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A Model of Women Entrepreneurs' Well-being

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A MODEL OF WOMEN ENTREPRENEURS’ WELL-BEING

by

Dianne Murphy

A Dissertation Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy
in Management Science

at
The University of Wisconsin-Milwaukee

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ABSTRACT

A MODEL OF WOMEN ENTREPRENEURS’ WELL-BEING

by

Dianne D. Murphy

The University of Wisconsin-Milwaukee, 2017
Under the Supervision of Professors Margaret A. Shaffer and Satish Nambisan

There has been a recent surge in the growth of women entrepreneurs and particularly minority women entrepreneurs in the United States. Women owned businesses play a key role in the United States economy – they are almost 10 million in number and represent over 35% of the total number of firms (U.S. Census, 2012). As the role of women entrepreneurs, and particularly, minority women entrepreneurs, in the U.S. grows, the need to understand this group becomes ever more important. Traditionally, the entrepreneurship literature has assumed the masculine perspective, with much of the foundational theories built upon research based on male entrepreneurs (Ahl, 2006). In an effort to counter this bias, research on women entrepreneurs began to appear in the entrepreneurship literature approximately thirty years ago and has flourished in recent decades (Jennings & Brush, 2013). This study contributes to this growing women’s entrepreneurship literature.

In this study, I develop and test a model of the influence of perceived ethnic discrimination on women entrepreneurs’ well-being, which is conceptualized in terms of authenticity at work (authentic living, self-alienation, and social influence), entrepreneurial work engagement (attention and absorption), and work-life balance. This model is grounded in self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2002), which suggests the satisfaction of three basic psychological needs (autonomy, competence, and relatedness).
contributes to well-being and mediates the effect of perceived ethnic discrimination on well-being. Additionally, I consider two research questions by applying social identity theory (Tajfel & Turner, 2001) and rejection sensitivity theory (Downey & Feldman, 1996) to explore the interactions of ethnic identity on the relationship between perceived ethnic discrimination and needs satisfaction and to examine model differences across ethnic/racial groups.

Data was collected using a multi-wave online survey administered through a B2B self-employed Qualtrics online panel that targeted full-time women entrepreneurs across various races/ethnicities in the United States. The race/ethnicity of the sample consisted of 46.5% (n=60) from the majority, or White race and 53.5% (n=69) were from the minority racial/ethnic groups, which included 24.0% (n=31) Black or African American, 19.4% (n=25) Hispanic or Latina, 4.7% or (n=16) Asian, and 5.4% (n=7) American Indian or Native American. Regression analyses were conducted using IBM SPSS24 and the PROCESS macro (Hayes, 2013) to assess the hypotheses and to answer the research questions.

The key findings of this study include significant relationships between the satisfaction of the need for competence across almost all of the measures of well-being (authenticity at work: authentic living and self-alienation; entrepreneurial work engagement: attention and absorption; and work-family balance) with the exception of authenticity’s social influence. Next, there were significant relationships between the satisfaction of the need for autonomy and authenticity at work (self-alienation and social influence). Additionally, strong ethnic identity was found to buffer the pernicious effects of perceived ethnic discrimination on needs satisfaction. Support was not found for the relationship between perceived ethnic discrimination and needs
satisfaction, the mediating role of needs satisfaction between perceived ethnic discrimination and the well-being outcomes, nor any significant differences across racial/ethnic groups.

Theoretically, this study advances SDT in several ways. First, the study offers further understanding of how the satisfaction of the basic psychological needs contributes to well-being in the particular context of women entrepreneurs. Second, it sheds light on the differing roles that each need plays in this context, with the satisfaction of the need for competence playing a primary role, and autonomy playing a secondary role. Third, the lack of relationship between perceived ethnic discrimination and needs satisfaction implies support of the developing arguments for the independent role of needs frustration in the contexts of needs thwarting antecedent variables. Additionally, in the debate of the role of ethnic identity as a buffer or an exacerbator in situations of discrimination on various outcomes, this study provides evidence for ethnic identity playing not only a buffering role for the satisfaction of the need for competence, but also an enhancing role for the satisfaction of the need for relatedness on the relationship between perceived ethnic discrimination and needs satisfaction.

This study’s benefits extend to practical applications as the study results can be applied to programs to promote the well-being of women entrepreneurs. For example, programs to support women entrepreneurs can be beneficial by providing additional means by which women can meet their needs for competence and autonomy in particular. The role of ethnic identity as a buffering (competence) and enhancing (relatedness) mechanism against perceived ethnic discrimination can become part of the discussions for women entrepreneurs. Educating these women about the theory and research on ethnic identity can help them make more informed decisions about their individual identity development.
To

my parents,

my husband,

my family,

and my “study buddies” Peanut and Junior.

Dad and Junior, although you departed this world during my journey, you are both in my heart and soul as I cross this finish line!
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Chapter 1: Introduction

Women entrepreneurs differ from men entrepreneurs in many regards. For example, studies of women moving from organizations to entrepreneurship are motivated by push factors such as the lack of lifestyle balance, lack of challenging positions, lack of fair evaluations, lack of being credited with competence, lack of rewards for success, and limited exposure to mentors and upper echelons of women role models (Heilman & Chen, 2003). Encountering ‘glass ceilings’ and ‘glass walls’ serve to motivate women to leave their corporate careers to venture out in the world of entrepreneurship (Aspaas, 2004; Boyd, 2000a; Gundry, Ben-Yoseph, & Posig, 2002; Mattis, 2004; Moore et al., 1992). However, the move to entrepreneurship does not eliminate women’s experiences of bias. Gender bias has been perceived in the denial of loan applications by loan officers (Bellucci, Borisov, Zazzaro, 2010; Blake, 2006; Buttner & Rosen, 1992; Carter, Shaw, Lam & Wilson, 2007; Coleman, 2007; Eddleston, Ladge, Mitteness, & Balachandra, 2016; Haines, Orser, & Riding, 1999; Mitchell & Pearce, 2005; Robinson & Finley, 2007) and this biased finding was particularly evident for minority women entrepreneurs (Harvey, 2005; Robinson, Blockson, & Robinson, 2007; Verheul & Thurik, 2001). This bias has been referred to as “the second glass ceiling” as it “is a gender bias that obstructs women-owned small firms from accessing the financial capital required to start new firms and fuel the growth of existing firms” (Bosse & Taylor, 2012, p. 52). These biases are demonstrative of just a couple of the factors that make the experiences of women entrepreneurs different from that of men entrepreneurs. It is, therefore, important to study women entrepreneurs to further our understanding of their experiences.
Yet, it is not simply enough just to focus studies on women entrepreneurs; more research needs to include studies on the differences across ethnic groups of women entrepreneurs. In an effort to paint a more representative picture of the entrepreneurship field, there has been a recent surge in the study of women entrepreneurs, but there is still a dearth of research about minority women entrepreneurs (Mattis, 2004). As the workforce demographics continue to change and expand on dimensions of diversity to a more multicultural landscape, it is no surprise that we are seeing enormous growth in the numbers of women entrepreneurs, and particularly in the numbers of minority women entrepreneurs (U.S. Census, 1997, 2012). Minorities have traditionally faced higher barriers in their efforts toward entrepreneurship (Bates, 2011) and women minorities find themselves in a “double bind” situation where they face the barriers related to gender and race in combination, creating double challenges for many women minority entrepreneurs (Mora & Dávila, 2014). There are multiple calls for research on diversity in entrepreneurship (Baucus & Human, 1994; Beggs, Doolittle, & Garsombke, 1994), and in particular, calls for the study of minority women (England, Christopher, & Reid, 1999; Moore, 1990, 2000; Inman, 2000). This study answers these calls by focusing on women entrepreneurs in general, and in particular, women entrepreneurs from various racial/ethnic backgrounds focusing on the effects of their levels of perceived ethnic discrimination and interaction effects of levels of ethnic identity on subsequent well-being, mediated by the satisfaction of three basic psychological needs, including autonomy, competence and relatedness.

This study is grounded in Self-Determination Theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2002) which posits that “all individuals have natural, innate, and constructive tendencies to develop an ever more elaborated and unified sense of self” (Ryan & Deci, 2002, p. 5) and
individuals are constantly striving to fulfill three basic psychological needs: autonomy (operating on your own volition), competence (knowledge and skills which allow you to be effective in your area) and relatedness (feeling of belonging and connectedness to others). SDT maintains that this tendency can be either supported or thwarted by social environmental conditions; social environments that foster the satisfaction of basic psychological needs are predicted to support healthy functioning and those that thwart or block need satisfaction are predicted to be detrimental to healthy functioning (Ryan & Deci, 2002, p. 6). In this study, I propose that perceived ethnic discrimination will thwart needs satisfaction in a diverse group of women entrepreneurs, and ultimately affect well-being. It is important to understand how much the pernicious effects of discrimination may affect specifically the achievement of needs satisfaction and ultimately the well-being of an ethnically diverse group of women entrepreneurs.

James (2012) proposes that scholars take an alternative view as to how they study women entrepreneurs. James (2012) suggests that scholars search for the factors that contribute to the flourishing and optimal functioning of women entrepreneurs. Therefore, in this dissertation, my outcome in general is well-being, and I conceptualize well-being in terms of three indicators that are especially relevant to women entrepreneurs: authenticity, entrepreneurial work engagement, and work-life balance.

The first well-being outcome is authenticity. The scholarly interest in authenticity (e.g., being true to oneself) is on the rise, as there has been a recent surge in the number of authenticity concepts developed (State Authenticity, Trait Authenticity, Authentic Leadership, Authentic Careers, etc.) that have emerged in the management literature in recent decades and a growing amount of empirical research has been published on authenticity (e.g., Metin, Taris, Peeters, van
Beek, & van den Bosch, 2016; Milyavskaya, Nadolny, & Koestner, 2015; van den Bosch & Taris, 2014a). Moreover, authenticity is considered by contemporary counseling approaches to be a core dimension of well-being and healthy functioning (May, 1981; Rogers, 1961; Wood, Linley, Maltby, Baliousis & Joseph, 2008).

Another well-being outcome included in this study is entrepreneurial work engagement which is very relevant to women entrepreneurs. Work engagement has been linked to many positive behavioral outcomes including performance: such as increased task performance and exhibition of organizational citizenship behaviors (Rich, LePine, & Crawford, 2010), enhanced overall performance (Bakker & Demerouti, 2008; Schaufeli & Salanova, 2007), business unit performance (Harter, Schmidt, & Hayes, 2002) and customer-related performance (Salanova, Agut, & Peiro, 2005). Also, work engagement has been linked to increased in-role (Schaufeli, Taris, & Bakker, 2006) and extra-role behaviors (Macey & Schnieder, 2008; Bakker, Demerouti, & Verbeke, 2004). Engaged employees report higher levels of job satisfaction, report being more committed to the organization and report having good health (Schaufeli, Taris, & van Rhenen, 2008). There is also a downside to too much work engagement which involves burnout and workaholism (Rothbard & Patil, 2012).

Lastly, the third and final well-being outcome in the study is work-family balance. The effective balance of work and life/family has been shown to be a common motivation among many women entrepreneurs (Brush, 1990; Chaganti, 1986; Collins-Dodd, Gordon, & Smart, 2004; Cromie & Hayes, 1988; DeMartino & Barbato, 2003; Goffee & Scase, 1985; Holmquist & Sundin, 1988; Hughes, 2005; Kaplan, 1988; Parasuraman & Simmers, 2001; Scott, 1986). The majority of evidence for women’s success at achieving work-family balance shows them still
struggling (Green & Cohen, 1995; Jurik, 1998; Kim & Ling, 2001; Kirkwood & Tootell, 2008; Longstreth, Stafford, & Maudin, 1987; Loscocco, Robinson, Hall, & Allen, 1991; Neider, 1987; Shelton, 2006; Ufuk & Ozgen, 2001; Winn, 2004). However, more recently, some studies produced more hopeful results (Eddleston & Powell, 2012; Powell & Eddleston, 2013).

The purpose of this dissertation is to better understand what contributes to these well-being outcomes that are particularly relevant to women entrepreneurs: authenticity, entrepreneurial work engagement, and work family balance. To this end, I develop and test a model of women entrepreneurs’ well-being based upon the tenets of SDT (Ryan and Deci, 2017). I first consider the effects of perceived ethnic discrimination on the satisfaction of the basic psychological needs of autonomy, competence, and relatedness. Next, I assess the effects of these needs on the well-being of women entrepreneurs, as well as the role of needs satisfaction as a mediator in the relationship between perceived ethnic discrimination and well-being. Finally, I explore research questions about 1) how ethnic identity and perceived ethnic discrimination interact to affect needs satisfaction and 2) whether or not minority racial/ethnic group status matters in these relationships.

The present study contributes to the entrepreneurship literature in several ways. It advances our understanding of women entrepreneurs by applying the SDT (Ryan & Deci, 2017) lens to a model of their well-being. By exploring the constructs of perceived ethnic discrimination, ethnic identity and minority racial/ethnic status, the study advances knowledge of these understudied constructs in the entrepreneurship literature. Theoretically, this study contributes to our understanding of women entrepreneurs through the exploration of the role of perceived ethnic discrimination on the satisfaction of needs and subsequent well-being including
authenticity at work, entrepreneurial work engagement and work-life balance. To my knowledge, this is the first study to bring these components together and the first study to do this in the context of women entrepreneurs.

This study’s benefits extend to practical applications in that the study results offer an understanding of optimum functioning of women entrepreneurs through needs satisfaction. It is valuable for practitioners to have an understanding of the antecedents and outcomes of needs satisfaction as they can incorporate these variables into their programs that foster well-being in women entrepreneurs. For example, programs can be checked against the measure of how much they promote the satisfaction of the three basic needs for the women entrepreneurs. Additionally, further understanding of how ethnic identity affects discrimination and needs satisfaction can help practitioners in incorporating programs that address the challenges encountered by these identities in women entrepreneurs, and in the future, building programs that inform women entrepreneurs of possible strategies for dealing with some of the identity issues they may encounter.

This dissertation is structured in the traditional chapter format beginning with this introduction (Chapter 1), moving to a literature review (Chapter 2), followed by the presentation of the hypotheses and theoretical support (Chapter 3), presenting the research methods (Chapter 4) and results (Chapter 5), and concluding with the discussion (Chapter 6). The references for the citations throughout the manuscript, the appendices and the author’s curriculum vitae follow after the last chapter.
Chapter 2: Literature Review

Chapter 2 of this dissertation presents a review of the literature of women entrepreneurs across ethnic/racial groups. The purpose of this review is to describe the evolution of women entrepreneurs in the U.S. over a 15 year time span and to identify and summarize the general trends and key findings of the US research about ethnic/racial groups of women entrepreneurs. This review will seek answers to the following questions: What do these studies, taken altogether, tell us about the differences among women entrepreneurs from different ethnicity/racial backgrounds (i.e., cross culturally)? Are there any trends in these findings? Are there any research gaps? Are there any methodological shortcomings?

The databases used included EBSCO, ABI/Inform, Google Scholar, and additions from the readings reference lists, etc. The search terms included “minority” and “women” or “female” and “entrepreneurs” or “small business owners”. The literature search includes scholarly peer-reviewed journals, relevant reports and relevant book chapters. The scope of this review is on the United States because the unique challenges facing women business owners of various ethnic/racial groups in entrepreneurship, are relative to “specific social, political, historical, economic contexts, and these contexts differ from one nation to the next” (Bates, 2011, p. 159). Therefore, it is best to begin my research in this area with a focus on the United States and expand my future studies to other national realms.

This literature review opens with some key definitions, and subsequently, moves into some statistics and report summaries from the latest key data sources on women entrepreneurs. The review then focuses on an overview of the key concepts from research on women
entrepreneurs related to the four key categories of 1) the individual woman entrepreneur, 2) the woman’s entrepreneurial firm, 3) the woman’s entrepreneurial process and 4) the contextual influences. Subsequently, the research on each major ethnic group is presented with a discussion of the common theories used in the research of women and particularly African American, Asian and Hispanic women entrepreneurs. Then, a discussion of the methods used in this research will be presented. Finally, the review concludes with a critique of the literature which identifies the gaps.

**Definitions**

*Entrepreneur*

Heilman and Chen (2003) define an entrepreneur as “someone who has initiated a business, is actively involved in managing it, and owns at least 50% of the firm” (p. 349). The definition of ‘entrepreneur’ varies depending on the research study, but the definition stated is a common one.

There are other definitions of the types of entrepreneurs that should be defined early in this manuscript. Many studies involve ‘nascent’ entrepreneurs, which can vary in definition. Sometimes ‘nascent’ entrepreneurs refer to those individuals who are in the process of starting a company, but have not officially started it yet; while other times ‘nascent’ entrepreneurs refer to those individuals who are in the early stages of their business. Another common set of terms used in entrepreneurship research include ‘nascent’ in comparison to ‘latent’ entrepreneurs. ‘Nascent’ entrepreneurs are defined as those individuals who are taking “steps to start a new
business” and ‘latent’ entrepreneurs are defined as those individuals who have a “preference for being self-employed” (Bönte & Piegler, 2013, p. 961-962).

Additionally, scholars who study women entrepreneurs make a distinction between ‘traditional’ vs. ‘modern’ entrepreneurs (Moore, 1990; Moore, Buttner, & Rosen, 1992), with ‘traditionals’ defined as “those with little education or training [who] most often have turned to self-employment because it is their best chance for achieving career and social mobility” and new ‘modern’ entrepreneurs defined as those by which “self-employment often comes after a stint as an employee in a corporation where they attain skills and experience and build key contacts that help them launch their entrepreneurial ventures” (Heilman & Chen, 2003, p. 349). Table 9 in Appendix A provides a listing of these and some other of the key definitions for comparison.

**Minority**

In this dissertation, the term ‘minority’, when used as a descriptor, refers to those who are not classified as White, and could mean any person who is classified as Black, Hispanic, Asian or other non-White race.

**Hispanic and Latina/Latino**

Additionally, clarification of other race terms is necessary, especially in relation to the interchangeable use of the terms Hispanic and Latina/Latino business owners. These terms refer
to the same group of people who are defined as individuals of “Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin” (Smith-Hunter, 2006, p. 103).

**Ethnic Entrepreneurship**

There is a stream of research on ‘ethnic entrepreneurship’ with is both unique and overlaps with minority entrepreneurship research. Ethnic entrepreneurship literature focuses on particular ethnic groups, either indigenous or immigrant, and use entrepreneurship as a means for establishing or maintaining their livelihood. Ethnic entrepreneurship has been defined as entrepreneurs operating with “a set of connections and regular patterns of interaction among people sharing common national background or migration experiences” (Waldinger, Aldrich, & Ward, 1990, p. 3).

**Statistics**

**U.S. Census Women Business Owner Statistics**

The following section of data is sourced from the most recent U.S. Census report for 2012 just released in December 2015; therefore, it represents the most recent account of these statistics. Majority women owned businesses play a key role in the United States economy – they are almost 10 million in number and represent over 35% of the total number of firms, according to the recently released (December, 2015) U.S. Census Bureau’s 2012 Survey of Business Owners (U.S. Census, 2012), and are defined as those businesses with female
ownership of \textit{51\% or more}. These staggering numbers reflect an enormous 82\% increase in 15 years (1997 through to 2012) in the number of women-owned firms in the U.S., compared to the national average of 33\% growth in the number of businesses for the same time frame (U.S. Census, 1997, 2012). If the amount of equal ownership firms (50\% female/50\% male ownership) are included, then the women-owned businesses, defined as those with \textit{50\% or more} female ownership, come close to representing almost \textit{45\% of firms} in the United States, or over 12.3 million (U.S. Census, 2012). See Table 10 in Appendix A.

Although the growth in the number of women-owned businesses in the U.S. is significant, the \textit{revenues} generated by the women–owned firms ($1.4 billion) is only a small portion of the total business revenues (4.2\%) (U.S. Census, 2012). These numbers reflect a 15-year (1997-2012) growth rate of 73.4\% for women-owned business revenues, which is slightly lower than the national average revenue growth rate of 80.8\%, but much higher than the male-owned business revenue growth rate of 42.7\% for the same 15-year time frame from 1997-2012 (U.S. Census, 1997, 2012). See Table 11 in Appendix A.

When it comes to the \textit{number of people employed}, women-owned businesses are growing faster than the national average and faster than male-owned businesses. According to the U.S. Census Bureau’s Survey of Business Owners (U.S. Census, 2012), women-owned businesses employ 8.4 million workers, which represent 7.3\% of the national total. These numbers reflect a 19\% increase (1.4 million increase) in 15 years (1997 through to 2012) in the number of paid employees in women-owned firms in the U.S., compared to the national average of 11.5\% growth in the number of paid employees for the same time frame (U.S. Census, 1997, 2012). During this same time frame (1997-2012), male owned businesses actually employed less workers, a decrease of 5.5\% or a loss of 2.4 million paid positions. See Table 12 in Appendix A.
In sum, the number of women owned firms represent 35.5% of all firms and have a 15-year growth rate (82%) that is highest of all the measured groups (50/50 ownership, male owned firms, or publicly held firms); their revenues also have a strong 15-year growth rate (73.8%), but only represent a very small portion of the revenue pie (4.2%); additionally, they have added 1.4 million paid positions in the 15-year time frame from 1997-2012, a growth rate of 19.2%, exceeding the equally owned (-21.6%) and the male owned (-5.5%) groups which declined by 4.2 million paid positions during that time frame.

Female Business Owner Data by Ethnicity

A further exploration of the U.S. Census Bureau’s Survey of Business Owners (U.S. Census, 1997, 2002, 2007, 2012) reveals some striking 15-year growth trends regarding the ethnic groups of women business owners, with some growth rates reaching close to 400%! At the highest, the number of African American female owned firms grew by \(386.3\%\) from 1997 to 2012, representing an additional 1.2 million firms owned by African American females; next highest, the number of Hispanic female owned firms grew by \(335.3\%\) from 1997-2012, signifying an additional 1.1 million firms owned by Hispanic females; following, the number of Native Hawaiian and Other Pacific Islander female owned firms grew by \(333.4\%\) from 1997 to 2012, adding 19,2018 firms owned by Native Hawaiian and Other Pacific Islander females; and lastly, Asian female owned firms grew by \(209.3\%\) from 1997 to 2012, representing an additional \(\frac{1}{2}\) million firms owned by Asian females. In comparison, from 1997 to 2012, the national average growth rate of all firms was merely 32.7% and 82.4% for female owned firms, while
White female owned firms grew by only 59.5%, adding 2.7 million firms owned by White females. See Table 13 in Appendix A.

The growth in the *revenues* for the various female ethnic business owner groups for the 15-years of 1997 to 2012 are not quite as high as the growth in the number of firms, as they are more around the 150-250% range, but are still higher than the national average 15-year growth rate in revenues for all firms (80.8%) and also for female owned firms (73.4%). Specifically, the revenues for Asian female owned firms grew by 262.9% from 1997 to 2012, representing an additional $98 million dollars; next, the revenues for African American female owned firms grew by 211.6% from 1997-2012, signifying an additional $29 million dollars; the revenues for Hispanic female owned firms grew by 188.0% from 1997 to 2012, contributing an additional $51 million dollars; and lastly, the revenues for Native Hawaiian and Other Pacific Islander female owned firms grew by 164.8% from 1997 to 2012, adding an additional $1.1 million dollars to the U.S. economy. The revenue growth for White female owned firms during this same time frame (1997-2012) is not as high as the African American, Asian and Hispanic groups, coming in at 66.8%, but still contributing an additional $489 million to the U.S. economy. See Table 14 in Appendix A.

In regards to the *number of paid employees*, minority women-owned businesses (19.5%) out grew the national average (11.5%), the female owned businesses in total (19.2%) and the male-owned businesses (-5.5%) for the time from 1997 to 2012! According to the 2012 U.S. Census Bureau’s Survey of Business Owners (U.S. Census, 2012), minority women-owned businesses employ 1.6 million workers, which represent 19.5% of the national total of women-owned businesses. The growth in the number of paid employees for the various female ethnic business owner groups for the 15-years of 1997 to 2012 are not quite as high as the previous
reported growth in the number of firms and revenues, as the growth in the number of employees run from -25.8% up to 161.7%, nevertheless, they are still substantial levels of growth in comparison to other groups. For example, the number of paid employees for Asian female owned firms grew by 161.7% from 1997 to 2012, representing an additional 1/2 million employees; next, the number of paid employees for Hispanic female owned firms grew by 100.7% from 1997-2012, signifying an additional 236,135 employees; the number of paid employees for African American female owned firms grew by 87.5% from 1997 to 2012, contributing an additional 147,939 employees; and lastly, the number of paid employees for Native Hawaiian and Other Pacific Islander female owned firms grew by 84.9% from 1997 to 2012, adding 5,374 employees. The number of paid employee growth for White female owned firms during this same time frame (1997-2012) is not as high as the minority groups, coming in at 14.6%, but still contributing an additional 916,904 employees. The decline in the number of paid employees for the American Indian and Alaska Native female business owners from 1997 to 2012 is something to note, as it was a decline of 25.8% and a loss of 19,103 paid employees-this loss occurred primarily between 1997 and 2002. See Table 15 in Appendix A.

Summary-Female by Ethnicity

In sum, this data demonstrates the higher growth trends for minority female business owners in the United States-particularly the enormously high growth trends in the number of firms for female African American, Hispanic, Asian, and Native Hawaiian and Pacific Islanders. The growth trends for both the revenues and the number of paid employees are equally noteworthy for minority female business owners. This data helps to substantiate the need to
further understand these growing groups of entrepreneurs. *Why* are we seeing these high growth rates in the number of female minority owned businesses? White females are not demonstrating the high levels of growth indicative of the minority female business owners, but they are nevertheless still out growing the national averages for number of firms and paid employees and outgrowing the group of men business owners for number of firms, revenues, and paid employees.

*General Comparisons from KEY Reports*

Kogut, Luse and Short (2014) present a key study of minority women entrepreneurs that analyzes the gender and racial minority differences among U.S. sole owner entrepreneurs whose primary income source was their business. This study is based upon the 2012 release of the U.S. Census Bureau Public Use Microdata Sample (PUMS), which is created from the 2007 Survey of Business Owners. The 2012 PUMS file yielded a total of 432,638 sole owning, primary income entrepreneurs, of which 125,066 (or 28.9%) were female.

The portion of female entrepreneurs who are minority is higher as compared to their male counterparts (about 14.1% compared to 10.0% of males). More specifically, of the female entrepreneurs, 85.9% were White (n=107,422), 7.6% were Asian (n=9,455), 5.4% were Black (n=6,788) and 1.1% were Other Minorities (n=1,381). Female entrepreneurs tended to be younger (37.9% were younger than 45, compared to 31.0% of men) and a very small percentage were veterans relative to the male entrepreneurs (1.1% female vs. 16.0% of males). Overall, female businesses tend to be smaller than male owned business with 50.8% of the female businesses reporting annual receipts of less than $50k (compared to only 24.1% of male
businesses); and only 15.7% of female businesses reporting annual receipts of more than $500k (compared to 34.1% of male businesses). The smaller size of the female firms is also reflected in the number of employees with 91.3% of female businesses reporting less than 12 employees, compared to 82.4% of male businesses.

Taking a more specific look at the minority female entrepreneurs, Black and White female entrepreneurs both report similar frequencies of Hispanic ethnicity (7.6% and 7.7%, respectively), while Asian and Other Minority female entrepreneurs are at opposite extremes, (1.9% vs. 20.7%, respectively). Distinctions regarding place of birth emerge when comparing female subgroups, as the Asian female entrepreneurs report a comparatively high proportion of birth outside the U.S. (85.3%), compared with the other subgroups (White, 88.6%; Black, 78.2%, and Other Minorities, 77.3%). Education levels also vary amongst the female entrepreneurs, with minority women reporting a higher proportion of having a high school diploma or less (Asian, 29.0%; Black, 26.4%; Other Minority, 31.7%) compared to White female entrepreneurs (21.5%). While Asian female entrepreneurs report lower levels of some college (20.8%) compared with the other groups’ percentage of reporting some college (Black, 37.4%; Other Minority, 36.0% and White, 33.5%); the Asian female entrepreneurs excel when it comes to higher education, with almost half of Asian female reporting education levels at a Bachelor’s degree or higher (49.3%), even exceeding men (47.4%). White female entrepreneurs with a Bachelor’s degree or higher were close behind (44.5%) and Black (35.5%) and Other Minority (31.4%) female entrepreneurs followed.

A look at the age of female entrepreneurs reveals differences and similarities between the groups. In general, minority female entrepreneurs are younger than non-minority female entrepreneurs. There is a higher proportion of minority female entrepreneurs under the age of 45
(Asian, 47.2%; Black, 46.5%; Other Minority, 43.3%) as compared to non-minority female entrepreneurs (White, 36.9%); conversely, there is a higher proportion of non-minority female entrepreneurs 55 years or older (30.9%) compared to the minority female entrepreneurs (Other Minority, 23.5%; Black, 23.7%; and Asian, 21.4%). The differences are minimal when comparing the proportions for the age group 45-54 years (Asian, 30.9%; Black, 29.9%; Other Minority, 33.2%; and White, 32.2%).

