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A Look at Contributing Factors that Affect Female Underrepresentation in Management, in the United States

Nushine W. Hosseini
Florida International University, nhoss002@fiu.edu

FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

A LOOK AT CONTRIBUTING FACTORS THAT AFFECT FEMALE UNDERREPRESENTATION IN MANAGEMENT, IN THE UNITED STATES

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Nushine W. Hosseini

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To: Dean William Hardin
College of Business

This dissertation, written by Nushine W. Hosseini, and entitled A Look at Contributing Factors that Affect Female Underrepresentation in Management, in the United States, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

_____
Attila Hertelendy

_____
Jayati Sinha

_____
Chaitali Kapadia

_____
Miguel Aguirre-Urreta, Major Professor

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The dissertation of Nushine W. Hosseini is approved.

_____
Dean William Hardin
College of Business

_____
Andrés G. Gil
Vice President for Research and Economic Development
and Dean of the University Graduate School

Florida International University, 2022

DEDICATION

This year, I learned how to spell the word LOVE, which to my surprise is actually spelled T-I-M-E. Time is what I was gifted by my God, my family and my friends to begin and end this life changing journey. Special thanks to my family, Nale, Chepe, Rhonda, Lucky, Dora, Abuelo and Elaine. Thank you for always supporting my crazy ideas. To my lifelong friends who became family, Paolita, Leo, Alex, Maria, Karla and Mariela. Thank you for always being there, no matter the distance.

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ABSTRACT OF THE DISSERTATION

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Nushine W. Hosseini

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Miami, Florida

Professor Miguel Aguirre-Urreta, Major Professor

This study examines contributing factors that affect female underrepresentation in management, in the United States (U.S.), within the U.S. workforce. The primary variables of interest are intrinsic motivation, work life balance and organizational climate support, which have typically not been reviewed in depth, in prior research. Using a framework of varied theoretical approaches, this research studies the relationship between the above-mentioned constructs and gender effect, as related to interest in career advancement opportunities and female leadership underrepresentation within organizations. The results of this study further validate existing research and highlights the importance of establishing programs, geared towards shifting mindsets and utilizing the valuable skill sets and experiences of females within the workforce.

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LIST OF ABBREVIATIONS

BAL	Work Life Balance
BLS	Bureau of Labor Statistics
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
DBA	Doctorate in Business Administration
EFA	Exploratory Factor Analysis
FA	Factor Analysis
FIU	Florida International University
FUM	Female Underrepresentation in Management
FUMR	Female Underrepresentation in Management Reversed
GEN	Gender
IAO	Interest in Advancement Opportunities
MOT	Intrinsic Motivation
MOTCH	Intrinsic Motivation Referencing Interest in Challenging Work
MOTEF	Intrinsic Motivation Referencing Making a Work-Related Effort
Mturk	Mechanical Turk
ORC	Organizational Climate and Support
SEM	Structural Equation Modeling
U.S.	United States
WLB	Work Life Balance

CHAPTER I. INTRODUCTION

Over the last few decades, there has been a significant change in societal behaviors and expectations, as related to female underrepresentation in management, in the United States. On a global level, women have experienced the lack of respect and recognition they deserve, as part of any society's intricately woven fabric. When the paradigm lens shifts to focus on, arguably one of the most advanced and powerful nations in the world, the United States of America, one need not look very far to see that even in this great nation, women face similar struggles to that of their counterparts from around the world.

From a global perspective, www.statista.com notes that there are approximately 60 countries in the world, where the highest position of power has been held by a woman. To further clarify on the above, this note references the highest position held by women, around the world, excluding the United States of America (U.S.). The highest office of power in the U.S., is that of the role of President. From the inauguration of the country's first President to the most recent inauguration of the current President in 2021, no woman has ever held this position.

