agreement (Tend to Agree) and disagreement (Tend to Disagree) in the matter of entrepreneurial traits with a total of 54 questions. Each entrepreneurial trait score (total need for achievement, need for autonomy, creative tendency, calculated risk taking, and locus of control) was treated as continuous variable to answer the question. The one-way ANOVA could tell the researcher if any of entrepreneurial traits differ significantly in means between the three generation groups.

SPSS software version 24.0 was utilized to test the one-way ANOVA. The researcher ran the test of one-way ANOVA for each of the five entrepreneurial traits (as dependent variables) to see whether there are significant differences in the mean scores across the three groups (as independent variables). In the study, generations were treated as a single categorical variable with a three level: baby boomers, generation Xers, and millennials. The results showed that, excluding the trait of calculated risk taking, the significance values for ANOVA tests were detected above .05 ($p > .05$). Therefore, none of four entrepreneurial traits was no statistically significant difference at the $p < .05$ in entrepreneurial traits scores for the three generation groups (see Appendix E). There was only statistical significant difference at the $p < .05$ level for the total calculated risk-taking scores for three generations (see Table 22).

Table 19

Descriptive: Total Calculated Risk-Taking Score

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-35	43	8.70	1.337	.204	8.29	9.11	5	11
36-51	50	7.84	1.983	.280	7.28	8.40	2	12
52-70	24	7.50	1.956	.399	6.67	8.33	3	10
Total	117	8.09	1.817	.168	7.75	8.42	2	12

The descriptive statistics associated with the level of total calculated risk taking across three born generations were reported in Table 19. It can be seen that the group of baby boomers (52-70) generation were associated with the numerically smallest mean level of total calculated risk taking (or General Enterprising Tendency) score ($M = 7.50$). The group of millennials (18-35) generation was associated with the numerically highest mean level of total calculated risk-taking score ($M = 8.70$). The mean score for generation Xers (36-51) falls in between these two generations ($M = 7.84$).

Table 20

Test of Homogeneity of Variances: Total Calculated Risk Taking

Levene Statistic	df1	df2	Sig.
2.401	2	114	.095

Table 20 presents the Levene's test for homogeneity of variances. This test helps researchers to test whether the variance in scores is the same for each of the three generation groups (Pallant, 2013). The significance value for Levene's test was checked ($p = .095$). The p value is greater than .05 which means that the assumption of homogeneity of variance was not violated (Pallant, 2013).

Table 21

ANOVA: Total Calculated Risk Taking

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.356	2	13.678	4.383	.015
Within Groups	355.790	114	3.121		
Total	383.145	116			

The one-way analysis of variance (ANOVA) was suitable to determine whether there are significant differences in the mean scores on each of the five entrepreneurial trait scores across the three generation groups. Non-significant difference in mean scores on each of the four entrepreneurial trait scores (need for achievement, need for autonomy, creative tendency, and locus of control) across three generations was detected (see Appendix E). In the study, however, statistically significant difference in mean scores across generations was solely detected on the total calculated risk-taking score. The independent variable was the generation groups as a single categorical variable with three levels: baby boomers, generation Xers, and millennials. The dependent variable was the total calculated risk-taking score. Table 21 shows the output of the ANOVA analysis. The significant value is .015 ($p = .015$), which is below .05. and, therefore, there was a statistically significant difference at the $p < .05$ in mean scores on the total calculated risk-taking scores across the three generation groups: $F(2, 114) = 4.38$. Although reaching statistical significance, the actual difference in mean scores between the groups was quite small. The effect size, calculated using eta squared, was .007. Overall, as the p value of total GET2 scores is larger than .05 ($p > .05$), the researcher fails to reject the null hypothesis.

Table 22

Multiple Comparisons

Dependent Variable: Total calculated risk-taking score						
Tukey HSD						
		Mean			95% Confidence Interval	
(I) Age	(J) Age	Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
18-35	36-51	.858	.367	.055	-.01	1.73
	52-70	1.198*	.450	.024	.13	2.27
36-51	18-35	-.858	.367	.055	-1.73	.01
	52-70	.340	.439	.719	-.70	1.38
52-70	18-35	-1.198*	.450	.024	-2.27	-.13
	36-51	-.340	.439	.719	-1.38	.70

Note. *The mean difference is significant at the .05 level.

According to Pallant (2013), post-hoc comparisons using the Tukey HSD test indicates exactly where the differences among the groups occur. Having an asterisk means that the two groups being compared are significantly different from one another at the $p < .05$ level (Pallant, 2013). As it can be seen in Table 22 above, there are two asterisks (*) next to the values listed in the column of mean difference. This indicates that only the group of millennials ($M = 8.70$, $std = 1.34$) and baby boomers ($M = 7.50$, $std = 1.96$) are statistically significantly different from one another. That is, entrepreneurs with the age of between 18-35 and 52-70 differ significantly in terms of their total calculated risk-taking scores. The generation Xers ($M = 7.84$, $std = 1.98$) did not differ significantly from either baby boomers and millennials. Having addressed statistically different between millennials and baby boomers in the mean score on the total calculated risk-taking score, millennials have the highest risk-taking trait in comparison of the baby boomers (see Table 19).

Research question four. For the last research question in the study, the researcher utilized a multiple regression analysis which is used to explain the relationship between one continuous dependent variable and a number of independent variables or predictors (Tabachnick & Fidell, 2013; Pallant, 2013). The fourth research question to be addressed for this research study was: is there a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates? Five multiple regression analyses were conducted for each entrepreneurial trait (dependent as continuous variables) to analyze: a) how well and which set of variables (generation, ethnicity, level of education, number of employees in the company, type of business, and number of years as a business owner as categorical variables) are able to make the best prediction of the value on the dependent variables, b) whether the predictor variables are still able to predict the outcome when the effects of another categorical variables variable are controlled for (Pallant, 2013).

Five multiple regression analyses were performed through SPSS software version 24.0 where the categorical predictor variables (independent variables) were dummy coded and the dependent variables were the 5 entrepreneurial traits (see Table 23). Dummy variables which have two or more distinct levels, allow researchers to use nominal or ordinal variables as independent variables to predict the dependent variable (Sekaran & Bougie, 2013). In the multiple regression approach, the categorical predictor variables were collapsed into two or three categories to facilitate analysis. For each categorical predictor variable, one category which serves as a reference group, was chosen to reduce the group to two or three categories and to compare each of the other categories (Acock, 2008).

Table 23

Recategorization of Categorical Variables

	Dummy code names	Dummy codes	Other dummy codes within groups
Age	Generation Xers	1	0
	Baby boomers	1	0
Ethnicity	Hispanic or Latino	1	0
Level of education	Undergrad degree	1	0
	Graduate degree	1	0
Number of employees in the company	Less than 50 employees	1	0
Type of business	Agriculture	1	0
	Mining, construction, and manufacturing	1	0
	Utilities	1	0
	Trade	1	0
	Assets	1	0
	Service and public Administration	1	0
	Less than 10 years	1	0
Number of years as a business owner			

Five multiple regression analyses were run after categorical variables were recategorized as dummy codes. The principle of parsimony was adopted by the researcher to simplify the models. The reason of relying on parsimonious models was that they help researchers to achieve a desired level of prediction with as few predictor variables as possible (Andale, 2015). According to Andale (2015), parsimonious models have optimal parsimony and the right number of predictors needed to explain the model well.

To test five multiple regression analyses, the researcher started with all of the covariates and one dependent variable in the model. Then, nonsignificant independent variables were systematically removed until the remaining variables were significant (the final model); all covariates other than Generations were fitted individually as well so that effects on the relationship between Generations and Entrepreneurial Traits were not rejected early on in the full

model. For the model to achieve goodness of fit, the ANOVA table was expected to have $p < .05$. The R-squared statistic was checked to identify how much of the variance in the dependent variable was explained by the model. The distribution of the residuals using the Normal Probability Plot (P-P) of the Regression Standardized Residual were presented.

Total need for achievement vs. generations and all covariates/predictors. A multiple linear regression was conducted to predict whether there is a significant difference in Total Need for Achievement scores between generations after controlling the effects of covariates. Firstly, the researcher started with all of the covariates in the model to see how well a number of independent variables (generations and covariates) could predict Total Need for Achievement scores (dependent variable). Further, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model. The value of Adjusted R Square was checked which indicated that 7.5% of the variance in Total Need for Achievement scores was explained by the model (see Table 24). The ANOVA table indicated that the model with all covariates/predictors is not statistically significant, $F(12, 104) = 1.78, p > .05$ (see Table 25).

Table 24

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.413	.171	.075	1.581

Note. Predictors: (Constant), Less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining construction manufacturing. Dependent Variable: total need for achievement.

Table 25

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	53.416	12	4.451	1.782	.061
Residual	259.815	104	2.498		
Total	313.231	116			

Note. Dependent Variable: total need for achievement. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, Generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining construction manufacturing.

The coefficients table (See Table 26) was presented as part of the multiple regression procedure. The table presents the whole variables in the model contributed to the prediction of the dependent variable (Pallant, 2013). However, the p values of each predictors indicated that none of the predictors in the model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$). Overall, due to not achieving a significant goodness of fit value (ANOVA) and having nonsignificant differences in the all coefficients (p values are nonsignificant, $p > .05$), none of the independent variables contributed any prediction to the dependent variable.

If any generation and covariate/predictor had made statistically significant contribution to the prediction of the Total Need for Achievement, the researcher would have identified multicollinearity by looking at the values of Tolerance and VIF (Table 26). In the first model, the value of Tolerance is higher than .10 and the value of VIF is less than 10 were detected. Thus, the researcher would have reported that those scores indicated that the presence of multicollinearity was not found in the first model (Pallant, 2013). If the first model had showed significant differences, the assumptions would have been checked through the normal probability plot (P-P) of the regression standardized residual.

Table 26

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	8.790	.778		11.300	.000	7.248	10.333					
BabyBoomers	-.816	.508	-.201	-1.605	.111	-1.824	.192	-.095	-.156	-.143	.507	1.974
GenerationXers	-.354	.395	-.107	-.897	.372	-1.137	.429	.018	-.088	-.080	.559	1.788
Undergrad degree	.158	.430	.048	.368	.714	-.695	1.012	.090	.036	.033	.474	2.111
Graduate degree	.818	.519	.216	1.574	.119	-.213	1.848	-.031	.153	.141	.424	2.356
Hispanic	.499	.345	.150	1.446	.151	-.186	1.184	.185	.140	.129	.740	1.351
Less than 50	.713	.525	.154	1.359	.177	-.328	1.754	.213	.132	.121	.624	1.603
Agriculture	.432	1.246	.034	.347	.730	-2.039	2.903	.012	.034	.031	.818	1.222
Mining construction manufacturing	1.097	.577	.296	1.902	.060	-.047	2.240	.234	.183	.170	.330	3.032
Trade	.355	.561	.094	.632	.529	-.758	1.468	-.019	.062	.056	.364	2.750
Assets	1.033	.786	.139	1.314	.192	-.525	2.590	.046	.128	.117	.711	1.406
Service and public Admin	.373	.543	.100	.687	.494	-.704	1.450	-.052	.067	.061	.380	2.633
Less than 10 years	-.594	.399	-.181	-1.490	.139	-1.385	.197	-.145	-.145	-.133	.541	1.847

Note. Dependent Variable: total need for achievement.

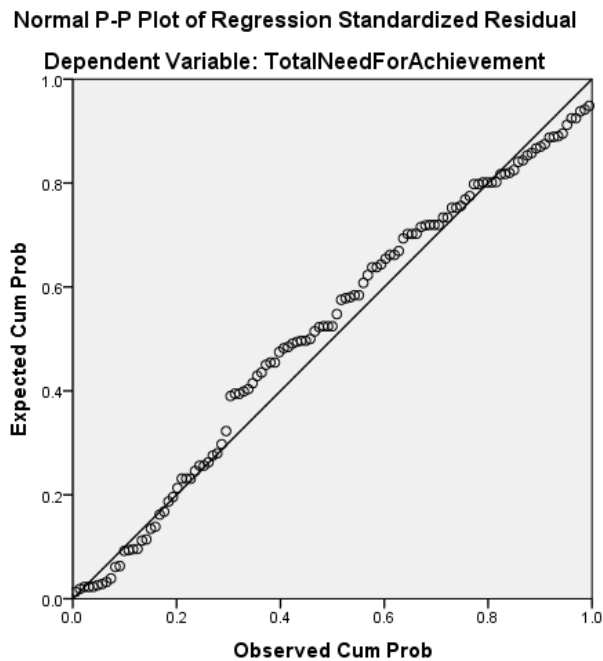


Figure 6. Normal probability plot (P-P) of the regression standardized residual.