The types of businesses that female entrepreneurs select are similar with some nuances. Similarly, out of the 20 business sectors used in the PUMS data set, over 50% of female entrepreneurs are employed in the same four sectors (Retail Trade; Professional, Scientific, & Technical Services; Health Care & Social Assistance; and Other Services, Except Public Administration). There are some nuances between the groups, such as there is almost double the percentage of Black female entrepreneurs in the Health Care & Social Assistance sector (Black, 31.1%; compared to Other Minority, 16.0%; Asian, 14.8%; and White, 13.9%). Asian female entrepreneurs are also heavily represented relative to the other female groups in the Accommodation and Food Services sector (Asian, 8.0%; compared to Other Minority, 2.8%; White, 2.3%; and Black 1.7%) and the Retail Trade sector (Asian, 15.0%; compared to Other Minority, 12.8%; White, 10.6%; and Black 7.4%). White female entrepreneurs are more heavily represented in the Professional, Scientific, & Technical Services sector (White, 19.9%; compared to Asian, 15.2%; Other Minority, 14.6%; and Black 14.2%). Lastly, both Asian and Black female entrepreneurs were more heavily proportioned in the Other Services (Except Public Administration) sector (17.9% and 16.9%, respectively) compared to White (12.0%) and Other Minorities (10.2%).
Further regression analyses were conducted by Kogut and colleagues (2014) to determine the contribution of female entrepreneur characteristics on the performance of the firm (as measured by reported annual receipts). Kogut and colleagues reported four key findings from the regression equation. First, both variables, education (β=40.4, p<.01) and hours worked (β=55.6, p<.01) were positive and significant, indicating that the owner’s education attainment and hours of effort in managing the business are important factors in business success. Second, none of the race variables were significant (Black, Asian, Other, all n.s.), “indicating businesses owned by minority female entrepreneurs that were started within the two years prior to the survey were not doing any better or worse than those started by White females” (p. 16). Third, the owner’s place of birth and veteran status were both not significant (BornUS, Veteran, n.s.), indicating that “whether the owner was born in the United States or immigrated or whether the owner served in the military has little to no effect on how well the business succeeds” (p. 16) in terms of business receipts. Lastly, the regression equation coefficients were progressively higher and significant as the age of the firm increased (2000-2002, β=292.9, p<.01; 1990s, β=606.8, p<.001; 1980s, β=1,016.1, p<.001; and before 1980, β=2,487.2, p<.001), indicating that the “businesses not only survive, they also grow as time passes” (p. 16).

It should be noted that the key limitation of the Kogut and colleagues (2014) study is that the data, although a very large representative U.S. sample, represents only solely owned firms whose primary income is derived from the business. This qualifier is a strength of the data in that it offers a clean comparison of subgroups, but is limiting in that it eliminates from the data pool, any firms that may have multiple owners.
Key Entrepreneurship Organizations that Research/Report on Women Entrepreneurs

The Global Entrepreneurship Monitor (GEM) consortium produces annual reports on entrepreneurship for the world and nations specifically, with the most recent global report released for 2015/2016 (Kelley, Singer, & Herrington, 2016), U.S. report released for 2014 (Kelley et al., 2015) and women’s entrepreneurship special report released in 2015. These reports are particularly valuable for the insights that international and longitudinal comparisons glean from the data.

Women’s Entrepreneurship

This section reviewing women’s entrepreneurship primarily focuses on the research on women entrepreneurs that includes measures and comparisons of racial/ethnic groups, although some general studies of women entrepreneurs are included to fill in where racial/ethnic groups research is lacking. In this section, I will discuss the key constructs related to four key categories of 1) the individual woman entrepreneur, 2) the woman’s entrepreneurial firm, 3) the woman’s entrepreneurial process and 4) the contextual influences.

The Individual Woman Entrepreneur

The individual woman entrepreneur has been studied in terms of demographics, entrepreneurial-related attitudes, motivational factors and resources (financial, human and social).
Demographics

The women entrepreneurs tend to be younger than men (Coleman, 2002; Robichaud, Cachon, & McGraw, 2015) and have longer tenure in their firms (Robichaud et al.). Much of the demographic specifics have been reviewed in the data section presented earlier in this manuscript.

Entrepreneurial Related Attitudes

Entrepreneurial Propensity

The dominant perception of an entrepreneur has been shown to consist of masculine attributes (Ahl, 2006). Women entrepreneurs face these dominant stereotypes of manhood in their roles as entrepreneurs and this strong stereotype serves to discourage women from entrepreneurship (Greene, Han and Marlow, 2013). However, one way to overcome these strong societal stereotypes is to have counter-stereotypical role models. In a study that utilizes the 1970 British cohort sample, women who had self-employed mothers were found to be 2.69 times more likely to become self-employed themselves, therefore, having a role model of a self-employed mother has a positive effect on the entrepreneurial propensity of daughters (Greene et al., 2013). Although this study is not a U.S. sample, it is included because of the uniqueness of this cohort data sample and the similarity of the U.K. to the U.S.; it makes a valuable point about the importance of women role models. Additionally, Köllinger and Minniti (2006) found an inverted “U” shaped relationship between human capital (education levels) and entrepreneurial propensity. Specifically, U.S. counties that had a high amount of women with either Doctorate
or High School level diplomas correspondingly had a low ownership growth for women and U.S. counties that had a large share of women with bachelor degrees correspondingly had a higher ownership growth for women.

Motivational Factors

Traditional entrepreneurship studies “implicitly share an underlying assumption that wealth creation is a (if not the) fundamental goal of entrepreneurial efforts” (Rindova, Barry, & Ketchen, 2009, p. 477). However, many studies of women entrepreneurs repeatedly show that money is not the only motivation for women entrepreneurs.

Push and Pull Motivations

Push (necessity) and pull (choice) factors are commonly used to explain the different motivations for women to begin a business (Buttner and Moore, 1997). Push factors are “elements of necessity such as insufficient family income, dissatisfaction with a salaried job, difficulty in finding work, and a need for a flexible work schedule because of family responsibilities”. Pull factors “relate to independence, self-fulfillment, entrepreneurial drive and desire for wealth, social status and power (Ducheneaut, 1997)” (Orhan & Scott, 2001, p. 233). Heilman & Chen (2003) identify the following factors that push working women toward entrepreneurship: lack of lifestyle balance, lack of challenging positions, lack of fair evaluations, lack of being credited with competence, lack of rewards for success, and limited exposure to mentors and upper echelons of women role models.

The Glass Ceiling
There are a number of studies that point to the ‘glass ceilings’ and ‘glass walls’ as motivations for women to leave their corporate careers to venture out in the world of entrepreneurship (Aspaas, 2004; Boyd, 2000a, Gundry et al., 2002; Mattis, 2004; Moore et al., 1992).

Resources

Financial Resources

Access to financial capital has been extensively studied in regards to women entrepreneurs across racial lines (Smith-Hunter, 2013). There are numerous studies that have uncovered gender bias in external financing for women entrepreneurs. Specifically, gender bias has been perceived in the denial of loan applications by loan officers (Bellucci, Borisov, Zazzaro, 2010; Blake, 2006; Buttner & Rosen, 1992; Carter, Shaw, Lam & Wilson, 2007; Coleman, 2007; Eddleston, Ladge, Mitteness, & Balachandra, 2016; Haines, Orser, & Riding, 1999; Mitchell & Pearce, 2005; Robinson & Finley, 2007) and this biased finding was particularly evident for minority women entrepreneurs (Harvey, 2005; Robinson, Blockson, & Robinson, 2007; Verheul & Thurik, 2001). This bias has been referred to as “the second glass ceiling” as it “is a gender bias that obstructs women-owned small firms from accessing the financial capital required to start new firms and fuel the growth of existing firms” (Bosse & Taylor, 2012, p. 52). Biases have also been uncovered when women entrepreneurs seek to secure other types of loans, such as government and non-bank loans and these biases were again found to be strongly evident for African American and Hispanic women entrepreneurs (Mitchell & Pearce, 2005). In contrast, there are studies that did not find evidence of this bias in lending
(Ahl, 2006; Boyd, 2000, Hisrich & Brush, 1984, Smith-Hunter and Boyd, 2004), specifically finding no evidence of bias in regards to access to bank loans particularly when controls that commonly vary between men and women entrepreneurs are taken into account (Arenius & Autio, 2006; Eddleston et al., 2016; Orser, Riding, & Manley, 2006; Wilson, Carter, Tagg, Shaw, & Lam, 2007. Additionally, gender stereotypes were found to be evident in venture capital decisions regarding financing—women were less likely to receive venture capital funding and this difference was attributed to the gendered language and rhetoric used during the funding decisions that favored the traditional male stereotype of an entrepreneur (Malmström, Johansson, & Wincent, 2017). Recent research on one of the newest forms of funding, crowdfunding, has found gender differences in the investors (e.g. women tended to fund women led firms) and in the amount of funding success (females had greater funding success) (Marom, Robb, & Sade, 2016).

**Human Resources**

Human resources can also be called human capital and can be defined as “what someone knows, which is in turn acquired from their experiences and their education levels” (Smith-Hunter, 2013, p. 298). Women business owners traditionally have less and different prior business and managerial experience than their male counterparts (Catley and Hamilton, 1998; Lee & Rendalli, 2001; Kepler & Shane, 2007; Orser et al., 2006). The management and leadership experience that women gain in corporations can serve as a springboard into entrepreneurship (Buttner & Moore, 1997). Most women entrepreneurs in the United States have not had previous self-employment experience prior to their current business (Smith-Hunter, 2006, 2013). In regards to education levels, the groups that have attained the highest education
levels are Whites and Asian Americans (Coleman, 2002; Inman, 2000; Köllinger & Minniti, 2006; Mattis, 2004; Smith-Hunter, 2003, 2006).

Social Resources

Social resources can be also called network structures and social capital and “refer to the connections a person has (in this case, a business owner) to others, how strong these connections are and how much assistance these connections provide in assisting the business owners with their businesses” (Smith-Hunter, 2013, p. 297-8). Women entrepreneurs have been shown to have generally weaker network structures than men entrepreneurs (Gundry et al., 2002; Ibarra, 1993; Yetim, 2008). Ibarra’s (1993) conceptual framework on women and minority personal networks demonstrates how situational factors accumulate over time to contribute to weaker network structures for women and minorities, as compared to White men.

Some comparative studies of women entrepreneurs across racial lines found that White women entrepreneurs tend to maximize their network structures more than the other racial groups of women entrepreneurs (Inman, 2000; Smith-Hunter, 2003, 2006). African American women entrepreneurs utilize the more informal family and friend’s part of their networks, as opposed to formal network structures, such as government agencies and financial institutions (Aspaas, 2004; Robinson et al., 2007; Harvey 2005; Yetim, 2008). Additionally, African American women entrepreneurs also used their family as unpaid labor (Aspaas, 2002; Inman, 2000; Smith-Hunter and Boyd, 2004). Some women ethnic groups have been shown to use their ethnic networks to enhance their business (Dyer & Ross, 2008; Köllinger and Minniti, 2006; Rhodes & Butler, 2004; Singh & Crump, 2007).
The Woman’s Entrepreneurial Firm

The woman’s entrepreneurial firm has been studied in terms of start-up and entry and performance.

Business Start-Up/Entry

White women are more likely than non-White women to enter into self-employment (Harvey, 2005; Lee and Rendalli, 2001; Smith-Hunter, 2003, 2006). This disparity has been ascribed to less access to financial capital (Lee & Rendalli, 2001; Harvey, 2005) and lower levels of human capital, less training, and weaker networks (Smith-Hunter, 2003; 2006).

Business Performance

Survival/Turnover

Business turnover can also be referred to as ‘dissolution’. It is important to distinguish between firm dissolution and firm failure, as the two terms are not synonymous. Firms can dissolve for a number of reasons, both positive and negative. Firm ‘failure’ has been considered by Dun and Bradstreet Corporation as “a business closure resulting in a loss to the business’ owner(s) and/or creditor(s)”, for example, the case of bankruptcy (Boden & Headd, 2002, p. 62). Firm ‘dissolution’ captures a broader spectrum (including failure) and can include the closure of successful firms for various reasons. In a study comparing race and gender ownership differences of business dissolution for new firms that started in 1992, as measured through to 1996, economists Boden and Headd (2002) conducted proportional hazard modeling to
determine the differences in dissolution and to identify the key contributing factors to dissolution. The survival rates in the four year time span for the business owners by group were as follows: all groups, 47.0%; White non-Hispanic, 48.7%; Black, 34.7%; and Asians, 50.4%. Among these groups, gender of the owner mattered for some, as women-owned businesses had a 7.7% (White non-Hispanic-owned) and 8.6% (Asian-owned) greater hazards of dissolution; however, gender was not a factor for Black-owned or White Hispanic-owned businesses.

The data set referred to above originated from the dissertation of another economist, Alicia Robb (Robb, 2000) and was published in 2002. Robb (2002) offers a more detailed analysis than Boden and Headd (2002) of survival rates of the 44,707 firms by intersecting gender and race and adding controls into some of the analyses. Female firm survival was higher than males for Asian and Black women owners; but lower than males for Hispanic and White women owners. Specifically, Asian female owned businesses had the highest survival rates at 52.5%, followed by Asian male businesses at 52.2%; next, White male owned businesses survived at 49.3%, with White female owned firms following at 47.3%; subsequently, Hispanic-male owned firms survived at a rate of 45.4, followed by Hispanic female owned firms at 39.8%; and lastly, female Black-owned firms survived better than male Black owned firms with survival rates at 36.9%, and 33.8%, respectively. Other key findings worth noting are that smaller firms (vs. larger firms), single unit (vs. multiple locations) and sole proprietorships (vs. partnerships and S corporations) were more likely to close.

The rates are similar when firm characteristics are held constant (size, industry, legal form, organizational form, and location). Using the comparison group of White male-owned businesses, the percentages of more likely to close for the other groups are: 51% for Black male-owned businesses; 38% for Black female-owned businesses; 11% for Hispanic male-owned
businesses; 23% for Hispanic female-owned businesses. However, the Asian businesses were less likely to close than the White male-owned businesses, with Asian male-owned businesses 14% less likely to close and Asian female-owned businesses were 16% less likely to close. For both Blacks and Asians, the women-owned businesses were less likely to close than the male-owned businesses.

**Growth**

Overall, women tend to operate smaller size firms than men (Fairlie and Robb, 2009; Mattis, 2004). Some research has shown that women have unique growth intentions for their firms, and growth is not always driven by profitability concerns (Manolova, Brush, Edelman & Shaver, 2012).

**Success**

Some researchers have observed a “double bottom line” outcome in some women entrepreneurs by which they measure their success including factors such as their independence and autonomy in the decision making process of their work (Clark & James, 1992). Manolova, Brush, Edelman, & Shaver (2012) study confirmed that men focused on financial success of their firms, and women focused on multiple measures of success including “a desire for self-realization, recognition, innovation and financial success” (p. 21). Manolova and colleagues (2012) argue that this multiple goal–setting by women may indeed push them to achieve more in their firms.
**Industry**

Women’s businesses are over-represented in the service industries, for example, retail and personal services such as health and beauty (Fuller-Love, Lim, & Akehurst, 2006; Smith-Hunter, 2013); and under-represented in the manufacturing, extraction, and business services industries (Jennings & Brush, 2013). The services and retail industries have lower rates of return and, therefore, are less financially successful than other industries that males dominate such as engineering, mining and manufacturing. This selection of women entrepreneurs into these low margin industries is partially a result of the women “drawing on their previously acquired, stereotypically female-job roles/work” (Smith-Hunter, 2013, p. 301).

**The Woman’s Entrepreneurial Process**

*Management Styles*

There are mixed findings regarding the difference in managerial styles of men and women entrepreneurs. Some research and theory has shown women and men entrepreneurs to have different managerial styles (Chaganti, 1986; Jennings & McDougald, 2007; Robinson, 2001). Chaganti (1986) concluded that women entrepreneurs tend to resemble male entrepreneurs on most strategic elements, but the managerial styles in particular tended to be more feminine for women. Jennings and McDougald (2007) present a theoretical comprehensive model of how the demands of work and family factor differently for men and women and how their responses are different. Buttner (2001) found that women use a relational style with their clients and staff (p. 253). This relational style includes ‘preserving’ - behavior that is
“characterized by a focus on task through nurturing, protecting, and safeguarding”; ‘mutual empowering’ - behavior that is “characterized by a focus on contributing to the development of another person, e.g. a subordinate or client”; ‘achieving’ – behavior that is “characterized by using relational skills to enhance her own professional growth and effectiveness”; and ‘creating team’ – behavior that is “characterized by a focus on creating the sense of a team” (Buttner, 2001, p. 259). Additionally, Robinson (2001) found that the management style of the rural women entrepreneurs was linked to their motives for business entry, and they managed with concern over their employee relationships and with a focus on minimizing interpersonal conflict in their business culture. On the other hand, there is other large scale research that indicates there are not any substantial differences in regards to managerial style (Chaganti & Parasuraman, 1996; Cliff, Langton, & Aldrich, 2005).

Empowerment

Across the many literatures on empowerment, there is general consensus that empowerment is a process (Carr, 2003; East, 2000; Kabeer, 2005); not simply a goal (Akhter and Ward, 2009). Empowerment is a concept that is applicable to groups who lack power (GlenMaye, 1998; Townsend, 1999) “through marginalization, social exclusion, discrimination and/or social inequality” (Al-Dajani & Marlow, 2013, p. 506). Empowerment also requires that the empowered serve as agents of change in the process (Mehra, 1997). In building their definition of women’s empowerment in the context of entrepreneurship, Al-Dajani and Marlow (2013) extend the linear empowerment definition of process and agency to that of a continuous cycle, one where the woman finds herself affecting social change.
**Contextual Influences**

**Barriers Faced by Women Entrepreneurs**

Heilman and Chen (2003) discuss several potential issues faced by women and minorities as entrepreneurs. First, women and minority entrepreneurs could have difficulty establishing a client base in the face of biased perceptions of a lack of fit, especially in industries that are predominantly White male such as construction, manufacturing, and agriculture. Second, stereotypes about women and minorities may inhibit workers from choosing to work in their firms, putting the firms at a hiring disadvantage for the best and brightest. Third, women and minorities face further stereotyping that may affect their ability to obtain financial backing. The authors also list the reasons why modern women entrepreneurs (highly educated and professionally trained) leave the corporate world for self-employment. These include lifestyle issues, not getting placed in jobs with upward potential, unfair evaluations, competence disbelief, lack of rewards for success, and networking limitations.

**Women Entrepreneurs by Ethnic/Racial Group Overview**

**Comparisons across Racial Groups**

Evidence of the “double bind” of gender and race exists. In a study comparison of Black, Hispanic and White entrepreneurs separated by gender, the economists, Mora and Dávila (2014) used the 2007 Survey of Business Owners Public Use Microdata Sample to determine that “minority- and female-owned new firms thus had a higher risk of closing down within one year.
than those owned by non-Hispanic White men; being a female entrepreneur of color exacerbated this risk.” More specifically, “relative to their otherwise similar non-Hispanic-White-male counterparts, the likelihood of shutting down was 9.6 percentage points higher for Black women, 7.7 percentage points higher for Hispanic women, 3.7 percentage points higher for Black men, 3.0 percentage points higher for Hispanic men, and 1.8 percentage points higher for non-Hispanic White women.” (p. 248).

Women business owners vary across racial lines and should not be viewed as one homogenous group (Fielden & Davidson, 2012; Smith-Hunter & Kapp, 2009). For example, in a comparison of 125 African American, 125 Hispanic and 125 Asian women entrepreneurs operating in non-traditional industries in the U.S. such as the engineering, mining and construction fields, Smith-Hunter and Kapp (2009) found differences across racial lines. For example, the Hispanic women entrepreneurs had the largest average sales volume ($218k) compared with African American women ($190k) and Asian women ($178k), but the majority of the firms for all three racioethnic groups had sales volumes below $150k per year. All groups averaged less than 8 employees per firm. Hispanic women entrepreneurs employed the most employees on average (7.84), compared with Asian women (5.88) and African American women entrepreneurs (6.48). African American women entrepreneurs were in business the longest at an average of 18.7 years, compared with Asian women (17.0 years), and Hispanic women entrepreneurs (17.6 years). For all three racioethnic groups, the number of employees and years in business were positively correlated with sales volume.
Asian American Female Entrepreneurs

The literature search produced not one study that focused solely on Asian American female entrepreneurs. Most research on Asian female entrepreneurs stems out of the United Kingdom. The U.K. research reports that Asian women in family businesses have been found to sometimes occupy a “hidden role” in their spouse’s business ventures (Dhaliwal, 1998).

African American Female Entrepreneurs

The U.S. Census Survey of Business Owners demonstrates that African American female business owners are one of the fastest growing entrepreneurial groups in the U.S. (U.S. Census, 1997, 2012). These trends have some calling this a “second Black Renaissance” in the U.S. (Porter & Hoffman, 2016). Smith (2000) argues that the ‘double-yoke’ of sexism and racism experienced in corporate settings is a driving force behind some of this growth. The literature about African American women in entrepreneurship is sparse (Robinson et al., 2007), but there are now more frequent calls to not only study the group, but to change the paradigm. Some scholars argue that studying Black, women entrepreneurs requires a paradigmatic shift away from the functionalist paradigm of traditional entrepreneurship research (Forson, Ozbilgin, Ozturk, & Tatli, 2013; Robinson et al., 2007), “a functionalist paradigm will not be able to address the nuances found in the lived experiences of those being discriminated against” (Robinson et al., 2007, p. 142).

In a study comparing Black men and women entrepreneurs, Gibbs (2014) found that the Black men and women entrepreneurs reported equal levels of creative self-beliefs, but the men reported marginally significant higher levels of entrepreneurial self-efficacy. Additionally,
Black women entrepreneurs were more likely to have started their venture first, then searched for opportunities (24%), classified as an ‘externally-stimulated’ opportunity, compared to 11% of the Black men entrepreneurs (Gibbs, 2014). This trend has been reported by others as an issue for Black nascent entrepreneurs, as it is connected with lower revenues and performance (Singh, Knox, & Crump, 2008). The Gibbs (2014) study demonstrates how both stereotype threat theory (Steele, 1997) and middleman minority theory (Bonacich, 1973, 1980) can be applied to help explain the underperformance of Black women entrepreneurs.

**Lending Discrimination**

Education is particularly important to Black female entrepreneurs, as scholars have found evidence that Black females without a college education pay a particular higher price than non-Black females through higher loan denial rates (Gray, 2012). These denial rates are argued to be strong evidence of illegal discrimination-in violation of the Equal Credit Opportunity Act (Gray, 2012).

**Social Class/Social Stratification**

In a qualitative study of female Black hair salon owners, Harvey (2008) outlines the trajectories that these women took to move from working-class low paying, low potential jobs, to working for another salon, opening their own salon and finally experiencing an accumulation of income and wealth that moved them into the middle to upper classes. The outcomes for these female Black hair salon entrepreneurs included increased work and family balance, socioeconomic advancement and social mobility. However, salon ownership was found to dissuade the women from educational attainment, other than vocational cosmetology training.
Social stratification is defined as “the end result of institutional processes that partition society into advantaged and disadvantaged socially constructed groups” which can “include groupings by gender, race/ethnicity, wealth, and class” (Robinson et al., 2007, p. 133). Social stratification interacts with entrepreneurship in three key ways: 1) entrepreneurship is a means toward social mobility, 2) entrepreneurship can offer alternatives to the traditional labor markets, and 3) social stratification plays a key role in the entrepreneurial processes experienced by those from the lower-status positions in society (Robinson et al., 2007, p. 133). Using a social stratification lens and an interpretivist perspective, Robinson and colleagues (2007) explore sixty-two African American women entrepreneurs and report four key insights: 1) the women faced a double disadvantage, yet were tenacious against the operational issues/challenges associated with gender and race, and felt they were successful; 2) they often are caught between the tension between their passion for and the growth of the business, with some choosing maintenance of current levels as their definition of success, and most reported the importance of maintaining the founding values as a key objective; 3) the women’s family history and support played a key role in their entrepreneurial experience and many were able to set the terms for their business that allowed them to simultaneously meet their family needs; and 4) serving as a role model, and giving back to the community in the form of jobs and economic support was key for many of the women entrepreneurs, as well as the “strong influence of faith and spirituality” which led some to define success as “being able to fulfill a spiritual calling or to serve God through their venture” (p. 150). Differing from the traditional entrepreneurship view of success as purely economical, the African American women entrepreneurs defined success holistically, including the ability to a) ‘provide wealth for their family’, b) ‘spend more time with their
family’, c) ‘give back to their community’, d) ‘meet a specific customer need’, and e) ‘fulfill a personal or spiritual calling’ (Robinson et al., 2007, p. 147).

The African American Paradox

Common knowledge exists that African Americans have had low rates of self-employment throughout the 20th century, as compared with Whites. However, some scholars have recently noted that a paradox exists when looking at reports of nascent entrepreneurship (defined as those who have identified themselves as currently active in the process of starting a business and expect to be a partial or full owner) among African Americans—there are high levels of reported nascent entrepreneurship, but these levels do not transfer to actual entry into self-employment. One of the more reliable data sources available in studying entrepreneurs is the Panel Study of Entrepreneurial Dynamics (PSED); this offers a comparison of nascent entrepreneurs across race/ethnicity and gender from a representative longitudinal sample. The data reveal that “nascent entrepreneurship rates among Black men and women are over 50 percent higher than corresponding rates for Whites, and this difference is statistically significant” (Bates, 2011, p. 204). Yet, actual entry into self-employment does not reflect these numbers.

Hispanic American Female Entrepreneurs

Hispanic female majority owned (51% or more) firms in the United States are growing enormously, increasing in numbers by 335% in the span of 1997 to 2012, to almost 1.5 million firms, which employ close to one-half million workers, and generate sales receipts close to $79 million (U.S. Census, 1997, 2012). Despite these high growth numbers, the research on Hispanic
American female entrepreneurs is scarce (Smith-Hunter, 2006). The literature search for this study only yielded two articles that focused solely on Hispanic female business owners (Smith-Hunter, 2006; of which the small sample size limits reporting the statistics as representative) or Latina entrepreneurs (Lofstrom & Bates, 2009), while some studies were able to contribute to our understanding of Hispanic women entrepreneurs through comparisons to Hispanic men entrepreneurs (Bishop & Surfield, 2013; Lopez & Trevizo, 2009; Shim & Eastlick, 1998) or other ethnic women entrepreneur groups, such as African American, Asian American or Native American (Mora & Dávila, 2014; Aspaas, 2004; Smith-Hunter, & Kapp, 2009).

Hispanic Female Business Owners Research

Education. Hispanic female entrepreneurs (self-employed) in the United States can be described as less educated on average (11.3 years) than White (non-Hispanic) female entrepreneurs (13.9 years) or Hispanic wage/salary employees (11.9 years); and more likely to be high school drop outs (32% Hispanic female self-employed compared to 4% White, non-Hispanic female self-employed and 25% Hispanic wage/salary employed) (Lofstrom & Bates, 2009, p. 431). However, the Smith-Hunter (2006) smaller sample of Hispanic women business owners were highly educated with most having at least an undergraduate degree (58.1%), and about 1/3 completing graduate school (27.9%); this could be a result of self-selection sampling bias, as those most educated may have been more likely to complete the survey.

Earnings. Self-employed Latinas report lower annual earnings when compared to Latinas in wage/salary employment, with an estimated difference of $2,828 less per year when compared to wage/salary employees with similar traits (education, immigrant status, hours worked, etc.) (Lofstrom & Bates, 2009, p. 436). An econometric decomposition analysis revealed this
difference to be mostly a result of the education level variance (Lofstrom & Bates, 2009, p. 433). Latina entrepreneurs also report significantly less self-employment annual earnings ($18,697) than White, non-Hispanic entrepreneurs, $23,316, again with the decomposition analysis pointing to educational differences as the key contributor (Lofstrom & Bates, 2009, p. 431). Furthermore, when Lofstrom and Bates (2009) compare the mean annual self-employment earnings of the Latina and White entrepreneurs, the college graduate Latina entrepreneurs actually out-earn their White counterparts in all three complex measures of income (see Table 4, p. 433).

Marital Status and Children. Hispanic women entrepreneurs are most likely married and most likely to have children (Smith-Hunter, 2003, 2006; Inman, 2000)

Cognitive Ability. An interesting finding reported by Bishop and Surfield (2013), in a NLSY79 cohort study of Hispanic entrepreneurs, is that the women who chose to become entrepreneurs (75.1), had significantly higher (p<.05) cognitive ability scores (taken in 1979) than those Hispanic women who chose wage/salary employment (73.6).

Other Attitudes. Additionally, the Bishop and Surfield (2013) cohort study revealed that the Hispanic women entrepreneurs reported: 1) more traditional attitudes toward working women (as measured in 1979) than their wage earning counterparts, a surprising finding of statistical significance (p<.01); 2) less perception of mastery over their environment on the Pearlin Mastery score (taken in 1992) (p<.01); and 3) a higher risk-taking propensity (taken in 2010) (p<.01) than their wage earning counterparts (Bishop and Surfield, 2013, pp. 25-26).

Financial Resources. Latina entrepreneurs have less financial resources than White, non-Hispanic entrepreneurs. For example, Latina entrepreneurs averaged a household net worth of $128,451 (compared to White non-Hispanic female entrepreneurs, $292,074) and business equity

Motivations for Leaving Wage Employment. The top five main motivations of Hispanic women business owners for leaving wage employment, as reported by the 43 Hispanic women business owners in the Smith-Hunter (2006) study, are: ‘to be their own boss’ (30.2%), they ‘always wanted to start their own business’ (30.2%), ‘the opportunity presented itself’ (11.6%), ‘family responsibilities’ (9.3%) and ‘to make more money’ (9.3%) (p. 129, see Table 13).