On a parallel note, similar to the office of President, the top leadership position within an organization is that of Chief Executive Officer (CEO). According to www.catalyst.org, Fortune 500 CEOs tend to be Caucasian, heterosexual and of the male gender. Within these organizations, females of color, those not born in the United States, and those of other sexual orientations, tend to lack representation in the leadership chain.

Furthermore, as of June, 2021, there are 29 (5.8%) positions where female leaders currently hold CEO positions, at S&P 500 companies (Catalyst, *Women CEOs of the S&P 500* (June, 2021)). For purposes of this study, this research uses the term gender to reference males and females. There is a focus on these two genders of interest, with a specific concentration on female underrepresentation in management. Additionally, there is an interest in the effects of the male and female genders, and how they are impacted in terms of their career development and advancement into leadership positions.

Over the years, women have valiantly fought for what could be considered to be their basic human rights. These rights span a wide ranging gamut from voting rights to education. In more recent modern times, they have been expanded to include the right to enter the workforce, as well as advancement within professional careers. These incremental developments within society, do not come without a cost. Many women have experienced the backlash of wanting to become more independent in their lives. With every step forward, there seems to be a push backwards. This push seems to come from overarching societal beliefs within their communities, or even within their own familial structures. This is further supported by the works of Russian Psychologist, Lev S. Vygotsky, who proposed three major themes associated with sociocultural theory, which Scott & Palincsar (2013) summarized as, explaining an individual's mental well-being in a cultural, institutional, and historical context.

There is an underling pressure that most women face in terms of their maternal roles within society, conflicting with their own intrinsic motivation to achieve a greater status within their communities. This status can be achieved in many forms, with the most common being in the form of educational success, or even becoming part of the

workforce. When women choose the latter, that being entry into the workforce, more often than not, the first obstacle they face is that of not seeing others who may look like them. Paynter (2011) states, "A woman has the right to choose her career path, and should she decide to stay at home with her children, that is perfectly acceptable as long as she is not coerced into the role or denied other roles because of her gender." Paynter (2011) goes on to state, "… Do women choose traditional roles because they make conscious, objective decisions … because it is their hearts' calling? Or are girls and women steered toward particular vocations and roles, … because of the images they see in the media, the lack of current female role models in prominent positions, and the policies of companies that continue to make it difficult to balance a family with a career?" (Paynter, 2011).

For generations, largely due to societal norms and gender roles, men have been tasked with being the "breadwinners" of the family and as a result, the workforce has been male dominated. This subsequently leads to a workforce that caters to the training, development and advancement of men within their own careers. The entry of women into the workforce, was a "game changer" of sorts. There was a glaringly obvious gap, that showcased not only the manner in which women were treated, including facing "…the challenge of combining career with family and dealing with unfair treatment in the workplace…" (Caliper, *Women Leaders Research paper*, 2014). This environment also provided a stark contrast in terms of the ratio of men to women, with men leading the charge in terms of career progression, and assuming top leadership roles within their organizations.

This study focuses on the underrepresentation of females within management in the workplace, as opposed to that of their male counterparts. In recent years, there seems to have been a slight shift, moving in a generally more positive direction, with an emergence of women in leadership roles in the business community. However, even with the advent of this shift, it still stands to reason that women are the more underrepresented gender in this area.

According to TeamStage Blog, in an article titled *27 Enlightening Women in the Workforce Statistics for 2021,* which focused on the representation of women in the workforce, it was noted that women account for 47.7% of the global workforce. In the United States, women account for 50.04% of jobs, which is an increase from 49.7% in 2019. (TeamStage Blog, *27 Enlightening Women in the Workforce Statistics for 2021,* 2021). Although there has been a considerable increase in female representation within the workforce, including the development of women in leadership roles within the business community, there still appears to be a tremendous lag in career advancement opportunities (Reed, Enders, McClees, & Lindor, 2011).