Total need for achievement vs. generations and controlled covariates/predictors. After performing multiple linear regression with all of the predictors which resulted in none of the

predictors in the model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$), nonsignificant independent variables in the model were systematically removed. To test multiple regression analyses, in compliance with the principle of parsimony, nonsignificant independent variables were systematically removed until the remaining variables were significant (the final parsimonious model). Multiple linear regression was reperformed with Total Need for Achievement as a dependent variable and Baby Boomers, Generation Xers, and Less than 10 Years (number of years as a business owner) as independent variables. The value of Adjusted R Square was checked. The score indicated that 4% (rounded) of the variance in Total Need for Achievement scores was explained by the model (see Table 27). The ANOVA table indicated that the new model with predictors is statistically significant, $F(5, 111) = 2.505, p < .05$ (see Table 28).

Table 27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.250	.062	.037	1.612

Note. Predictors: (Constant), baby boomers, less than 10 years, generation Xers. Dependent Variable: total need for achievement.

Table 28

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	37.445	5	7.489	2.505	.046
Residual	275.785	111	2.485		
Total	313.231	116			

Note. Dependent Variable: total need for achievement. Predictors: (Constant), baby boomers, less than 10 years, generation Xers.

With the principle of parsimony, nonsignificant variables were removed in the first model systematically until the final model contains only statistically significant predictors. The

coefficients table (See Table 29) displayed the controlled variables in the final model that were contributed to the prediction of the dependent variable (Pallant, 2013). The largest Beta coefficient value accounted for Less Than 10 Years (.279) which means that this variable made the strongest unique contribution to explaining the Total Need for Achievement score while the Beta value for Generation Xers (-.172) made the least contribution. The *p* value (sig.) of Baby Boomers indicated that there is a statistically significant difference in entrepreneurial trait scores between Baby Boomers and Millennials after controlling the effects of covariates in the model ($p < .05$). The researcher found that when controlled for the effects of the number of years as a business owner (Less than 10 Years vs Ten or More), the difference in average Total Need for Achievement scores between Baby Boomers and Millennials was significant, with Baby Boomers estimated to score 1.067 less than Millennials on average.

Table 29

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	10.723	.385		27.861	.000	9.961	11.486					
Baby Boomers	-1.067	.481	-.263	-2.217	.029	-2.020	-.114	-.095	-.204	-.202	.588	1.700
Generation Xers	-.568	.384	-.172	-1.480	.142	-1.329	.192	.018	-.138	-.135	.616	1.624
Less than 10 years	-.917	.364	-.279	-2.521	.013	-1.638	-.196	-.145	-.231	-.230	.677	1.476

Note. Dependent Variable: total need for achievement

The values of Tolerance and VIF in the coefficients table (Table 29) reported that no presence of multicollinearity was found. The value of Tolerance is higher than .10 and the value of VIF is less than 10 which indicated that the presence of multicollinearity was not found in the new model (Pallant, 2013). The assumptions were checked by inspecting the normal probability plot (P-P) of the regression standardized residual. The plot showed that the points generally

follow the normal line with no strong deviations which indicated that the residuals were normally distributed (see Figure 7).

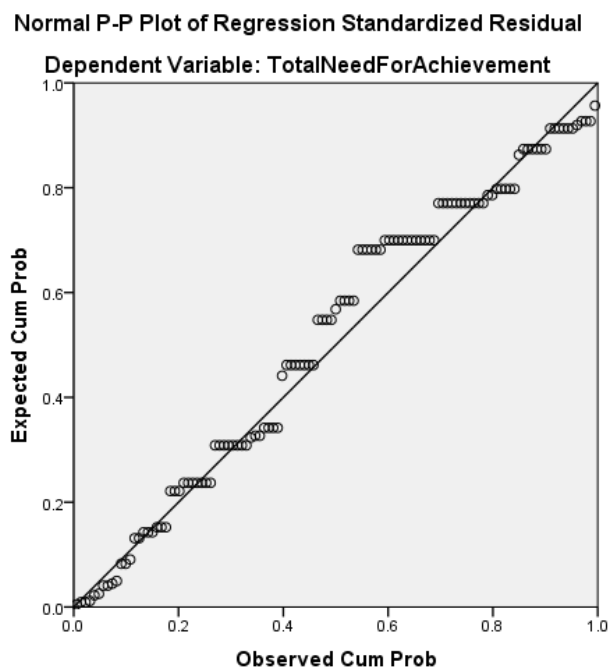


Figure 7. Normal probability plot (P-P) of the regression standardized residual.

Total need for autonomy vs. generations and all covariates/predictors. A multiple linear regression was conducted to predict whether there is a significant difference in Total Need for Autonomy scores between generations after controlling the effects of covariates. Initially, the researcher started with all of the covariates in the model to see how well a number of independent variables (generation and covariates) could predict the total need for autonomy scores (dependent variable). Also, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model. The value of Adjusted R Square was checked. The value indicated that 3% (rounded) of the variance in total need for autonomy scores was explained by the model (see Table 30). The ANOVA table indicated that the model with all covariates/predictors is not statistically significant, $F(12, 104) = 1.291, p > .05$ (see Table 31).

Table 30

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.360	.130	.029	1.310

Note. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, Graduate degree, mining, construction, manufacturing.
Dependent Variable: Total need for autonomy.

Table 31

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	26.562	12	2.213	1.291	.235
Residual	178.361	104	1.715		
Total	204.923	116			

Note. Dependent Variable: total need for autonomy. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining, construction, manufacturing.

The whole variables in the first model was displayed in the coefficients table (See Table 32). The p values of each predictors indicated that none of the predictors in the model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$). If generations and all covariates/predictors had made statistically significant contribution to the prediction of the Total Need for Autonomy, the researcher would have identified multicollinearity by looking at the values of Tolerance and VIF (Table 32). In the first model, the value of Tolerance is higher than .10 and the value of VIF is less than 10 were detected. Thus, the researcher would have reported that those scores indicated that the presence of multicollinearity was not found in the first model (Pallant, 2013). If the first model had showed significant differences, the assumptions would have been checked through the normal probability plot (P-P) of the regression standardized residual.

Table 32

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	4.015	.645		6.230	.000	2.737	5.293					
Baby Boomers	-.080	.421	-.025	-.191	.849	-.916	.755	-.010	-.019	-.017	.507	1.974
Generation Xers	-.174	.327	-.065	-.531	.597	-.823	.475	.057	-.052	-.049	.559	1.788
Undergrad degree	.436	.357	.163	1.223	.224	-.271	1.143	.222	.119	.112	.474	2.111
Graduate degree	-.175	.430	-.057	-.406	.685	-1.028	.679	-.181	-.040	-.037	.424	2.356
Hispanic	-.413	.286	-.154	-1.445	.152	-.981	.154	-.042	-.140	-.132	.740	1.351
Less than 50	.177	.435	.047	.406	.685	-.686	1.039	.087	.040	.037	.624	1.603
Agriculture	-1.418	1.033	-.139	-1.373	.173	-3.466	.629	-.169	-.133	-.126	.818	1.222
Mining, construction, manufacturing	-.228	.478	-.076	-.477	.634	-1.175	.719	.037	-.047	-.044	.330	3.032
Trade	-.075	.465	-.024	-.161	.873	-.997	.847	.059	-.016	-.015	.364	2.750
Assets	.616	.651	.103	.947	.346	-.674	1.907	.142	.092	.087	.711	1.406
Service and public admin	-.526	.450	-.174	-1.169	.245	-1.418	.366	-.100	-.114	-.107	.380	2.633
Less than 10 years	-.480	.331	-.180	-1.451	.150	-1.135	.176	-.139	-.141	-.133	.541	1.847

Note. Dependent Variable: total need for autonomy.

Statistically nonsignificant difference in the Need for Autonomy scores between generations after controlling the effects of covariates in the model was detected. Multiple linear regression was retested by removing nonsignificant variables systematically hoping to reach a statistically significant difference in the dependent variable between generations ($p < .05$). In compliance with the principle of parsimony, however, removing and adding predictors in the new model to get a significant result did not help. None of the predictors in the model predicted a significant amount of the variance in the dependent variable. Overall, three generations do not differ in Total Need for Autonomy after controlling for covariates.

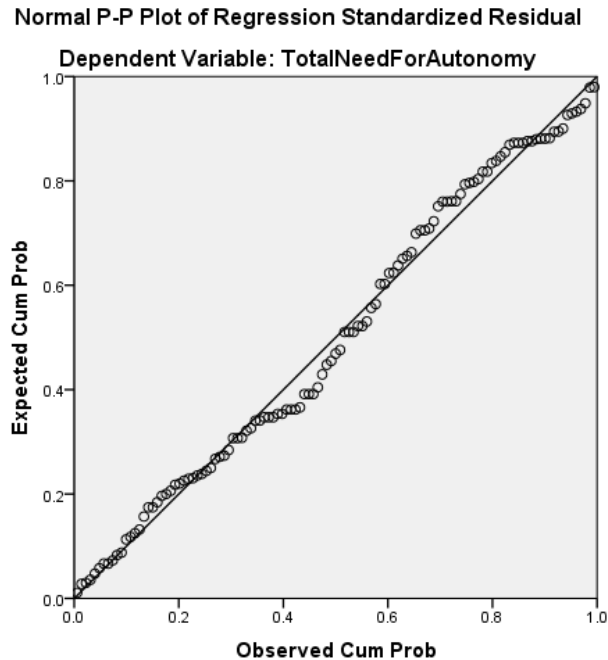


Figure 8. Normal probability plot (P-P) of the regression standardized residual.

Total creative tendency vs. generations and all covariates/predictors. A multiple linear regression was conducted to predict whether there is a significant difference in total creative tendency scores between generations after controlling the effects of covariates. Firstly, the researcher started with all of the covariates in the model to see how well a number of independent variables (generation and covariates) can predict the Total Creative Tendency scores (dependent variable). Additionally, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model (Pallant, 2013). The value of Adjusted R Square was checked. The Adjusted R Square indicated that 12% (rounded) of the variance in Total Creative Tendency scores was explained by the model (see Table 33). The ANOVA table indicates that the model with all covariates/predictors is statistically significant, $F(12, 104) = 2.278, p < .05$ (see Table 34).

Table 33

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.456	.208	.117	1.891

Note. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining construction, manufacturing. Dependent Variable: total creative tendency.

Table 34

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	97.752	12	8.146	2.278	.013
Residual	371.906	104	3.576		
Total	469.658	116			

Note. Dependent Variable: total creative tendency. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining, construction, and manufacturing.

The coefficients table (See Table 35) indicated that the p values of Trade (type of business) and Service and Public Administrations (type of business) predictors made a statistically significant contribution to the prediction of the dependent variable ($p < .05$) while other predictors in the first model did not make any statistically significant contribution ($p > .05$). If generations and all covariates/predictors had made statistically significant contribution to the prediction of the Total Creative Tendency, the researcher would have identified multicollinearity by looking at the values of Tolerance and VIF (Table 35). In the first model, the value of Tolerance is higher than .10 and the value of VIF is less than 10 were detected. Thus, the researcher would have reported that those scores indicate that the presence of multicollinearity was not found in the first model (Pallant, 2013). If the first model had showed significant

differences, the assumptions would have been checked through the normal probability plot (P-P) of the regression standardized residual.

Table 35

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	7.022	.931		7.545	.000	5.177	8.868					
Baby Boomers	-.262	.608	-.053	-.430	.668	-1.468	.945	-.114	-.042	-.038	.507	1.974
Generation Xers	-.342	.473	-.085	-.725	.470	-1.280	.595	-.071	-.071	-.063	.559	1.788
Undergrad degree	.575	.515	.142	1.118	.266	-.446	1.596	-.061	.109	.098	.474	2.111
Graduate degree	.722	.622	.156	1.162	.248	-.510	1.954	.193	.113	.101	.424	2.356
Hispanic	-.138	.413	-.034	-.334	.739	-.957	.681	-.144	-.033	-.029	.740	1.351
Less than 50	.064	.628	.011	.102	.919	-1.181	1.310	-.175	.010	.009	.624	1.603
Agriculture	-.221	1.491	-.014	-.148	.882	-3.178	2.735	.077	-.015	-.013	.818	1.222
Mining, construction, manufacturing	-	.690	-.295	-1.945	.055	-2.709	.026	-.097	-.187	-.170	.330	3.032
Trade	1.341											
	2.002	.671	-.431	-2.982	.004	-3.334	-.671	-.212	-.281	-.260	.364	2.750
Assets	.514	.940	.057	.546	.586	-1.350	2.377	.194	.054	.048	.711	1.406
Service and public admin	-	.650	-.285	-2.012	.047	-2.596	-.019	-.076	-.194	-.176	.380	2.633
Less than 10 years	1.307											
	.343	.477	.085	.718	.474	-.604	1.289	.238	.070	.063	.541	1.847

Note. Dependent Variable: total creative tendency.