Main Problems. The main problems of Hispanic women business owners, as reported by the 43 Hispanic women business owners in the Smith-Hunter (2006) study, are: ‘too much competition’ (27.9%), ‘finding good employees’ (18.6%), ‘too much paperwork’ (15%), and ‘cash flow problems’ (14.0%) (p. 128, see Table 12). The top ten ranked business problems on a scale of 1 (no problem) to 4 (persistent problem) by Hispanic women business owners (n=104) in the Shim & Eastlick (1998) exploratory study include: ‘obtaining government support’ (2.60), ‘sales and profit forecasting’ (2.59)*, ‘long-term business planning’ (2.56), ‘obtaining lines of credit’ (2.53)*, ‘increasing sales’ (2.50), ‘expansion strategies’ (2.50), ‘attracting customers’ (2.50), ‘cash flow projections’ (2.44), ‘planning marketing activities’ (2.42), and ‘advertising/promotion strategies’ (2.40) (Shim & Eastlick, 1998, p. 28). The * indicates that the score was statistically significantly higher than the comparative Hispanic men business owners, therefore, the women perceived ‘sales and profit forecasting’ and ‘obtaining lines of credit’ to be significantly more of a problem than the men. Three critical issues have been identified by Smith-Hunter (2004) in relation to women entrepreneurs, and particularly Hispanic women entrepreneurs: 1) financial capital access, 2) networking, and 3) human capital.
Comparison to Hispanic Men Entrepreneurs

In a study of 452 Hispanic business owners comparing men to women, Shim and Eastlick (1998) found average age to be 35-54 years with the men likely to be older, have entrepreneurial experience and have been in business longer than their female counterparts. Both men and women in the study had similar educational backgrounds but the women were more likely to operate smaller less profitable businesses, experience financial difficulties, and have spouses and family members in their networks (Shim & Eastlick, 1998).

White American Female Entrepreneurs

White women entrepreneurs were found to be more educated, have fewer children and be more likely to have formal business training, as compared to the minority women entrepreneurs in a comparative study of women entrepreneurs in the personal services industry (Smith-Hunter, 2003). Additionally, the economic success of the White women entrepreneurs in this study differed than the minority women entrepreneurs such that “the economic success of White entrepreneurs depended primarily on the following: the memberships organizations they belonged to; the training received in the field of business; their greater access to financial capital; their higher educational levels; the larger business sizes and the fact that the clientele were mainly Whites [capitalization added]” (Smith-Hunter, 2003, p. 121). The minority women entrepreneurs depended on the following for their economic success: “the assistance received from family and friends; their prior sales, marketing, accounting and supervisory management experiences and their client base” (Smith-Hunter, 2003, p. 121). After conducting 23 qualitative interviews of White women entrepreneurs in a northwestern US state, Gill and Ganesh (2007)
found that White women entrepreneurs reported several motivations for their entry into entrepreneurship, including: autonomy, confidence, embracing opportunity and self-expression.

Theory

There are several existing theories that have been applied to the study of minority women entrepreneurs (Smith-Hunter & Boyd, 2004; Volery, 2007), including cultural theory (Light, 1979; Weber, 1930), disadvantage theory (Weber, 1930), protected market theory (Light, 1972), middleman theory (Bonacich, 1973), ethnic enclave theory (Portes and Manning, 1986), Enhanced Interactive Model of Ethnic Entrepreneurship (Volery, 2007), the new multidimensional lens (Betters-Reed et al., 2007), Bourdeuian relational perspective (Kyriakidou & Ozgilbin, 2006; Tatli, Vassilopoulou, Ozbilgin, Forson, & Slutskaya, 2014), institutional theory (North, 1990; Scott, 2008), network theory (Ibarra, 1993), stereotype threat theory (Steele, 1997; Steele and Aronson, 1995), ‘entrepreneuring as emancipation’ (Rindova et al., 2009) and oligopolistic discrimination (Smith-Hunter, 2003). I will briefly discuss each of these theories (or perspectives) in relation to how they have been applied to women entrepreneurs or minority women entrepreneurs.

Cultural Theory

Rooted in Weber (1930), cultural theory argues that the cultural norms and value differences of a group play a key role in affecting the entrepreneurial business performance of that group. This is sometimes referred to as a “cultural deficiency” explanation because it is
often framed that the culture of a group negatively affects their entrepreneurial aspirations and performance – for example, the culture of poverty and low achievement expectations handicap entrepreneurs from the group (Smith-Hunter & Boyd, 2004). In their test of this theory on minority women entrepreneurs in the services sector of upstate New York, Smith-Hunter and Boyd (2004) found no support for this “cultural deficiency” theory’s application to minority women. They tested the hypothesis that “minority women would exhibit lower levels of desire or motivation for independent enterprises” and actually found evidence to the contrary. The minority women were significantly more likely than the White women to become entrepreneurs for the reasons of “to make more money” (t=2.70, p<.01); “to be my own boss” (t=-2.01, p<.05); and “always wanted a business” (t=-2.63, p<.05) (Smith-Hunter & Boyd, 2004, p. 23).

Disadvantage Theory

Similarly, disadvantage theory is also rooted in Weber (1930), more specifically, Smith-Hunter and Boyd (2004, p. 20) discuss the argument that those who experience discrimination and exclusion from the mainstream economy will turn to entrepreneurship as an alternative to working in the labor market, choosing self-employment over un-employment (Light and Rosenstein, 1995; Berger, 1991). The concept of “survivalist entrepreneurship” has been used to describe these groups of business owners who have arisen as a result of being excluded from the mainstream economy (Light and Rosenstein, 1995). Smith-Hunter and Boyd (2004) discuss how Boyd (2000b) applies this theory to women and minority women entrepreneurs:

Applying this concept to business enterprise among women, Boyd (2000b) found that, during the Great Depression, the tendency for women to become entrepreneurs was positively correlated with their level of disadvantage in the labor market, which he measured as the rate
of joblessness. Boyd (2000b) also discovered that the correlation between entrepreneurship and labor market disadvantage was stronger for minority women than for white women, a finding that he attributed to a tradition of survivalist entrepreneurship among minority women, particularly in the area of personal services. These results challenge the cultural interpretation of racial differences in women’s business ownership and imply that, despite of a paucity of resources, minority women intensely desire to become self-employed, frequently out of necessity. Although Boyd’s study was set in the Great Depression, his conclusions may still be relevant. Minority women continue to face many barriers in the labor market, because of the “double disadvantage” of racism and sexism (Smith and Tienda, 1988; Haddleston-Mattai, 1995; Reskin and Roos, 1990). (p. 20-21)

Furthermore, disadvantage theory has been extended to include the potential constraint of resources such as financial and human capital, suggesting that “those groups or individuals that face both labor market disadvantage and resource disadvantage will become entrepreneurs in marginal enterprises, such as those that operate in the informal economy (Light and Rosenstein, 1995; Boyd, 2000b)” (Smith-Hunter and Boyd, 2004, p. 21). It is also argued, as part of this theory, that in an effort to offset the deficiencies of financial and human capital, disadvantaged entrepreneurs tap into their social capital, seeking informal assistance in the form of financial aid and/or unpaid labor assistance (Light & Rosenstein, 1995). Contrary to other studies finding support for disadvantage theory (Boyd, 2000a; Inman, 2000), Smith-Hunter and Boyd (2004) were unable to find support for the application of this “survivalist entrepreneurship” logic of the labor market disadvantage aspect of disadvantage theory in their sample of White and minority entrepreneurs. However, support was found for the resource disadvantage aspects of disadvantage theory as the minority women entrepreneurs were significantly more likely than the White women entrepreneurs to have used their personal savings as startup capital and less likely to have obtained a bank loan for startup capital ($\chi^2=7.68, p<0.01$) and this is consistent with other research on women entrepreneurs (Inman, 2000). Also, the minority women entrepreneurs were significantly more likely than the White women entrepreneurs to have received unpaid labor
assistance from their friends ($\chi^2=4.27, p<0.05$) but there was not a significant difference regarding receiving unpaid labor assistance from relatives.

**Protected Market Theory**

Protected market theory (Light, 1972) was emergent during the pre-civil rights era where minority entrepreneurs were the only socially acceptable people with the skills, expertise and desire to serve the very close-in-contact personal service needs of the minority classes, which include services such as funerals, hairdressing, and beauty services. This theory was founded in the residential segregation common of that era. However, this theory is still applicable today in ethnic enclaves, such as Miami, and Chinatown in New York and in segregated cities, such as Milwaukee, Wisconsin. This theory applies to minority women entrepreneurs in that “minority women business owners will serve a largely minority clientele and be located in neighborhoods whose ethnic composition is predominantly minority” (Smith-Hunter and Boyd, 2004, p. 22). In line with past studies (Aldrich, Cater, Jones, McEvoy & Velleman, 1985; Boyd, 1996), Smith-Hunter and Boyd (2004) found support for this theory as the White women entrepreneurs tended to locate in White communities; while the minority women entrepreneurs tended to locate in minority communities (i.e., Black and/or Latinas) ($\chi^2=35.62, p<0.001$). Furthermore, each group was asked if their customers were predominantly of their own race or ethnicity, and almost 97% of White women and 90% of minority women responded “yes” to this question, indicating not only segregated location, but segregated clientele; this provides further evidence in support of the application of protected market theory.
Middleman Minority Theory

Middleman minority theory (Bonacich, 1973) is a primary economic explanation for ethnic entrepreneurship and is premised on an ethnic group playing a “middleman” role through servicing the general population or the less-entrepreneurial minorities (McEvoy & Hafeez, 2007). An example of a modern day middleman minority in the United States are the Korean inner-city retailing entrepreneurs who service a primarily African American clientele. Some other contemporary examples would include immigrant Chinese who open a dry-cleaning business or immigrant Indians who open a convenience store (Harvey, 2008). “As immigrants, middleman minorities are frequently resented by the masses to whom they sell goods and services, who may regard these immigrant entrepreneurs as "taking jobs" from native-born Americans, especially if they operate businesses in low-income communities where residents are often unemployed or underemployed” (Harvey, 2008, p. 901).

Ethnic Enclave Theory

Ethnic enclave theory (Wilson & Portes, 1980; Portes & Bach, 1985) differs from middleman theory by focusing on the specific places where the people and commerce of entrepreneurial minorities are concentrated. Entrepreneurs in the ethnic enclaves run businesses that are designed to serve specifically their own ethnic consumers and also the general population—they generally hire their own ethnic workers, offering wages and advancement opportunities not commonly found outside the enclave (Harvey, 2008). The theory contends that ethnic minorities can achieve better financial returns in the ethnic enclaves than they can in the
A commonly cited example of an ethnic enclave is the Cuban immigrant enclave in Miami, Florida.

Enhanced Interactive Model of Ethnic Entrepreneurship (Volery, 2007)

Volery (2007) argues that ethnic entrepreneurship is so diverse and varied that “no theory can explain the phenomenon as a whole” (p. 39). Despite this limitation, Volery (2007) offers a framework which outlines the various dimensions involved in ethnic entrepreneurship, but Volery warns that “using it as a template for empirical analysis would, however, prove to be a very difficult task” (p. 39). Volery’s (2007) enhanced interactive model includes two key dimensions: the core entrepreneurship dimension (which is applicable to all entrepreneurs, regardless of ethnicity), surrounded by the influences of the ethnic dimension (which is relevant to only ethnic entrepreneurs). At the core of the entrepreneurship dimension is the entrepreneurial process which begins with opportunity recognition, leads to opportunity evaluation and culminates with opportunity exploitation. There are four factors that affect this core entrepreneurial process: first, the psychological characteristics of the entrepreneur, such as the need for achievement, locus of control, and risk propensity; second, the information and knowledge that the entrepreneur possesses; third, the creative processing skills of the entrepreneur which afford them “the ability to analyze an opportunity and transform it into a commercially exploitative business idea”; and fourth, the entrepreneur’s “cognitive heuristics” or their ability to deal with “new problems which require quick and efficient judgements and decisions” (Volery, 2007, p. 36). The ethnic dimension then surrounds the entrepreneurship
dimension with four factors that can interact leading to the unique complexity of the specific ethnic entrepreneurs situation: first, the *ethnic group resources* which are “shared by immigrants and ethnic people of the same origin” (p.34); second, the *opportunity structures* which include “market conditions, access to ownership, job market conditions, and legal and institutional frameworks” (p. 34); third, *ethnic strategies*, such as the use of ethnic networks and financing; and fourth, *metropolitan characteristics*, such as the size of the community, urban vs rural, and the cultural milieu of the community. This model does not specifically address the complexities that a female minority may encounter – gender is not a part of this model.

*New Multidimensional Lens (Betters-Reed, Moore, & Hunt, 2007)*

Volery’s (2007) model of ethnic entrepreneurship serves as good example of why there are calls for a paradigm shift in entrepreneurship research in the management and business fields (Betters-Reed et al., 2007). Betters-Reed and colleagues cite Kuhn (1996) and his argument that there are two elements necessary for a paradigm shift to occur, and they argue that the entrepreneurship field has them. First, the presence of *anomalies*; Betters-Reed and colleagues’ “research on diverse entrepreneurs uncovered anomalies that do not fit the unilateral lens or earlier paradigm through which entrepreneurial and management research has traditionally been conducted.” Second, the presence of an alternative paradigm; Betters-Reed and colleagues (2007) provide this alternative paradigm, “the alternate new paradigm or multidimensional lens that we propose provides for an inclusive, multidisciplinary, knowledge-based approach to entrepreneurship research and education that recognizes unique gender and cultural values, acknowledges people’s multiple identities and uses subjective, relational research practices.” (p.
The new Multidimensional lens includes paradigm shifts along five factors. First, the researchers’ “cultural perspective and awareness” is shifted from “blind to own race and privilege, erroneous assumptions, stereotypes, national, ethnocentric” to the new paradigm of “knowledge, fact-based information, multiple identities, multicultural, multidisciplinary, international”. Second, the entrepreneurship discipline is shifted from “independent, autonomous, traditional (White male), exclusive” to the new paradigm of “integrated, inclusive, interdisciplinary, multiracial, feminist”. Third, the entrepreneurship success measures are shifted from “conventional management measures, single definition of success” to the new paradigm of “recognizes unique gender/cultural values, multifaceted success metrics”. Fourth, the language of the field is shifted from “deficit, disempowering, inaccessible, stereotypical” to the new paradigm of “constructive, specific, acknowledged identity, empowering”. And, lastly, the research approach of the field is shifted from “objective, detached, positivist” to the new paradigm of “subjective, relational” (Betters-Reed et al., 2007, p. 202).

**Relational Perspective**

The relational perspective “takes the complexities of social relationships into account” (Panayiotou, 2008, p. 794). It “is an approach to research that allows the exploration of a phenomenon, such as entrepreneurship, as irreducibly interconnected sets of relationships” (Tatli et al., 2014, p. 615). Scholars have proposed a Bourdeuvian (Bourdieu, 1984, 1986, 1991) relational perspective for the study of entrepreneurship (Kyriakidou & Ozgilbin, 2006), which is based upon the French sociologist Pierre Bourdieu’s social theory. A relational perspective applies a multilevel approach, studying the full spectrum from the influence of *structure* to the
agentic, on a continuum, using Bourdieu’s concepts of field (‘regulatory framework’), illusio (‘legitimacy mechanisms’), symbolic violence (‘following rules’), habitus (‘habitual practices’), strategies and capitals (social, economic, & symbolic) (Tatli et al., 2014, p. 623). This perspective is particularly suited to the study of minority women entrepreneurs as Forson (2007) applied a relational perspective to the study of Black women entrepreneurs in London. Forson (2007):

…argued that a deeper and richer understanding of the business activities of her research participants could only be procured by a perception of how the different domains of social activity impact interactions within and between each other in their business experiences. In the context of a society stratified by race (ethnicity), class, and gender, the research sought to uncover and understand how the influence of past events and phenomena complicate relationships and current situations in terms of the participants’ entrepreneurial strategies and actions within the given context (Tatli, et al., 2014, p. 622).

Institutional Theory

Scholars (Thornton, Ribeiro-Soriano, & Urbano, 2011) have also applied socio-cultural factors to entrepreneurship through the perspective of institutional theory (North, 1990; Scott, 2008). Institutions can be formal, such as political and economic rules; or informal, such as codes of conduct, norms of behavior and attitudes (North, 1990). Scott (2008) argues that institutions consist of cognitive, normative, and regulative structures. In the context of entrepreneurship, institutions are the frameworks that provide the rules and norms for the interactions among individuals and social groups that ultimately affect the venture and economic activity (Veciana & Urbano, 2008).
**Network Theory (Ibarra, 1993)**

Ibarra (1993) offers a conceptual framework that proposes hypotheses about network differences between women/minorities and White males as a result of the formal organizational context and the interaction dynamics generating constraints on network choices for women and minorities. In essence, Ibarra (1993) explicates how “the organizational context is one in which informal interaction is embedded and produces unique constraints on women and racial minorities, causing their networks to differ from those of their White male counterparts on a variety of characteristics” and ultimately limiting the benefits and resources obtained from their networks (pp. 57-58). Although this theory targets an organizational context, parallels can be drawn to the entrepreneurial process.

**Stereotype Threat Theory (Steele, 1997)**

Steele and Aronson (1995) describe stereotype threat as a social psychological predicament that occurs when widely known stereotypes about a person’s group influence how that individual internalizes to self or conforms to the view held of them by others. Stereotype threat theory (Steele, 1997) suggests that individuals in devalued groups endure situational pressure from the threat of being viewed as incompetent. Prior socialization and internalized anxiety can result in the individuals’ actual reduced performance, especially if the stereotype is overwhelmingly negative. Research has demonstrated this phenomenon to exist when African Americans perform poorly on intellectual or scholastic aptitude tests and essentially conform to the negative stereotype placed on them by mainstream society (Steele & Aronson, 1995). Gibbs
(2014) applies stereotype threat theory to women and ethnic minority entrepreneurs, “women and ethnic minorities often fall victim to stereotype threat, and for Black [capitalization added] female entrepreneurs, the repercussions may result in diminished levels of entrepreneurial success and self-doubt in their ability to accomplish goals (e.g. self-efficacy) and recognize new business opportunities” (p. 3).

**Entrepreneuring as Emancipation**

Rindova and colleagues (2009) propose a theoretical model of entrepreneuring that makes the “pursuit of freedom and autonomy relative to an existing status quo the focal point of inquiry. Emancipatory entrepreneuring involves three core elements: seeking autonomy, authoring, and making declarations. This perspective has wide application to the study of women entrepreneurs across racial and ethnic groups as it addresses the overarching motivation of many women entrepreneurs to break free from the constraints of society. This “entrepreneuring as emancipation” perspective was applied to a developed economy (Canada) and the researchers found evidence for incidence levels at less than one in five entrepreneurs who deviated significantly from the standard corporate norms; however, those that did deviate, reported higher overall life satisfaction (Jennings, Jennings, & Sharifian, 2016).

**Oligopolistic Discrimination**

Women entrepreneurs tend to operate in certain industries, such as personal services. One theoretical explanation for this silo effect is “oligopolistic discrimination” whereby certain
groups, such as women and minorities, are excluded from certain lucrative industries, such as agriculture, mining, construction, manufacturing, wholesale trade, and transportation-communications-public utilities (Smith-Hunter, 2003, p. 118). Oligopolistic discrimination theory posits that “women and minority business owners are dissuaded from entering certain industries because their White male counterparts impose barriers that keep these business owners excluded” (Smith-Hunter, 2003, p. 118).

Methodology

Henry, Foss, and Ahl (2015) conducted a very recent comprehensive systematic review of the literature on gender and entrepreneurship which included 335 articles in 18 journals from 1983-2012. Henry and colleagues concluded “that research on female entrepreneurship continues to be characterized by explaining differences between male and female entrepreneurs. Indeed, our study shows an overwhelming trend towards large-scale, quantitatively based/analyzed male–female comparative research that avoids adopting sector-specific focus and within-group comparative analysis.” (p. 19). Their recommendations include: 1) a move to focusing more on context, less on individualistic traits and a move to studying gender as a process, not as a variable. The move to focus on context involves researchers including such contextual variables as “industry sector, family policies, legislative or cultural differences” (p. 17). The move to studying gender as a process involves the use of more methods such as “life histories, narrative analysis, in-depth case studies, ethnographic studies, phenomenological approaches with in-depth interviews or discourse analysis” (p. 17). They emphasize “large-scale
quantitative studies need to be balanced with qualitative insights that can really only be gained in any meaningful way by abandoning male–female comparative studies and introducing sector, region and country explorations that involve within-group comparisons.” (p. 19). They also argue for triangulation to further strengthen findings.

Sample size

Many of the key foundational studies lack adequate sample size. For example, in an effort to build a foundational initial look at the characteristics of Hispanic women business owners, Smith-Hunter (2006) reports on a sample size of 43, which is the response level achieved from a stratified sample of 140 Hispanic women business owners drawn from the 2003 Dun and Bradstreet business database. The issue of sample size is not new to research studying ethnic and racial groups; however, efforts need to be taken to overcome this limitation, such as oversampling of certain groups, reaching out to non-traditional sources for survey participation, getting research endorsement from key ethnic/racial organizations that may help to bolster response rates, etc.

Critique

My overview of the literature on women entrepreneurs across racial lines includes four key observations regarding the emerging importance of context, varying perspectives calling for a paradigm shift, sparse theory, and gaps on Asian American women entrepreneurs. First, context matters. Women entrepreneurs are embedded in socio-cultural contexts that need to be incorporated into the research theoretically (e.g., institutional theory, Bourdeuian relational theory) and methodologically (rich qualitative methods, multi-level modeling, etc.). Second,
several entrepreneurship scholars have recently made calls for a paradigm shift in the entrepreneurship research in the management and business fields (Betters-Reed, Moore and Hunt, 2007), calling for the application of a more multidimensional lens. Third, theory on minority women’s entrepreneurship specifically is lacking; for example, Volery (2007) offers the Enhanced Interactive Model of Ethnic Entrepreneurship, but the theory excludes gender as a factor. There are plenty of theories that explain some of the processes, but there is not a comprehensive theory to women’s ethnic entrepreneurship. Lastly, the research on Asian American women entrepreneurs was sparse. The only articles that could be found were based in the United Kingdom; there was nothing in the United States. This research gap is surprising given that Asian women represent 7.6% of the number of firms in the United States.

**Conclusion**

In conclusion, women owned businesses represent a substantial portion of the U.S. firms and the minority women owned firms are growing in numbers at alarming rates in the past 15 years (U.S. Census, 1997, 2012). Research thus far has generally shown that women’s motivations for entrepreneurship are more complex than the traditionally studied rational economic perspective; women and ethnic minority groups of women face unique barriers in the realm of entrepreneurship such as lending bias (i.e., the second glass ceiling), stereotypes, and weaker network structures. Women’s firms tend to be smaller, employ less people, and generate fewer revenues than the average firm, and there are general differences in these factors across ethnicity. The research on women entrepreneurs in general is argued to be moving from the ‘early childhood stage’ to the ‘brink of adolescence’ (Hughes, Jennings, Brush, Carter, & Welter,
2012, p. 429); however, if the research on minority women entrepreneurs in the U.S. is broken out from the general women’s entrepreneurship literature, the same argument cannot be made, as there simply is not enough research to warrant the advancement, it continues to be an understudied area. More research, both qualitative and quantitative is needed to continue to increase our understanding of the different ethnic groups of women entrepreneurs.
Chapter 3: Model and Hypotheses

In this chapter, I develop a model of the well-being of women entrepreneurs. Drawing on Deci and Ryan’s SDT (Deci & Ryan, 1985, Ryan & Deci, 2000a, 2002), I hypothesize the influence of perceived ethnic discrimination on women entrepreneurs’ well-being through its effects on the fulfillment of basic psychological needs. I also propose exploring two research questions. One question has to do with the role of ethnic identity strength in buffering or exacerbating the effects of perceived ethnic discrimination on psychological need fulfillment. The other question considers how the proposed model differs across ethnic groups.

In the following sections, I first provide an overview of the proposed model. Next, I provide an overview of SDT theory and describe how it explains the relationships in the model. Finally, I develop research questions to delve more deeply into understanding the role of ethnic identity and possible differences across ethnic groups.

Model Overview

As depicted in Figure 1, I propose a model whereby perceived ethnic discrimination affects psychological need satisfaction, and this, subsequently, contributes to the well-being of women entrepreneurs. Ethnic discrimination is defined as “denying individuals equality of treatment because of their [ethnic] background” (Triana & Garcia, 2009, p. 942). Ethnic discrimination represents the actual, objective experiences with discrimination; and can be distinguished from the subjective interpretation, which is termed perceived ethnic discrimination (Kong, 2016). Similar to earlier research (see Kong, 2016; Pascoe & Smart Richman, 2009; Schmitt, Branscombe, Postmes, & Garcia, 2014), this dissertation focuses on perceived ethnic
discrimination “as perception of reality tends to be more powerful in eliciting psychological and behavioral reactions than actual reality” (Kong, 2016, p. 334). The model first predicts that perceived ethnic discrimination thwarts the fulfillment of the three basic psychological needs. The three basic psychological needs are a foundational part of Ryan and Deci’s (2002) SDT and include the needs for autonomy (operating on your own volition), competence (knowledge and skills which allow you to be effective in your area) and relatedness (feeling of belonging and connectedness to others).

Subsequently, the levels of needs satisfaction positively affect the women entrepreneurs’ experiences of well-being, conceptualized in terms of outcomes particularly relevant to women entrepreneurs: authenticity at work, entrepreneurial work engagement, and work family balance. Authenticity can be defined as the degree to which one acts in agreement with one’s true self (Harter, 2002). Work engagement is defined as a person’s “psychological presence in a role-or “being there” (Rothbard & Patil, 2012, p. 59). Work-family balance is defined as the perception that work and family are effectively managed according to the individuals’ role expectations for time and energy allocations for each domain. Needs satisfaction is also hypothesized as a mediating variable between perceived ethnic discrimination and the well-being outcomes. All proposed relationships are grounded in SDT (Ryan & Deci, 2002), which is elaborated upon next.
Mediation Hypotheses:
H5 a. Autonomy, b. Competence, c. Relatedness mediating PED to Authenticity
H6 a. Autonomy, b. Competence, c. Relatedness mediating PED to Work Engagement
H7 a. Autonomy, b. Competence, c. Relatedness mediating PED to Work-Family Balance

Figure 1. A Model of Women Entrepreneurs’ Well-Being
Self-Determination Theory (SDT)

SDT (Deci & Ryan, 1985, Ryan & Deci, 2000a, 2002) is an ‘organismic’ theory of human motivation and personality which proposes that the satisfaction of innate psychological needs for autonomy, competence, and relatedness serves as an important predictor of optimal functioning in individuals. As an ‘organismic’ theory, SDT views humans as active beings, who make their own choices and initiate their own behaviors in an effort to satisfy their own needs. This contrasts with ‘mechanistic’ theories, which view humans as passive beings, merely being pushed around by the world. SDT’s “arena is the investigation of people’s inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes” (Ryan & Deci, 2000a, p. 68).

A key assumption of SDT theory is that “all individuals have natural, innate, and constructive tendencies to develop an ever more elaborated and unified sense of self” (Ryan & Deci, 2002, p. 5). SDT maintains that this tendency can be either supported or thwarted by social environmental conditions; social environments that foster the satisfaction of basic psychological needs are predicted to support healthy functioning and those that thwart or block need satisfaction are predicted to be detrimental to healthy functioning (Ryan & Deci, 2002, p. 6).

The concept of needs is easily understood as physiological elements that are essential to life, as we all need water and food to survive physically. Applying the concept of needs to the psychological level, SDT theory maintains that just as there are physical needs for human functioning, there are likewise, basic psychological needs that need to be met for healthy
psychological human functioning—including the needs for autonomy, competence and relatedness (Ryan & Deci, 2002). According to SDT (Ryan & Deci, 2002), autonomy refers to “being the perceived origin or source of one’s own behavior (deCharms, 1968; Deci & Ryan, 1985; Ryan & Connell, 1989)” (p. 8); competence refers to “feeling effective in one’s ongoing interactions with the social environment and experiencing opportunities to exercise and express one’s capacities (Deci, 1975; Harter, 1983; White, 1959)” (p. 7), and relatedness refers to “feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one’s community (Baumeister & Leary, 1995; Bowlby, 1979; Harlow, 1958; Ryan, 1995)” (p. 7). These basic psychological needs are universal; “they represent innate requirements rather than acquired motives. As such, they are expected to be evident in all cultures and in all developmental periods” (Ryan & Deci, 2002, p. 7).