Despite seemingly beneficial and forward-thinking advances, women have not yet been fully exonerated from the theoretical crime of venturing outside of the home. In addition to the above, this lag in career advancement, could potentially be a result of an individual's own diminishing, intrinsic values, or perhaps due to societal pressures, as well as a lack of support within an employer's organizational climate. This research attempts to take a closer look at possible contributing factors, which may be a substantial deterrent, when examining female underrepresentation in management, in the United States, with a special focus on the lack of women leaders in the workplace.

Quantitative data was used to analyze information gathered, with the intent to potentially explain the underrepresentation problem this study expects to highlight. At the very least, perhaps findings will further validate, or substantiate, results from prior studies. Findings may also be considered to be additional contributions, which could theoretically support the advancement of females from being an underrepresented gender, to an equally represented gender.

There is a plethora of convincing and influential factors which seemingly contribute to female underrepresentation. Kendall (2018) discusses some of the factors that affect women including negative self-perceptions, which tend to present obstacles in pursuing leadership roles. Kendall (2018) goes on to state that throughout their lives, women delay achievement of their full potential, based on these assumptions or beliefs. In terms of organizational climate support, underrepresentation is further exhibited by the lack of priority to expand gender integration and representation across all leadership levels (Kendall, 2018).

Societal expectations of gender roles may also negatively impact female underrepresentation in leadership roles. Kendall (2018) states, “Role expectations imposed on women impact behavior, perception of self, leadership capacity, and can cause women to self-select out of career opportunities.” However, the three factors at the forefront of this research proposal, which may not have been extensively studied or reviewed in prior research are intrinsic motivation, work life balance, and organizational climate support.

There is an abundance of information as related to leadership styles, attributes, and even gender stereotypes, however, many of these studies reference intrinsic motivation. There appears to be a lack of in-depth exploration, in terms of, intrinsic motivation as a contributing factor, that negatively impacts female interest in advancement opportunities and subsequent representation in the workplace.

In a 2017 paper published by author, Corinne Jenni, Jenni (2017) highlights the concept of motivation as related to female leaders, and in terms of adopting leadership behavior that could change, based on a shift in their own motivation to lead. Jenni (2017) goes on to discuss how values shape behavior and motivation, thereby changing from an extrinsic to intrinsic approach, which potentially also changes leadership behavior.

Intrinsic motivation is one factor that this study will review in more detail, while also focusing on work life balance and how this affects genders in terms of male and female representation in leadership roles. In a study conducted by Place and Vardeman-Winter (2018), they discuss the need for more exploratory research regarding work life balance and its effect on leadership expectations. In addition to this, there is a need to further explore how gender impacts this support, which then influences women's leadership trajectories (Place and Vardeman-Winter, 2018).

These trajectories are often guided by organizational barriers that seemingly do not support the development and advancement of female leaders. According to Eagly (1987), workplace gender differences are due to the bias of individuals who are taught from an early age, that they must behave consistently with their social roles.

In a study conducted by Seghieria, Rojasb, and Nutic (2015), they referenced examples of these behavioral expectations, in terms of the social roles of doctors and nurses. Doctors tend to be represented by majority male gender, while nurses are represented by majority female gender.

As noted in the above, studies have been conducted separately on the factors of intrinsic motivation, work life balance and organization climate support, especially as related to leadership styles. However, these factors have not been explored together to determine if there are significant contributions to female interest in advancement opportunities, leading to underrepresentation and subsequent, potential disregard of advancement opportunities.

Another proposition related to this study, comes from examining the perspective of the effects of gender interest in career advancement, especially as related to work life balance. During the course of this research, several articles referenced, specifically focused on work life balance and the manner in which it affects males versus females. For example, in the article titled, *Harmony and Help: Recognizing the Impact of Work-Life Balance for Women Leaders* (Brue, 2018), one of the more prominent findings of this study indicated that women leaders revealed that their work life interfered with their family life.

When discussing the contributing factors mentioned above, there are other areas to consider as well, such as, 1) do both men and women have an equal level of interest in pursuing leadership roles in the workplace?, 2) are women in the workforce supported by their organizations in terms of mentorship and development, as opposed to their male counterparts? and, 3) does work life balance affect males differently to females.