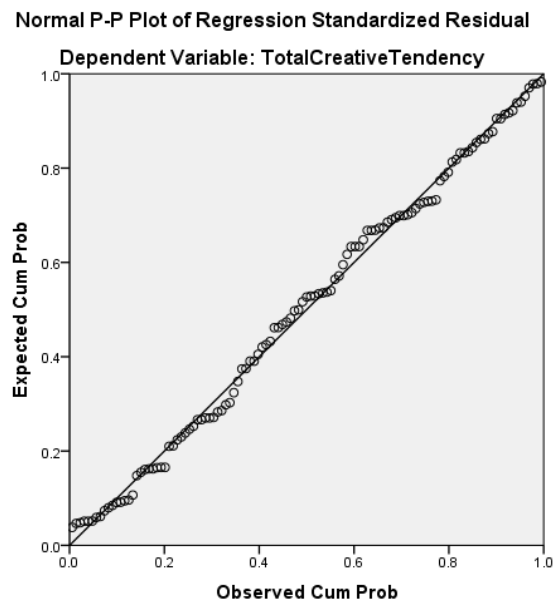


Figure 9. Normal probability plot (P-P) of the regression standardized residual.

Total creative tendency vs. generations and controlled covariates/predictors. Multiple linear regression with two predictors (Trade and Service and Public Administrations) in the model made a statistically significant contribution to the prediction of the dependent variable ($p < .05$). However, remaining predictors in the first model showed nonsignificant contribution to the prediction of the dependent variable ($p > .05$). Therefore, nonsignificant independent variables in the new model were systematically removed in compliance with the parsimonious model. Multiple linear regression was reperformed with Total Creative Tendency as a dependent variable and Baby Boomers, Generation Xers, and Trade (type of business) as independent variables. The value of Adjusted R Square was checked. The score indicated that 7% (rounded) of the variance in Total Creative Tendency scores was explained by the model (see Table 36). The ANOVA table indicated that the new model with predictors is statistically significant, $F(3, 113) = 3.746, p < .05$ (see Table 37).

Table 36

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.301	.090	.066	1.944

Note. Predictors: (Constant), trade, generation Xers, assets, baby boomers.
Dependent Variable: total creative tendency.

Table 37

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	42.484	3	14.161	3.746	.013 ^b
Residual	427.174	113	3.780		
Total	469.658	116			

Note. Dependent Variable: Total Creative Tendency, b. Predictors: (Constant), Trade, Generation Xers, Baby Boomers.

With the principle of parsimony, nonsignificant variables were removed in the first model systematically until the final model contains only statistically significant predictors. The coefficients table (See Table 38) indicated the contribution of each independent variable to explaining the dependent variable (Pallant, 2013). The largest Beta coefficient value of -.247 (ignoring the negative sign) accounted for Trade (type of business) which indicated that the variable made the strongest unique contribution to explaining The Total Creative Tendency score. The Beta value for Generation Xers made the least contribution (-.174). The p value of Baby Boomers indicated that there is a statistically significant difference in entrepreneurial trait scores between Baby Boomers and Millennials after controlling the effects of Trade in the model ($p < .05$).

Table 38

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	7.141	.327		21.847	.000	6.493	7.788					
Baby Boomers	-1.122	.503	-.226	-2.233	.028	-2.118	-.127	-.114	-.206	-.200	.784	1.275
Generation Xers	-.706	.406	-.174	-1.738	.085	-1.510	.099	-.071	-.161	-.156	.801	1.248
Trade	-1.146	.422	-.247	-2.714	.008	-1.983	-.310	-.212	-.247	-.243	.971	1.030

Note. Dependent Variable: Total Creative Tendency

The values of Tolerance and VIF in the coefficients table (Table 38) reported that no presence of multicollinearity was found. The value of Tolerance is higher than .10 and the value of VIF is less than 10 which indicated that the presence of multicollinearity was not found in the model (Pallant, 2013). The assumptions were checked by inspecting the normal probability plot (P-P) of the regression standardized residual. The plot shows that the points generally follow the normal line with no strong deviations which indicated that the residuals were normally distributed (see Figure 10).

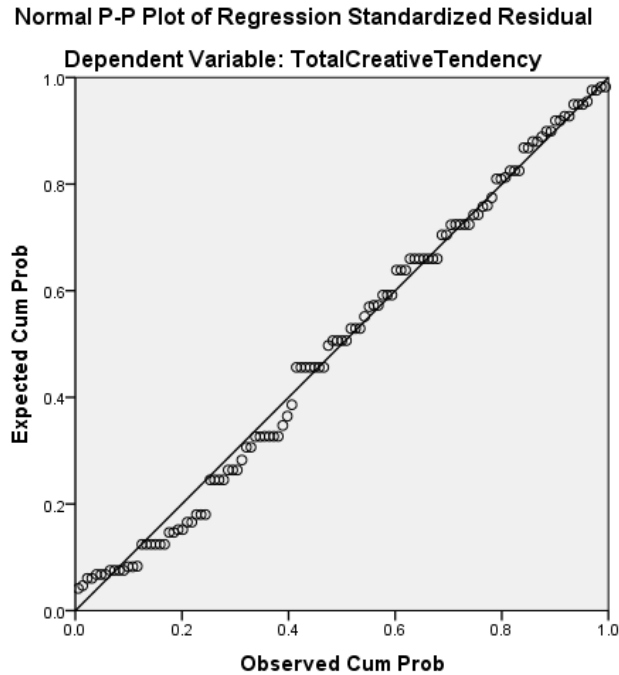


Figure 10. Normal probability plot (P-P) of the regression standardized residual.

The researcher found that, when controlled for the effects of the type of business (trade vs. all other types of business), the difference in average Total Creative Tendency scores between Baby Boomers and Millennials were significant, with Baby Boomers estimated to score 1.122 less than Millennials on average. In addition to that those in the Trade (type of business) score significantly lower on Total Creative Tendency than those in other types of business.

Total calculated risk taking vs. generations and all covariates/predictors. A multiple linear regression was conducted to predict whether there is a significant difference in Total Calculated Risk Taking scores between Generations after controlling the effects of covariates. Initially, the model started with all of the covariates in the model to see how well the set of independent variables (generation and other covariates) could predict Total Calculated Risk Taking scores (dependent variable). Moreover, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model (Pallant, 2013).

The value of Adjusted R Square was checked. The Adjusted R Square indicated that 3% (rounded) of the variance in Total Calculated Risk Taking scores was explained by the model (see Table 39). The ANOVA table indicates that the model with all covariates/predictors is not statistically significant, $F(12, 104) = 1.263, p > .05$ (see Table 40).

Table 39

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.357	.127	.026	1.793

Note. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining, construction, manufacturing.
Dependent Variable: Total calculated risk taking.

Table 40

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	48.732	12	4.061	1.263	.252
Residual	334.414	104	3.216		
Total	383.145	116			

Note. Dependent Variable: total calculated risk taking. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining, construction, manufacturing.

The coefficients table (See Table 41) was presented as part of the multiple regression procedure. The p values of each predictors indicated that none of the predictors in the model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$). Overall, due to not achieving a significant goodness of fit value (ANOVA) and having nonsignificant differences in the all coefficients (p values are nonsignificant, $p > .05$), none of the independent variables can contribute any prediction to the dependent variable.

Table 41

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	7.222	.883		8.184	.000	5.472	8.973					
Baby boomers	-.796	.577	-.178	-1.379	.171	-1.940	.348	-.164	-.134	-.126	.507	1.974
Generation Xers	-.650	.448	-.178	-1.450	.150	-1.538	.239	-.117	-.141	-.133	.559	1.788
Undergrad degree	.707	.488	.193	1.447	.151	-.262	1.675	.040	.141	.133	.474	2.111
Graduate degree	1.125	.589	.268	1.909	.059	-.044	2.294	.137	.184	.175	.424	2.356
Hispanic	.081	.392	.022	.208	.836	-.696	.858	-.011	.020	.019	.740	1.351
Less than 50	.670	.596	.130	1.124	.263	-.511	1.851	.073	.110	.103	.624	1.603
Agriculture	.888	1.414	.064	.628	.532	-1.916	3.691	.103	.061	.058	.818	1.222
Mining, construction, manufacturing	.287	.654	.070	.439	.661	-1.010	1.584	.068	.043	.040	.330	3.032
Trade	-.357	.637	-.085	-.561	.576	-1.620	.905	-.027	-.055	-.051	.364	2.750
Assets	.112	.891	.014	.125	.901	-1.656	1.879	.010	.012	.011	.711	1.406
Service and public admin.	-.206	.616	-.050	-.335	.738	-1.428	1.015	-.093	-.033	-.031	.380	2.633
Less than 10 years	.117	.453	.032	.259	.796	-.780	1.015	.156	.025	.024	.541	1.847

Note. Dependent Variable: total calculated risk taking

If generations and all covariates/predictors had made statistically significant contribution to the prediction of the Total Calculated Risk Taking, the researcher would have identified multicollinearity by looking at the values of Tolerance and VIF (Table 41). In the first model, the value of Tolerance is higher than .10 and the value of VIF is less than 10 were detected. Thus, the researcher would have reported that those scores indicate that the presence of multicollinearity was not found in the first model (Pallant, 2013). If the first model had showed significant differences, the assumptions would have been checked through the normal probability plot (P-P) of the regression standardized residual. Though, the p values of each predictors indicated that none of the predictors in the model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$).

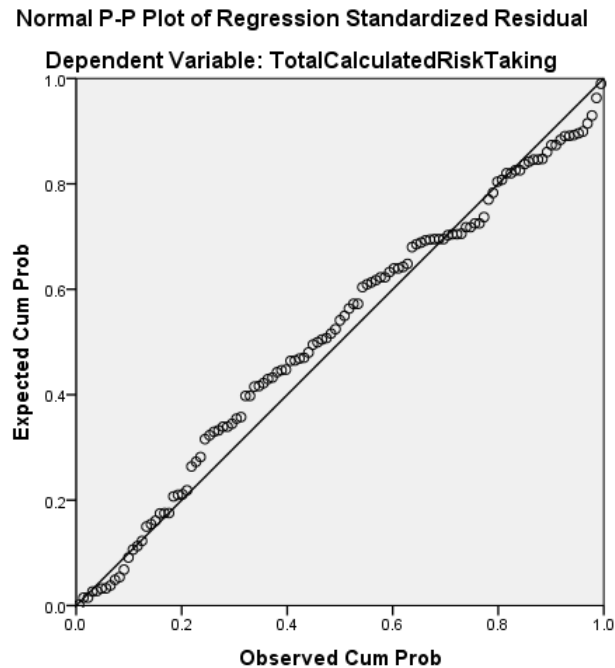


Figure 11. Normal probability plot (P-P) of the regression standardized residual.

Total calculated risk taking vs. generations and controlled covariates/predictors.

Multiple linear regression with all of the predictors resulted in none of the predictors in the model made a statistically significant contribution to the prediction of Total Calculated Risk Taking score ($p > .05$). Therefore, nonsignificant independent variables in the model were systematically removed in compliance with the principle of parsimony. Multiple linear regression was reperformed until the model reached the significant level with Total Calculated Risk Taking score as a dependent variable and Baby Boomers, Generation Xers, Graduate Degree (education level), and Undergrad Degree (education level) as independent variables. The value of Adjusted R Square was checked. The score indicated that 6% of the variance in Total Calculated Risk Taking scores was explained by the model (see Table 42). The ANOVA table

indicates that the new model with predictors is statistically significant, $F(4, 112) = 2.949$, $p < .05$ (see Table 43).

Table 42

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.309	.095	.063	1.759

Note. Predictors: (Constant), Graduate degree, Baby Boomers, Generation Xers, Undergrad degree.