SDT consists of four mini-theories which all include the concept of basic psychological needs and share the same underlying organismic and dialectical assumptions (Ryan & Deci, 2002). The first mini-theory is cognitive evaluation theory, which “describes the effects of social contexts on people’s intrinsic motivation (Deci, 1975; Deci & Ryan, 1980)” (Ryan & Deci, 2002, p. 9). The second mini-theory, organismic integration theory (Deci & Ryan, 1985; Ryan & Connell, 1989), seeks to “explain the development and dynamics of extrinsic motivation; the degree to which individuals’ experience autonomy while engaging in extrinsically motivated behaviors; and the processes through which people take on the values and mores of their groups and cultures” through “internalization and integration of values and regulations” (Ryan & Deci, 2002, pp. 9-10). The third mini-theory, causality orientations theory (Deci & Ryan, 1985), describes “individual differences in people’s tendencies to orient toward the social environment
in ways that support their own autonomy, control their behavior, or are amotivating”; it “allows for prediction of experience and behavior from enduring orientations of the person” (Ryan & Deci, 2002, p. 10). Lastly, the mini-theory that forms the basis for this study, basic needs theory (Ryan & Deci, 2000b), explains “the relation of motivation and goals to health and well-being, in part by describing associations of value configurations and regulatory styles to psychological health across time, gender, situations, and culture” (Ryan & Deci, 2002, p. 10).

The basic psychological needs are implicit in each of the initial three mini-theories of self-determination theory (CET, OIT, COT); however, basic needs theory was added to the meta-theory as a separate mini-theory to help clarify the meaning and to detail the dynamic relationship between the satisfaction of needs and well-being (Ryan & Deci, 2002). When needs are satisfied, well-being is promoted and when needs are thwarted, well-being suffers. Furthermore, the hypothesis that needs are universal implies that this relationship between need satisfaction and well-being stands regardless of age, culture, gender, etc.; however “the means through which needs are satisfied (versus thwarted) vary as a function of age, gender, and culture” (p. 22).

According to SDT, each need represents an independent construct (Ryan & Deci, 2000b). Many researchers in the past have combined the needs together to form one index of overall psychological needs satisfaction. The implication of doing this is that each need is interchangeable, for example, a low level of autonomy need satisfaction can be offset by a high level of competence or relatedness need satisfaction. SDT specifically argues that is not the case. Each need must be measured individually. Meta-analytical empirical evidence supports SDT’s argument that the needs should not be indexed together into one composite measure; the
evidence supporting the distinct representation of each need included 1) the assessment of the correlations among the needs, 2) incremental prediction of outcomes, and 3) the nomological network of the antecedents of the three needs (Van den Broeck, Ferris, Chang & Rosen, 2016). Following SDT tenets and this recent empirical evidence, all of the hypotheses for this study evaluate each need as an individual construct.

**Ethnic Discrimination and Psychological Needs Satisfaction**

Many women become entrepreneurs to escape the discrimination they encounter in organizations, such as the glass ceiling and the gender pay gap (Buttner & Moore, 1997; Mattis, 2004; Zapalska, 1997). However, women entrepreneurs do not truly escape discrimination by moving into entrepreneurship because they still encounter it in various forms, such as gender discrimination, age discriminations, etc. (Bates, 2002; Winn, 2005). In this study, I am interested in examining one particular form of discrimination – perceived ethnic discrimination.

Perceived ethnic discrimination is the perception of unfair treatment attributed to ethnicity (Contrada, Ashmore, Gary, Coups, Egeth, Sewell, Ewell, and Goya, 2006). Perceived ethnic discrimination can thwart psychological needs satisfaction by making targeted individuals “perceive themselves as being evaluated negatively regarding their work competence and being not respected or included by others” (Kong, 2015, p. 5). In the lens of SDT theory (Ryan & Deci, 2002), such perceptions of discrimination are indicative of a hostile social environment that prohibits the satisfaction of the basic psychological needs.
Existing studies indicate that perceived discrimination generally hinders individuals’ needs fulfillment (Goldman, Slaughter, Schmit, Wiley, & Brooks, 2008; Kong, 2016; O’Reilly, Robinson, Berdahl, & Banki, 2015). Goldman et al. (2008) surveyed a representative sample of the U.S. workforce and found support for a strong, negative relationship between perceived discrimination and the fulfillment of three needs (economic, interpersonal and deontic) that construe the Multiple Needs Model of Justice (Cropanzano, Byrne, Bobocel, & Rupp, 2001). O’Reilly et al. (2015) reported that ostracism, a form of discriminatory behavior, thwarted the need for belonging in employees across organizations in the U.S. Additionally, Kong (2016) reported correlational evidence of a relationship between perceived ethnic discrimination and psychological needs.

According to basic psychological needs theory (Ryan & Deci, 2002) and the preliminary empirical evidence cited above (Goldman et al., 2008; Kong, 2016; O’Reilly et al., 2015), I expect perceived ethnic discrimination to be negatively associated with the satisfaction levels of the three basic psychological needs.

Hypothesis 1a-c: For women entrepreneurs, perceived ethnic discrimination will have a negative relationship with the satisfaction of the psychological needs for a) autonomy, b) competence, and c) relatedness.

Psychological Needs Satisfaction and Well-Being

In this section, I develop hypotheses for the relationships between the various psychological needs and the well-being indicators of authenticity, entrepreneurial work
engagement and work-life balance. SDT provides the foundational theory in positing that the satisfaction of the basic psychological needs serves the function of promoting psychological growth, internalization and well-being (Deci & Ryan, 2000). The three indicators of well-being (authenticity, entrepreneurial work engagement and work-life balance) were chosen because they are particularly relevant to women entrepreneurs. Women entrepreneurs have a tendency to focus on multiple measures, such as self-realization, recognition, innovation, role, independence, and financial success, when gauging their entrepreneurial success or well-being (Manolova et al., 2012). Work-family issues often serve as a motivator for women to move into entrepreneurship (Parasuraman and Simmers, 2001). Therefore, when researching women entrepreneurs, multiple measures need to be included. First, I will begin with a discussion of the concept of authenticity.

**Psychological Needs Satisfaction and Authenticity**

The concept of authenticity historically traces back to ancient Greek philosophy expressed in injunctions such as “Know thyself” and “To thine own self be true” (Harter, 2002). Authenticity is commonly defined as the degree to which one acts in agreement with one’s true self (Harter, 2002). Authenticity can be considered a dispositional trait or a subjective state. Trait authenticity has its roots in humanistic constructs such as “self-actualization” (Maslow, 1971) and the “fully functioning person” (Rogers, 1961) where it is considered a disposition toward self-congruent behavior (Lenton, Bruder, Slabu, & Sedikides, 2013). “Authenticity is the reduction of phoniness toward the zero point” (Maslow, 1971, p. 183). Kernis and Goldman (2006) propose a dispositional, trait-based authenticity that consists of awareness, unbiased processing, behavior and relational orientation. Another trait based approach to authenticity is
offered by Wood and colleagues (2008) as they propose a tripartite person-centered view of authenticity that consists of authentic living, self-alienation, and accepting external influence.

*State* authenticity is defined as “the subjective sense of being one’s true self” (Lenton, et al., 2013, p. 276). State authenticity has been studied in terms of roles (Kifer, Heller, Perunovic, & Galinsky, 2013; Sheldon, Ryan, Rawsthorne & Ilardi, 1997); relationships (Lopez & Rice, 2006); self-expression (Cable, Gino, & Staats, 2013) and authenticity at work (Reis, Trullen, & Story, 2014; van den Bosch & Taris, 2014). This study will focus on authenticity in the entrepreneurial work environment, therefore, the concept of authenticity is state focused. The three dimensional view of authenticity proposed by Wood and colleagues (2008) has also been applied to state-based definitions of authenticity (van den Bosch & Taris, 2014a). Authentic living is defined as “the degree to which individuals are true to their selves in most situations and live in accordance with their own values and beliefs” (p. 3); in other words, it is the congruence between belief and actions. Self-alienation is the “subjective experience of not knowing who one is” and “people who feel ‘out of touch’ with their core self” would be characteristic of this dimension of authenticity (p. 3). Lastly, the third dimension of authenticity involves “the extent to which an individual accepts external influence of others” and their “belief of actually meeting others’ expectations” (p. 3). Authentic living is a positive indicator of authenticity, while self-alienation and accepting external influence are both negative indicators of the state of authenticity.

A key assumption of SDT is that all individuals have innate tendencies to develop a more elaborated and unified sense of self - a coherent sense of self (Ryan & Deci, 2002). “To the degree that individuals have attained a sense of self, they can act in accord with, or be “true” to,
that self” (Ryan and Deci, 2002, p. 3); therefore, SDT suggests that “authenticity occurs when individuals self-regulate in ways that satisfy their basic psychological needs for competence, self-determination, and relatedness” (Goldman and Kernis, 2002, p. 1). Authenticity is the state of alignment of our internal experiences with our external expressions (Cable, Gino & Staats, 2013) or “the degree to which individuals connect with and enact their true selves in various situations (Deci & Ryan, 1985; Rogers, 1961)” (Kifer et al., 2013, p. 281). Ryan and Deci (2004) state “…humans can be either authentic or inauthentic, which means living or not living in accord with abiding values and sensibilities” (p.454). Furthermore, Ryan and Deci’s (2000a) cognitive evaluation theory “proposes that autonomy and competence (together with an internal “locus of causality” for the particular competence, p. 70) are especially potent in producing authenticity” (Lenton et al., 2013, p. 278).

Preliminary empirical evidence for the relationship between psychological needs and authenticity is evident in the diary study by Heppner, Kernis, Nezlek, Foster, Lakey and Goldman, (2008), which resulted in a positive correlation between daily satisfaction of the three basic psychological needs and felt authenticity. Additional preliminary empirical evidence is found in the study by Lynch (2004), which explores the variability of self-concept across personal relationships cross-culturally. Using college students in Russia, China and the United States, in the overarching context of personal relationships, Lynch (2004) investigates the relevance of basic psychological needs (autonomy, relatedness, and competence) for the experience of authenticity, consistency of self-concepts, and well-being, across three cultures: China, Russia, and the United States. The results confirmed that needs satisfaction is positively related to felt authenticity, and this was consistent in all three cultures. Although the context of
this study was personal relationships (targets included mother, father, best friend, romantic partner, roommate, and a selected teacher), it serves as preliminary evidence for the Ryan and Deci’s SDT suggestion that needs satisfaction predicts authenticity (and this relationship holds across cultures also). Lastly, authentic behavior was found to play a mediating role between need satisfaction and goal self-concordance in a sample of undergraduate students (Milyavskaya et al., 2015). The important contribution from this study is that the authors tested alternative structural equation models, which allowed them to rule out the reverse model, “ruling out the possibility that need satisfaction is influenced by authenticity” (p. 131). I expect this relationship between needs satisfaction and authenticity to hold true for women entrepreneurs, and subsequently, I provide more evidence in support of this logic in the context of entrepreneurship.

Evidence for the relationship between psychological needs and authenticity in women entrepreneurs specifically, can be inferred from a foundational qualitative study exploring the authenticity driven identity work of fourteen female business owners located in the south-east of England (Lewis, 2013). The Lewis study is the only existing study to date exploring authenticity in female entrepreneurs. Although the author, Lewis, did not apply SDT theory to interpret the outcomes, the descriptive findings of this exploratory analysis provide traces of evidence in support of the relationship between the satisfaction of psychological needs (autonomy, competence and relatedness) and the authentic entrepreneurial identity of the female business owners.

*Autonomy*

More specifically, Lewis discovers that for those women business owners who adopted a feminized approach to business, “being autonomous and in control of their business and life are
of enormous importance” (Lewis, 2013, p. 261). Lewis states “authenticity-driven identity work is not only about being in control, but also about gaining a sense of freedom to construct an entrepreneurial identity that feels right for them” (p. 261). Further evidence of the relationship between the met need of autonomy and authenticity is provided by O’Neil and Ucbasaran (2010) in an exploratory case study of sustainable entrepreneurs where the authors found that a key motivator for the sustainable entrepreneurs was the need for more autonomy in their work. This need served as the impetus for them to seek out a more authentic career. Therefore, based upon SDT theory and the related research (Lewis, 2013; Lynch, 2004; O’Neil & Ucbasaran, 2010), I expect the following:

\[ H2a: \text{Among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for autonomy and their reported level of authenticity as an entrepreneur.} \]

**Competence**

As stated earlier, according to SDT (Ryan & Deci, 2002), *competence* refers to “feeling effective in one’s ongoing interactions with the social environment and experiencing opportunities to exercise and express one’s capacities (Deci, 1975; Harter, 1983; White, 1959)” (p. 7). Again, evidence can be construed from Lewis’ (2013) study of women entrepreneurs where the women take their performance in their work seriously as they seek a level of professionalism. Some women entrepreneurs in the Lewis study even report “they will actually turn down work rather than do sloppy work” (p. 262). When faced with *competence* stereotypes, Lewis (2013) discovers that the women internalize a “masculine professionalism” into their account of their own self to further signal their competence and legitimacy. This “masculine
professionalism” adaptation is best explained in the author’s words as Lewis (2013, p. 263) states:

There is thus a significant risk that an entrepreneurial identity created on the basis of a notion of feminine difference will be defined as inauthentic in enterprise terms within a context that places more value on a masculine orientation to entrepreneurship. To avoid being labelled as inauthentically entrepreneurial, the respondents in this study have incorporated a contrasting perspective of masculine professionalism into their accounts of the self (Clarke et al., 2009) as a means of signaling that they are part of, not apart from, the competitive world of business.

Schauch’s (2009) study of ‘ecopreneurs’, defined as “entrepreneurs who aspire to grow profitable, sustainable businesses while changing the world through quality improvement of life and environment (Dixon & Clifford, 2007, Linnanen, 2002)” (p. 5) provides further preliminary evidence for this competency and authenticity relationship. Schauch’s (2009) study of how ecopreneurs communicate led to the uncovering of five groups of common attributes that generate an overarching theme of “authentic identity” of the ecopreneurs. The importance of competence emerged as one of the five themes: ‘learning for life and returning for life’ whereby the ecopreneurs place strong emphasis on doing their homework and knowing the facts through constant learning.

In sum, based upon SDT theory and the related research discussed above (Lewis, 2013; Schauch, 2009), I expect the following:

\[ H2b: \text{ Among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for competence and their reported level of authenticity as an entrepreneur.} \]
Relatedness

As stated earlier, according to SDT (Ryan & Deci, 2002), relatedness refers to “feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one’s community (Baumeister & Leary, 1995; Bowlby, 1979; Harlow, 1958; Ryan, 1995)” (p. 7). Again, Lewis’ (2013) study of women entrepreneurs provides preliminary support for the relationship between relatedness needs satisfaction and authenticity in women entrepreneurs. In her exploration of how the female business owners work through their femininity, Lewis (2013, p. 260) uncovers the importance of relatedness and connectedness to authenticity:

A significant component of doing business differently is the ability to be intimate with clients and other business acquaintances, which represents the second element of the accentuation of femininity. In looking for alternative business practices that will contribute to the construction of an authentic self-identity, an emphasis is placed on relatedness and connectedness in business relationships.

Lewis (2013, p. 261) elaborates further on relatedness and authenticity:

Authenticity-driven identity work is about having a clear sense of the type of business person they want to be by enacting forms of behaviour that they feel comfortable with. For the women business owners in this study, creating an authentic entrepreneurial identity meant adopting practices such as listening or, as one woman put it, building ‘my business on a rapport with the person face-to-face or by phone’. The focus here is on the explicit adoption of business practices built around co-operation, the establishment of long-term relationships and the understanding of and connection with those business people you interact with. Establishing connections in this way provides respondents with a sense of belonging as well as a feeling of legitimacy for the way they do business.

The women in Lewis’ (2013) study were able to discern the link between their need for strong, relational connections amongst those they interact with in their businesses and their ability to be true to themselves in their entrepreneurial role – their authenticity.
Another study by Schauch (2009) provides further preliminary evidence for this relatedness and authenticity relationship among ‘ecopreneurs’. This grounded theoretical research studying how ecopreneurs communicate led to the uncovering of five groups of common attributes that generate an overarching theme of “authentic identity” of the ecopreneurs (Schauch, 2009). The importance of relationships emerged as one of the five themes, “many ecopreneurs described the necessity of being open and transparent in relationships as either a way of being authentic…” (p. 24). For example, one of the ecopreneurs in the study states: “Our relationship with our customers are [sic] more like a conversation. We know about their lives, what they’re doing, and what they’re feeling. A sense of community around our customers, suppliers and partners is very important” (Schauch, 2009, p. 25). This provides evidence for the importance of nurturing relationships, which Buber (1965) argues is essential to achieving an authentic self.

In sum, based upon SDT theory and the related research discussed above (Lewis, 2013; Schauch, 2009), I expect the following:

\[ H2c: \text{Among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for relatedness and their reported level of authenticity as an entrepreneur.} \]

Psychological Needs and Entrepreneurial Work Engagement

Work engagement is defined as a person’s “psychological presence in a role-or “being there”. In this study, work engagement is viewed as a state. It is the person’s focus of attention, their absorption, and their available energy directed toward work-related tasks (Rothbard & Patil,
Most scholars acknowledge two cognitive aspects of work engagement: *attention* (the cognitive focus and amount of time) and *absorption* (the intensity of the focus) (Rothbard & Patil, 2012). Scholars have long construed engagement as an indicator of work related well-being (Maslach & Leiter, 1997; Maslach, Schaufeli, and Leiter, 2001); and I also employ this construal in viewing work engagement as an indicator of well-being in women entrepreneurs. In this dissertation, the concept of work engagement will be specified to be explicitly ‘entrepreneurial work engagement’, which is the same as work engagement, but applied to the specific business of the entrepreneur and refers to the work engagement levels of the women business owners.

SDT provides the theoretical explanation for the link between needs satisfaction (autonomy, competence and relatedness) and entrepreneurial work engagement (Meyer & Gagne, 2008). SDT posits that needs satisfaction contributes to greater levels of work engagement; and conversely, the thwarting of the satisfaction of needs contributes to work disengagement (Ryan and Deci, 2000b). Mayer and Gagne (2008) discuss an example of how a case of mismanagement demonstrates this logic. For example, if management employed efforts to build work engagement by challenging employees beyond their skill level or competence and/or requiring a commitment that interferes with relationships, these management efforts would thwart the employees fulfillment of their needs (specifically for competence and relatedness); thereby, undermining work engagement.

*Autonomy*

There is strong empirical evidence of the positive relationship between the satisfaction of the need for autonomy and work engagement. Specifically, a recent meta-analytical review
combined over 50 studies, and 25,562 subjects to analyze the relationship between the satisfaction of the need for autonomy and work engagement; the result was a strong correlation ($r= .54$, 95% CILL .52, CIUL .56) (Van den Broeck, et al., 2016). Additionally, autonomy of decision-making has been shown to contribute to increased work engagement (Salanova, Agut, & Peiro, 2005). Therefore, based upon SDT theory and the related research (Salanova, Agut, & Peiro, 2005; Van den Broeck, et al., 2016), I expect this relationship to replicate in women entrepreneurs with the following hypothesis:

$$H3a: \text{Among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for autonomy and their reported level of entrepreneurial work engagement as an entrepreneur.}$$

**Competence**

Similar to autonomy, empirical evidence for this relationship between competence and work engagement has been established (Leone, 1995; Gagne´ & Deci, 2005; Van den Broeck, Vansteenkiste, & De Witte, 2008; Van den Broeck, Vansteenkiste, M., De Witte, Soenens, & Lens, 2010). Specifically, a recent meta-analytical review that combined over 50 studies, and 25,562 subjects to analyze the relationship between the satisfaction of the need for competence and work engagement reported a sizeable correlation between the two ($r= .33$, 95% CILL .30, CIUL .36) (Van den Broeck, et al., 2016). Additionally, training, which can be construed as one means to satisfy the need for competence, has been shown to contribute to increased work engagement (Salanova, Agut, & Peiro, 2005). Therefore, based upon SDT theory and the related research (Salanova, Agut, & Peiro, 2005; Van den Broeck, et al., 2016), I expect this relationship to replicate in women entrepreneurs with the following hypothesis:
Among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for competence and their reported level of entrepreneurial work engagement as an entrepreneur.

Relatedness

Similar to both autonomy and competence, empirical evidence for this relationship between relatedness and work engagement has been established (Leone, 1995; Gagne’ & Deci, 2005; Van den Broeck, Vansteenkiste, & De Witte, 2008; Van den Broeck, Vansteenkiste, M., De Witte, Soenens, & Lens, 2010). Specifically, a recent meta-analytical review combined over 51 studies, and 25,971 subjects to analyze this relationship between the satisfaction of the need for autonomy and work engagement; resulting in a medium sized correlation ($r=.40$, 95% CILL .37, CIUL .42) (Van den Broeck, et al., 2016). Therefore, based upon SDT theory and the related research (Van den Broeck, et al., 2016), I expect this relationship to replicate in women entrepreneurs with the following hypothesis:

Among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for relatedness and their reported level of entrepreneurial work engagement as an entrepreneur.

Psychological Needs Satisfaction and Work-Family Balance

The effective balance of work and life/family has been shown to be a common motivation among many women entrepreneurs (Brush, 1990; Chaganti, 1986; Collins-Dodd, Gordon, & Smart, 2004; Cromie & Hayes, 1988; DeMartino & Barbato, 2003; Goffee & Scase, 1985; Holmquist & Sundin, 1988; Hughes, 2005; Kaplan, 1988; Parasuraman & Simmers, 2001; Scott,
1986). The majority of evidence for women’s success at achieving work-family balance shows them still struggling (Green & Cohen, 1995; Jurik, 1998; Kim & Ling, 2001; Kirkwood & Tootell, 2008; Longstreth, Stafford, & Maudin, 1987; Loscocco, Robinson, Hall, & Allen, 1991; Neider, 1987; Shelton, 2006; Ufuk & Ozgen, 2001; Winn, 2004). However, more recently some studies produced more hopeful results (Eddleston & Powell, 2012; Powell & Eddleston, 2013).

To better understand what contributes to the work-family balance of women entrepreneurs, I consider the positive effect of the psychological needs of autonomy, competence, and relatedness on work-family balance.

SDT provides the theoretical foundation for the link between needs satisfaction (autonomy, competence and relatedness) and work-family balance (Ryan and Deci, 2017). Again, one of the key tenets of SDT is that individuals have innate tendencies towards personal growth and are constantly striving to fulfill their basic needs. In that striving to satisfy needs, Warner and Hausdorf (2009), argue that work-family balance is enhanced through this continual desire to fulfill needs, particularly when people function in multiple roles. The various roles that people can have (e.g., mother and entrepreneur) simply offer more opportunities for people to fulfill those needs. For example, a woman entrepreneur who experiences the fulfillment of her need for competence while working at her business venture will benefit in her home life because she has greater well-being as a result of that need being satisfied in another realm. This logic can be applied to each basic psychological need. A recent meta-analytic review summarizes the empirical results from research studying the relationship between the needs and work-family conflict (Van den Broeck et al., 2016), a construct similar to work-family balance, but on the opposite end of the scale. Each particular need’s results are discussed in each section below with further empirical evidence for the relationship with each need to work-family constructs.
Autonomy

Evidence for a positive relationship between the satisfaction of the need for autonomy and work family balance exists. Hill, Hawkins, Ferris and Weitzman (2001) discuss the importance of employee autonomy in alleviating work-family imbalance. Empirical research has indicated a positive relationship between autonomy and work family enrichment (Grzywacz & Butler, 2005). Clark (2001) found support for the idea that increased autonomy leads to enhanced work-family balance. Additionally, perceptions of autonomy and control are negatively related to work family conflict (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011; Thompson and Prottas, 2005). Autonomy and flexibility at work, or being a central participant, was shown to be a factor in work-life balance (Lambert, Kass, Piotrowski, & Vodanovich, 2006). Van den Broeck and colleagues (2016) report meta-analytical review results showing (in 9 studies) a negative relationship between the satisfaction of the need for autonomy and work-family conflict (r=-.19, 95% CI Lower -.25, Upper -.14). Additionally, work-family enrichment theory (Greenhaus & Powell, 2006) is also consistent with SDT in explaining the relationship between the need for autonomy and work-family balance. Therefore, based upon SDT (Ryan & Deci, 2017), Warner and Hausdorf (2007), and the related empirical research (Clark, 2001; Grzywacz & Butler, 2005; Lambert et. al, 2006; Michel, Clark and Jaramillo, 2011; Thompson & Prottas, 2005; Van den Broeck et al., 2016), I expect this relationship to replicate in women entrepreneurs with the following hypothesis:

_H4a: Among women entrepreneurs, the satisfaction of the basic psychological need for autonomy is positively related to work-family balance._
**Competence**

The satisfaction of the need for competence will also contribute to greater work-life balance in that the women entrepreneurs’ sense of competence allows them to make better decisions about managing both their entrepreneurial endeavor and their personal lives, ultimately contributing toward a better work-life balance.

Correlational evidence exists for the relationship between the satisfaction of the basic psychological need for competence and work family conflict/enrichment (Roche, 2013). Additionally, Van den Broeck and colleagues (2016) report meta-analytical review results showing (in 9 studies) a negative relationship between the satisfaction of the need for competence and work-family conflict (r=-.13, 95% CI Lower -.16, Upper -.09). Therefore, based upon SDT (Ryan and Deci, 2017), Warner and Hausdorf (2009), and the related research (Roche, 2013; Van den Broeck et al., 2016), I expect this relationship to replicate in women entrepreneurs with the following hypothesis:

\[ H4b: \text{Among women entrepreneurs, the satisfaction of the basic psychological need for competence is positively related to work-family balance.} \]

**Relatedness**

Lastly, the satisfaction of the relatedness need that can occur within an entrepreneurial endeavor can enrich the relationships outside the endeavor also through spillover from the work interface into the personal life interface, again contributing to an enhanced work-family balance. Correlational evidence exists for the relationship between the satisfaction of the basic psychological need for relatedness and work family conflict/enrichment (Roche, 2013). Van den
Broeck and colleagues (2016) report meta-analytical review results showing (in 9 studies) a negative relationship between the satisfaction of the need for autonomy and work-family conflict ($r=-.14$, 95% CI Lower -.17, Upper -.10). Therefore, based upon SDT (Ryan and Deci, 2017), Warner and Hausdorf (2009), (Roche, 2013; Van den Broeck et al., 2016), I expect this relationship to replicate in women entrepreneurs with the following hypothesis:

\[ H4c: \text{Among women entrepreneurs, the satisfaction of the basic psychological need for relatedness is positively related to work-family balance.} \]

**Psychological Needs as Mediators**

SDT views basic psychological needs in two ways that make it unique when compared to other needs theories (Van den Broeck, et al., 2016). First, needs are innate- common to everyone. Second, needs serve the function of promoting psychological growth, internalization and well-being (Ryan & Deci, 2000b). SDT argues that context, such as levels of perceived discrimination, can thwart or promote needs satisfaction and also that needs promote psychological growth, internalization and well-being. Authenticity at work, entrepreneurial work engagement and work-family balance can be viewed as proxies for the well-being of women entrepreneurs. Therefore, based upon the tenets of SDT, I expect that the needs satisfaction of autonomy, competence and relatedness will serve as mediating mechanisms for which perceived discrimination negatively affects women entrepreneurs’ ability to be their true selves at work, ability to immerse and absorb themselves in their work, and ability to effectively achieve work-family balance in their lives.
Existing research has explored the role of needs satisfaction playing a mediating role. For example, needs satisfaction played a mediating role between the relationship between social identities and depression in an experimental study of adults in the U.S. (Greenaway, Cruwys, Haslam, & Jetten, 2016). Needs satisfaction also played an important mediating role in the relationship between environmental influences, such as job characteristics and leadership, and autonomous regulation (Gagne & Deci, 2005). Additionally, the need for belonging was found to mediate the relationship between ostracism and well-being, job satisfaction and employee turnover in a sample of employees in Canada (O’Reilly et al., 2015). Lastly, needs satisfaction of the multiple needs model of justice was found to mediate the relationship between perceived discrimination and work attitudes of job satisfaction and organizational commitment in a sample of over 5,000 U.S. organizationally employed workers (Goldman, et al., 2008). Based upon this related research evidence and SDT, I propose the following mediating relationships:

\[ H5a-c: \text{Among women entrepreneurs, the basic psychological needs satisfaction of a) autonomy, b) competence, and c) relatedness mediate the relationship between perceived ethnic discrimination and authenticity at work.} \]

\[ H6a-c: \text{Among women entrepreneurs, the basic psychological needs satisfaction of a) autonomy, b) competence, and c) relatedness mediate the relationship between perceived ethnic discrimination and entrepreneurial work engagement.} \]

\[ H7a-c: \text{Among women entrepreneurs, the basic psychological needs satisfaction of a) autonomy, b) competence, and c) relatedness mediate the relationship between perceived ethnic discrimination and work-family balance.} \]

Research Questions

Further consideration of the model of women entrepreneurs’ well-being lead me to explore the role that identity, specifically ethnic identity, may play in the relationship between
perceived ethnic discrimination and needs satisfaction. In researching this question, I found both competing theories of explanation and contrasting empirical results. Therefore, I explore this as a research question, rather than a hypothesis. This exploration is discussed next, followed by a discussion into the second research question related to differences across ethnic groups.