Obtaining specific data on the above mentioned facets is important to making an added and valuable contribution to the topic of this research. It is also critical to understand the role gender holds in society, as well as the manner in which gender is represented in different societies. For example, in the United States, many organizations now include a non-binary gender option on job applications. This is largely in response to the evolving and expanding socially accepted views, on gender being recognized as more than just the traditional male and female roles. However, the scope of this research, is concentrated on female underrepresentation in management. Based on this, the focus will be on the traditional male and female roles, thereby excluding other genders, and addressing the male gender, which seemingly appears to be the more advanced gender of the two, in terms of obtaining leadership roles in business.

Exploring potential answers to questions posed above is necessary in order to understand historical patterns and present conditions, as well as being able to yield results which may persuade organizations to implement programs and/or incentives, that could attract and retain women leaders. This study may also add to other research works, geared towards making contributions and positive advances towards levelling the playing field, and affording equal opportunities for both genders.

According to online survey data provided by the U.S. Bureau of Labor Statistics (BLS), covering data between 1968 and 2016, the number of women working full time and part time, has not significantly changed over the past few years and fluctuates between 72% and 75% (U.S. Bureau of Labor Statistics [BLS], n.d.). In comparison, “88% of employed men usually worked full time in 2016 and 12 percent usually worked part time.” (U.S. Bureau of Labor Statistics [BLS], n.d.). These numbers are concerning,

given that the number of women entering the workforce over the last few decades, has neither significantly increased nor significantly decreased. This certainly makes one pause and ponder upon what factors could possibly contribute to this stagnation.

Following this train of thought, one also begins to understand where there may be a gender gap in management positions, within organizations. If there are less women in the workforce, than men, it would stand to reason that this could be a cause of underrepresentation in management positions. One also moves this thought process onto the next logical step, the realization that organizations could be missing an opportunity to utilize valuable resources, when they do not foster a supportive environment. If these guidelines were in place, it could positively impact women and allow career advancement based on their talents and skill sets.

This now leads one to think about why women may not pursue career paths aligned with their talents and skills, and the arrows point right back to the beginning of this research, addressing the matter of what factors contribute towards female underrepresentation as related to interest in advancement opportunities.

Based on the above, and in the interest of wanting to further validate a priori research findings, this research addresses the following question, *what factors contribute to female underrepresentation in management, in the United States?*

CHAPTER II. LITERATURE REVIEW

For most of history, women have been thought of as the weaker sex, less intelligent and ultimately, second-class citizens with no rights. Somewhere around the mid-nineteenth century, the women's rights movement began to gain traction. This movement aimed to unify "…women around a number of issues that were seen as

fundamental rights for all citizens; they included: the right to own property, access to higher education, reproductive rights, and suffrage" (Sprague, 2019). Unfortunately, once women were granted the right to vote, the movement slowly started to unravel and it was difficult to energize the base, especially with the onset of two World Wars. "It was not until the socially explosive 1960s that the modern feminist movement would be re-energized." (Sprague, 2019).

Shortly after the resurgence of the feminist movement in the 1960s, the Gender Schema Theory was developed in the 1980s. This theory is a "…cognitive based theory that uses an informant processing approach to explain how gender development occurs." (Martin, Dinella, 2001). The theory also states, "…masculinity and femininity are often unconsciously applied to different occupations and activities. To name a few, ballet dancers, flight attendants, and nurses may often be assigned to the feminine schema, while warriors and soldiers are often assigned to the masculine schema." (Martin, Dinella, 2001).

Another supporting theory that postulates the roles of men and women in society, is that of Gender Role Theory, which is "grounded in the supposition that individuals socially identified as males and females tend to occupy different ascribed roles within social structures and tend to be judged against divergent expectations for how they ought to behave" (Shimanoff, 2009).