Table 43

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	36.503	4	9.126	2.949	.023
Residual	346.642	112	3.095		
Total	383.145	116			

Note. Dependent Variable: Total Calculated Risk Taking. Predictors: (Constant), Graduate degree, Baby Boomers, Generation Xers, Undergrad degree

The contribution of each independent variable to explain the dependent variable was indicated by the coefficients table indicated (see Table 44). The largest Beta coefficient value of -.212 (ignoring the negative sign) accounted for Baby Boomers which means that this variable made the strongest unique contribution to explain the Total Creative Tendency score. The Beta value of Undergrad Degree (education) made the least contribution (.189). The p values of Baby Boomers and Generation Xers indicated that there is a statistically significant difference in entrepreneurial trait scores between Baby Boomers and Millennials, and Generation Xers and Millennials after controlling the effects of covariates in the model ($p < .05$).

Table 44

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	7.976	.502		15.888	.000	6.981	8.971					
Baby Boomers	-.950	.471	-.212	-2.018	.046	-1.883	-.017	-.164	-.187	-.181	.732	1.366
Generation Xers	-.746	.380	-.204	-1.966	.049	-1.499	.006	-.117	-.183	-.177	.750	1.334
Graduate degree	.885	.538	.211	1.645	.103	-.181	1.951	.137	.154	.148	.490	2.039
Undergrad degree	.695	.466	.189	1.492	.138	-.228	1.618	.040	.140	.134	.501	1.995

Note. Dependent Variable: Total calculated risk taking.

The values of Tolerance and VIF in the coefficients table (Table 44) reported that no presence of multicollinearity was found. The value of Tolerance is higher than .10 and the value of VIF is less than 10 which indicated that the presence of multicollinearity was not found in the model (Pallant, 2013). The assumptions were checked by inspecting the normal probability plot (P-P) of the regression standardized residual. The plot shows that the points generally follow the normal line with no strong deviations which indicated that the residuals were normally distributed (see Figure 12).

The Casewise Diagnostics (Table 45) presented information about the case number that had standardised residual values above 3.0 or below -3.0 (Pallant, 2013). According to Pallant (2013), in a normally distributed sample, it is expected that only 1% of cases to fall outside this range. In this final model, one case (case number 107) was found with a residual value of -3.368. The person, case number 107, recorded a total calculated risk-taking score of two, but the model predicted a value of 7.92. The final model did not predict the case number 107's score very well.

Table 45

Casewise Diagnostics

Case Number	Std. Residual	Total calculated risk taking	Predicted Value	Residual
107	-3.368	2	7.92	-5.925

Note. Dependent Variable: total calculated risk taking.

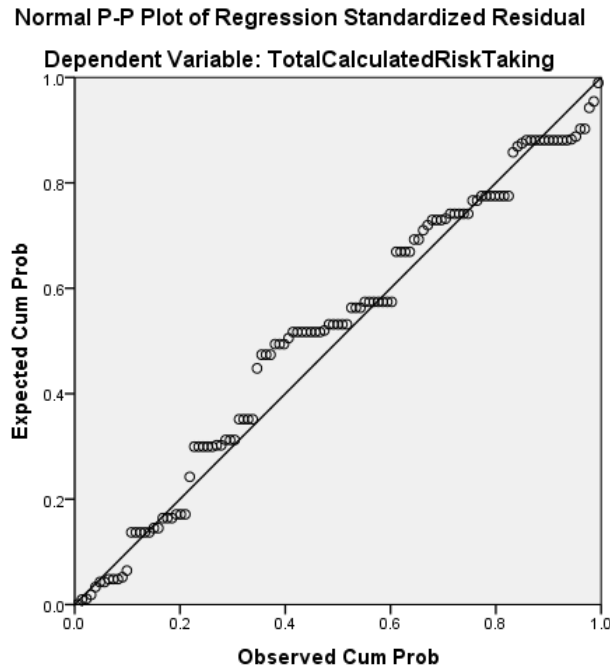


Figure 12. Normal probability plot (P-P) of the regression standardized residual.

The researcher found that, when controlled for the effects of education (graduate degree vs. undergrad degree), whether or not education in undergrad degree (vs. graduate degree), the difference in average Total Calculated Risk Taking scores between Baby Boomers and Millennials, and Generation Xers and Millennials were significant, with Baby Boomers estimated to score -.950 and Generation Xers -.746 less than Millennials on average. It can be also reported that those with Undergraduate and Graduate degrees score significantly higher on Total Calculated Risk Taking than those without a College degree.

Total locus of control vs. generations and all covariates/predictors. A multiple linear regression was conducted to predict whether there is a significant difference in total locus of control scores between generations after controlling the effects of covariates. Initially, all the covariates were entered in the model to see how well the set of independent variables (generation and other covariates) could predict total locus of control scores (dependent variable).

Furthermore, multiple regression helped the researcher to investigate how much of variance in the dependent variable could be explained by the independent variables (Pallant, 2013). The value of Adjusted R Square was checked. The Adjusted R Square indicated that 1% of the variance in Total Locus of Control scores was explained by the model (see Table 46). The ANOVA table indicates that the model with all the covariates/predictors is not statistically significant, $F(12, 104) = 1.097, p > .05$ (see Table 47).

Table 46

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.335	.112	.010	1.258

Note. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining, construction, and Manufacturing. Dependent Variable: total locus of control.

Table 47

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	20.843	12	1.737	1.097	.371
Residual	164.712	104	1.584		
Total	185.556	116			

Note. Dependent Variable: total locus of control. Predictors: (Constant), less than 10 years, assets, Hispanic, agriculture, less than 50, generation Xers, service and public admin, undergrad degree, trade, baby boomers, graduate degree, mining construction, and manufacturing

The coefficients table (See Table 48) was presented as part of the multiple regression procedure. The p values of each predictors indicated that none of the predictors in the model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$). Overall, due to not achieving a significant goodness of fit value (ANOVA) and having nonsignificant differences in the all coefficients (p values are nonsignificant, $p > .05$), none of the

independent variables can contribute any prediction to the dependent variable.

Table 48

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta	t		Zero-order	Partial	Part	Tolerance	VIF
(Constant)	8.427	.619		13.606	.000					
Baby boomers	.046	.405	.015	.114	.909	.045	.011	.011	.507	1.974
Generation Xers	-.094	.314	-.037	-.298	.766	.049	-.029	-.028	.559	1.788
Undergrad degree	-.210	.343	-.082	-.612	.542	.076	-.060	-.057	.474	2.111
Graduate degree	-.166	.414	-.057	-.400	.690	-.169	-.039	-.037	.424	2.356
Hispanic	.230	.275	.090	.836	.405	.143	.082	.077	.740	1.351
Less than 50	.656	.418	.183	1.569	.120	.233	.152	.145	.624	1.603
Agriculture	.268	.992	.028	.270	.788	.012	.026	.025	.818	1.222
Mining, construction, manufacturing	.118	.459	.042	.258	.797	.053	.025	.024	.330	3.032
Trade	.237	.447	.081	.530	.597	.051	.052	.049	.364	2.750
Assets	.904	.625	.158	1.445	.151	.113	.140	.134	.711	1.406
Service and public admin.	.128	.432	.044	.295	.768	.021	.029	.027	.380	2.633
Less than 10 years	-.383	.318	-.151	-1.205	.231	-.192	-.117	-.111	.541	1.847

Note. Dependent Variable: Total locus of control

The Casewise Diagnostics (Table 49) was presented in the initial model. The casewise diagnostics table indicated the case number that had standardized residual values above 3.0 or below -3.0 (Pallant, 2013). In the initial model, one case (case number 97) was found with a residual value of -5.184. The person, case number 97, recorded a total locus of control score of two, but the model predicted a value of 8.52. Clearly, the final model did not predict the case number 97's score very well.

Table 49

Casewise Diagnostics

Case Number	Std. Residual	Total locus of control	Predicted Value	Residual
97	-5.184	2	8.52	-6.524

Note. Dependent Variable: total locus of control.

If generations and all covariates/predictors had made statistically significant contribution to the prediction of the Total Locus of Control, the researcher would have identified multicollinearity by looking at the values of Tolerance and VIF (Table 48). In the first model, the

value of Tolerance is higher than .10 and the value of VIF is less than 10 were detected. Thus, the researcher would have reported that those scores indicate that the presence of multicollinearity was not found in the first model (Pallant, 2013). If the first model had showed significant differences, the assumptions would have been checked through the normal probability plot (P-P) of the regression standardized residual. Though, the p values of each predictors indicated that none of the predictors in the model made a statistically significant.

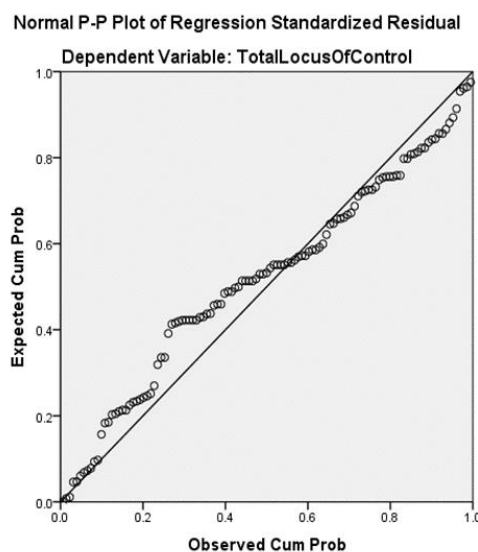


Figure 13. Normal probability plot (P-P) of the regression standardized residual.

Nonsignificant difference in Total Locus of Control scores between generations after controlling the effects of covariates in the model was detected. In compliance with the principle of parsimony method, multiple linear regression was retested by removing nonsignificant variables systematically until the researcher reached a statistically significant difference in the dependent variable between generations ($p < .05$). However, removing and adding predictors in the new model to get a significant result did not help. None of the predictors in the model predicted a significant amount of the variance in the dependent variable.

Summary of Results

This study examined three generations of entrepreneurs and their entrepreneurial traits (enterprising tendencies). The study was to investigate the relationship between entrepreneurial traits and generations of US entrepreneurs in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) in Texas, to see whether generational differences are associated with entrepreneurial traits. Generation of entrepreneur was defined as Baby Boomers, Generation Xers, and Millennials. Entrepreneurial traits were categorized as need for achievement, need for autonomy, creative tendency, calculated risk taking, and locus of control.

During the period of December 2016 and March 2017, a total of 117 Texans entrepreneurs from different generations participated in the study to measure generational differences in entrepreneurial traits. A demographic survey instrument analyzed the demographics of the sample size. The GET2 instrument was employed to scale enterprising tendencies of participants.

Four research questions were investigated in this quantitative research study. The research questions of one and two were investigated through descriptive research methods. A descriptive statistical analysis using frequencies and percentages were used to describe the distributions of entrepreneurial traits of entrepreneurs and the distributions of generations represented by entrepreneurs. Two hypotheses were tested (question three and question four) in the study. Data were analyzed by using different statistical methods including One-way ANOVA and Multiple Regression test for the research question three and four. Chapter Five covers an interpretation of the findings.

Chapter Five—Discussion, Conclusions, and Recommendations

Introduction

Entrepreneurship was described as a multidisciplinary field which benefited significantly from economics and social psychology (Bezzina, 2010; Singh & Denoble, 2003). In social psychology literature, the characteristics of entrepreneurship were well documented by many researchers (Caird, 1990a, 1991a, 1991b; McClelland, 1987). Psychological entrepreneurial characteristics that have received meticulous attention in the entrepreneurial literature are: need for achievement, need for autonomy, need for creative tendency, calculated risk taking, and locus of control.

Regardless of generational differences, the important role of entrepreneurial activity in the United States economic growth has been stressed by economists for many decades (Tang & Koveos, 2004). The level of entrepreneurship in the United States has a significant positive effect on the level of local economic growth and development (Goetz, Partridge, Deller, & Fleming, 2010; Hafer, 2013; Moller, Schjerning, & Sorensen, 2011). Having addressed the importance of the entrepreneurship in the United States economy growth, understanding generational differences in entrepreneurship traits could also contribute to stimulating and boosting the United States economy.

The last chapter is the conclusion of the study and contains the discussions, and recommendations for further research. The results were derived from 117 Texan entrepreneurs from three different generations: Baby Boomers, Generation Xers, and Millennials. The purpose of this study was to investigate the relationship between entrepreneurial traits and generations of US entrepreneurs in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and

Southeast (Houston) in Texas, to see whether generational differences are associated with entrepreneurial traits.