Identity

The roots of the development of ethnic identity lie in the ego identity model of Erik Erikson (1968), which purports that identity “refers to a subjective feeling of sameness and continuity that provides individuals with a stable sense of self and serves as a guide to choices in key areas of one’s life” (Phinney & Ong, 2007, p. 274); and identity is developed over time beginning with childhood and moving to particular salience during adolescence, culminating in an ‘achieved identity’ for most in adulthood. James Marcia (1980), one of the first empirical researchers of personal identity, conceptualized identity formation as consisting of two independent processes: exploration and commitment. The processes can be assessed independently and individuals can be classified as having one of four identity statuses as a result of their ranking on these two processes. The first indicates evidence of neither process, termed identity diffusion. The second results from commitment evidence but little exploration, termed identity foreclosure. The third indicates exploration without commitment, termed moratorium period. Lastly, the fourth indicates both exploration and commitment, termed achieved identity. Marcia’s foundation of research focused solely on personal identity, but Marcia’s developmental perspective is applicable to the study of ethnic identity.
Similar to personal identity, ethnic identity “refers to a sense of self, but it differs in that it involves a shared sense of identity with others who belong to the same ethnic group” (p. 275) – “a group defined by one’s cultural heritage, including values, traditions, and often language” (Phinney & Ong, 2007, p. 374). As such, ethnic identity is largely assigned at birth, not chosen like most personal identities. “The process of ethnic identity formation involves the construction over time of one’s sense of self as a group member and of one’s attitudes and understandings associated with group membership” (p. 275). Similar to the identity statuses proposed by Marcia (1980), the development of ethnic identity can follow the same processes, beginning with diffusion, moving to either identity foreclosure and/or a moratorium period, and then culminating with achieved identity in adulthood based on a firm commitment to one’s ethnic identity achieved through exploration of the ethnicity. Individuals who have high levels of commitment and high levels of exploration regarding their ethnic identity are classified as those with achieved ethnic identity (Marcia, 1980); these persons can also be described as those with a strong ethnic identity.

Figure 2. The Moderation Model for Research Question #1
The debate about the role that ethnic identity plays between discrimination and well-being is ongoing (Schmitt et al., 2014; Yoo & Lee, 2009).

**Buffering**

There is one group of researchers who argue that having a strong ethnic identity is a source of strength, a reservoir of resources that allows individuals to tap into and manage to overcome some of the negative effects of the discrimination; they argue that identification with an in-group, such as an ethnic group, plays a protective role for the person and buffers them from the negative effects of discrimination (Hansen & Sassenberg, 2006; Mossakowski, 2003; Romero & Roberts, 2003; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Wong, Eccles, & Sameroff, 2003) and this view is supported by Social Identity Theory (Tajfel & Turner, 2001). Social Identity Theory posits that individuals strive for a positive self-image and are motivated to maintain this affirmative self-image. High ethnic identity may serve to buffer the effects of ethnic discrimination through individuals maintaining their well-being by reinforcing or redefining unique aspects of their ethnic group, minimizing the effect on their well-being. Alternatively, those with low ethnic identity may not have the psychological resources to tap into when dealing with ethnic discrimination and may experience negative well-being. Additionally, ethnic identity has been proposed to function as a coping resource against discrimination, such that “commitment to ethnic relationships and having a salient ethnic identity buffer the stress of discrimination by preventing negative stereotypes from infecting one’s self-concept” (Mossakowski, 2003, p. 319). A recent meta-analysis testing the moderating role of group identification on the relationship between discrimination and well-being found that
although most tests were insignificant, the significant results provided some support for the buffering hypothesis (Schmitt, et al., 2014).

*Exacerbating*

On the other hand, when people have a strong ethnic identity, one could expect them to be affected even more so by their perceptions of ethnic discrimination, as those devaluing acts against them attack a very central part of their identity. One group of researchers argues that ethnic identity actually exacerbates the relevance of the discrimination to the self, and therefore makes it more harmful to the individual (McCoy & Major, 2003, Yoo & Lee, 2009). This perspective is supported theoretically by Rejection Sensitivity Theory (Downey & Feldman, 1996; Downey Khouri, & Feldman, 1997). Rejection sensitivity theory argues that the more individuals are exposed to discrimination, the more anxious they are about future encounters of discrimination. Individuals with strong ethnic identities are likely to be more rejection sensitive, particularly as cases of ethnic discrimination increase, because they identify more strongly with the domain that is at the core of the discrimination-their ethnicity.

**Research Question #1: How does ethnic identity affect the relationship between perceived ethnic discrimination and psychological needs satisfaction? (see Figure 2)**

So, although this has been tested in other samples, we don’t know how this is going to play out in a group of women entrepreneurs of various ethnic backgrounds. We want to see women of color striking out on their own and making their own businesses and thriving in those businesses. But, we need to develop an understanding of the effects of discrimination and the
ways in which women can overcome these negative forces. This study begins this journey of understanding.

**Research Question #2: Does ethnicity/race matter?**

Again, further consideration of the model of women entrepreneurs’ well-being led me to wonder whether any or all of this model will differ based upon the racial/ethnic group status of the women entrepreneurs (e.g., advantaged vs. disadvantaged). A compelling question is whether or not the influence of perceived discrimination on needs satisfaction in these proposed model relationships differs by the race/ethnicity group status of the women entrepreneurs. To be clear, SDT argues that needs are universal to all, regardless of cultural differences. However, what is variant is how the needs can be thwarted or fulfilled relative to the socio-culture context (Ryan & Deci, 2012) According to a recent meta-analytical review, disadvantaged racial groups report higher effect sizes (r=-.24, p<.05) than advantaged groups (r=-.10, p<.05) for the correlational relationship between perceived discrimination and well-being (Schmitt, et al., 2014). Will these results transfer to my model such that the mediation hypotheses vary by advantaged/disadvantaged ethnic/racial group status?

One explanation for possible differences between the advantaged/disadvantaged racial/ethnic groups could lie within SDT’s discussion of multiple or fragmented identities. Ryan and Deci (2012) explain that well-being is positively related to how integrated one’s identity or identities are to the self. Several studies have shown that fragmented or more complex identities have a negative impact on well-being (Donahue, Robins, Roberts & John, 1993; Ryan, LaGuardia, & Rawsthorne, 2005; Sheldon et al., 1997). Could it be that those from
the disadvantaged racial/ethnic groups have more complex or fragmented identities (and that fragmentation serves to thwart needs fulfillment)?

Strong evidence exists regarding the variation of ethnic identity levels across ethnic groups, with ethnic minorities consistently reporting higher levels as compared to Whites (e.g., Fuligni, Witkow, & Garcia, 2005; Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999; Syed & Azmitia, 2009). This is consistent with social identity theory (Tajfel & Turner, 1986) which argues that membership of subordinate social groups is increased in minority contexts as a means for fostering self-esteem and creating a sense of belongingness (Syed & Azmitia, 2009). I would expect to see similar variations in the levels of ethnic identity in this sample, and these differing levels between the groups may generate model performance differences. Therefore, I will conduct exploratory analyses regarding the model relationships for the advantaged group (Whites) and the combined disadvantaged racial groups (Asian, Blacks, and Hispanics) to explore if there are differences for these sub-groups of women entrepreneurs by evaluating minority status as moderated moderation (triple interaction) in the moderation of ethnic identity on the relationship between perceived ethnic identity and needs satisfaction of autonomy, competence and relatedness, and the moderated mediation model of needs satisfaction mediating the relationship between perceived ethnic discrimination and the well-being outcomes.
Chapter 4: Methods

This chapter provides an overview of the methods used in this dissertation study. First, I provide details about the sample, data collection and measures; followed by a discussion of the analytical procedures and results. This dissertation study, titled “Women Entrepreneurs Study” received approval from the Institutional Review Board at the University of Wisconsin-Milwaukee on November 2nd, 2016 (IRB# 17.112).

The empirical research on basic psychological needs, well-being and identity are all at the mature developmental level, and empirical research on authenticity is building as a result of the development of several reliable validated authenticity measures (e.g., state, trait, role, relationships) (Kernis & Goldman, 2006; Lopez & Rice, 2006; Sheldon et al., 1997; van den Bosch & Taris, 2014a). Therefore, it is appropriate to apply the deductive approach while using quantitative methods for this study (Edmondson & McManus, 2007).

Data Collection and Sample

The target population for this study is women entrepreneurs who represent various racial groups: African American, Asian American, Hispanic and White women.

Data Collection Procedures

Data for this study was collected through the online panel survey, Qualtrics. In an effort to reduce common method variance concerns, the data was collected in two waves in which the independent variables were collected in the first wave and all outcomes were assessed in the second wave (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The first wave was collected in
November, 2016 with the second wave following one month later, so as to not have too long of a
lag in the timing between surveys (Podsakoff et al., 2003). Participants were incented as part of
an award system where proprietary points can be accumulated and redeemed for gift cards, flyer
miles, product bundles, or online media content. Proprietary points were awarded at an
appropriate level of US$6 for each full survey completion to encourage completion of both
surveys involved in the study. All participants were assigned a unique participant identification
number (PID) by Qualtrics, which was used to match the two waves of data together. The
participants completed the surveys under full anonymity; no individually identifying information
was collected during the survey, nor was any identifying information provided from Qualtrics.
Potential respondents were selected from the Qualtrics Business to Business panel participants,
which qualified them as business owners. There were four criteria that had to be met in order for
a panelist to qualify for this study: 1) they had to be female, 2) self-employed, 3) working 32 or
more hours per week in their self-employed business, and 4) live in the United States.

The invitation to participate in the two-wave study was sent to 916 panelists. The first
wave of data collection received 330 complete responses for a 36% completion rate from
November 7th through the 15th, 2016. The invitation to complete the second wave of the survey
was subsequently sent to only those 330 panelists who fully completed the first survey. The
second wave of data collection received 170 complete responses at a 51.5% completion rate from
December 12th through the 28th, 2016.

Response Screening. In an effort to ensure response quality in my online sample, I
employed several methods of response screening, including quality checks, survey duration
boundaries, and direct respondent commitments to quality responses. Quality checks were
automatically employed in the first survey by Qualtrics. If a respondent did not accurately respond to any of the three quality checks, they were excluded from the survey results as they were considered “careless responders”. On the second wave, the quality checks were not automated by Qualtrics. After a close review of the 170 completed surveys, there were 40 respondents who missed at least one of the five data quality checks included in wave 2. These respondents were excluded from the data pool for wave 2 leaving 130 remaining. Survey duration minimum boundaries were set for both surveys, calculated at an average of 1/3 of the average survey completion time. Any respondents taking less than this threshold for survey completion were automatically not included in the survey results by Qualtrics. Finally, in the second survey, a quality check question was inserted at the front of the survey. It read: “Data quality is of the utmost importance to our research. We ask that you commit to providing honest, thoughtful responses for every question in this survey.” Responses included 1) I commit to providing quality data, 2) I can’t commit to providing quality data, and 3) I can’t commit either way. There was one respondent who selected 3 in wave 2; this data was removed from the data set, leaving a final count for wave 2 of 129 quality respondents.

Sample Description. The sample consisted of all women, who reported themselves as self-employed, working at least 32 hours per week in their business, currently living in the United States. The race/ethnicity of the sample broke down as follows: 46.5% (n=60) were from the majority, or White race and 53.5% (n=69) were from the minority race/ethnic groups, which included American Indian, Asian, Black, and Hispanics. Of the 69 minority respondents, 44.9% (n=31) were Black or African American, 36.2% (n=25) were Hispanic or Latino/a, 23.2% or (n=16) were Asian, and 10.1% (n=7) were American Indian or Native American. Most, or
82.2% have lived in the U.S. their whole lives, with 15.5% have lived in the U.S. 20 or more years, but not their whole lives. The mean age is 43.3 years, ranging from 21-75 years old. Education was well represented with 27.1% with at least some college, 16.3% holding a 2-year degree, 35.7% holding a 4-year degree, and 13.2% holding a graduate degree. 97.7% were U.S. citizens, with 89.1% born in the U.S. Socioeconomic background was normally distributed with the following social backgrounds represented: 2.3% poor, 14.0% working poor, 38.8% working class, 31.8% middle class, 11.6% upper middle class, and 1.6% upper class. Current social class was also normally distributed: .8% poor, 8.5% working poor, 23.3% working class, 43.4 middle class, 22.5% upper middle class, and 1.6% upper class. Marital status included: 64.3% married/living together, 19.4% never married/single, 14.7% divorced/separated, and 1.6% widowed. 47.3% have at least one or more of their children currently living in their household. The mean years of business experience is 12.5 years, with 32.6% reporting over 20 years. 27.1% of the women have owned other businesses previously—of which 48.6% owned 1 other business, 45.7% owned 2 previous businesses, and 5.8% owned 4-5 previous businesses. 33.3% had fathers who were self-employed and 14.7% had mothers who were self-employed.

The firms represented a wide variety of sectors including 10.9% in trade (wholesale or retail), 9.3% in professional, scientific, technical services, 9.3% in arts, entertainment or recreation, 8.5% in Health care or social services, 7% in construction, 7% in consulting, and 3.9% in manufacturing, to name a few. 29.5% reported in the other category, which included some text responses such as “Interpreter”, “Income Tax Preparation”, “Law/Writing”, “Market Research”, “Fitness Instructor”. 14% export goods out of the U.S. Full-time equivalent employees averaged at 6.54, with over 50% reporting just themselves. The business structures
represented included: 55.8% sole proprietorships, 6.2% partnerships, 17.8% LLCs, 1.6% C-Corporation, 3.9% S-Corporation, and 12.4% None of the above-Informal. The businesses have been financed in the following ways: 78.3% used personal savings, 89.1% used family/friend loans, 10.9% used bank loans, 2.3% used venture capitalists, 1.6% used angel investors, 1.6% used online fundraising tools (i.e. gofundme.org) and one person used their Individual Retirement Account. The size of the business in gross annual sales ranged from $1-10K to $1M or more. All sizes of businesses were represented: 25.6% at $1-10K, 21.7% at $11-50K, 19.4% at $51-100K, 10.9% at $101-250K, 10.9% at $251-500K, 6.2% at $501-999K, and 5.4% at $1M or more. 82.2% reported being the sole owner of their business. Of the remaining 17.8%, 65.2% have one other partner, 13.0% have two other partners, 8.7% have three other partners, and 13.0 have 25 or more partners. The length of operation of their current business ranged from 0 months to over 50 years, with 22.5% operating 2 years or less; 51.2% operating 5 years or less, and 71.3 operating 10 years or less; and 14.7% operated 20 or more years. The mean age when they started the business was 35.28 years old. The primary locations of the businesses are: 68.2% are home-based; 13.2% own an outside of the home facility, and 18.6% rent and outside of the home facility. The numbers of locations are: 88.4% have one; 5.4% have 2 locations, 3.1% have four locations and 3.1% have 10 or more locations. 92.2% report being profitable. Their outlook is optimistic: 10.1% expect a sales decrease in the next year; 30.2% expect to hold steady; and 59.7% expect to increase in the next year. 8.5% expect a sales decrease in the next 3 years; 23.3% expect to hold steady for the next 3 years; and 60.5% expect to increase sales in the next 3 years.
Mean comparisons using ANOVA were conducted comparing the Minority respondents to the Majority respondents based upon the descriptive measures. Statistically significant differences between group means as determined by a one-way analysis of variance (ANOVA) were found for the number of previous owned businesses \((F(1, 33)=6.04, p<.05)\) and born in the United States status \((F(1, 127)=15.04, p<.001)\). Out of those who reported having owned a previous business \((n=35)\), respondents from the minority racial/ethnic groups (Hispanic, Black, Asian, American Indian) reported significantly more previously owned businesses \((M=1.95, SD=1.00)\) than the respondents from the majority racial/ethnic groups \((M=1.27, SD=.46)\).

Respondents from the minority racial/ethnic groups (Hispanic, Black, Asian, American Indian) were significantly less likely to have been born in the United States \((M=.80, SD=.41)\) than the respondents from the majority racial/ethnic groups \((M=1.00, SD=.00)\).

**Measures**

All measures used in this study were validated scales taken from the relevant literature and have demonstrated psychometrically sound properties (see Appendix B for full scale items). The individual was the unit of analysis. The independent variables were collected at wave 1 with the dependent variables collected at wave 2. All control variables were collected at wave 1, with the exception of social desirability.

**Independent Variables**

*Perceived ethnic discrimination* was measured by the Perceived Ethnic Discrimination Questionnaire by Contrada and colleagues (2006). The scale consists of twenty-two items that measure the perceived level of various forms of ethnic discrimination encountered by the respondent in the past three months; this study used the seventeen items that were shown to have
significant factor loadings in the scale development study (Contrada, et al., 2001). The scale consists of four subscales, disvaluation, threat/aggression, verbal rejection, and avoidance. Following the precedence set by scholars in the literature (Awad, 2010; Bombay, Matheson, & Anisman, 2010; Pieterse, Carter, Evans, & Walter, 2010; Salomon & Jagusztyn, 2008; Thames et al., 2013), the four sub-scales were totaled for one combined overall perceived ethnic discrimination score. The Cronbach’s alpha coefficient for the total scale is .96 and for each of the subscales it is .95, .88, .93, and .92, respectively. Respondents are instructed to “Please indicate how often over the past 3 months someone has done this to you because of your ethnicity”. Participants were asked to indicate the answer to the question on a seven-point Likert scale ranging from 1 (never) to 7 (very often). Some sample items include: “Implied you must be unintelligent”, “Threatened to damage your property”, “Offensive comments about ethnic group”, and “Others avoided social contact with you”. Refer to Appendix B for full scale.

_Basis psychological needs_ were measured by the Work-related Basic Need Satisfaction Scale (WBNS) by Van den Broeck, Vansteenkiste, De Witte, Soenens, and Lens (2010). The scale was theoretically developed in line with self-determination theory and has shown adequate psychometric properties in the original validation study (Van den Broeck et al., 2010) and in many subsequent study samples (e.g., van Hooff & Geurts, 2015; Trépanier, Fernet, & Austin, 2015). Participants were asked to indicate the extent to which they agree with the statements on a five-point Likert scale ranging from 1 (totally disagree) to 5 (totally agree). The scale consists of sixteen items and measures the satisfaction of three basic needs dimensions: autonomy, competence, and relatedness; the internal reliability coefficient alpha for each of the subscales is .59, .70, and .81, respectively. Sample _autonomy_ items include “I feel free to do my job the way I think it could best be done” and “If I could choose, I would do things at work differently”
Sample competence items include “I feel competent at my job” and “I am good at the things I do in my job”. Lastly, sample relatedness items include “At work, I can talk with people about things that really matter to me” and “I don't really feel connected with other people at my job” (reverse-coded). Refer to Appendix B for full scale.

**Dependent Variables**

*Authenticity* was measured by the Individual Authenticity Measure at Work (IAM Work) scale by van den Bosch & Taris (2014a). This theory-based scale has shown to be psychometrically sound as a measure of state-based authenticity in the context of the work environment. IAM Work asks participants to imagine how much each statement applied to them only at work in their entrepreneurial business (and not in other situations) for the past 4 weeks and rating their responses on a 7 point Likert-type scale, ranging from 1 (“does not describe me at all”) to 7 (“describes me very well”). The twelve-item scale consists of three four-item subscales that respectively provide one positive and two negative indicators of authenticity (authentic living, self-alienation, and accepting external influence). Accepting external influence has also been referred to as ‘social influence’ (Metin et al., 2016); and in this study I use this more intuitive description of social influence from here forth in this manuscript. The internal reliability coefficient alphas for the overall 12-item measure of authenticity are .78 and .74, .79, and .63 respectively for the subscales of authentic living, self-alienation and social influence. As will be discussed in the forthcoming analyses section, confirmatory factor analysis indicated a better fit for use of the three factor structure for this variable. Therefore, results will be reported for each dimension of authenticity at work. Sample items include: authentic living, “I am true to myself at work in most situations”; self-alienation, “I don’t feel who I truly am at work”, and
social influence, “At work, I feel the need to do what others expect me to do”. Refer to Appendix B for full scale.

_Entrepreneurial Work Engagement_ was measured by an adaptation of the Rothbard (2001) work engagement measure. This 9-item scale was modified to reflect “Entrepreneurial Work Engagement” by substituting ‘work’ with ‘business’ and adding ‘in my business’ where logical. The scale is two dimensional with _attention_, (e.g., “the duration of focus on and mental preoccupation with work”), and absorption (e.g., “the intensity of one’s focus on a role”) (Rothbard, 2001, p. 665). Respondents indicated their level of agreement with the statements regarding their personal experience in their business on a 7 point Likert-type scale, ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). As will be discussed in the forthcoming analyses section confirmatory factor analysis indicated a better fit for use of the two factor structure for this variable, rather than an overall index. Therefore, results will be reported for each dimension of entrepreneurial work engagement. Higher scores represent greater levels of entrepreneurial work engagement attention and absorption. The scale’s internal reliability coefficient alphas are .90 and .80, respectively for the dimensions. Sample items include “I focus a great deal of attention on my business” and “When I am working in my business, I am totally absorbed by it”. Refer to Appendix B for full scale.

_Work-Family Balance_ was measured with the Eddleston and Powell (2012) Satisfaction with Work-Family Balance scale, which consists of three items assessing: integrating my business life with my nonwork life, achieving work–family balance, and gaining greater control over my life. Respondents indicated how satisfied they currently were with the items on a 5 point Likert-type scale, ranging from 1 (“very dissatisfied”) to 5 (“very satisfied”). Higher scores represent greater satisfaction with work-family balance. “These items represent outcomes
of entrepreneurship pertaining to one’s personal life as an entrepreneur and sense of control over it (Bird & Brush, 2002; Brush, 1992; Heilman & Chen, 2003)” (Eddleston & Powell, 2012, p. 524). The reliability score for this scale is .91.

**Research Question Variables**

*Ethnic Identity* was measured using the Multigroup Ethnic Identity Measure – Revised (MEIM-R) by Phinney and Ong (2007). The scale consists of a total of six items with two dimensions of commitment and exploration and can be used as one latent variable of ethnic identity. Strong empirical evidence exists to support the sound psychometric properties with the use of the MEIM-R in samples across the spectrum of ethnic/racial diversity, including both majority and minority ethnicities and races (Brown et al., 2014; Chakawa, Butler, & Shapiro, 2015; Yoon, 2011). The reliability for the scale is acceptable with a Cronbach’s alpha of .91 for exploration and .87 for commitment; and subsequent .90 for the combined 6-item scale. The scale was administered after participants were presented with a preceding “open-ended question that elicits the respondent’s spontaneous ethnic label”. Respondents were told “these questions are about your ethnicity or your ethnic group and how you feel about it or react to it” and then they were instructed to indicate their level of agreement with the following statements using a 7 point Likert-type scale, ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Sample items include “I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs” and “I have a strong sense of belonging to my own ethnic group”. The scale “conclude(s) with a list of appropriate ethnic groups that the respondent can check to indicate both their own and their parents’ ethnic backgrounds” (Phinney & Ong, 2007, p. 276). Refer to Appendix B for full scale.
Minority Status is measured dichotomously with 1 representing “Minority” and 0 representing “Majority”. Individuals reporting their ethnicity solely as White or Caucasian were classified as “Majority”; whereas individuals reporting any other race or ethnicity (including combinations of White or Caucasian and any other race or ethnicity) were classified as “Minority”.

Control Variables

The control variables were included based upon existing theory and research. Positive and negative affect has been shown to affect work engagement (Reis et al., 2014; van den Bosch & Taris, 2014) and authenticity (Heppner et al., 2008; van den Bosch & Taris, 2014; Wood et al., 2008), therefore I controlled for positive and negative affect. I also controlled for social desirability and the demographics of age, education, and born in the US. Scholars have suggested that age could be related to authenticity (Wood et al., 2008). Because of significant differences across groups in education and born in the US, I also controlled for these. All control variables were collected in the first wave of the study, with the exception of social desirability, which was collected in the second wave. Age has been shown to have a positive relationship with the needs for autonomy and competence; and education has been shown to have a positive relationship with need for autonomy (Van den Broeck, et al., 2016).

Positive and negative affect were measured with the 12 item scale developed by Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi, and Biswas-Diener (2010). Respondents were instructed to “think about what you have been doing and experiencing during the past four weeks. Then report how much you experienced each of the following feelings using the following scale”. The rating scale included 1= vary rarely or never, 2= rarely, 3=sometimes, 4= often and 5=very often
or always. Some positive affect items include ‘good’, ‘pleasant’, and ‘contented’; while some negative affect items include ‘bad’, ‘unpleasant’, and ‘sad’. Higher scores represent greater levels of positive or negative affect. Refer to Appendix B for full scale.

A closer look into the correlation analyses revealed a very high correlation between positive affect and negative affect ($r = -0.70, p < .001$). Despite the literature supporting evidence for using each of these variables as controls in this study, the high correlation precludes the inclusion of both variables as controls. Positive affect demonstrated stronger correlational relationships with the key mediator and outcome variable and was therefore included as a control, while negative affect was dropped as a control.

Social Desirability was measured with the 10 item scale developed by Strahan and Gerbasi (1972). Respondents provided true/false dichotomous responses, of which 5 items were reverse coded, and a total score was generated with a sum. Larger scores indicated greater social desirability. Refer to Appendix B for full scale.

**Preliminary Analyses**

Prior to testing the hypotheses and research questions, I first completed some preliminary psychometric analyses. I begin with assumption checking including screenings for outliers, normality, and heteroscedasticity.

All items for each scale were screened for univariate outliers, which were identified as responses greater than 3.29 standard deviations from the mean (Tabachnick & Fidell, 2007). None of the items were deemed far enough to warrant removal from the dataset. There were some departures from normality with respect to skewness or kurtosis (Kline2011) in the
screening of the distributional characteristics of the key study variables. The variable perceived ethnic discrimination had positive skewness (skewness = 2.19, SE=.213) and positive kurtosis (kurtosis = 4.96, SE = .423). The variable needs satisfaction of competence showed negative skewness (skewness = -1.76, SE = .213) and positive kurtosis (kurtosis=3.92, SE = .423). The analysis being used for this study is the PROCESS macro (Hayes, 2013), and Hayes (p.54) argues that unless the sample size is very small, simulation research has shown that only the most severe of normality assumption violations affect the validity of the inferences made from a regression analysis (e.g., Duncan & Layard, 1973; Edgell & Noon, 1984; Havlicek & Peterson, 1977; Hayes, 1996). All other key variables demonstrated normality. Checks for the assumption of homoscedasticity were conducted and the data was found to violate this assumption. PROCESS macro (Hayes, 2013) allows for an adjustment in the case of heteroscedasticity in the data (called HC3), and this adjustment to all of the analyses was made to account for the heteroscedasticity. A review of the bi-variate correlations did not show evidence of mult-collinearity (above .90) nor any signs of singularity (variables are redundant) (Tabachnick & Fidell, 2007).

I first conducted a confirmatory factor analysis of all of the study items using AMOS 24.0.0.0 by IBM© SPSS© Statistics. The comparative fit index (CFI: Bentler, 1990) and the standardized root-mean square residual (SRMR; Hu, & Bentler, 1990) are reported as indicators of fit. CFI values greater than or equal to .90 should be considered a good fit (Medsker, Williams, & Holahan, 1994). SRMR values less than or equal to .08 should be considered a relatively good fit, and SRMR values less than or equal to .10 should be considered fair fit (Brown & Cudek, 1993). These confirmatory factor analyses resulted in adjustments to some of
the scales. First, for needs satisfaction-autonomy, items 1 and 2 were removed; and for needs satisfaction-competence, item 16 was removed as the three factor model with these items removed fit the data well, $\chi^2 (51, N=330) = 158.45, p<.001, \text{SRMR}=0.06, \text{CFI}=0.91$ as compared to the poor fit of the three factor model with none of the items removed, $\chi^2 (101, N=330) = 450.43, p<.001, \text{SRMR}=0.09, \text{CFI}=0.78$. Additionally, analysis of both the authenticity and work engagement scales indicated that these scales best fit the data as three and two factor models, respectively. For the authenticity at work outcome the confirmatory factor analysis for all twelve items loading on one factor demonstrated poor fit, $\chi^2 (54, N=129) = 196.35, p<.001, \text{SRMR}=0.11, \text{CFI}=0.71$; conversely, the three factor model demonstrated good fit in the wave two data, $\chi^2 (51, N=129) = 104.48, p<.001, \text{SRMR}=0.07, \text{CFI}=0.89$; and even stronger fit in the wave one data, $\chi^2 (51, N=330) = 107.58, p<.001, \text{SRMR}=0.04, \text{CFI}=0.96$. For the entrepreneurial work engagement outcome the confirmatory factor analysis for all nine items loading on one factor demonstrated poor fit, $\chi^2 (27, N=129) = 113.55, p<.001, \text{SRMR}=0.07, \text{RMSEA}=0.16, \text{CFI}=0.89$; conversely, the two factor model demonstrated good fit in the wave two data, $\chi^2 (26, N=129) = 57.5, p<.001, \text{SRMR}=0.04, \text{CFI}=0.96$; and also good fit in the wave one data, $\chi^2 (26, N=330) = 111.60, p<.001, \text{SRMR}=0.05, \text{CFI}=0.95$. Therefore, the sub-dimensions of both the authenticity at work and entrepreneurial work engagement outcome variables are reported in the analysis and results, rather than the indexed scales. Additionally, the confirmatory factor analysis of the perceived ethnic discrimination scale demonstrated relatively poor fit as a one factor model, $\chi^2 (119, N=330) = 1798.13, p<.001, \text{SRMR}=0.08, \text{CFI}=0.74$; and relatively good fit as a four factor model, $\chi^2 (113, N=330) = 563.17, p<.001, \text{SRMR}=0.063, \text{CFI}=0.93$. However, the subsequent analyses include this scale as a one factor index for several reasons including consistent reporting of this scale as a one factor index in much of the literature (Awad, 2010; Bombay et al., 2010; Pieterse
et al., 2010; Salomon & Jaguszyn, 2008; Thames et al., 2013), and reporting this variable as four sub-dimensions unnecessarily complicates the reporting of an already complex model, as analyses show similar results when comparing the results with the four subscales versus the indexed results. Therefore, in this study, the perceived ethnic discrimination is reported as a one factor scale.