The role of gender in society is essential and subsequently considered to be the foundation of a community. As such, theories have been studied and supported as related to traditional male and female roles. Many of these theories seemingly support marginalized and demoralizing stigmas (Thompson, 2019) that inherently form the basis

of foundational education from an early age, heavily contribute to personality development, behaviors, traits and ultimately drive societal expectations as related to the role of male and female genders. These expectations are then intricately woven into all aspects of life, including the workplace, where female underrepresentation takes the spotlight and there is an expectation of male leaders emerging within the organization (Eagly, & Karau, 1991).

These expectations of the male gender have led to many organizations forming a culture of male driven programs, with a focus on career development and training programs more geared towards men. In addition to this, one would be hard pressed to identify a strong, female role model as part of a formal mentoring program within most organizations. The lack of organizational support in the advancement of women in the workplace, coupled with the lack of training and mentorship resources, are considered organizational determinants that contribute to female underrepresentation in management, within the workplace (Glass and Cook, 2016).

While there may not be one specific reason as to why women are lacking significant representation in business, it should be noted that one of the more common beliefs is that women may not think highly enough of themselves, reflecting a type of self-sabotage attitude and lack of self-confidence (Feeney, Carson, & Dickinson, 2019). These views negatively impact an individual's psychological roadmap, ultimately affecting intrinsic motivation.

Another plausible factor that may contribute to underrepresentation, may arise from the balancing act that women face on a daily basis, as related to personal and professional responsibilities. "…women in the workplace face inadequate childcare, inflexible working hours…" (Feeney, Carson, & Dickinson, 2019). This balancing act has come to more commonly be known amongst the masses, as that of work life balance.

In general, women tend to feel the brunt of trying to maintain a professional, coherent and efficient image during working hours, while simultaneously trying to resolve issues at home, which need immediate attention, in terms of caring for the family.

As a general observation, most women tend to internalize the above-mentioned beliefs, that being a sense of low intrinsic motivation, disparity in work life balance and the lack of organizational support, which subsequently lead to feelings of inadequacy and "not recognizing themselves to be leaders" (Feeney, Carson, & Dickinson, 2019).

Research on the topic of female underrepresentation, particularly when discussing women in leadership positions is not new, but it is limited. For example, when looking at the category of Fortune 500 CEOS, "female CEOs of Fortune 500 companies reached an all-time high of 6.4% in 2017, with 32 women heading major firms" (Elmuti, Jia, & Davis, 2009). Unfortunately, this percentage dropped to 4.8% in 2018, after a few female leaders left their positions. Another example would be in the category of University Presidents. "In 2016, 30.1% of university presidents were women, triple the share in 1986" (Elmuti, Jia, & Davis, 2009).

When taking a closer look at leaders throughout history, who have not only been idolized and written about in great length over the years, but who also form the foundation for developing leadership theories, one poignant fact remains, most theories are centered around the belief that male figures are ideal leaders. For example, the "Great Man Theory" states that "…leaders are born with just the right traits and abilities for leading…" This theory, as with so many others, was embraced at the time "…because leadership was reserved for males…" (Spector, 2016).

Other studies, like the one conducted by Haile, Emmanuel, and Dzathor (2016), also address possible barriers women face, with a specific focus on those trying to achieve senior management level, leadership positions in business. A detailed analysis of these challenges is reviewed and related to contributing factors such as cultural norms, gender bias and inflexible career paths.

For generations, there have been unseen barriers in the workplace, such as second-generation bias and lack of mentoring for women seeking leadership roles. With widespread education and introduction of diversity programs, more flexible workplace policies and leadership development programs, the hope is that these unseen barriers will begin to subside, thereby supporting advancement (Ibarra, Ely, & Kolb, 2013).