The quantitative methodology approach was designed to investigate from 117 entrepreneurs who deal with operating small-business companies as self-employers, critical characteristic traits of different generations of entrepreneurs, the relationship between generations and entrepreneurial traits, and to provide a description of the enterprising tendencies of Texans (San Antonio, Dallas, Houston, and Austin) based entrepreneurs. Two descriptive and two null hypotheses research questions were developed for this study. Using statistical analyses, four research questions were addressed for the study:

- 1) What are the distributions of entrepreneurial traits of entrepreneurs?
- 2) What are the distributions of generations represented by entrepreneurs?
- 3) Is there a significant difference in entrepreneurial trait scores between generations?
- 4) Is there is significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates?

Interpretation of the findings

What are the distributions of entrepreneurial traits of entrepreneurs? Quantitative descriptive statistics was used to describe the basic features of data through frequency analysis and distributions, to summarize and measure the data by mean (measure of central tendency), standard deviation (the spread of scores and relation to the sample mean), range, and variance to answer this question (Creswell, 2012). A total of 117 entrepreneurs who deal with operating small-business companies and are registered at EO as self-employers in San Antonio, Dallas, Houston, and Austin Texas, responded to the invitation to participate in this study. Entrepreneurial traits (enterprising tendency) questions were asked participants to examine the

distribution of entrepreneurial traits within the three different generations of entrepreneurs. Each entrepreneurship trait was treated as continuous variable.

To assess normal distribution of the entrepreneurial traits, Skewness (an indication of the symmetry of the distribution) and Kurtosis (an indication of the peakedness of the distribution) values were considered. According to Sekaran and Bougie (2013), attributes or characteristics of a certain population are generally normal distributed. Skewness scores for Need for Achievement (-.650), Need for Autonomy (-.177), Calculated Risk Taking (-.822), and Locus of Control (-1.946) were detected as negative which means there is a tendency for values to cluster just to the right of the mean and the left tail is too long (Tabachnick & Fidell, 2013). Only Creative Tendency had a positive skewness score (.087) which indicated that there is a tendency for values to cluster just to the left of the mean and right tail is too long (Tabachnick & Fidell, 2013). Kurtosis scores for each entrepreneurial trait were checked. Need for achievement (-.244), Need for Autonomy (-.309), and Creative Tendency (-.829) have negative kurtosis scores which indicated that a distribution that is too flat with many cases in the tails (Tabachnick & Fidell, 2013). However, Calculated Risk Taking (.632) and Locus of Control (7.258) had positive kurtosis scores which indicated that a distribution that is too peaked with short and thick tails (Tabachnic & Fidell, 2013). In the case of locus of control, the presence of one or two outliers may hide significant effects of generation and other covariates on average locus of control. The data for Need for Achievement, Need for Autonomy, Calculated Risk Taking, and Locus of Control are not normally distributed on the dependent variables. However, the score of Creative Tendency (.087) was considered as normally distributed because the score was not sufficiently far from 0 to generate any concern.

Kolmogorov-Smirnov statistic was also checked to assess the normality of the distribution of scores on dependent variables. In Table 16, test of normality was presented. Each entrepreneurial trait was significant ($p < .05$) which indicates that the data are not normally distributed on dependent variables. In other words, the significance p value indicates a violation of the assumption of normality (Pallant, 2013).

Overall, the score of Need for Achievement was observed higher than any other entrepreneurial traits based upon the 12 items scale (mean: 9.85 out of 12 possible highest score). Locus of Control had the second highest score based upon the same 12 items scale which accounted for 8.89 out of 12 possible highest score. Respectively, Total Calculating Risk Taking (8.09 out of 12 possible highest score) and Total Creative Tendency (6.32 out of 12 possible highest score). Total Need for Autonomy accounted for 3.69 in mean score which can only achieve a maximum score of 6.

What are the distributions of generations represented by entrepreneurs? In the study, the three generations were a single variable with three categories: baby boomers (1946-1960), generation Xers (1961-1980), and millennials (1981-1999), as an independent variable. To identify each entrepreneurs' average age was crucial in the survey. The level of entrepreneurial traits was a single dependent variable with three categories; high, medium, and low. Five entrepreneurial traits were scored in three categories: the high General Enterprising Tendency score was ranked between 44-54. Entrepreneurs who have a medium enterprising tendency was limited between 27-43 while entrepreneurs who have a low enterprising tendency was limited between 0-26 (see Table 6).

Descriptive statistical analyses were accompanied through cross-tabulations to study the association between the independent and dependent variables. A cross-tabulation tool was used

for the collected data to analyze the extent to what each of the three generations' entrepreneurial traits levels and the frequency distribution of two categorical variables: generations and entrepreneurial traits levels (Pallant, 2013). The descriptive cross-tabulation indicated that, of the 117 entrepreneurs, 43 (37% of the total population) were millennials, 50 (43% of the total population) generation Xers, and 24 (20% of the total population) were baby boomers.

Medium level enterprising tendency was mostly observed in each generation. Of the 43, 37 millennials (86% of total millennials population) were detected with medium level enterprising tendency. Five millennials (11.6% of total millennials) indicated high level and only one millennial (2.3% of totals millennial) indicated the low level of enterprising tendency. Of the 50, 43 generation Xers (86% of total generation Xers) showed the medium level of enterprising tendency while four baby boomers (8% of total generation Xers) high and three baby boomers (6% of total generation Xers) low. Of the 24, 23 baby boomers indicated their enterprising tendency as medium level (96% of total baby boomers) while one baby boomer showed a high enterprising tendency.

As a result, collected data of the 117 entrepreneurs, 103 (88% of total population) entrepreneurs showed medium level of enterprising tendency. According to Caird (2013), entrepreneurs who tend to have medium enterprising tendency scores, have strengths in some of the enterprising characteristics in some contexts. However, entrepreneurs with medium enterprising tendency are unlikely to set up an innovative growth-oriented global business (Caird, 2013). Moreover, they can consider themselves as an intrapreneur within employment, or they can work in their leisure time through voluntary community projects (see Table 3).

Is there a significant difference in entrepreneurial trait scores between generations?

To answer this question, the one-way analysis of variance (ANOVA) was taken advantage of to determine whether there are significant differences in the mean scores on each of the entrepreneurial trait score across the three groups (Pallant, 2013). A total of 54 questions related to entrepreneurial traits were asked to the participants to indicate their level of agreement (Tend to Agree) and disagreement (Tend to Disagree). The dependent variables were the Total Entrepreneurial Trait scores (Total Need for Achievement, Total Need for Autonomy, Total Creative Tendency, Total Calculated Risk Taking, and Total Locus of Control) which were treated as continuous variables to answer the question. For each of the five entrepreneurial traits (as dependent variables) the test of one-way ANOVA was performed separately to see whether there are significant differences in the mean scores across the three groups (as independent variables).

For the question three, generations were treated as a single categorical variable with a three level: Baby Boomers, Generation Xers, and Millennials. The significance value for Levene's test was checked ($p = .095$). The p value is greater than .05 which means that the assumption of homogeneity of variance was not violated (Pallant, 2013). The results showed that, excluding the Total Calculated Risk Taking score, non-significant p values were detected ($p > .05$) in the one-way ANOVA tests.

There was only statistical significant difference $F(2, 114) = 4.38$. at the $p < .05$ level in the mean scores in the Total Calculated Risk Taking scores across the three generations (see Table 22). The Tukey HSD test was checked which indicates exactly where the differences among the groups occur for the Total Calculated Risk Taking scores across the three generations. In the Tukey HSD test, only the group of Millennials ($M = 8.70$, $std = 1.34$) and Baby Boomers

($M = 7.50$, $Std = 1.96$) are statistically significantly different from one another. That is, entrepreneurs with the age of between 18-35 and 52-70 differ significantly in terms of their Total Calculated Risk Taking scores. The generation Xers ($M = 7.84$, $std = 1.98$) did not differ significantly from either Baby Boomers and Millennials. Having addressed statistically difference between Millennials and Baby Boomers in the mean score on the Total Calculated Risk Taking score, Millennials have the highest risk taking trait in comparison of the Baby Boomers (see Table 19).

The group of Baby Boomers (52-70) was associated with the numerically smallest mean level of Total Calculated Risk Taking score ($M = 7.50$). The group of Millennials (18-35) was associated with the numerically highest mean level of Total Calculated Risk Taking score ($M = 8.70$). The mean score for generation Xers (36-51) falls in between these two generations ($M = 7.84$). The researcher fails to reject the null hypothesis as the p value of total GET2 scores is larger than .05 ($p > .05$). Overall, results showed that there is no statistically significant difference at the $p < .05$ in the mean scores on four Total Entrepreneurial Trait scores across the three generation groups (see Appendix E).

Is there a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates? A five-multiple regression analysis was performed to explain the relationship between one continuous dependent variable and several independent variables or predictors. Five multiple regression analyses were conducted for each entrepreneurial trait (dependent as continuous variables) to analyze:

a) how well and which set of variables (generation, ethnicity, level of education, number of employees in the company, type of business, and number of years as a business owner as

categorical variables) are able to make the best prediction of the value on the dependent variables,

b) whether the predictor variables are still able to predict the outcome when the effects of another categorical variables variable are controlled for (Pallant, 2013).

To utilize five multiple regression analyses, the categorical predictor variables (independent variables) were dummy coded. The dependent variables were the five entrepreneurial trait scores (Total Need for Achievement, Total Need for Autonomy, Total Creative Tendency, Total Calculated Risk Taking, and Total Locus of Control). In the multiple regression approach, the categorical predictor variables were collapsed into two or three categories (to compare each of the other categories) to facilitate the analysis where one category served as a reference group.

The principle of parsimony was adopted to simplify the each model. In the five multiple regression analyses, the researcher started with all of the covariates and one dependent variable at a time. (the first model). Subsequently, nonsignificant independent variables were systematically removed until the remaining variables were significant (the final model); all covariates other than Generations were fitted individually. By doing so, effects on the relationship between Generations and Entrepreneurial Traits were not rejected early on in the full model. For the model to achieve significant goodness of fit, the ANOVA table was expected to have $p < .05$. The R-squared statistic was checked to identify how much of the variance in the dependent variable was explained by the model. The distribution of the residuals using the normal probability plot (P-P) of the regression standardized residual were reported.

In the first model, the relationship between Total need for achievement vs. generations and all covariates/predictors was investigated. A multiple linear regression was conducted to

predict whether there is a significant difference in Total Need for Achievement scores between generations after controlling the effects of covariates. Firstly, all covariates were added in the model to see how well a number of independent variables (generations and covariates) could predict Total Need for Achievement scores (dependent variable). Further, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model. The value of Adjusted R Square was checked which indicated that 7.5% of the variance in Total Need for Achievement scores was explained by the model (see Table 24). The ANOVA table indicated that the model with all covariates/predictors is not statistically significant, $F(12, 104) = 1.78, p > .05$ (see Table 25). Moreover, the coefficients table (See Table 26) reported that the p values of each predictors failed to make a statistically significant contribution to the prediction of the dependent variable ($p > .05$). Overall, due to not achieving a significant goodness of fit value (ANOVA) and having nonsignificant differences in the all coefficients (p values are nonsignificant, $p > .05$), none of the independent variables contributed any prediction to the dependent variable.

In the final model, the relationship between Total need for achievement vs. generations and controlled covariates/predictors was investigated. To test multiple regression analyses, in compliance with the principle of parsimony, nonsignificant independent variables were systematically removed until the remaining variables were significant (the final parsimonious model). Multiple linear regression was reformed with Total Need for Achievement as a dependent variable and Baby Boomers, Generation Xers, and Less than 10 Years (number of years as a business owner) as independent variables. The value of Adjusted R Square indicated that 4% (rounded) of the variance in Total Need for Achievement scores was explained by the model (see Table 27). The ANOVA table indicated that the new model with predictors is

statistically significant, $F(5, 111) = 2.505, p < .05$ (see Table 28). The coefficients table (See Table 29) indicated that the largest Beta coefficient value accounted for Less Than 10 Years (.279) which means that this variable made the strongest unique contribution to explaining the Total Need for Achievement score while the B value for Generation Xers (-.172) made the least contribution. The p value (sig.) of Baby Boomers indicated that there is a statistically significant difference in entrepreneurial trait scores between Baby Boomers and Millennials after controlling the effects of covariates in the model ($p < .05$). The researcher found that, when the effects of the number of years as a business owner (Less than 10 Years vs Ten or More), the difference in average Total Need for Achievement scores between Baby Boomers and Millennials was significant, with Baby Boomers estimated to score 1.067 less than Millennials on average. The values of Tolerance and VIF in the coefficients table (Table 29) reported that no presence of multicollinearity was found. The assumptions were checked by inspecting the normal probability plot (P-P) of the regression standardized residual. The plot showed that the points generally follow the normal line with no strong deviations which indicated that the residuals were normally distributed (see Figure 7).