A test of the complete measurement model using the wave one and two variables was not possible to analyze because of the number of distinct parameters to be estimated (parameters = 192) and the limited sample size (n=129). Alternatively, a total measurement model using all of the variables in the study with substituting the wave one data for the wave two outcome variables was analyzed as a proxy measurement model, in which the sample size was increased from n=129 (wave 2 data) to n=330 (wave 1 data). All twelve of the latent variables were allowed to correlate with one another, including 1) perceived ethnic discrimination, 2) ethnic identity, 3) needs satisfaction-autonomy, 4) needs satisfaction-competence, 5) needs satisfaction-relatedness, 6) authenticity-authentic living, 7) authenticity-self alienation, 8) authenticity-social influence, 9) entrepreneurial work engagement-attention, 10) entrepreneurial work engagement-absorption, 11) work-family balance, and 12) positive affect (control). The analysis indicated that the twelve factor model fit the wave one data fair, $\chi^2$ (2013, N=330) = 4778.75, $p<.001$, SRMR=.065, RMSEA=.055, CFI=.82, as compared with a one factor model which demonstrated poor fit, $\chi^2$ (2079, N=330) = 11914.69, $p<.001$, SRMR=.17, RMSEA=.12, CFI=.34.
Chapter 5: Results

In this chapter, I begin with an overview of the analytical procedures used to test the hypotheses. Then, I present the results of each hypothesis. Lastly, I present the results of the exploration of the research questions.

Analytical Procedures

Hayes’ (2013) PROCESS macro for SPSS was used to test the hypotheses. The control variables included in all of the analyses are: positive affect, social desirability, age education and born in the United States. Using PROCESS macro, regression was run for hypotheses H1a-c to H4a-c. Mediation analyses were tested using Model 4 of the PROCESS macro. All analyses included the adjustment for heteroscedasticity-consistent SEs (HC3 method). Research question one was tested using PROCESS macro (Hayes, 2013; Model 1) moderation analysis. Research question two was tested using PROCESS macro (Hayes; Model 3) moderated moderation analyses and PROCESS macro (Hayes; Model 59) moderated mediation analyses.

Hypotheses 1: Discrimination and Needs Satisfaction

The means, standard deviations correlations and scale reliabilities (Cronbach’s alpha) for the primary study variables are shown in Table 1.
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<thead>
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<th>M</th>
<th>SD</th>
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<th>4</th>
<th>5</th>
<th>6</th>
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<th>15</th>
<th>16</th>
<th>17</th>
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</thead>
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<td>1=Minority; 0=Non-Minority</td>
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<td>2</td>
<td>Perceived Ethnic Discrimination</td>
<td>T1</td>
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<td>0.96</td>
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<td>4</td>
<td>Needs Satisfaction: Autonomy</td>
<td>T1</td>
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<td>-.06</td>
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<td>6</td>
<td>Needs Satisfaction: Relatedness</td>
<td>T1</td>
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<tr>
<td>7</td>
<td>Authenticity: Authentic Living</td>
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<td>8</td>
<td>Authenticity: Self-Alienation</td>
<td>T2</td>
<td>1.89</td>
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<td>.79</td>
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<tr>
<td>9</td>
<td>Authenticity: Social Influence</td>
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<td>1.26</td>
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<td>-.10</td>
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<td>-.03</td>
<td>-.04</td>
<td>-.18</td>
<td>.23”</td>
<td>.63</td>
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<td>10</td>
<td>Entrepreneurial Work Engagement: Attention</td>
<td>T2</td>
<td>6.08</td>
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<td>.05</td>
<td>.27”</td>
<td>.18”</td>
<td>.35”</td>
<td>.20”</td>
<td>.40”</td>
<td>-.13</td>
<td>-.08</td>
<td>.90</td>
<td></td>
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<tr>
<td>11</td>
<td>Entrepreneurial Work Engagement: Absorption</td>
<td>T2</td>
<td>5.51</td>
<td>1.06</td>
<td>-.02</td>
<td>.13</td>
<td>.17</td>
<td>.20”</td>
<td>.30”</td>
<td>.09</td>
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<td>-.07</td>
<td>-.03</td>
<td>.74”</td>
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<tr>
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<td>Work Family Balance</td>
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<td>3.98</td>
<td>0.98</td>
<td>.13</td>
<td>-.11</td>
<td>-.15</td>
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<td>.91</td>
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<td>Positive Affect</td>
<td>T1</td>
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<td>.15</td>
<td>-.08</td>
<td>.16</td>
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<td>-.37”</td>
<td>-.10</td>
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<td>.52”</td>
<td>.91</td>
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<tr>
<td>14</td>
<td>Social Desirability</td>
<td>T2</td>
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<td>1.93</td>
<td>.06</td>
<td>-.16</td>
<td>-.02</td>
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<td>.11</td>
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<td>-.15</td>
<td>.19</td>
<td>1.00</td>
</tr>
<tr>
<td>17</td>
<td>1=Born in the US; 0=Not</td>
<td>T1</td>
<td>0.89</td>
<td>0.31</td>
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<td>.07</td>
<td>-.05</td>
<td>.18”</td>
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<td>.05</td>
<td>.08</td>
<td>.12</td>
<td>-.01</td>
<td>.02</td>
</tr>
</tbody>
</table>

*a Reliabilities (Cronbach's alpha), when applicable, are indicated on the diagonal in bold, italicized.

**Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

n=129
Hypotheses 1a, 1b and 1c examine the relationships between perceived ethnic discrimination and the three needs satisfaction variables including a) autonomy, b) competence and c) relatedness. Hypotheses 1a-c posited that perceived ethnic discrimination would thwart needs satisfaction, and would therefore, be negatively related to needs satisfaction. Regression results indicate that there is not a significant relationship between perceived ethnic discrimination and the psychological needs satisfaction variable of: autonomy ($\beta = -.06, n.s.$); competence ($\beta = -.01, n.s.$); and relatedness ($\beta = .05, n.s.$). These regression results are shown in Table 2. Hypotheses 1a, 1b, and 1c were not supported.

Table 2: Regression results of perceived ethnic discrimination on needs satisfaction of autonomy, competence and relatedness. (n=129)

<table>
<thead>
<tr>
<th></th>
<th>Autonomy</th>
<th>Competence</th>
<th>Relatedness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
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</tr>
<tr>
<td>Positive Affect</td>
<td>.04*</td>
<td>.02*</td>
<td>.09**</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>.02</td>
<td>.00</td>
<td>.02</td>
</tr>
<tr>
<td>Age</td>
<td>.00</td>
<td>.00</td>
<td>-.01</td>
</tr>
<tr>
<td>Education Level</td>
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<td>-.01</td>
<td>-.04</td>
</tr>
<tr>
<td>Born in the US</td>
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<td>-.04</td>
<td>-.15</td>
</tr>
<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Ethnic Discrimination</td>
<td>-.06</td>
<td>-.01</td>
<td>.05</td>
</tr>
<tr>
<td>Constant</td>
<td>2.98***</td>
<td>4.10***</td>
<td>1.79**</td>
</tr>
<tr>
<td>$R^2$ = .13</td>
<td>$R^2$ = .08</td>
<td>$R^2$ = .19</td>
<td></td>
</tr>
<tr>
<td>F(6, 122)=2.84**</td>
<td>F(6, 122)=1.27</td>
<td>F(6, 122)=5.69***</td>
<td></td>
</tr>
</tbody>
</table>

Notes: *p <.05, **p<.01, ***p<.001

Hypotheses 2-4: Needs Satisfaction and Well-Being

Hypotheses 2a-c, 3a-c and 4a-c assess the proposed positive relationships between the three needs satisfaction variables including a) autonomy, b) competence and c) relatedness and
the well-being outcome variables of authenticity at work (authentic living, self-alienation, and social influence), entrepreneurial work engagement (attention and absorption) and work-family balance. Regression results indicate that there are mixed results for the relationships between needs satisfaction and the well-being outcomes.

**Authenticity at Work.** Hypotheses 2a-c states: *among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for a) autonomy, b) competence, and c) relatedness and their reported level of authenticity as an entrepreneur.* Regression results indicate that there is a significant relationship between the satisfaction of the need for autonomy and two of the subscales of authenticity at work, self-alienation ($\beta = -0.43, p < 0.05$) and social influence ($\beta = -0.60, p < 0.05$). Additionally, the regression results were significant for the relationships between the satisfaction of the psychological need for competence and two of the subscales of authenticity at work, authentic living ($\beta = 0.94, p < 0.01$) and self-alienation ($\beta = -0.54, p < 0.01$). As was discussed in the measures section, authentic living is a positive indicator of authenticity at work, while self-alienation and social influence are negative indicators of authenticity at work. Therefore, the negative coefficients corresponding to the two subscales of self-alienation and social influence are in line with the hypotheses of the positive relationship to the authenticity construct. The satisfaction of the psychological need for relatedness and authenticity at work were not significantly related to any of the subscales of authenticity at work: authentic living ($\beta = 0.11, n.s.$), self-alienation ($\beta = -0.08, n.s.$), and social influence ($\beta = 0.02, n.s.$) These regression results are shown in Table 3. In sum, hypotheses 2a was supported for the authenticity at work subscales of self-alienation and social influence;
hypotheses 2b was supported for the authenticity at work subscales of authentic living and self-alienation; and hypothesis 2c was not supported at all.

**Entrepreneurial Work Engagement.** Hypotheses 3a-c states: *among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for a) autonomy, b) competence, and c) relatedness and their reported level of entrepreneurial work engagement.* Regression results were significant for the relationship between the satisfaction of the psychological need for competence and both subscale measures of entrepreneurial work engagement: attention (β = .63, p < .01) and absorption (β = .66, p < .01). However, the regression results indicate that there is not a significant relationship between the satisfaction of the need for autonomy and entrepreneurial work engagement: attention (β = .05, n. s.) and absorption (β = .21, n. s.); nor the satisfaction of the need for relatedness and entrepreneurial work engagement: attention (β = .05, n. s.) and absorption (β = -.03, n. s.). These regression results are shown in Table 3. In sum, hypothesis 3b was supported, while hypotheses 3a and 3c were not supported.

**Work-Family Balance.** Hypotheses 4a-c states: *among women entrepreneurs, there will be a positive relationship between the satisfaction level of their psychological need for a) autonomy, b) competence, and c) relatedness and their reported level of work-family balance.* Regression results were significant for the relationship between the satisfaction of the psychological need for competence and work family balance (β = .56, p < .05). However, the regression results indicate that there is not a significant relationship between the satisfaction of the need for autonomy and work-family balance (β = .29, n. s.); nor the satisfaction of the need for relatedness and work-family balance (β = -.04, n. s.). These regression results are shown in
Table 3. In sum, hypothesis 4b was supported, while hypotheses 4a and 4c were not supported.

Figure 3 summarizes the regression results visually.
Table 3: Regression results of needs satisfaction of autonomy, competence and relatedness on well-being outcomes of authenticity at work (authentic living, self-alienation, social influence), entrepreneurial work engagement (attention, absorption), and work-family balance. (n=129)

<table>
<thead>
<tr>
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<th></th>
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<tbody>
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<td>Positive Affect</td>
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<td>-.04</td>
<td>-.01</td>
<td>.02</td>
<td>-.01</td>
<td>.08***</td>
</tr>
<tr>
<td>Social Desirability</td>
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<td>-.04</td>
<td>-.09</td>
<td>.06</td>
<td>.04</td>
<td>.03</td>
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<tr>
<td>Age</td>
<td>.00</td>
<td>-.02**</td>
<td>-.01</td>
<td>.00</td>
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<td>.01</td>
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<tr>
<td>Education Level</td>
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<td>.13</td>
<td>-.05</td>
<td>.08</td>
<td>-.02</td>
<td>-.14**</td>
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<td>Born in the US</td>
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<td>-.10</td>
<td>-.02</td>
<td>.08</td>
<td>.19*</td>
<td>.00</td>
</tr>
</tbody>
</table>

| Needs Satisfaction            |                                       |                                       |                                       |                                           |                                           |                     |
| Autonomy                      | .09                                   | -.43*                                | -.60*                                 | .05                                       | .21                                        | .29                 |
| Competence                    | .94**                                 | -.54**                               | .29                                   | .63**                                     | .66**                                      | .56*                |
| Relatedness                   | .11                                   | -.08                                 | .02                                   | .05                                       | -.03                                       | -.04                |
| Constant                      | .25                                   | 7.67***                              | 1.79                                  | 1.22                                      | 1.16                                       | -1.21               |

R² = .43                       R² = .37                               R² = .16                              R² = .18                               R² = .15                               R² = .44

F(9, 119)=7.38**               F(9, 119)=10.69**                         F(9, 119)=2.10*                         F(9, 119)=2.91***                        F(9, 119)=2.42**                         F(9, 119)=6.96**

Notes: *p < .05, **p < .01, ***p < .001
Figure 3 Main Model Results
Hypotheses 5-7: Mediation Hypotheses

PROCESS macro (Hayes, 2013, Model 4) was used to assess whether needs satisfaction (autonomy, competence or relatedness) plays a mediating role in the relationship between perceived ethnic discrimination and the well-being outcomes: authenticity at work (authentic living, self-alienation, social influence), entrepreneurial work engagement (attention, absorption), and work-family balance. Each outcome was evaluated in its own model, with the multiple mediators of autonomy, competence, and relatedness. This computationally intense PROCESS macro approach to measuring indirect effects performed 10,000 bootstrap resamples in order to compute a mean indirect effect and the corresponding 95% bootstrap confidence interval (CI) for each predicted mediator (Preacher & Hayes, 2008). The indirect effect parameter estimate is considered significant when the bias-corrected 95% CI excludes zero. Bootstrapping analysis (10,000 re-samples) did not provide support for a significant indirect effect of perceived ethnic discrimination for any of the outcomes through needs satisfaction, Table 4, lists the indirect effects with their bootstrapping confidence intervals for each of the mediation models, they all include 0, which means there is no significant evidence for mediation. Therefore, the mediation hypotheses (H5 a-c, H6 a-c, and H7 a-c) were not supported.
Table 4: Mediation Results. Indirect effects of perceived ethnic discrimination on authenticity at work (authentic living, self-alienation, social influence), entrepreneurial work engagement (attention, absorption), and work-family balance through needs satisfaction of autonomy, competence and relatedness. \((n=129)\)

<table>
<thead>
<tr>
<th>Needs Satisfaction</th>
<th>Authenticity at Work: Authentic Living</th>
<th>95% CI</th>
<th></th>
<th></th>
<th>Authenticity at Work: Self-Alienation</th>
<th>95% CI</th>
<th></th>
<th></th>
<th></th>
<th>Authenticity at Work: Social Influence</th>
<th>95% CI</th>
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</thead>
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<td>LL</td>
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<td>UL</td>
<td>.06</td>
<td>Effect</td>
<td>.02</td>
<td>Boot SE</td>
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<tr>
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<td>Boot SE</td>
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<td>.05</td>
<td>Effect</td>
<td>.00</td>
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<table>
<thead>
<tr>
<th>Needs Satisfaction</th>
<th>Entrepreneurial Work Engagement: Attention</th>
<th>95% CI</th>
<th></th>
<th></th>
<th>Entrepreneurial Work Engagement: Absorption</th>
<th>95% CI</th>
<th></th>
<th></th>
<th></th>
<th>Work Family Balance</th>
<th>95% CI</th>
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</thead>
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<td>Effect</td>
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<td>Boot SE</td>
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<td>LL</td>
<td>-.04</td>
<td>UL</td>
<td>.01</td>
<td>Effect</td>
<td>-.01</td>
<td>Boot SE</td>
</tr>
<tr>
<td>Competence</td>
<td>Effect</td>
<td>-.01</td>
<td>Boot SE</td>
<td>.03</td>
<td>LL</td>
<td>-.09</td>
<td>UL</td>
<td>.03</td>
<td>Effect</td>
<td>-.01</td>
<td>Boot SE</td>
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<tr>
<td>Relatedness</td>
<td>Effect</td>
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<td>.01</td>
<td>LL</td>
<td>-.01</td>
<td>UL</td>
<td>.04</td>
<td>Effect</td>
<td>.00</td>
<td>Boot SE</td>
</tr>
</tbody>
</table>

Note: SE=standard error, CI=confidence interval, LL=lower limit, UL=upper limit
Research Question #1 Ethnic Identity Moderation

Again, PROCESS macro (Hayes, 2013, Model 1) was used to assess whether or not ethnic identity played a moderating role in the relationship between perceived ethnic discrimination and needs satisfaction. This macro runs a series of OLS regressions with the centered product term representing the interaction of perceived ethnic discrimination × ethnic identity as a predictor of the needs satisfaction variables (autonomy, competence and relatedness). The interaction coefficients were significant for both competence (β = .04, p < .05) and relatedness (β = .06, p < .05); but not significant for autonomy (β = .09, p = .07) as shown in Table 5.

**Autonomy.** Ethnic identity was not found to moderate the relationship between perceived ethnic discrimination, although the results were approaching significance (p=.07).

**Competence.** Ethnic identity was found to moderate the relationship between perceived ethnic discrimination and the satisfaction of the need for competence such that those with lower levels of ethnic identity were significantly affected by changes in the levels of perceived ethnic discrimination. Specifically, those with lower levels of ethnic identity experienced lower levels of needs satisfaction for competence when perceived ethnic discrimination was high; and higher levels of needs satisfaction for competence when perceived ethnic discrimination was low (see Figure 4). The addition of this interaction into the model further explained another 9.0% of the variance (p<.05). Additional inferential tests referred to as probing can be run on an interaction to further “ascertain where in the distribution of the moderator X is related to Y and where it is not” (Hayes, 2013, p. 235). Probing into this interaction demonstrates that this moderating effect
is significant for low levels of ethnic identity. Refer to Table 6 for the confidence intervals that demonstrate this significance application to the lower levels of ethnic identity.

![Diagram](image)

Figure 4. Moderation Effect of Ethnic Identity on the Relationship between Perceived Ethnic Discrimination and the Satisfaction of the Need for Competence.

**Relatedness.** Ethnic identity was found to moderate the relationship between perceived ethnic discrimination and the satisfaction of the need for relatedness such that those with lower levels of ethnic identity were significantly affected by changes in the levels of perceived ethnic discrimination. Specifically, those with lower levels of ethnic identity experienced lower levels of needs satisfaction for relatedness when perceived ethnic discrimination was high; and higher levels of needs satisfaction for relatedness when perceived ethnic discrimination was low, see Figure 5. The addition of this interaction into the model further explained another 4.6% of the
variance (p<.05). Probing into this interaction using the Johnson-Neyman technique (Johnson & Fey, 1950; Johnson & Neyman, 1936) reveals that the moderation is significant for ethnic identity values greater than 6.67 (n=16) and less than 1.83 (n=3), on a 7-point scale where 1 indicates low and 7 indicates high levels of ethnic identity.

Figure 5. Moderation Effect of Ethnic Identity on the Relationship between Perceived Ethnic Discrimination and the Satisfaction of the Need for Relatedness.

Research Question #2 Does Ethnicity Matter?

Again, PROCESS macro (Hayes, 2013, Model 3) was used to assess whether or not ethnic group status of minority (compared to majority) affected the moderating relationship of ethnic identity on the relationship between perceived ethnic discrimination and need satisfaction for autonomy, competence and relatedness. PROCESS macro (Hayes, 2013; Model 3) was run to test if being a member of a minority ethnicity affected the moderation tested in Research
Question #1. Results were insignificant. Refer to Table 7 and 8 for results. Additionally, PROCESS macro (Hayes, 2013; Model 59) was run to test if being of a minority ethnicity affected the mediation model previously tested in this study. Again, results were not significant for the test of moderated mediation.
Table 5. Regression Coefficients, Standard Errors, Model Summary, and Confidence Interval Information for the Moderation of Ethnic Identity on the Relationship between Perceived Ethnic Discrimination and Needs Satisfaction

| Part 1 | Autonomy | | Competence | | Relatedness | |
|--------|----------|----------|-------------|----------|-------------|
|        | Coef.    | SE       | p           | Coef.    | SE       | p           | Coef.    | SE       | p           |
| Constant| 2.79     | .55      | < .000      | 4.22     | .30      | < .000      | 1.91     | .71      | < .01       |
| Ethnic Identity* | b₁ | -.02     | .05       | .67       | .10      | .04       | < .01      | .07      | .06      | .26         |
| Perceived Ethnic Discrimination* | b₂ | -.12     | .06       | < .05     | -.13     | .07       | < .05      | -.09     | .11      | .38         |
| Ethnic Identity x Perc. Ethnic Discrim* | b₃ | .09      | .05       | .07       | .10      | .04       | < .05      | .15      | .06      | < .05       |
| Positive Affect | | .04      | .02       | < .05     | .02      | .01       | .08        | .09      | .02      | < .01       |
| Social Desirability | | .02      | .04       | .57       | .00      | .02       | .96        | .02      | .06      | .76         |
| Age | | .00      | .01       | .96       | .00      | .00       | .33        | -.01     | .01      | .30         |
| Education | | -.02     | .05       | .73       | -.01     | .03       | .64        | -.03     | .07      | .69         |
| Born in the US | | .29      | .24       | .23       | -.02     | .10       | .81        | -.15     | .27      | .59         |

Part 2

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<th></th>
<th>R² = .16</th>
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<th>R² = .25</th>
<th></th>
<th>R² = .23</th>
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<td></td>
<td>F(8, 120) = 2.92, p &lt; .01</td>
<td></td>
<td>F(8, 120) = 2.03, p &lt; .05</td>
<td></td>
<td>F(8, 120) = 7.27, p &lt; .001</td>
</tr>
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<td>R² increase due to interaction = .02</td>
<td></td>
<td>R² increase due to interaction = .09</td>
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<td>R² increase due to interaction = .04</td>
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<tr>
<td></td>
<td>F(1, 120) = 3.41, p = .07</td>
<td></td>
<td>F(1, 120) = 4.99, p &lt; .05</td>
<td></td>
<td>F(1, 120) = 5.87, p &lt; .05</td>
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</tbody>
</table>

*Mean Centered Variable
Table 6. Conditional Effect of Perceived Ethnic Discrimination on Needs Satisfaction at Values of Ethnic Identity

<table>
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<tr>
<th>Ethnic Identity</th>
<th>Effect</th>
<th>se</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
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<tbody>
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<td><em>Y = Autonomy</em></td>
<td>-1.43</td>
<td>-.25</td>
<td>.11</td>
<td>&lt;.05</td>
<td>-.46</td>
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<td></td>
<td>.00</td>
<td>-.12</td>
<td>.06</td>
<td>&lt;.05</td>
<td>-.24</td>
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<tr>
<td></td>
<td>1.43</td>
<td>.00</td>
<td>.07</td>
<td>1.00</td>
<td>-.13</td>
</tr>
<tr>
<td><em>Y = Competence</em></td>
<td>-1.43</td>
<td>-.27</td>
<td>.13</td>
<td>&lt;.05</td>
<td>-.52</td>
</tr>
<tr>
<td></td>
<td>.00</td>
<td>-.13</td>
<td>.07</td>
<td>.06</td>
<td>-.26</td>
</tr>
<tr>
<td></td>
<td>1.43</td>
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<td>.03</td>
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<td>-.04</td>
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<td><em>Y = Relatedness</em></td>
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<td>-.67</td>
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<tr>
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<td>.00</td>
<td>-.09</td>
<td>.11</td>
<td>.38</td>
<td>-.31</td>
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<td></td>
<td>1.43</td>
<td>.12</td>
<td>.07</td>
<td>.10</td>
<td>-.02</td>
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Table 7. Regression Coefficients, Standard Errors, Model Summary, and Confidence Interval Information for the Moderated Moderation of Minority Status and Ethnic Identity on the Relationship between Perceived Ethnic Discrimination and Needs Satisfaction

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<tr>
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<th>Competence</th>
<th>Relatedness</th>
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<td>.08</td>
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Part 2

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*Mean Centered Variable

a Minority = 1; Majority = 0

PROCESS macro (Hayes, 2013; Model 3)
<table>
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<th>Effect</th>
<th>se</th>
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<td>-.03</td>
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</table>

Conditional Effect of Perceived Ethnic Discrimination* x Ethnic Identity* on Needs Satisfaction at Values of Minority Status*

*Mean Centered Variable

a Minority = 1; Majority = 0;
Chapter 6: Discussion and Conclusion

The aim of this study is to investigate the role of needs satisfaction in women entrepreneurs by proposing and testing a model of women entrepreneurs’ well-being, while additionally exploring two research questions about ethnic identity and ethnic group status comparisons. In this model, I propose 15 hypotheses and explore two research questions, of which four hypotheses were supported or partially supported. Next, I discuss the findings for the hypotheses and the two research questions.

Perceived Ethnic Discrimination and Psychological Needs Satisfaction

The first part of my model suggested that perceived ethnic discrimination would negatively influence needs satisfaction. Perceived ethnic discrimination did not thwart the satisfaction of any of the basic psychological needs for autonomy, competence, nor relatedness. These results are not consistent with the expected results. Applying the SDT lens, discrimination perceived by people in their lives would be classified as a contextual variable that thwarts needs satisfaction (Ryan and Deci, 2017). One possible explanation for this lack of effect from such a negative variable could lie in the measurement of the needs from a ‘satisfaction’ perspective. Possibly, because perceived ethnic discrimination is expected to have a pernicious negative impact on the satisfaction of needs, the needs should be measured not only by satisfaction levels, but by frustration levels. This is a relatively newer stream of thought brought forth by some SDT scholars who argue that needs should be measured by both satisfaction and frustration (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011; Longo, Gunz, Curtis, & Farsides, 2016). SDT theory is in the process of evolving in regards to basic psychological needs
theory. In their recent book (published during the data collection phase of this study), Ryan and Deci (2017) publish propositions related to basic psychological needs theory, further clarifying the independent role that need frustration plays. Ryan and Deci propose that “need frustration, typically due to the thwarting of these basic needs, is associated with greater ill-being and more impoverished functioning” (p.242). Furthermore, SDT argues that “need frustration should not be equated with need dissatisfaction, or with the extreme pole of the need satisfaction continuum” (Cordeiro, Paixão, Lens, Lacante, & Sheldon, 2016, p. 52). Need frustration occurs when basic psychological needs are thwarted in social contexts. For example, a person could feel low levels of relatedness and belonging within the context of their workplace and experience lower levels of the satisfaction for the need for relatedness, but a person could also experience active social exclusion and rejection by their co-workers which could lead to harmful effects such as depression or stress symptoms, thus needs frustration (Vansteenkiste & Ryan, 2013). It is quite possible that this negative impact of perceived ethnic discrimination is more likely to be captured through needs frustration, rather than needs satisfaction.

Another possible explanation is the effect of perceived ethnic discrimination on basic psychological needs satisfaction depends on the strength of the person’s ethnic identity. Further analysis of the moderation results in Table 5 shows that the direct relationship to perceived ethnic discrimination does become significant for the satisfaction of the need for autonomy and competence, when the interaction effect is in the model. This indicates that the non-significant direct effect in the relationship from perceived ethnic discrimination to needs satisfaction may be masked by the different patterns of those low and high in ethnic identity strength. Post hoc analyses (Hayes, 2013; Model 59) indicate moderated mediation for differing levels of ethnic
identity on the mediation of perceived ethnic discrimination to authentic living and self-alienation subscales of authenticity at work as mediated by the satisfaction of the needs for autonomy and competence. Further exploration of this relationship is warranted in future studies.

**Needs Satisfaction and Well-Being**

The second part of my model suggested that the fulfillment of the basic psychological needs for autonomy, competence and relatedness would each individually contribute positively to authenticity at work, entrepreneurial work engagement, and work-family balance. This study fully confirmed two and partially confirmed two of the hypotheses: first, the hypothesized relationship between the satisfaction of the need for autonomy and authenticity at work was partially supported with significant relationships between autonomy and authenticity at work for two of the authenticity subscales, self-alienation and social influence; second, the hypothesized relationship between the satisfaction of the need for competence and authenticity at work was partially supported with significant relationships between competence and authenticity at work for two of the subscales, authentic living and self-alienation; third, the hypothesized relationship between the satisfaction of the need for competence and entrepreneurial work engagement was fully supported with significant positive relationships to both subscales of entrepreneurial work engagement; and fourth, the hypothesized relationship between the satisfaction of the need for competence and work-family balance was fully supported with a significant relationship.

The evidence for the relationship of needs satisfaction to well-being is quite strong (Ryan & Deci, 2000a; Van den Broeck, et al., 2016). Therefore, the lack of confirmation of most of these relationships in this data set (11 out of the 18 proposed relationships in the second half of
the model) leads me to explore some possible areas that could contribute to this lack of confirmation. First, generalizations from the work literature to self-employed individuals may be more nuanced than predicted, and I may have been too optimistic about my belief that these relationships would hold up in a sample of women entrepreneurs. The environment a self-employed woman operates in may have complexities not yet understood or identified.