The biases, barriers and prejudices that women face, are a result of years of development and being placed in a role that is essentially forced on them. Any deviation from this role, especially if seeking to achieve a leadership position within a community, is viewed upon negatively and with disdain. Role Congruity Theory is based on a similar premise that being the "…prejudice toward female leaders proposes that perceived incongruity between the female gender role and leadership roles leads to 2 forms of

prejudice: (a) perceiving women less favorably than men as potential occupants of leadership roles and (b) evaluating behavior that fulfills the prescriptions of a leader role less favorably when it is enacted by a woman" (Eagly, & Karau, 2002).

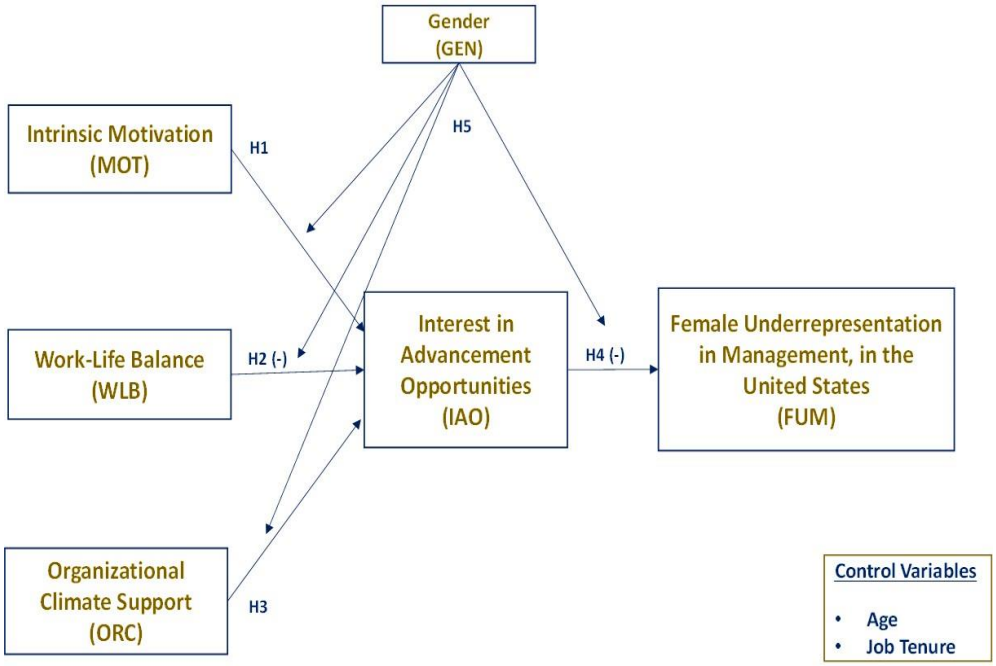
The predetermined judgement and placement of societal roles and beliefs, favor a less than positive attitude towards female leaders. Sadly, this is not the only concern associated with this negative way of thinking. Within the business community, it becomes increasingly difficult for females to aspire to leadership roles, and to achieve success by climbing the proverbial ladder. "Evidence from varied research paradigms substantiates that these consequences occur, especially in situations that heighten perceptions of incongruity between the female gender role and leadership roles" (Eagly, & Karau, 2002).

CHAPTER III. RESEARCH MODEL AND HYPOTHSES

Figure 1 below represents the research model and corresponding hypotheses associated with this study. The two dependent variables, that of interest in advancement opportunities (IAO) and female underrepresentation in management (FUM), in the United States, represent the outcome of the model. Gender (GEN) is also represented as a moderating variable, and the contributing independent variables are 1) Intrinsic Motivation (MOT), 2) Work Life Balance (WLB) and 3) Organizational Climate and Support (ORC). This study also recognizes the control variables of age and job tenure.

Figure 1

Research Model and Hypotheses



For the purposes of this research, intrinsic motivation will be defined as the desire to achieve a goal, or the will to take some kind of action. Motivation can be viewed in both a positive and negative manner, depending on the situation. There is a tendency to think of motivation in a positive light, and to think of an individual being able to achieve success on any level. However, there is another side to motivation that must be taken into consideration, where intrinsic values may not be robust enough to persuade an individual to want to achieve success, especially as related to career advancement. These diminishing, intrinsic values may surface as a general lack of motivation to progress.