In the first model, the relationship between Total need for autonomy vs. generations and all covariates/predictors was investigated. A multiple linear regression was conducted to predict whether there is a significant difference in Total Need for Autonomy scores between Generations after controlling the effects of covariates. Initially, all covariates were added in the first model to see how well a number of independent variables (generation and covariates) could predict the total need for autonomy scores (dependent variable). Also, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model. The value of Adjusted R Square was checked. The value indicated that 3% (rounded) of the variance

in total need for autonomy scores was explained by the model (see Table 30). The ANOVA table indicated that the model with all covariates/predictors is not statistically significant, $F(12, 104) = 1.291, p > .05$ (see Table 31).

The coefficients table (See Table 32) indicated that none of the predictors in the first model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$). Statistically nonsignificant difference in the Need for Autonomy scores between generations after controlling the effects of covariates in the model was detected. Multiple linear regression was retested by removing nonsignificant variables systematically hoping to reach a statistically significant difference in the dependent variable between generations ($p < .05$). In compliance with the principle of parsimony, however, removing and adding predictors in the new model to get a significant result did not help. None of the predictors in the model predicted a significant amount of the variance in the dependent variable. Overall, three generations did not differ in Total Need for Autonomy after controlling for covariates.

In the first model, the relationship between Total creative tendency vs. generations and all covariates/predictors was investigated. A multiple linear regression was conducted to predict whether there is a significant difference in total creative tendency scores between generations after controlling the effects of covariates. Firstly, all covariates were added in the first model to see how well a number of independent variables (generation and covariates) can predict the Total Creative Tendency scores (dependent variable). Additionally, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model (Pallant, 2013). The value of Adjusted R Square indicated that 12% (rounded) of the variance in Total Creative Tendency scores was explained by the model (see Table 33). The

ANOVA table indicates that the model with all covariates/predictors is statistically significant, $F(12, 104) = 2.278, p < .05$ (see Table 34).

The coefficients table (See Table 35) indicated that the p values of Trade (type of business) and Service and Public Administrations (type of business) predictors made a statistically significant contribution to the prediction of the dependent variable ($p < .05$) while other predictors in the first model did not make any statistically significant contribution ($p > .05$).

In the final model, the relationship between Total creative tendency vs. generations and controlled covariates/predictors was investigated. Only, Trade and Service and Public Administrations predictors made a statistically significant contribution to the prediction of the dependent variable in the first model of Multiple linear regression ($p < .05$). However, remaining predictors in the first model did not show any significant contribution to the prediction of the dependent variable ($p > .05$). Therefore, in the final model, nonsignificant independent variables were systematically removed in compliance with the parsimonious model. Multiple linear regression was reperformed with Total Creative Tendency as a dependent variable and Baby Boomers, Generation Xers, and Trade (type of business) as independent variables. The value of Adjusted R Square indicated that 7% (rounded) of the variance in Total Creative Tendency scores was explained by the model (see Table 36). The ANOVA table indicated that the final model with predictors is statistically significant, $F(3, 113) = 3.746, p < .05$ (see Table 37).

The coefficients table (See Table 38) indicated that the largest Beta coefficient value of -.247 (ignoring the negative sign) accounted for Trade (type of business) which indicated that the variable made the strongest unique contribution to explaining the Total Creative Tendency score. The Beta value for Generation Xers made the least contribution (-.174). The p value of Baby Boomers indicated that there is a statistically significant difference in entrepreneurial trait scores

between Baby Boomers and Millennials after controlling the effects of Trade in the model ($p < .05$). The values of Tolerance and VIF in the coefficients table (Table 38) reported that no presence of multicollinearity was found. The assumptions were checked by inspecting the normal probability plot (P-P) of the regression standardized residual. The plot shows that the points generally follow the normal line with no strong deviations which indicated that the residuals were normally distributed (see Figure 10).

The researcher found that, when controlled for the effects of the type of business (trade vs. all other types of business), the difference in average Total Creative Tendency scores between Baby Boomers and Millennials were significant, with Baby Boomers estimated to score 1.122 less than Millennials on average. In addition to that those in the Trade (type of business) score significantly lower on Total Creative Tendency than those in other types of business.

In the first model, the relationship between Total calculated risk taking vs. generations and all covariates/predictors was investigated. A multiple linear regression was conducted to predict whether there is a significant difference in Total Calculated Risk Taking scores between Generations after controlling the effects of covariates. Initially, all covariates were added in the first model to see how well the set of independent variables (generation and other covariates) could predict Total Calculated Risk Taking scores (dependent variable). Moreover, how much variance in the dependent variables could be explained by the independent variable was reported in the initial model (Pallant, 2013). The value of Adjusted R Square indicated that 3% (rounded) of the variance in total calculated risk-taking scores was explained by the model (see Table 39). The ANOVA table indicates that the first model with all covariates/predictors is not statistically significant, $F(12, 104) = 1.263, p > .05$ (see Table 40). The coefficients table (See Table 41) indicated that none of the predictors in the model made a statistically significant contribution to

the prediction of the dependent variable ($p > .05$). Overall, due to not achieving a significant goodness of fit value (ANOVA) and having nonsignificant differences in the all coefficients (p values are nonsignificant, $p > .05$), none of the independent variables can contribute any prediction to the dependent variable.

In the final model, the relationship between Total calculated risk taking vs. generations and controlled covariates/predictors was investigated. To test multiple regression analyses, in compliance with the principle of parsimony, nonsignificant independent variables were systematically removed until the remaining variables were significant (the final parsimonious model). Multiple linear regression was reperformed with Total Calculated Risk Taking score as a dependent variable and Baby Boomers, Generation Xers, Graduate Degree (education level), and Undergrad Degree (education level) as independent variables. The value of Adjusted R Square indicated that 6% of the variance in Total Calculated Risk Taking scores was explained by the model (see Table 42). The ANOVA table indicates that the final model with predictors is statistically significant, $F(4, 112) = 2.949$, $p < .05$ (see Table 43).

The coefficients table indicated (see Table 44) the largest Beta coefficient value of $-.212$ accounted for Baby Boomers which means that this variable made the strongest unique contribution to explain the Total Creative Tendency score. The Beta value of Undergrad Degree (education) made the least contribution ($.189$). The p values of Baby Boomers and Generation Xers indicated that there is a statistically significant difference in entrepreneurial trait scores between Baby Boomers and Millennials, and Generation Xers and Millennials after controlling the effects of covariates in the model ($p < .05$).

The values of Tolerance and VIF in the coefficients table (Table 44) reported that no presence of multicollinearity was found. The assumptions were checked with the normal

probability plot (P-P) of the regression standardized residual. The plot shows that the points generally follow the normal line with no strong deviations which indicated that the residuals were normally distributed (see Figure 12).

The Casewise Diagnostics (Table 45) reported one case (case number 107) with a residual value of -3.368. The person, case number 107, recorded a total calculated risk-taking score of two, but the model predicted a value of 7.92. The final model did not predict the case number 107's score very well.

Overall, the researcher found that, when controlled for the effects of education (graduate degree vs. undergrad degree), whether or not education in undergrad degree (vs. graduate degree), the difference in average Total Calculated Risk Taking scores between Baby Boomers and Millennials, and Generation Xers and Millennials were significant, with Baby Boomers estimated to score -.950 and Generation Xers -.746 less than Millennials on average. It can be also reported that those with Undergraduate and Graduate degrees score significantly higher on Total Calculated Risk Taking than those without a College degree.

In the first model, the relationship between Total locus of control vs. generations and all covariates/predictors was investigated. A multiple linear regression was conducted to predict whether there is a significant difference in total locus of control scores between generations after controlling the effects of covariates. Initially, all covariates were entered in the first model to see how well the set of independent variables (generation and other covariates) could predict total locus of control scores (dependent variable). Furthermore, multiple regression helped the researcher to investigate how much of variance in the dependent variable could be explained by the independent variables (Pallant, 2013). The value of Adjusted R Square indicated that 1% of the variance in Total Locus of Control scores was explained by the model (see Table 46). The

ANOVA table indicates that the model with all the covariates/predictors is not statistically significant, $F(12, 104) = 1.097, p > .05$ (see Table 47). The coefficients table (See Table 48) indicated that none of the predictors in the model made a statistically significant contribution to the prediction of the dependent variable ($p > .05$). Overall, due to not achieving a significant goodness of fit value (ANOVA) and having nonsignificant differences in the all coefficients (p values are nonsignificant, $p > .05$), none of the independent variables can contribute any prediction to the dependent variable.

The Casewise Diagnostics (Table 49) reported one case (case number 97) with a residual value of -5.184. The person, case number 97, recorded a total locus of control score of two, but the model predicted a value of 8.52. Clearly, the final model did not predict the case number 97's score very well.

Nonsignificant difference in total locus of control scores between generations after controlling the effects of covariates in the model was detected. In compliance with the principle of parsimony method, multiple linear regression was retested by removing nonsignificant variables systematically until the researcher reached a statistically significant difference in the dependent variable between generations ($p < .05$). However, removing and adding predictors in the new model to get a significant result did not help. None of the predictors in the model predicted a significant amount of the variance in the dependent variable.

Conclusions

This study quantified the relationship between entrepreneurial traits and generations of US entrepreneurs in Southwest (San Antonio), Northeast (Dallas), Center (Austin), and Southeast (Houston) Texas, to see whether generational differences are associated with entrepreneurial traits. Of the 117 respondents, 37 (32%) were females and 80 (68%) were males.

The three different generations were selected using Lancaster & Stillman (2002)'s birth years for each generation. Respectively, Baby Boomers n=24, (20% of total response), Generation n= 50 (43% of total response), and Millennials n= 43 (37% of total response) participated in the study. The findings from Chapters IV led the researcher to draw a number of conclusions concerning to the four research questions.

McClelland (1987) and Cromie (2000) stated that Need for Achievement is a primary entrepreneurial feature that forms single driving force for the successful entrepreneurship. In this study, in parallel to McClelland (1987) and Cromie (2000)'s claim, the score of Need for Achievement was found higher than any other entrepreneurial traits based upon the 12 items scale (mean: 9.85 out of 12 possible highest score). The second highest score belongs to Locus of Control based upon the same 12 items scale which accounted for 8.89 out of 12 possible highest score. Respectively, Total Calculating Risk Taking (8.09 out of 12 possible highest score) and Total Creative Tendency (6.32 out of 12 possible highest score). Total Need for Autonomy accounted for 3.69 in mean score which can only achieve a maximum score of 6. Total Need for Autonomy had a higher relative mean score than Total Creative Tendency when accounting for the maximum scores.

Collected data from 117 entrepreneurs showed that 88% of total population (103 entrepreneurs) tend to have a medium level of enterprising tendency. Caird (2013) stated that entrepreneurs with medium level enterprising tendency tend less likely to set up an innovative high growth business venture. However, they may be able to express their enterprising tendency within employment as intrapreneurs on in their leisure time (e.g. through voluntary community projects) (see Table 3).

In the Tukey HSD test, only the group of Millennials ($M = 8.70$, $std = 1.34$) and Baby Boomers ($M = 7.50$, $Std = 1.96$) were detected statistically significant different from one another in the Total Calculated Risk Taking scores (see Table 22). The generation Xers ($M = 7.84$, $std = 1.98$) did not differ significantly from either Baby Boomers and Millennials. Having addressed statistically significance difference between Millennials and Baby Boomers in the mean score in the Total Calculated Risk Taking score, Millennials have the highest risk taking trait in comparison of the Baby Boomers (see Table 19). The researcher failed to reject the null hypothesis as the p value of total GET2 scores was larger than .05 ($p > .05$). Overall, results showed that there is no statistically significant difference at the $p < .05$ in the mean scores on four Total Entrepreneurial Trait scores across the three generation groups (see Appendix E).