*Needs Satisfaction and Authenticity*

Needs satisfaction for relatedness did not significantly affect any of the reported levels of authenticity at work for the women entrepreneurs; however, the partial support for autonomy and competence with authenticity were promising. As was discussed in the measures section, authentic living is a positive indicator of authenticity at work, while self-alienation and social influence are negative indicators of authenticity at work. Authenticity is defined as the degree to which one acts in agreement with one’s true self (Harter, 2002), and a key assumption of SDT is that all individuals have innate drives to continually develop a more unified, coherent sense of their self (Ryan & Deci, 2002). The results of this study suggest that the role each of the needs plays towards the development of authenticity is not equal. The strong relationship implies that autonomy and competence play the key role in the relationship with authenticity. In other words, this evidence supports the notion that for women entrepreneurs, the ability to operate of their own volition (autonomy) and have the confidence and skills to effectively perform their entrepreneurial role are key elements in the ability to be true to themselves in the operation of their businesses.
Needs Satisfaction and Entrepreneurial Work Engagement

Needs satisfaction for autonomy and relatedness did not significantly affect the reported levels of entrepreneurial work engagement for the women entrepreneurs; however, the satisfaction level of the need for competence was positively related to the level of entrepreneurial work engagement. Entrepreneurial work engagement in concept is the entrepreneurs’ focus on attention, absorption and available energy into their entrepreneurial endeavor (adapted to entrepreneurship from Rothbard and Patil, 2012). As discussed above, this is again indicative of a relationship where the relevance of the particular needs vary in relation to the outcome. For women entrepreneurs in this sample, competence was the key variable in relation to their engagement with their entrepreneurial endeavor; while autonomy and relatedness did not have an impactful role in this relationship. Women entrepreneurs who felt stronger in their knowledge and abilities regarding the skills needed to do the work in their field were able to immerse themselves more in that work and achieve higher levels of work engagement.

Needs Satisfaction and Work-Family Balance

Needs satisfaction for autonomy and relatedness did not significantly affect the reported levels of entrepreneurial work engagement for the women entrepreneurs; however, the satisfaction level of the need for competence was positively related to the level of work-family balance. Once again, the relationships of the needs with the well-being outcomes varied depending on the need, further confirming the independence of the needs unique construct status. The role of the need for competence is salient in the relationship of needs to work-family balance. As discussed in chapter three, work-family enrichment theory argues that resources gained in one role transfer over to another role (Greenhaus & Powell, 2006). Therefore, women
entrepreneurs who satisfy their need for competence within their business realm may experience spillover of those skills and competencies (and possibly their confidence) into the realm of balancing their work and family demands, leading to greater satisfaction of work-family balance.

**Needs Satisfaction as a Mediating Mechanism**

The satisfaction of the basic psychological needs for autonomy, competence and relatedness were not found to play a mediating role between perceived ethnic discrimination and the well-being outcomes of authenticity at work, entrepreneurial work engagement, and work-family balance. The lack of significant relationships between perceived ethnic discrimination and needs satisfaction could be part of the reason that mediation was not found in this model. As discussed earlier, this lack of relationship could possibly be the result of the limited measurement of needs satisfaction. A more nuanced measure would include the measurement of needs frustration which would align more with the pernicious effect of discrimination. In other words, one of the underlying causes of the lack of significant mediation in my proposed model could be the lack of congruence caused by mixing both positive and negative (as the underlying nature of the constructs) in the model. More specifically, the model measures the effects of a negative construct (perceived ethnic discrimination) on positive outcomes (well-being) mediated through a positive construct (needs satisfaction). It is possible that a more congruent model would be more predictive, such as a model that measures the effects of a negative construct (perceived ethnic discrimination) on a negative outcome (ill-being, such as burnout, negative affect, physical symptom-insomnia) mediated through a negative construct (needs frustration).

Bartholomew, Ntoumanis, Ryan, Bosch, and Thøgersen-Ntoumani (2011) studied need-related dynamics among athletes in a sports setting and found this congruence with the negative/positive
nature of their variables, such that, “need satisfaction predicted positive outcomes (e.g., vitality and positive affect), whereas need thwarting more consistently predicted maladaptive outcomes (e.g., disordered eating, burnout, depression, negative affect, and physical symptoms)” (p. 244). Other studies also provide support for this need satisfaction/positive outcome and need frustration/negative outcome relationships (Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011; Cordeiro, Paixão, Lens, Lacante, & Sheldon, 2016). Future studies could test both a positive and negative model similar to the ones described above in women entrepreneurs.

**Research Question #1**

Research question one explored competing theoretical explanations about how ethnic identity affects the relationship between perceived ethnic discrimination and psychological needs satisfaction. Both theory and corresponding supporting research exists for two opposing explanations of the role of ethnic identity: buffering or exacerbating. *Buffering* involves ethnic identity playing a “buffering” role such that those with higher levels of ethnic identity are protected against the pernicious effects of perceived ethnic discrimination thwarting needs satisfaction. In other words, the discrimination affects their needs satisfaction less because of their high ethnic identity. *Exacerbating* involves ethnic identity playing an “exacerbating” role such that those with higher levels of ethnic identity experience even greater pernicious effects of perceived ethnic discrimination thwarting needs satisfaction. In other words, discrimination affects needs satisfaction at higher rates for those who have higher ethnic identity.

The results of this study shed light on this question. First, the moderating effect of ethnic identity on the relationship between perceived ethnic discrimination and the satisfaction of basic psychological needs was supported in two of the three basic psychological needs, including
competence and relatedness in this sample of women entrepreneurs. Further probing of the interaction with the satisfaction of the need for competence showed that the moderating effect was only significant for the lower levels of ethnic identity. Those with higher levels of ethnic identity did not experience any statistically significant effect of perceived ethnic discrimination levels on their experience of the satisfaction of their basic psychological need for competence. Again, for those with higher levels of ethnic identity, there is not a relationship between levels of discrimination and needs satisfaction for competence. In other words, the effect of their strong ethnic identity makes the levels of discrimination they encounter irrelevant, supporting Social Identity Theory and the buffering argument. However, individuals who have lower levels of ethnic identity, those who do not have strong ethnic identities, experience needs thwarting for competence as their levels of perceived ethnic discrimination increase. For example, an individual with low ethnic identity, who lives in a rather hostile world with high levels of ethnic discrimination, will experience lower levels of needs satisfaction for competence. Conversely, an individual with low ethnic identity, who lives in a more inclusive accepting environment with low levels of ethnic discrimination, will experience higher levels of needs satisfaction for competence.

Probing into the interaction of ethnic identity with perceived ethnic discrimination on the satisfaction of the need for relatedness provides some interesting insights as the interaction was significant for those individual who reported the extreme lower (less than 1.83 on a scale of 1-7, n =3) and extreme higher (higher than 6.67 on a scale of 1-7, n=16) levels of ethnic identity. This confirms the discussion presented above for the interaction of ethnic identity and perceived ethnic discrimination on the satisfaction of the need for competence, but also adds another
element. The statistical significance of the high spectrum of ethnic identity, e.g. for those women who reported a very strong ethnic identity, can be interpreted additionally not only as a buffer but as an *enhancer*. Those women with very high levels of ethnic identity go one step further than simply not experiencing any effect on needs satisfaction during different levels of perceived ethnic discrimination; they actually see an enhancement of their satisfaction for the need for relatedness during situations of high versus low perceived ethnic discrimination. Perhaps these women with high ethnic identity are seeking out the support of others (possibly those similar to them in their ethnicity) when encountering higher levels of ethnic discrimination and therefore, inadvertently, strengthen the fulfillment of their need for relatedness. Further research exploring this explanation is warranted.

**Research Question #2**

Research question two focused on whether or not racial/ethnic group status (minority/majority) mattered to the relationships explored in research question number one and the mediation model. Would the model differ based upon the minority/majority status of the women entrepreneurs? A test of moderated moderation on the research question one model adding minority status as the second moderator and a test of minority status moderating the proposed mediation model did not find any significant differences in the two groups. So the answer to this question for this particular sample is no, racial/ethnic group status did not matter for this group of women entrepreneurs. As is a challenge in studying minority groups, getting a large enough representation of minority groups is difficult. This study successfully oversampled the minority population, as there were actually more minority women entrepreneurs represented than majority entrepreneurs. But, the two wave design of the study decreased the sample
substantially from 330 in wave one to 129 in wave 2. The relatively small sample size could have affected these results. One option was to test this model in the full sample of the first wave of data (n=330). Post hoc analysis showed the model 3 test to be insignificant when run with the first wave of data (n=330).

**Theoretical Implications**

This study makes several theoretical contributions. First, these findings advance SDT in that they improve our understanding of the different roles that each need satisfaction plays in well-being. Historically, needs satisfaction was empirically studied using an index that combined all three of the needs together. In this early research, the true understanding of each of the needs was masked. After studies showed that needs may be contributing at different levels to the tested relationships, the call for researchers to measure needs satisfaction individually was made (Van den Broeck et al., 2016). As a result of this precedent, the needs in this study were intentionally measured individually and hypotheses were proposed for each need. However, little evidence exists to suggest just how different the needs will perform individually. This study advances this understanding. This study suggests that not all needs are ‘equal’ and that some needs may have varying relationships to certain variables in certain contexts. For example, the strong role of competence in the relationship with the well-being outcomes, and the lesser role of autonomy and even lesser role of relatedness are confirmed in this sample. More thought needs to be given as to which needs are associated with which outcomes. This suggests that more nuanced theorizing is needed to align needs with outcomes.

Second, this study implies support for the needs satisfaction and needs frustration evolution of SDT. The lack of relationship between perceived ethnic discrimination and needs
satisfaction possibly indicates support for the notion that need frustration is an independent construct, separate from needs satisfaction. Further studies need to be completed to confirm this, but a needs thwarting situation such as perceived ethnic discrimination should impact needs frustration as more recently espoused by Ryan and Deci (2017) in their book.

Third, by exploring the moderating roles of ethnic identity for the relationship between perceived ethnic discrimination and needs satisfaction, this study intersects social identity theory (Tajfel and Turner, 2001) with self-determination theory (Ryan & Deci, 2017) to help explain the potentially unique value of a strong ethnic identity to women entrepreneurs. This study provides support for the buffering role that a strong ethnic identity can play against the pernicious effects of perceived ethnic discrimination, providing further understanding to help resolve the debate about the proposed buffering or exacerbating effects of ethnic identity on discrimination and well-being. Applying the Johnson-Neyman Technique to probing the interaction leads to some very interesting insights to the possible enhancing effects of a strong ethnic identity. This study uncovers the unique enhancing role that very strong levels of ethnic identity play in the context of high ethnic discrimination for the increased satisfaction of the need for relatedness; in doing so, this study adds a new element of inquiry into the line of buffering versus exacerbating debate of the effects of discrimination on various outcomes.

Lastly, this study applies the lens of SDT to women entrepreneurs and furthers our understanding of factors contributing to their well-being. When I began, I proposed and tested a model of women entrepreneurs’ well-being. Although much of the model was not supported, there were branches and moderating relationships that were supported and together these null and confirmatory findings contribute to our knowledge of women in this context.
Practical Implications

There are several practical implications that can be drawn from this study. First, this study confirms the importance of women entrepreneurs’ satisfaction of their basic psychological needs, particularly competence and autonomy. As they set up their daily routines in running their business and personal lives, it is important for women entrepreneurs to continue to question how those routines are allowing them to meet their needs for autonomy, competence and relatedness. More specifically, women entrepreneurs who felt stronger in their knowledge and abilities regarding the skills needed to run their businesses, were able to be more true to themselves, able to immerse themselves more in that work and achieve higher levels of entrepreneurial work engagement, and able to experience higher levels of work family balance. This result provides further evidence for the importance of women entrepreneurs building their skills and knowledge in their field. Competence levels contribute to well-being. This evidence also supports the notion that for women entrepreneurs, the ability to operate of their own volition (autonomy) is a key element in the ability to be true to themselves in the operation of their businesses. Therefore, programs to support women entrepreneurs can be most beneficial by providing additional means by which women can meet their needs for competence and autonomy in particular. For example, offering training and experiences that focus on building women’s competence as entrepreneurs may be ways to enhance their well-being. Additionally, training and skills programs that teach women about autonomy and its value to their well-being may help women entrepreneurs to realize the importance of this element so that they can be aware of and put effort into how well they manage their autonomy in their lives (i.e., not giving up too much control in their lives to others).
Second, the role of ethnic identity as a buffering (competence) and enhancing (relatedness) mechanism against perceived ethnic discrimination can become part of the discussions for women entrepreneurs. The evidence of this study can be shared with women entrepreneurs who are coping with ethnic discrimination in their lives. Educating these women about the theory and research on ethnic identity can help them make more informed decisions about their individual identity development.

In sum, this information can be used by women entrepreneurs and those organizations or people who work with women entrepreneurs or develop programs for support. Emphasis can be placed on training women entrepreneurs about the importance of needs satisfaction and to be aware of their own levels. Encouragement can be given for women entrepreneurs to build competence and autonomy into their lives. For example, women entrepreneurs can increase their satisfaction of the need for competence by building expertise in their field and increasing their own legitimacy through further industry training, attending industry conferences, networking with others in their field and formal education if applicable. They can also increase their autonomy by making sound business decisions that keep them in control of their decisions. A well run financially successful business affords the entrepreneur more freedom of choice.

Limitations

This study has limitations that need to be acknowledged. First, I am unable to make causal inferences; therefore, future research should use longitudinal designs to examine these relationships. Another concern is the potential for common method variance. Efforts were taken to minimize CMV through the study multi-wave design (separating the independent and outcome variables); and the interaction findings of this study are not susceptible to CMV (Siemens, Roth,
Next, low reliability on the needs satisfaction scale for autonomy and social influence subscale of authenticity at work requires the interpretation of the results to be made cautiously. Additionally, the small sample size of the second wave of the study (n=129) made the cell sizes too small to test for differences among the racial/ethnic groups, which was the original intent of the study; the study results were tested using the minority/majority groups. This offers a limited view of racial/ethnic differences. The oversampling was still not enough to overcome this challenge that is common to diversity research, and the oversampling resulted in a sample that digressed in race/ethnicity composition from the general U.S. population, especially for the White and Black or African American groups. For example, the study sample compared with the U.S. population percentages of race and ethnicity in comparison are (general population %; study sample %): Whites (77.1%; 46.5%); Black or African American (13.3%; 24.0%); Hispanic or Latina/o (17.6%; 19.4%); Asian American (5.6%; 4.7%) and American Indian and Alaskan Native (1.2%; 5.4%) (U.S. Census, 2015). This may also limit the generalizability. Lastly, the scale selected for work engagement consisted of two core subscales (attention and absorption); however, this measure excludes a common factor proposed by other work engagement scholars, vigor, also known as energy or vitality. The omission of this subscale of work engagement may have limited the full scope of the work engagement results.

**Future Research**

Future studies could expand the construct of basic psychological needs to include both needs satisfaction and needs frustration. Very recent developments in the measurement of needs have now brought forth reason to measure not only the satisfaction of needs, but also needs frustration. Furthering the understanding of how workplace context can lead to needs
frustrations and satisfactions has recently been called for by the SDT authors (Deci, Olafsen, & Ryan, 2017).

Future research needs to explicitly consider the individual role that each need plays. As the evidence of each needs performance across studies grows, so too will our understanding of the role of each need and the salience of each needs satisfaction in particular relationships. Future studies need to consider the varying roles of each of the needs and hypotheses need to be more nuanced regarding the varying effects of each need.

SDT is a mega theory and as such, has many facets. This dissertation study is a good foundational start to applying SDT to the context of women entrepreneurs. Future studies could expand research on women entrepreneurs to explore motivations in women entrepreneurs alongside the satisfaction of needs. Are motivations (autonomous vs. controlled) possible mechanisms that may explain the influence of discrimination on well-being?

The enhancing role that a strong ethnic identity played on the effects of perceived ethnic discrimination on the satisfaction of the need for relatedness needs further exploration. Future studies could build upon this model by exploring how this enhancing effect occurs. What is it about the strong ethnic identity (i.e. stronger relationships, more coping behaviors, etc.) that contributes to the enhancing effect on the satisfaction of the need for relatedness? Lastly, the independent variable focused on a particular form of discrimination, *ethnic* discrimination. It would be interesting to include other forms of discrimination, such as gender discrimination. Which plays a more important role? Along with the exploration of gender discrimination, similar relationships as tested in this study with ethnic identity could be tested with gender identity (masculinity, femininity). Do levels of femininity or masculinity play a buffering role?
Conclusion

In conclusion, I set out to further understand women entrepreneurs by developing and proposing a model of women entrepreneurs’ well-being using SDT as a foundational theory. The results confirm some of the expected relationships, yet did not support others. As a new scholar in this field, I will build off of this new knowledge and continue the quest to understand the mechanisms that lead to women entrepreneurs’ well-being.
References


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APPENDIX A: Tables and Statistics
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<thead>
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<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>Entrepreneur</strong></td>
<td>&quot;one who takes an active role in the decision making and risk taking of a business in which s/he has majority ownership&quot;</td>
<td>U.S. Department of Commerce, 1986; from Moore, 1990, p. 276</td>
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<td></td>
<td>one who &quot;drastically upgrades the yield from resources and creates a new market and a new customer&quot;</td>
<td>Drucker (1985, pp. 21, 25, 33)</td>
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<td></td>
<td>&quot;one who owns and starts a new and small business&quot;</td>
<td>American Business School (Moore, 1990, p. 275)</td>
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<td><strong>Nascent entrepreneur</strong></td>
<td>“someone who has initiated a business, is actively involved in managing it, and owns at least 50% of the firm”</td>
<td>Heilman &amp; Chen, 2003, p. 349</td>
</tr>
<tr>
<td><strong>Latent entrepreneur</strong></td>
<td>person who is taking “steps to start a new business”</td>
<td>Bönte &amp; Piegler, 2013, p. 961-962</td>
</tr>
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<td><strong>Traditional female entrepreneur</strong></td>
<td>pre-1980s, “those with little education or training most often have turned to self-employment because it is their best chance for achieving career and social mobility”</td>
<td>term coined by Moore, 1987; Heilman &amp; Chen, 2003, p. 349; Moore, 1999</td>
</tr>
<tr>
<td><strong>Modern female entrepreneur, or Second Generation (Gregg, 1985)</strong></td>
<td>pre-1980s, those by which &quot;self-employment often comes after a stint as an employee in a corporation where they attain skills and experience and build key contacts that help them launch their entrepreneurial ventures”</td>
<td>term coined by Moore, 1987; Heilman &amp; Chen, 2003, p. 349; Moore, 1999</td>
</tr>
<tr>
<td><strong>Corporate Climbers</strong></td>
<td>Individuals who started out pursuing the American dream of climbing the career ladder while working in organizations, but factors of organizational push (glass ceilings, restructuring, etc.) and entrepreneurial pull (freedoms, being your own boss, etc.) led them to exit their organizations and move into entrepreneurship.</td>
<td>Moore, 1999, p. 383-384</td>
</tr>
<tr>
<td><strong>Intentional Entrepreneurs</strong></td>
<td>Individuals who have a lifelong ambition of owned their own business, yet they may also start working in organizations to gain experience, finances, and build networks to help prepare them for entrepreneurship.</td>
<td>Moore, 1999, p. 383-384</td>
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<td><strong>Copreneurs</strong></td>
<td>&quot;husband and wife entrepreneurs sharing business ownership equally&quot;</td>
<td>Moore, 1999, p. 384-385</td>
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<tr>
<td>Small Business Concern</td>
<td>&quot;The Small Business Act states that a small business concern shall be deemed to be one which is independently owned and operated and which is not dominant in its operation (US Small Business Administration, 1978).&quot;</td>
<td>Smith-Hunter, 2006, p. 102</td>
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<tr>
<td>Small Business Owner</td>
<td>&quot;A small business owner is thus the person who owns such an entity. A business owner can also be defined as an individual who has a financial capital investment in a business that is greater than $0 and annual sales/revenue of at least $1000 (Bates, 1995; Devine, 1994a; 1994b).&quot;</td>
<td>Smith-Hunter, 2006, p. 102</td>
</tr>
<tr>
<td>Entrepreneuring</td>
<td>&quot;efforts to bring about new economic, social, institutional, and cultural environments through the actions of an individual or group of individuals&quot;</td>
<td>Rindova, Barry, &amp; Ketchen, 2009, p. 477; Emancipatory Perspective of entrepreneurship-AMR</td>
</tr>
<tr>
<td>Entrepreneurs (includes corporate entrepreneurs also)</td>
<td>“Entrepreneurs are individuals or groups of individuals, acting independently or as part of a corporate system, who create new organizations, or instigate renewal or innovation within an existing organization.”</td>
<td>Sharma &amp; Chrisman, 1999, p. 17</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Number of firms with or without paid employees (1997)</th>
<th>1997%</th>
<th>Number of firms with or without paid employees (2002)</th>
<th>2002%</th>
<th>Number of firms with or without paid employees (2007)</th>
<th>2007%</th>
<th>Number of firms with or without paid employees (2012)</th>
<th>2012%</th>
<th>Change in # of firms etc. from 1997 to 2012</th>
<th>% Change from 1997 to 2012</th>
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<tr>
<td><strong>All Firms</strong></td>
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<tr>
<td>Female Owned (51% or greater)</td>
<td>5,417,034</td>
<td>26.0</td>
<td>6,489,259</td>
<td>28.2</td>
<td>7,792,115</td>
<td>28.8</td>
<td>9,878,397</td>
<td>35.8</td>
<td>4,461,363</td>
<td>82.4</td>
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<td>Equally Male/Female Owned (50%/50%)</td>
<td>3,641,263</td>
<td>17.5</td>
<td>2,693,360</td>
<td>11.7</td>
<td>4,602,192</td>
<td>17.0</td>
<td>2,456,386</td>
<td>8.9</td>
<td>(1,184,877)</td>
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<td>Male Owned (51% or greater)</td>
<td>11,374,194</td>
<td>54.6</td>
<td>13,184,033</td>
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<td>13,900,554</td>
<td>51.3</td>
<td>14,844,597</td>
<td>53.7</td>
<td>3,470,403</td>
<td>30.5</td>
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<tr>
<td>Publicly held and other firms not classifiable by gender, Hispanic or Latino origin, and race (2002); Publicly held and other firms not classifiable by gender, ethnicity, race, and veteran status (2007; 2012)</td>
<td>381,519</td>
<td>1.8</td>
<td>494,399</td>
<td>2.2</td>
<td>798,048</td>
<td>2.9</td>
<td>446,980</td>
<td>1.6</td>
<td>65,461</td>
<td>17.2</td>
</tr>
<tr>
<td>Female Owned (50% or greater)</td>
<td>9,058,297</td>
<td>43.5</td>
<td>9,182,619</td>
<td>40.0</td>
<td>12,394,307</td>
<td>45.7</td>
<td>12,334,783</td>
<td>44.6</td>
<td>3,279,489</td>
<td>36.2</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>Sales, receipts, and value of shipments of firms with or without paid employees ($1,000) (1997)</th>
<th>1997%</th>
<th>Sales, receipts, and value of shipments of firms with or without paid employees ($1,000) (2002)</th>
<th>2002%</th>
<th>Sales, receipts, and value of shipments of firms with or without paid employees ($1,000) (2007)</th>
<th>2007%</th>
<th>Sales, receipts, and value of shipments of firms with or without paid employees ($1,000) (2012)</th>
<th>2012%</th>
<th>Change in Sales Receipts etc. from 1997 to 2012</th>
<th>% Change from 1997 to 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>18,553,243,3047</td>
<td>1997%</td>
<td>22,603,658,904</td>
<td>2002%</td>
<td>30,031,519,910</td>
<td>2007%</td>
<td>33,536,848,821</td>
<td>2012%</td>
<td>14,983,605,774</td>
<td>80.8</td>
</tr>
<tr>
<td>Female Owned (51% or greater)</td>
<td>818,669,084</td>
<td>4.4</td>
<td>939,538,208</td>
<td>4.2</td>
<td>1,196,608,004</td>
<td>4.0</td>
<td>1,419,834,295</td>
<td>4.2</td>
<td>601,165,211</td>
<td>73.4</td>
</tr>
<tr>
<td>Equally Male/Female Owned (50%/50%)</td>
<td>943,880,584</td>
<td>5.1</td>
<td>731,678,703</td>
<td>3.2</td>
<td>1,274,657,270</td>
<td>4.2</td>
<td>1,078,204,389</td>
<td>3.2</td>
<td>134,323,805</td>
<td>14.2</td>
</tr>
<tr>
<td>Male Owned (51% or greater)</td>
<td>6,635,374,691</td>
<td>35.8</td>
<td>7,061,026</td>
<td>31.2</td>
<td>8,478,196,600</td>
<td>28.2</td>
<td>9,466,039,188</td>
<td>28.2</td>
<td>2,830,664,497</td>
<td>42.7</td>
</tr>
<tr>
<td>Publicly held and other firms not classifiable by gender, Hispanic or Latino origin, and race (2002); Publicly held and other firms not classifiable by gender, ethnicity, race, and veteran status (2007; 2012)</td>
<td>10,161,241,1786</td>
<td>54.8</td>
<td>13,820,17,758</td>
<td>61.1</td>
<td>19,082,058</td>
<td>63.5</td>
<td>21,572,770,949</td>
<td>64.3</td>
<td>11,411,529,163</td>
<td>112.3</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>Number of paid employees for pay period including March 12 (1997)</th>
<th>1997%</th>
<th>Number of paid employees for pay period including March 12 (2002)</th>
<th>2002%</th>
<th>Number of paid employees for pay period including March 12 (2007)</th>
<th>2007%</th>
<th>Number of paid employees for pay period including March 12 (2012)</th>
<th>2012%</th>
<th>Change in # of paid employees etc. from 1997 to 2012</th>
<th>% Change from 1997 to 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>103,359,815</td>
<td>110,766,605</td>
<td>117,310,118</td>
<td>115,249,007</td>
<td>11,889,192</td>
<td>11.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Owned (51% or greater)</td>
<td>7,076,081</td>
<td>7,141,369</td>
<td>6.4</td>
<td>7,520,121</td>
<td>6.4</td>
<td>8,431,614</td>
<td>7.3</td>
<td>1,355,533</td>
<td>19.2</td>
<td></td>
</tr>
<tr>
<td>Equally Male/Female Owned (50%/50%)</td>
<td>8,284,537</td>
<td>5,664,948</td>
<td>5.1</td>
<td>8,054,996</td>
<td>6.9</td>
<td>6,494,837</td>
<td>5.6</td>
<td>-1,789,700</td>
<td>-21.6</td>
<td></td>
</tr>
<tr>
<td>Male Owned (51% or greater)</td>
<td>43,532,114</td>
<td>42,428,508</td>
<td>38.3</td>
<td>41,051,438</td>
<td>35.0</td>
<td>41,132,111</td>
<td>35.7</td>
<td>-2,400,003</td>
<td>-5.5</td>
<td></td>
</tr>
<tr>
<td>Publicly held and other firms not classifiable by gender, Hispanic or Latino origin, and race (2002); Publicly held and other firms not classifiable by gender, ethnicity, race, and veteran status (2007; 2012)</td>
<td>44,458,403</td>
<td>55,398,389</td>
<td>50.0</td>
<td>60,683,564</td>
<td>51.7</td>
<td>59,190,444</td>
<td>51.4</td>
<td>14,732,041</td>
<td>33.1</td>
<td></td>
</tr>
</tbody>
</table>

Table 13. *U.S. Census, Survey of Business Owners (SBO), Female Owned Firms (51% or greater), by Ethnicity/Race: Number of firms with or without paid employees (1997, 2002, 2007, 2012)*

<table>
<thead>
<tr>
<th>Female Owned Firms, by Ethnicity/Race</th>
<th>Number of firms with or without paid employees (1997)</th>
<th>1997%</th>
<th>Number of firms with or without paid employees (2002)</th>
<th>2002%</th>
<th>Number of firms with or without paid employees (2007)</th>
<th>2007%</th>
<th>Number of firms with or without paid employees (2012)</th>
<th>2012%</th>
<th>Change in # of firms etc. from 1997 to 2012 %</th>
<th>% Change from 1997 to 2012 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Female Owned (51% or greater)</td>
<td>5,417,034</td>
<td>26.0</td>
<td>6,489,259</td>
<td>28.2</td>
<td>7,792,115</td>
<td>28.8</td>
<td>9,878,397</td>
<td>35.8</td>
<td>4,461,363</td>
<td>82.4</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>337,708</td>
<td>6.2</td>
<td>540,745</td>
<td>8.3</td>
<td>787,914</td>
<td>10.1</td>
<td>1,469,991</td>
<td>14.9</td>
<td>1,132,283</td>
<td>335.3</td>
</tr>
<tr>
<td>Equally Hispanic/Non-Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,698</td>
<td>0.1</td>
<td>5,541</td>
<td>0.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% Minority/50% Non-minority</td>
<td>6,042</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>4,487,589</td>
<td>82.8</td>
<td>5,580,162</td>
<td>86.0</td>
<td>6,359,063</td>
<td>81.6</td>
<td>7,159,034</td>
<td>72.5</td>
<td>2,671,445</td>
<td>59.5</td>
</tr>
<tr>
<td>Black or African American</td>
<td>312,884</td>
<td>5.8</td>
<td>547,032</td>
<td>8.4</td>
<td>911,728</td>
<td>11.7</td>
<td>1,521,494</td>
<td>15.4</td>
<td>1,208,610</td>
<td>386.3</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>53,593</td>
<td>1.0</td>
<td>78,292</td>
<td>1.2</td>
<td>96,543</td>
<td>1.2</td>
<td>131,064</td>
<td>1.3</td>
<td>77,471</td>
<td>144.6</td>
</tr>
<tr>
<td>Asian</td>
<td>242,202</td>
<td>4.5</td>
<td>339,554</td>
<td>5.2</td>
<td>522,969</td>
<td>6.7</td>
<td>749,197</td>
<td>7.6</td>
<td>506,995</td>
<td>209.3</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>5,764</td>
<td>0.1</td>
<td>10,582</td>
<td>0.2</td>
<td>14,963</td>
<td>0.2</td>
<td>24,982</td>
<td>0.3</td>
<td>19,218</td>
<td>333.4</td>
</tr>
<tr>
<td>Other</td>
<td>381,519</td>
<td>7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