A five-multiple regression analysis was performed to investigate whether there was a significant difference in entrepreneurial trait scores between generations after controlling the effects of covariates. Multiple regression test was performed for each entrepreneurial trait. There was no statistically difference in the five entrepreneurial traits between generations after controlling the whole covariates in the first model. Neither in the first nor final model, statistically significant difference in the Total Need for Autonomy and Total Locus of Control scores between generations after controlling the effects of covariates was detected. In compliance with the principle of parsimony method, multiple linear regression was retested by removing nonsignificant variables systematically until the researcher reached a statistically significant difference in the dependent variables between generations ($p < .05$). However, removing and adding predictors in the final model to get a significant result did not help. None of the predictors in the model predicted a significant amount of the variance in both Total Need for Autonomy and Total Locus of Control scores.

In the final model, in compliance with the principle of parsimony method, a multiple linear regression was reperformed with Total Need for Achievement as a dependent variable and Baby Boomers, Generation Xers, and Less than 10 Years (number of years as a business owner) as independent variables. The value of Adjusted R Square indicated that 4% (rounded) of the variance in the Total Need for Achievement scores was explained by the model (see Table 27). The ANOVA table indicated that the new model with predictors is statistically significant, $F(5, 111) = 2.505, p < .05$ (see Table 28). The coefficient p values (see Table 29) indicated that there is a statistically significant difference in entrepreneurial trait scores between Baby Boomers and Millennials after controlling the effects of covariates in the model ($p < .05$). The researcher found that, when the effects of the number of years as a business owner (Less than 10 Years vs Ten or More), the difference in average Total Need for Achievement scores between Baby Boomers and Millennials was significant, with Baby Boomers estimated to score 1.067 less than Millennials on average.

In the final model, in compliance with the principle of parsimony method, a multiple linear regression was reperformed with Total Creative Tendency as a dependent variable and Baby Boomers, Generation Xers, and Trade (type of business) as independent variables. The value of Adjusted R Square indicated that 7% (rounded) of the variance in Total Creative Tendency scores was explained by the model (see Table 36). The ANOVA table indicated that the final model with predictors is statistically significant, $F(3, 113) = 3.746, p < .05$ (see Table 37). The coefficient p values (see Table 38) indicated that there is a statistically significant difference in entrepreneurial trait scores between Baby Boomers and Millennials after controlling the effects of Trade in the model ($p < .05$). The researcher found that, when the effects of the type of business (trade vs. all other types of business), the difference in average

Total Creative Tendency scores between Baby Boomers and Millennials were significant, with Baby Boomers estimated to score 1.122 less than Millennials on average. In addition to that those in the Trade (type of business) score significantly lower on Total Creative Tendency than those in other types of business.

In the final model, in compliance with the principle of parsimony method, a multiple linear regression was reperformed with Total Calculated Risk Taking score as a dependent variable and Baby Boomers, Generation Xers, Graduate Degree (education level), and Undergrad Degree (education level) as independent variables. The value of Adjusted R Square indicated that 6% of the variance in Total Calculated Risk Taking scores was explained by the model (see Table 42). The ANOVA table indicates that the final model with predictors is statistically significant, $F(4, 112) = 2.949, p < .05$ (see Table 43). The researcher found that when the effects of education (graduate degree vs. undergrad degree), whether or not education in undergrad degree (vs. graduate degree), the difference in average Total Calculated Risk Taking scores between Baby Boomers and Millennials, and Generation Xers and Millennials were significant, with Baby Boomers estimated to score -.950 and Generation Xers -.746 less than Millennials on average. It can be also reported that those with Undergraduate and Graduate degrees score significantly higher on Total Calculated Risk Taking than those without a College degree.

Limitations of the Study

Although the dissertation study has reached its goal, there were several limitations of this research. First, the study was limited by the number of sample size. A survey was distributed to 517 small business entrepreneurs who were associated with EO in the major cities in Texas (San Antonio, Dallas, Houston, and Austin) with 117 completed responses returned. The sample size was only drawn from EO where respondents were self-identified as entrepreneurs. The number

of sample size would have been extended by sending the online survey link to other official entrepreneurial social networks. By doing so, possible significant relationships from the data would have been found. In statistical tests, it is usually expected a larger sample size to generalize the results from a small number of people to a large number (Creswell, 2012).

Second, reaching out active entrepreneurs who were members at EO in major cities in Texas was difficult. After survey questions were written and answer selections were formulated on Survey Monkey (online survey software), a custom URL was created. The link was shared on EO Facebook page (a social networking site) by the director of EO who has the authorization to access, share information, and invite the EO members. The researcher allowed two weeks for responses to achieve the desired level of power for the study. At the first attempt, there was not enough responses, so the director of EO attempted a second request/reminder on Facebook which was allowed two more weeks by the researcher. At the end of fourth week, the researcher gathered a total of 117 sample size for the dissertation.

Third, prior research studies on the topic of generations and entrepreneurial traits were limited. The most recent entrepreneurial literatures are clustered around entrepreneurship education in which the discussion of whether entrepreneurship should be taught and learned is ongoing (Fayolle, 2008). The researcher could not make a comparison between the findings of this study and previous research studies.

Recommendations

The previous chapter presented the research results and synthesizing the findings based on the trait theory created by Caird (2006) in a framework supported by the literature. The descriptions of different generations of Texan small business entrepreneurs provided in the study offer substantial opportunities for the use of the findings in terms of self-consciousness in

entrepreneurial traits and research possibilities. The following recommendations were broken down into three sections: practitioners, policy makers, and for future research.

Practitioners. A variety of studies have been referenced in this research study in order to provide useful information for practitioners, policy makers, and future researchers. This study intends to explore whether there is a statistically difference between generations of entrepreneurs and entrepreneurial traits. In this study, participants are entrepreneurs with small businesses. The research study can also make contribution to the academic literature by profiling Southwest, Northeast, Center, and Southeast Texas metropolitan region entrepreneurs.

This study has intended to contribute to the academic literature in understanding the differences in the five entrepreneurial traits across three different generations of entrepreneurs. This quantitative descriptive study can be useful for practitioners in self-assessment in their entrepreneurial (enterprising) potential and can get an idea of the competency to start up and manage projects. For instance, scores on the five trait dimensions can provide feedback to practitioners regarding the degree to which they have a high, medium, or low entrepreneurial tendency level. When the entrepreneurial tendency level is identified by practitioners, additional entrepreneurial education or trainings may be needed for the right effect to develop entrepreneurship amongst different generations of entrepreneurs.

Policy Makers. It is undisputed that entrepreneurship has made a significant contribution to the economic growth, dynamic workforce and wealth in the U.S. economy. As indicated in Chapter 1, entrepreneurs focus merely on reaching success by creating and marketing innovative, customer-focused products and services in the purpose of contributing economic growth and prosperity in the nations that they reside. Therefore, entrepreneurship should be an essential factor for policymakers, local economic development departments, to understand the degree to

which generations' differences are associated with entrepreneurial traits, in order to receive a higher quality of output from entrepreneurs in the Southwest, Northeast, Center, and Southeast Texas metropolitan regions. In addition to this, policy makers should build the supportive business environment for entrepreneurs to contribute their new ventures. As entrepreneurship is a key contributor to increasing workforce and economic growth, policy makers can reduce the effects of taxes on the financing of new ventures (Gale & Brown, 2013).

Future researchers. The dissertation study presented a quantitative descriptive research study of entrepreneurs from different generations and entrepreneurial traits by utilizing GET2 instrument. The results of this research were important in determining the possible statistically differences in entrepreneurial traits across generations of entrepreneurs in major cities in Texas. Present and future entrepreneurs may want to take advantage of the research findings to better understand their entrepreneurial tendencies and develop their entrepreneurial skills for positive outcomes.

Further research was recommended to extend the understanding of the differences between entrepreneurial traits and entrepreneurs representing different generations. Future researchers can extend this study as a qualitative or mix-method study with various elements of entrepreneurial traits, to explore the relationship between generations of entrepreneurs and entrepreneurial traits in order to develop a more comprehensive research study. For future research, new research studies may be conducted by prospective researchers by changing the setting in order to explore different entrepreneurial tendencies and abilities, have larger sample size to understand the entrepreneurial traits amongst various groups, and increase entrepreneurs' productivities in local or global environments.

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Appendices

Appendix A—Instrumentation Permission

From: Sally.Caird <sally.caird@open.ac.uk>
Sent: Tuesday, June 28, 2016 10:44 AM
To: Eken, Ihsan
Subject: RE: Permission for Enterprising Tendency test

Dear Ihsan

I am pleased to hear of your interest in using the General measure of Enterprising Tendency test to support your research at the University of the Incarnate Word, San Antonio, Texas.

Over the past 20 years there has been considerable worldwide interest in the test of General Enterprising Tendency (GET test) that I co-developed and tested as a researcher at the University of Durham. Due to this interest and the volume of requests for the test, I created <http://www.get2test.net/>, freely available to people who wish to test their enterprising tendency, or for educational, training, development and research purposes. The GET tool has been widely used with an average of 1000 users per month, and the GET test has been adopted by over 80 institutions and organisations in over 30 countries.

The GET2test is freely available for research purposes and to support education. Please note that commercial use of the GET2test materials are separately licensed and that the intellectual property is protected by **Oblinger, D., & Oblinger, J. L. (2005). *Educating the net generation*. Boulder, CO: EDUCAUSE.** copyright. Details on the GET test may be freely downloaded from the Open University repository <http://oro.open.ac.uk/5393/>. The website provides each respondent with a detailed report. Licensing arrangements are required for other uses. There is a licensing arrangement with Oxford Innovations Services Ltd., a major UK-based consultancy who use the test extensively to support SME start-ups and high growth companies.

The basic premise of the test is that the enterprising person shares entrepreneurial characteristics. The psychological literature has different views on entrepreneurial characteristics and which ones are important. The approach we took involved identifying key characteristics of entrepreneurial people which are associated with entrepreneurial behaviour, and the entrepreneurial act itself. The key entrepreneurial characteristics identified include: strong motivation, characterised by a high need for achievement and for autonomy; creative tendency; calculated risk-taking; and an internal locus of control (belief you have control over own destiny and make your own 'luck'). People set up an enterprise because they are highly motivated (to achieve something themselves) by a good idea and will manage risks, information and uncertainties because they believe they can set up the enterprise successfully.

The test was developed from an analysis of psychological tests of these selected characteristics and a literature review leading to the creation of a bank of entrepreneurial descriptions. This was pilot tested with entrepreneurs and other occupational groups which established initial construct validity and reliability. We reviewed psychological tests and created the GET test which was validated with occupational and other groups during a one year research project. Further validation of the test would be recommended although the test has been considered very useful

world-wide for research, education and development purposes. I see the GET2test primarily as an educational tool rather than a predictive measure. It is not a definitive test of entrepreneurial tendency but it is useful in educational settings to prompt thought and discussion about what it means to be enterprising.

I would ask if you would acknowledge my support if you decide to use the GET2test web materials. The acknowledgement should read as follows:

The General measure of Enterprising Tendency (GET) test was originally developed in 1988 by Dr Sally Caird and Mr Cliff Johnson at Durham University Business School. Further development by Dr Caird, The Open University led to the GET2 test website development available via the open educational website <http://www.get2test.net/>.

I would appreciate if you would keep me up-to-date on your work.

Best Wishes

Sally Caird

Dr Sally Caird FHEA

Research Fellow

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From: Eken, Ihsan [mailto:eken@student.uiwtx.edu]

Sent: 20 June 2016 22:55

To: Sally.Caird <sally.caird@open.ac.uk>

Subject: Permission for Enterprising Tendency test

Dear Dr. Caird,

My name is Ihsan Eken. I am currently a doctoral student in business administration program in San Antonio, Texas. I was looking for a survey tool for my dissertation topic regarding entrepreneurial traits and I have come across your Enterprising Tendency test (Motivation, Creative tendency, calculated risk-taking, and locus of control). I was wondering if I utilize your survey tool in my dissertation study (proposal will take place in Fall 2016) in order to detect entrepreneurs' traits. I would like to have your permission to use this tool for this purpose.

Best regards,

Ihsan Eken, MBA

University of the Incarnate Word

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Appendix B—Informed Consent

Relationship Between Generations of Entrepreneurs and Entrepreneurial traits

University of the Incarnate Word

Ihsan Eken,

eken@student.uiwtx.edu

The following informed consent language will be the first page of the web-based survey and responders will have to respond Yes or No to participate, indicating consent.

Consent to take part in the study

I am a graduate student at UIW working towards a doctoral degree in the concentration of Doctor of Business Administration. You are being asked to take part in a research study regarding relationship between generations of entrepreneurs and entrepreneurial traits. We want to learn if there is a relationship between the three different generations and five different characteristics of entrepreneurial traits and to contribute beneficial insights to your understanding in enterprising potential and differentiate yourselves in entrepreneurial traits. You are being asked to take part in this study because we are inviting all self-employed small-business owners with the title of entrepreneur who play significant role in entrepreneurship.

If you decide to take part, you will complete a web-based survey with questions about General measure of Enterprising Tendency test (GET2) and a few demographics. The duration of the survey could be no longer than 10 minutes and there are no more than minimal risks associated with your participation in this research. We do not guarantee that you will benefit from taking part in this study. Everything we learn about you in the study will be confidential. If we publish the results of the study, you will not be identified in any way. Your decision to take part in the study is voluntary. You are free to choose not to take part in the study or to stop taking part at any time. If you choose not to take part or to stop at any time, it will not affect your current and future status at EO.

If you have questions, feel free to ask us. If you have additional questions later or you wish to report a problem that may be related to this study, contact University of the Incarnate Word or at 210-367-6858. The University of the Incarnate Word committee that reviews research on human subjects, the Institutional Review Board, will answer any questions about your rights as a research subject (829-2759—Dean of Graduate Studies and Research).

Do you wish to participate in this study? Yes/ No

Appendix C—Instrument

Demographic Items

1. Gender (Male, Female)
2. Age (18-35, 36-51, 52-70)
3. Ethnicity (American Indian or Alaskan Native, Asian or Pacific Islander, Black or African American, Hispanic or Latino, White/Caucasian, prefer not to answer, Other please specify)
4. Level of Education (High School/GED, Some College, Associates Degree, Bachelor's Degree, Master's Degree, Professional Degree, Doctoral Degree)
5. Number of employees in the company (0-10, 11-50, 51-100, 101-200, 201-500, more than 500)
6. Type of business (Manufacturing, Consumer services, Retail, Wholesale/Distribution, Business Services, Other)
7. Number of years as a small business owner (0-5, 6-10, 11-15, 16-20, 21-30, more than 30)

The GET2 Test

Instructions: For each of the 54 questions below, please select the answer that you most closely feel reflects yourself. There is no time limit, so consider each question carefully and respond with candor. A for 'Tend to Agree', D for 'Tend to Disagree'.

- | | | |
|---------------------------------------------------------------------------------------------------------|---|---|
| 1. I would not mind routine unchallenging work if the pay and pension prospects were good. | A | D |
| 2. I like to test boundaries and get into areas where few have worked before. | A | D |
| 3. I tend not to like to stand out or be unconventional. | A | D |
| 4. Capable people who fail to become successful have not usually taken chances when they have occurred. | A | D |
| 5. I rarely day dream. | A | D |
| 6. I find it difficult to switch off from work completely. | A | D |
| 7. You are either naturally good at something or you are not, effort makes no difference. | A | D |
| 8. Sometimes people find my ideas unusual. | A | D |
| 9. I would rather buy a lottery ticket than enter a competition. | A | D |
| 10. I like challenges that stretch my abilities and get bored with things I can do quite easily. | A | D |

11. I would prefer to have a moderate income in a secure job rather than a high income in a job that depended on my performance.
A D
12. At work, I often take over projects and steer them my way without worrying about what other people think.
A D
13. Many of the bad times that people experience are due to bad luck.
A D
14. Sometimes I think about information almost obsessively until I come up with new ideas and solutions.
A D
15. If I am having problems with a task I leave it, forget it and move on to something else.
A D
16. When I make plans I nearly always achieve them.
A D
17. I do not like unexpected changes to my weekly routines.
A D
18. If I wanted to achieve something and the chances of success were 50/50 I would take the risk.
A D
19. I think more of the present and past than of the future.
A D
20. If I had a good idea for making some money, I would be willing to invest my time and borrow money to enable me to do it.
A D
21. I like a lot of guidance to be really clear about what to do in work.
A D
22. People generally get what they deserve.
A D
23. I am wary of new ideas, gadgets and technologies.
A D
24. It is more important to do a job well than to try to please people.
A D
25. I try to accept that things happen to me in life for a reason.
A D
26. Other people think that I'm always making changes and trying out new ideas.
A D
27. If there is a chance of failure I would rather not do it.
A D
28. I get annoyed if people are not on time for meetings.
A D
29. Before I make a decision I like to have all the facts no matter how long it takes.
A D
30. I rarely need or want any assistance and like to put my own stamp on work that I do.
A D
31. You are not likely to be successful unless you are in the right place at the right time.

- | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| | A | D |
| 32. I prefer to be quite good at several things rather than very good at one thing. | A | D |
| 33. I would rather work with a person I liked who was not good at the job, rather than work with someone I did not like even if they were good at the job. | A | D |
| 34. Being successful is a result of working hard, luck has little to do with it. | A | D |
| 35. I prefer doing things in the usual way rather than trying out new methods. | A | D |
| 36. Before making an important decision I prefer to weigh up the pro's and con's fairly quickly rather than spending a long time thinking about it. | A | D |
| 37. I would rather work on a task as part of a team rather than take responsibility for it myself. | A | D |
| 38. I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy. | A | D |
| 39. I usually do what is expected of me and follow instructions carefully. | A | D |
| 40. For me, getting what I want is a just reward for my efforts. | A | D |
| 41. I like to have my life organized so that it runs smoothly and to plan. | A | D |
| 42. When I am faced with a challenge I think more about the results of succeeding than the effects of failing. | A | D |
| 43. I believe that destiny determines what happens to me in life. | A | D |
| 44. I like to spend time with people who have different ways of thinking. | A | D |
| 45. I find it difficult to ask for favors from other people. | A | D |
| 46. I get up early, stay late or skip meals if I have a deadline for some work that needs to be done. | A | D |
| 47. What we are used to is usually better than what is unfamiliar. | A | D |
| 48. I get annoyed if superiors or colleagues take credit for my work. | A | D |
| 49. People's failures are rarely the result of their poor judgement. | A | D |
| 50. Sometimes I have so many ideas that I feel pressurized. | A | D |
| 51. I find it easy to relax on holiday and forget about work. | A | D |

- | | | |
|-------------------------------------------------------------------------------------------------------------------------|---|---|
| | A | D |
| 52. I get what I want from life because I work hard to make it happen. | | |
| | A | D |
| 53. It is harder for me to adapt to change than keep to a routine. | | |
| | A | D |
| 54. I like to start interesting projects even if there is no guaranteed payback for the money or time I have to put in. | | |
| | A | D |

Appendix D—IRB Approval



December 21 2016

PI: Mr. Ihsan Eken

Protocol title: Relationship between generations of entrepreneurs and entrepreneurial traits

Ihsan:

Your request to conduct the study titled "Relationship between generations of entrepreneurs and entrepreneurial traits" was approved by Exempt review on 12/21/2016. Your IRB approval number is 16-12-003. Any written communication with potential subjects or subjects must be approved and include the IRB approval number.

Please keep in mind these additional IRB requirements:

- This approval will expire **one year** from 12/21/2016.
- Request for continuing review must be completed for projects extending past one year. Use the **IRB Continuing Review Request form**.
- Changes in protocol procedures must be approved by the IRB prior to implementation except when necessary to eliminate apparent immediate hazards to the subjects. Use the **IRB Amendment Request form**.
- Any unanticipated problems involving risks to subjects or others must be reported immediately.

Approved protocols are filed by their number. Please refer to this number when communicating about this protocol.

Approval may be suspended or terminated if there is evidence of a) noncompliance with federal regulations or university policy or b) any aberration from the current, approved protocol.

Congratulations and best wishes for successful completion of your research. If you need any assistance, please contact the UIW IRB representative for your college/school or the Office of Research Development.

Sincerely,

Ana Wandless-Hagendorf, PhD, CPRA

Ana Wandless-Hagendorf, PhD, CPRA

Research Officer, Office of Research Development

University of the Incarnate Word

(210) 805-3036

wandless@uiwtx.edu

Appendix E—Nonsignificant values (Question 3)

*Total Need for Achievement vs. Generations**Descriptives*

Total Need for Achievement								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-35	43	9.98	1.640	.250	9.47	10.48	6	12
36-51	50	9.88	1.586	.224	9.43	10.33	6	12
52-70	24	9.54	1.793	.366	8.78	10.30	6	12
Total	117	9.85	1.643	.152	9.55	10.15	6	12

Test of Homogeneity of Variances

Total Need for Achievement				
Levene Statistic	df1	df2	Sig.	
.595	2	114	.553	

ANOVA

Total Need for Achievement						
	Sum of Squares	df	Mean Square	F	Sig.	
Between Groups	3.016	2	1.508	.554	.576	
Within Groups	310.215	114	2.721			
Total	313.231	116				

Multiple Comparisons

Dependent Variable: Total Need for Achievement

Tukey HSD

					95% Confidence Interval	
Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
18-35	36-51	.097	.343	.957	-.72	.91
	52-70	.435	.420	.556	-.56	1.43
36-51	18-35	-.097	.343	.957	-.91	.72
	52-70	.338	.410	.688	-.63	1.31
52-70	18-35	-.435	.420	.556	-1.43	.56
	36-51	-.338	.410	.688	-1.31	.63

Total Need for Autonomy vs. Generations

Descriptives

Total Need for Autonomy								
				95% Confidence Interval for Mean				
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
18-35	43	3.60	1.400	.213	3.17	4.04	0	6
36-51	50	3.78	1.266	.179	3.42	4.14	1	6
52-70	24	3.67	1.373	.280	3.09	4.25	1	6
Total	117	3.69	1.329	.123	3.45	3.94	0	6

Test of Homogeneity of Variances

Total Need for Autonomy			
Levene Statistic	df1	df2	Sig.
.309	2	114	.735

ANOVA

Total Need for Autonomy					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.731	2	.365	.204	.816
Within Groups	204.192	114	1.791		
Total	204.923	116			

Multiple Comparisons

Dependent Variable: Total Need for Autonomy						
Tukey HSD						
Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
18-35	36-51	-.175	.278	.804	-.84	.49
	52-70	-.062	.341	.982	-.87	.75
36-51	18-35	.175	.278	.804	-.49	.84
	52-70	.113	.332	.938	-.68	.90
52-70	18-35	.062	.341	.982	-.75	.87
	36-51	-.113	.332	.938	-.90	.68

Total Creative Tendency vs. Generations

Descriptives

Total Creative Tendency								
				95% Confidence Interval for Mean				
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
18-35	43	6.77	2.114	.322	6.12	7.42	3	10
36-51	50	6.16	1.845	.261	5.64	6.68	2	10
52-70	24	5.88	2.092	.427	4.99	6.76	3	9
Total	117	6.32	2.012	.186	5.96	6.69	2	10

Test of Homogeneity of Variances

Total Creative Tendency			
Levene Statistic	df1	df2	Sig.
1.062	2	114	.349

ANOVA

Total Creative Tendency					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.639	2	7.319	1.834	.164
Within Groups	455.019	114	3.991		
Total	469.658	116			

Multiple Comparisons

Dependent Variable: Total Creative Tendency						
Tukey HSD						
Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
18-35	36-51	.607	.416	.313	-.38	1.59
	52-70	.892	.509	.190	-.32	2.10
36-51	18-35	-.607	.416	.313	-1.59	.38
	52-70	.285	.496	.834	-.89	1.46
52-70	18-35	-.892	.509	.190	-2.10	.32
	36-51	-.285	.496	.834	-1.46	.89

*Total Locus of Control vs. Generations**Descriptives*

Total Locus of Control								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-35	43	8.74	1.157	.176	8.39	9.10	5	11
36-51	50	8.96	1.442	.204	8.55	9.37	2	11
52-70	24	9.00	1.063	.217	8.55	9.45	6	10
Total	117	8.89	1.265	.117	8.66	9.12	2	11

Test of Homogeneity of Variances

Total Locus of Control			
Levene Statistic	df1	df2	Sig.
.215	2	114	.807

ANOVA

Total Locus of Control					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.450	2	.725	.449	.640
Within Groups	184.106	114	1.615		
Total	185.556	116			

Multiple Comparisons

Dependent Variable: Total Locus of Control

Tukey HSD

Mean Difference					95% Confidence Interval	
Age	(J) Age	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
18-35	36-51	-.216	.264	.694	-.84	.41
	52-70	-.256	.324	.710	-1.02	.51
36-51	18-35	.216	.264	.694	-.41	.84
	52-70	-.040	.316	.991	-.79	.71
52-70	18-35	.256	.324	.710	-.51	1.02
	36-51	.040	.316	.991	-.71	.79