>Note. Columns may not add up due to rounding or the ability of individuals to check multiple races. Source: (U.S. Census, 1997, 2002, 2007, 2012)
Table 14. U.S. Census, Survey of Business Owners (SBO), Female Owned Firms (51% or greater), by Ethnicity/Race: Sales, receipts, and value of shipments of firms with or without paid employees ($1,000) (1997, 2002, 2007, 2012)

<table>
<thead>
<tr>
<th>Female Owned Firms, by Ethnicity/Race</th>
<th>1997%</th>
<th>2002%</th>
<th>2007%</th>
<th>2012%</th>
<th>Change in Sales Receipts etc. from 1997 to 2012</th>
<th>% Change from 1997 to 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Female Owned (51% or greater)</td>
<td>818,669,084</td>
<td>939,538,208</td>
<td>1,196,608,004</td>
<td>1,419,834,295</td>
<td>601,165,211</td>
<td>73.4</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>27,319,361</td>
<td>35,265,399</td>
<td>55,653,289</td>
<td>78,679,717</td>
<td>51,360,356</td>
<td>188.0</td>
</tr>
<tr>
<td>Equally Hispanic/Non-Hispanic</td>
<td>1,418,142</td>
<td>1,680,583</td>
<td>96.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>904,272,809</td>
<td>1,139,536,573</td>
<td>1,339,473,995</td>
<td>94.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>732,148,251</td>
<td>862,590,849</td>
<td>1,068,124,140</td>
<td>1,221,238,620</td>
<td>489,090,369</td>
<td>66.8</td>
</tr>
<tr>
<td>Black or African American</td>
<td>13,550,983</td>
<td>20,670,616</td>
<td>36,804,059</td>
<td>42,225,349</td>
<td>28,674,366</td>
<td>211.6</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>6,755,233</td>
<td>5,763,268</td>
<td>8,862,208</td>
<td>9,057,458</td>
<td>2,302,225</td>
<td>34.1</td>
</tr>
<tr>
<td>Asian</td>
<td>37,391,172</td>
<td>53,652,929</td>
<td>87,678,029</td>
<td>135,676,380</td>
<td>98,285,208</td>
<td>262.9</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>709,599</td>
<td>795,963</td>
<td>1,509,366</td>
<td>1,879,024</td>
<td>1,169,425</td>
<td>164.8</td>
</tr>
</tbody>
</table>

Note. Columns may not add up due to rounding or the ability of individuals to check multiple races. Source: (U.S. Census, 1997, 2002, 2007, 2012)
Table 15. U.S. Census, Survey of Business Owners (SBO), Female Owned Firms (51% or greater), by Ethnicity/Race:

<table>
<thead>
<tr>
<th>Female Owned Firms, by Ethnicity/Race</th>
<th>Number of paid employees (1997)</th>
<th>1997%</th>
<th>Number of paid employees for pay period including March 12 (2002)</th>
<th>2002%</th>
<th>Number of paid employees for pay period including March 12 (2007)</th>
<th>2007%</th>
<th>Number of paid employees for pay period including March 12 (2012)</th>
<th>2012%</th>
<th>Change in # of paid employees etc. from 1997 to 2012</th>
<th>% Change from 1997 to 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Female Owned (51% or greater)</td>
<td>7,076,081</td>
<td>6.8</td>
<td>7,141,369</td>
<td>6.4</td>
<td>7,520,121</td>
<td>6.4</td>
<td>8,431,614</td>
<td>7.3</td>
<td>1,355,533</td>
<td>19.2</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>234,591</td>
<td>3.3</td>
<td>282,683</td>
<td>4.0</td>
<td>363,430</td>
<td>4.8</td>
<td>470,726</td>
<td>5.6</td>
<td>236,135</td>
<td>100.7</td>
</tr>
<tr>
<td>Equally Hispanic/Non-Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14,102</td>
<td>0.2</td>
<td>19,240</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>6,858,685</td>
<td>96.0</td>
<td>7,142,590</td>
<td>95.0</td>
<td>7,941,649</td>
<td>94.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>6,278,860</td>
<td>0.89</td>
<td>6,513,446</td>
<td>91.2</td>
<td>6,682,695</td>
<td>88.9</td>
<td>7,195,764</td>
<td>85.3</td>
<td>916,904</td>
<td>14.6</td>
</tr>
<tr>
<td>Black or African American</td>
<td>169,038</td>
<td>2.4</td>
<td>176,436</td>
<td>2.5</td>
<td>245,474</td>
<td>3.3</td>
<td>316,977</td>
<td>3.8</td>
<td>147,939</td>
<td>87.5</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>74,114</td>
<td>1.0</td>
<td>49,406</td>
<td>0.7</td>
<td>52,432</td>
<td>0.7</td>
<td>55,011</td>
<td>0.7</td>
<td>-19,103</td>
<td>-25.8</td>
</tr>
<tr>
<td>Asian</td>
<td>307,276</td>
<td>4.3</td>
<td>425,024</td>
<td>6.0</td>
<td>561,031</td>
<td>7.5</td>
<td>804,276</td>
<td>9.5</td>
<td>497,000</td>
<td>161.7</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>6,327</td>
<td>0.1</td>
<td>7,395</td>
<td>0.1</td>
<td>12,074</td>
<td>0.2</td>
<td>11,701</td>
<td>0.1</td>
<td>5,374</td>
<td>84.9</td>
</tr>
<tr>
<td>Minority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,643,197</td>
<td>19.5</td>
</tr>
</tbody>
</table>

Note. Columns may not add up due to rounding or the ability of individuals to check multiple races. Source: (U.S. Census, 1997, 2002, 2007, 2012)
APPENDIX B: Study Variables Codebook
Basic Psychological Needs

Work-related Basic Need Satisfaction Scale (WBNS) (Van den Broeck, Vansteenkiste, De Witte, Soenens, & Lens, 2010)

The following statements aim to tap into your personal experiences at work. Responses are made on a five-point Likert scale ranging from 1 (totally disagree) to 5 (totally agree).

Need for autonomy

1. I feel like I can be myself at my job.
2. At work, I often feel like I have to follow other people's commands. (R)
3. If I could choose, I would do things at work differently. (R)
4. The tasks I have to do at work are in line with what I really want to do.
5. I feel free to do my job the way I think it could best be done.
6. In my job, I feel forced to do things I do not want to do. (R)

Need for competence

7. I really master my tasks at my job.
8. I feel competent at my job.
9. I am good at the things I do in my job.
10. I have the feeling that I can even accomplish the most difficult tasks at work.

Need for relatedness

11. I don't really feel connected with other people at my job. (R)
12. At work, I feel part of a group.
13. I don't really mix with other people at my job. (R)
14. At work, I can talk with people about things that really matter to me.
15. I often feel alone when I am with my colleagues. (R)
16. Some people I work with are close friends of mine.

Note. (R) Reversed item.

**Authenticity**

**Individual Authenticity Measure at Work (IAM Work) (van den Bosch & Taris, 2014)**

*The introduction to the measure instructs participants to focus on their entrepreneurial business when answering the items. They are asked to imagine how much each statement applied to them only at work in their entrepreneurial business (and not in other situations) for the past 4 weeks.*  
A 7-point Likert-type scale, ranging from 1 (‘‘does not describe me at all’’) to 7 (‘‘describes me very well’’) is used. The scores 1, 7, as well as the neutral score 4 are anchored.

**Authentic Living**

1. I am true to myself at work in most situations.
2. At work, I always stand by what I believe in.
3. I behave in accordance with my values and beliefs in the workplace.
4. I find it easier to get on with people in the workplace when I’m being myself.

**Self-Alienation**

5. At work, I feel alienated.
6. I don’t feel who I truly am at work.
7. At work, I feel out of touch with the “real me”.
8. In my working environment I feel “cut off” from who I really am.

**Social Influence (Accepting External Influence)**

9. At work, I feel the need to do what others expect me to do.
10. I am strongly influenced in the workplace by the opinions of others.
11. Other people influence me greatly at work.
12. At work, I behave in a manner that people expect me to behave.


**Entrepreneurial Work Engagement**

(adapted from Rothbard, 2001)

*Respondents rated these items on a 7-point Likert scale from "strongly disagree" to "strongly agree."*

This scale has been modified to reflect “Entrepreneurial Work Engagement” by substituting ‘work’ with ‘business’ and adding ‘in my business’ where logical. Original wording is in parentheses.

**Attention**

1. I spend a lot of time thinking about my *business* (work).
2. I focus a great deal of attention on my *business* (work).
3. I concentrate a lot on my *business* (work).
4. I pay a lot of attention to my *business* (work).

**Absorption**

5. When I am working *in my business*, I often lose track of time.
6. I often get carried away by what I am working on *in my business*.
7. When I am working *in my business*, I am completely engrossed by my work.
8. When I am working *in my business*, I am totally absorbed by it.
9. Nothing can distract me when I am working *in my business*. (R)
Note. (R) Reversed item.


**Ethnic Identity**

**Multigroup Ethnic Identity Measure—Revised (MEIM—R)** (Phinney & Ong, 2007)

*In administering the measure, these items should be preceded by an open-ended question that elicits the respondent’s spontaneous ethnic self-label. It should conclude with a list of appropriate ethnic groups that the respondent can check to indicate both their own and their parents’ ethnic backgrounds (see Phinney, 1992). The usual response options are on a 5-point scale, from strongly disagree (1) to strongly agree (5), with 3 as a neutral position.*

**Exploration**

1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
2. I have often done things that will help me understand my ethnic background better.
3. I have often talked to other people in order to learn more about my ethnic group.

**Commitment**

1. I have a strong sense of belonging to my own ethnic group.
2. I understand pretty well what my ethnic group membership means to me.
3. I feel a strong attachment towards my own ethnic group.

Items were adapted from Phinney (1992).


**Perceived Ethnic Discrimination**

(Contrada, Ashmore, Gary, Coups, Egeth, Sewell, Ewell, & Goya, 2006)

Please indicate **how often over the past 3 months** someone has done this to you because of your ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Implied you must be dangerous</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2. Implied you must be dishonest</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>3. Implied you must be unintelligent</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>4. Implied you must be lazy</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>5. Had low expectations of you</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>6. Implied you must be dirty</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>7. Threatened to hurt you</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>8. Damaged your property</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>9. Threatened to damage your property</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>10. Physically hurt you</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>11. Nonverbal harassment</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>12. Offensive ethnic comments aimed at you</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>13. Ethnic name calling</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>14. Offensive comments about ethnic group</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>15. Others avoided social contact with you</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>16. Others avoided physical contact with you</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>17. Made you feel you don't fit in</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>
Work-Family Balance

Satisfaction with Work–Family Balance (Eddleston & Powell, 2012)

Please indicate how satisfied you currently are with (1 = not at all satisfied, 5 = very satisfied):

1. Achieving work–family balance
2. Integrating my work life with my nonwork life
3. Gaining greater control over my life

Controls

Social Desirability (Strahan & Gerbasi, 1972)

Instructions – Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

(1 = True, 2 = False)

1. I like to gossip at times.
2. There have been occasions when I took advantage of someone.
3. I’m always willing to admit it when I make a mistake.
4. I always try to practice what I preach.
5. I sometimes try to get even rather than forgive and forget.
6. At times I have really insisted on having things my own way.
7. There have been occasions when I felt like smashing things.
8. I never resent being asked to return a favor.
9. I have never been irked when people expressed ideas very different from my own.
10. I have never deliberately said something that hurt someone’s feelings.

Scale of Positive and Negative Experiences (SPANE)

(Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi, & Biswas-Diener, 2010)

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Please think about what you have been doing and experiencing during the past four weeks. Then report how much you experienced each of the following feelings using the scale provided.

Rating scale: (1) very rarely or never, (2) rarely, (3) sometimes, (4) often, (5) very often or always

1. Positive
2. Negative
3. Good
4. Bad
5. Pleasant
6. Unpleasant
7. Happy
8. Sad
9. Afraid
10. Joyful
11. Angry
12. Contented

“Scoring: The measure can be used to derive an overall affect balance score, but can also be divided into positive and negative feelings scales. Positive feelings (SPANE-P): Add the scores, varying from 1 to 5, for the six items: positive, good, pleasant, happy, joyful, and contented. The score can vary from 6 (lowest possible) to 30 (highest positive feelings score). Negative feelings (SPANE-N): Add the scores, varying from 1 to 5, for the six items: negative, bad, unpleasant, sad, afraid, and angry. The score can vary from 6 (lowest possible) to 30 (highest negative feelings score).” (Diener et al., 2010, p. 154)

Curriculum Vitae Dianne D. Murphy

EDUCATION

Ph.D., University of Wisconsin-Milwaukee, Lubar School of Business
Major: Organizations and Strategic Management
Major Advisor: Dr. Margaret A. Shaffer
Preliminary Examinations: Passed July/August 2013 – G.P.A. 3.96 / 4.00
Dissertation Co-Chairs: Dr. Margaret A. Shaffer and Dr. Satish Nambisan

May 2017

M.B.A., University of Wisconsin-Milwaukee, Lubar School of Business
Track: Leadership
International Business Honors - Beta Gamma Sigma – G.P.A. 3.9 / 4.0

2008

Bachelor of Arts, St. Norbert College, De Pere, Wisconsin
Major: Psychology Emphasis: Personality Theory
Presidential Scholarship

1993

Geographic Information Systems (GIS) Certificate, MATC, Milwaukee, Wisconsin

2009

RESEARCH

Journal Articles: In press & print


CONFERENCE PRESENTATIONS


**Murphy, D. D.** & Freiheit, J. *The development and validation of the mentoring expectations congruency scale (MECS).* Academy of Management Meeting. Lake Buena Vista, FL. August 9th-13th, 2013. **The Arnon Reichers Best Student Paper Award Finalist!**


Other Conference Activities


TEACHING EXPERIENCE

_Adjunct Instructor_, Marquette University, Department of Management

HURE 3001 Management of Human Resources, Undergraduate, Summer 2010

_Lecturer_, University of Wisconsin-Milwaukee, Lubar School of Business

* Awarded _Gold Star in Teaching_ (Top 10 ranking out of appx. 250 classes)
§ Awarded Outstanding Graduate Student Teaching Award (Top ranked of all doctoral student instructors-awarded $500 travel stipend.)
† Finalist for the Outstanding Graduate Student Teaching Award (Top three ranked of all doctoral student instructors.)

BA292 Intro to Entrepreneurship & Small Business Formation, Undergraduate, **Fall 2016†**, Spring 2017

BA441 Diversity in Organizations, Undergraduate/Graduate, **Spring 2015* §**, Spring 2017

BA330 Organizations, Undergraduate, **Fall 2013* /Spring 2014

BA781 Enterprise Resource Planning and Control (SAP), Graduate, Fall 2009/Spring 2010
BA471 Enterprise Resource Planning and Control (SAP), Undergraduate, **Fall 2009* /Spring 2010**

BA370 Operations Management, Undergraduate, WinterIm 2010, Summer 2010

SERVICE

_Journal of Global Mobility_ Ad Hoc Peer Reviewer 2014-2016

_Human Relations_ Ad Hoc Peer Reviewer 2014

Academy of Management Peer Reviewer 2012, 2015-16

Academy of Management GDO Division Executive Board Member, Ex-Officio Appointed Role: _GDO Listserv Manager_ 2010-2013

Academy of Management GDO Division Membership Committee, Member 2011-2013

Midwest Academy of Management 2013 MAM Conference, Milwaukee, WI Role: _Local Arrangements Committee_ 2013

UW-Milwaukee Officer of the Organizations and Strategic Management Academic Student Research Club 2012-Present

UW-Milwaukee iPads for Education Volunteer 2012-Present

UW-Milwaukee Lubar Black and Gold Committee 2007-2010
HONORS and AWARDS

Outstanding Graduate Student Teaching Award-Finalist 2017
Outstanding Graduate Student Teaching Award-Inaugural Recipient 2016
Roger L. Fitzsimonds Doctoral Scholarship (merit-based) 2014
The AOM Careers Best Paper Award Winner 2013
The AOM Arnon Reichers Best Student Paper Award Finalist 2013
Academy of Management GDO Leadership Track Nominee 2013
Sheldon B. Lubar Doctoral Scholarship (merit-based) 2012, 2013
New Doctoral Student Consortium – AOM GDO 2009
Beta Gamma Sigma Honor Society invited 2008
3.9/4.0 G.P.A. for M.B.A. Degree
Business Writing Competition Nominee – UWM English Department 2007
On-the-Spot Recognition Award – Hamacher Resource Group 2005
Cross Departmental Team Coordination and Communication for Neutrogena
On-the-Spot Recognition Award – Hamacher Resource Group 2004
Outstanding Relationship Building Skills in Support of Johnson & Johnson 1995
Gold Medalist-IDDBA (International Dairy-Deli-Bakery Association) 1995
Retail Merchandising Challenge
Five Day Comprehensive National Olympic-Style Deli Operations Competition
PROJECT ASSISTANTSHIPS

**AMR Editorial Assistant** Summer/Fall/Spring 2014-2015 for Dr. Belle Rose Ragins.

**Project Assistant** Fall/Spring 2010-2013 for Dr. Belle Rose Ragins.

**Project Assistant for the Association to Advance Collegiate Schools of Business International (AACSB) Assessment Process** Spring 2009-BBA Program; Summer 2010 MS Program for Dr. Mark Srite. Assist in the assessment of the UWM curriculum; write report for the AACSB which led to renewal.

**Research Assistant for UW-Milwaukee Alumni Career Study** Spring/Summer/Fall 2009

Assist in the collection, analysis, interpretation and summary of data for the UWM Alumni Career Study for Dr. Belle Rose Ragins. Second author for the technical Summary Report for the University.

**Associate Instructional Specialist (TA) for Enterprise Resource Planning and Control (SAP)**

Fall 2008/Spring 2009 Graduate/Undergraduate Course

Conduct SAP lab exercises, grade homework, term papers and tests, manage the Desire to Learn (D2L) class web tool, prep materials for class, conduct exam reviews and tutor students.

PhD COURSEWORK

**Major/Minor**

Study Abroad – Emerging Markets of ASIA  
Independent Study – International Business  
Independent Study – Mentoring  
Independent Study – Diversity in Organizations  
Doctoral Seminar – Human Resource Management  
Doctoral Seminar – International Management  
Doctoral Seminar – Organizational Theory  
Doctoral Seminar – Organizational Behavior  
Doctoral Orientation  

Dr. Margaret A. Shaffer  
Dr. Belle Rose Ragins  
Dr. Belle Rose Ragins  
Dr. Romila Singh  
Dr. Margaret A. Shaffer  
Dr. Maria Garanova  
Dr. Belle Rose Ragins  
Dr. Sanjoy Ghose

**Research Methods and Statistics**

Theory of Hierarchical Linear Modeling  
Instrument Development  
Structural Equation Modeling  
Multivariate Methods  
Doctoral Seminar-Research Methods  
Multiple Regression and Linear Models  
Quantitative Preparation for Doctoral Studies-Matrix Algebra  

Dr. Wen Luo (Educational Psychology)  
Dr. Cynthia Walker (Educ. Psychology)  
Dr. Wen Luo (Educational Psychology)  
Dr. Wen Luo (Educational Psychology)  
Dr. Mark A. Mone (Management)  
Dr. Wen Luo (Educational Psychology)  
Joseph Retzer (Management)

**Teaching Philosophy**

Teaching and Learning in College:  
Reflection on Theory and Practice  

Dr. Connie Schroeder  
(Center for Excellence in Teaching and Learning, CETL)
PROFESSIONAL AFFILIATIONS

Academy of Management 2008-Present
Midwest Academy of Management 2007/08, 2011/12, Present
OBTS Teaching Society for Management Educators 2011, Present
Society of Industrial and Organizational Professionals-APA SIOP 2011, Present
University of Wisconsin-Milwaukee College Entrepreneur’s Organization 2007/2008
JDA Intactix Floor and Space Planning SIG Users Group 2001-2006
International Dairy Deli Bakery Association 1989-2000
Retail Bakers Association 1996-2000
Deli Business Magazine – Contributing Author and Editorial Board Member 1998

COMPUTER SKILLS

SAS 9.2 Analytics Software
IBM SPSS Statistics 24 Analytics Software
MPlus6
D2L (Desire to Learn) Online Learning Software-Intermediate
Listserv Management (Academy of Management)
NVivo Qualitative Analysis Software, NVivo Merge
JDA Intactix Suite (Category Management Software)
Microsoft Office Suite: Word, Excel, PowerPoint, Publisher, Access, Outlook, Project
ACNielsen Market Data/Spectra Demographic Systems
Geographical Information Systems (GIS)-Certificate Level /Business Analyst-Beginner
SAP ECC 6.0; SAP APO 5.0-Beginner
IBM Buying and Promotion Systems (SUPERVALU, Inc.)
PROFESSIONAL DEVELOPMENT

CIBER
Internationalizing Doctoral Education in Business (IDEB) UW-Madison
July, 2011

Academy of Management
Scale Development and Validation PDW Participant Boston, MA
August, 2012

University of Wisconsin-Milwaukee
Developing Your Statement of Teaching Philosophy Milwaukee, WI
Sept. 17th, 2014
Creating a Teaching Portfolio April 22nd, 2014
Designing Your Own Course Part II Nov. 15th, 2013
Designing Your Own Course Part I June 21th, 2013
Advanced Psychology Research Workshop Oct. 12th, 2012
Research Alert Services Nov. 29th, 2011
IRB Web Based Computer Submission Training Oct. 5th, 2011
Grading Your Students: Assessment in Online and Blended Courses April 28th, 2010
Preparing Future Faculty Nov. 4th, 2010
Work Smarter not Harder and Accomplish More Nov. 19th, 2009
Accommodating Psychological Disabilities in the Classroom Apr. 8th, 2009
Course Learning Assessment—Be Smart, Simple and Selective Feb. 20th, 2009
Writing Winning Grants Feb. 13th, 2009
Putting Social Networking Tools to Work Jan. 21st, 2009
Teaching and Learning in Second Life at UWM Dec. 17th, 2009
Milwaukee Area Academic Alliance in English-Creativity in the Classroom Oct. 18th, 2008
Creating Specific Learning Outcomes for Any Type of Course Oct. 10th, 2008
12 Keys to Successful Grant Writing Mar. 6th, 2008

SUPERVALU Development Pleasant Prairie, WI
Zenger-Miller Frontline Leadership 1997
12-Week Leadership Development Program
MANAGEMENT TRAINING EXPERIENCE

Marquette University

**Facilitator for Team Development Activity Session** 10/21/2008
Assisted Dr. Carolyn S. Ottman in team development activities for 80 Marquette University Information Technology professional staff on October 21st, 2008 for 5 hours at the Milwaukee Athletic Club.

Roundy’s Supermarkets, Inc.

**Space Management Technical Standard Operating Procedure (SOP) Overview** 5/2006
Trained 23 partner companies on the new SOP’s required by Roundy’s Space Management Department.

Presented 46 Category Managers and Analysts the new CRP during 2 separate 4 hour sessions.
Presented the Retail Operations and Merchandising Group Vice Presidents the new CRP.

**Category Review Process Overview and Vendor Role Clarification** 1/2006
Reviewed the CRP and role expectations for 250 vendor partners.

**JDA Space Planning Tips and Tricks** 9/2005
Instructed 5 Space Management Specialists Tips and Tricks for Space Planning.

Hamacher Resource Group (Consulting)

**JDA Space Planning Training for Neutrogena Cosmetics Space Management Department**
Conducted on-site training, in Los Angeles, CA, for 5 Neutrogena Cosmetics Space Management Specialists on JDA Space Planning software for 2 days in July, 2003 and 3 days in July, 2005.

**JDA Space Planning Tips and Tricks**
Taught 8 Category Analysts Tips and Tricks for JDA Space Planning software for 2 hours in August, 2004.

SUPERVALU Inc.

**SUPERVALU UNIVERSITY Store Directors Institute**
Schooled a class of 12 Store Directors on Deli Operations for 1 day during the summer of 1995.

**Suggestive Selling in the Deli; Deli Merchandising**
Conducted on-location half-day seminars to grocery retail Deli Department staff, including the Chicago CUB Foods and Wisconsin County Markets from 1990 to 1993.

**Various Retail/Trade Show Seminars/Demonstrations**
Executed various on-location or trade show seminars from 1989 to 2000.
INDUSTRY EXPERIENCE

Dr. Carolyn S. Ottman, Ph.D. (Charter Steel Project)  
Saukville, WI; Cleveland, OH

**Consulting Project Assistant**  
5/07 – 9/07
- Conducted 5 focus groups in the Saukville, WI and Cleveland, OH Locations of Charter Steel
- Completed data entry for interviews and focus groups into NVivo qualitative research software
- Assisted in the summary and analysis of the focus group segment of the study

Roundy's Supermarkets, Inc.  
Milwaukee, WI

**Manager of Retail Merchandising Analytics**  
8/05 – 8/06
- Researched, developed, wrote, tested, and executed Roundy's category review process (6 months)
- Shepherded and guided new category review process into the organization (6 months)
- Increased category review completion rate from 5 in 2005 to an estimated 24+ in 2006
- Wrote and compiled standard operating procedures manual for space management department
- Supervised and developed 8 employees; 6 space management specialists, 2 analysts

Hamacher Resource Group  
Milwaukee, WI

**Category Analyst**  
2/01 – 8/05, 3/07
- Performed planogram analysis and merchandising for food, drug and mass outlets
- Conducted JDA Intactix Space Planning training for external and internal clients
- Co-managed Cardinal Health LEADER Retailing RoadMap program
- Managed Access database and image library support for key account-Johnson & Johnson

SUPERVALU, Inc.  
1989-2000

*Midwest Region*

**Category Manager, Bakery**  
Pleasant Prairie, WI  
9/99 – 5/00
- Profit and loss accountability for over $40 million/year category; 2500+ skus in 4 warehouses
- Co-chaired 4 bi-annual conventions; Conducted customer focus groups
- Facilitated consolidation of corporate retail (formation of corporate CUB)
- Supervised 6 employees: 2 buyers, 2 promotion managers, and 2 assistants

**Senior Promotion Manager, Bakery/Deli**  
9/96 - 8/99
- Coordinated promotions and marketing for 500+ grocery retail stores
- Determined advertising for 5 ad groups; Established County Market $10 party tray billboard ad fund
- Chaired 4 bi-annual sales conventions across all SUPERVALU departments
- Collaborated sales efforts of 13 specialists, supervised promo assistant
- Conducted training and speaking engagements for both internal/external customers and staff

*Northern Region*

**Category Manager, Deli**  
Hopkins, MN  
9/95 - 9/96
- Profit and loss accountability for over $52 million/year category; 3000+ skus in 4 warehouses
- Developed, marketed, and sold pit ham program to SUPERVALU retail customers
- Coordinated advertising for 8 grocery ad groups
- Supervised 2 employees: 1 deli buyer and 1 category management assistant

*Corporate Offices*

**Corporate Merchandiser, Deli**  
Minneapolis, MN  
9/94 - 9/95
- Negotiated national partnerships with leading manufacturers generating over $1 million/year in rebates
- Coordinated corporate marketing and promotions for 27 distribution centers
- Hand-picked member of Booz-Allen Advantage committee-restructuring project of SUPERVALU
Great Lakes Division  Pleasant Prairie, WI

**Buyer/Merchandiser, Deli**  10/93 - 9/94
- Procured 900+ skus for 2 warehouse using IBM inventory management technology
- First deli buyer to generate profit in the department

**Specialist, Deli**  9/90 - 10/93
- Consulted deli departments regarding profitability, merchandising and management
- Key account specialist for Chicago Cubs; Completed 7 store analyses, Opened/remodeled 20 stores
- Committee member for Bi-annual Conventions (Selling Expos)

Bismarck Division  Bismarck, ND

**Specialist, Bakery/Deli**  9/89 - 8/90
- Consulted owners and bakery/deli departments regarding profitability, merchandising and management
- Developed and conducted several training seminars in the field.
- Pioneered the Bakery/Deli program (Initial Bakery/Deli Specialist for the Bismarck Division)

Green Bay Division  Green Bay, WI

**Specialist, Bakery/Deli Trainee**  7/89 - 9/89
- Consulted owners and bakery/deli departments regarding profitability, merchandising and management
- Assisted in the openings and remodeling of multiple stores (County Markets in WI and Upper MI)