As noted in the literature review above, societal norms include training both males and females to understand their place within society, from an early age, during their formative childhood years. While males are taught to be leaders and to excel outside of the familial home, females are taught about housekeeping and child rearing inside the home. For the females who seek to embark on a different path outside of the home, the lifelong lessons on gender roles that have been buried in their subconscious, tend to inevitably surface at some point in their working careers. These beliefs that have been ingrained from young, may hinder any thoughts of further progression, as women begin to feel insecure about their skills and abilities, thereby leading to low intrinsic motivation.

Based on the above, and using select validated questions from a study conducted by Pintrich and DeGroot (1990), this study will seek to test the following hypothesis as related to intrinsic motivation (MOT):

H1: There is a positive relationship between ***Intrinsic Motivation*** *and Interest in Advancement Opportunities, such that respondents with higher Intrinsic Motivation will exhibit more Interest in* ***Advancement Opportunities***.

The second factor that will be observed in this study is that of work life balance. Demonstrating high performance on the job while maintaining a quality family life, is not an easy feat to achieve, especially when women may not be afforded the same opportunities as that of their male counterparts within their organizations.

For women, this pressure from both societal and familial relationships, manifests itself in the form of guilt and shame, which in turn causes women to shy away from pursuing career opportunities. In reference to sentiments from the preceding literature review, for women who dare to go against the tide, and who actually achieve some

miniscule level of success, it then becomes a balancing act of demonstrating high performance in the workplace, while maintaining a stable family life at home (O'Hagan, 2018). Although much of society has embarked on a more open-minded journey when considering cultural norms, the journey has not yet peaked. Many cultures still embrace the antiquated and archaic belief that women belong at home and men in the workplace.

Another consideration with this factor, is organizational climate support. If there is an environment of support for women in the workplace, including a foundation of compassion and understanding, women may not feel ashamed of needing to work flexible schedules, or declining "water cooler chats." Women in the workplace who have familial duties to address, would rather be at their desks, accomplishing tasks and being productive, so they can leave at the end of their assigned shift, to take care of these duties after work hours.

The impact of this could be seen from two perspectives. There is the positive side which demonstrates a higher, productive level for women who have a set time in which to accomplish tasks in the workplace. The negative side would be the ramifications of not being able to build stronger relationships with key business leaders in their organization, while their male counterparts tend to have more time to build these relationships, and are more inclined to remain after hours with leaders, who are essential to advancing their career opportunities.

If there is a lack of organization support for the work life balance paradigm, then women may be less likely to express an interest in career advancement, or even joining the workforce altogether. This would be to the detriment of corporate America, being that this would negatively affect the outcome of female representation in management.

Work Life Balance (WLB) will be defined in this research, as one's ability to spend time on the job producing work, but also spending a proportionate amount of time outside of the workplace, taking care of non-work-related matters.

Based on the above, and using select, validated questions from a study conducted by Banu and Duraipandian (2014), this study will seek to test the following relative to work life balance:

H2: There is a negative relationship between ***Work Life Balance*** *and Interest in Advancement Opportunities such that respondents who are more interested in Work Life Balance, will exhibit less Interest in Advancement Opportunities.*

The third factor related to organizational climate support (ORC), and which may be considered a derivative of the prior construct of work life balance, encompasses a myriad of components. These components may contribute to an institutional culture, which might not necessarily foster an environment supportive of equally advancing the careers of both men and women in the workplace.

Instead, as noted in the literature review, the workplace environment may be more supportive of males advancing and taking advantage of opportunities, as opposed to that of female employees. Some of these opportunities include being partnered with mentors, or even participating in basic leadership development programs (Athanasopoulou, Moss-Cowan, Smets, & Morris, 2018).

For decades, organizations have viewed male leaders more valuable than female leaders. Many employers have even adapted the viewpoint that female leaders are too emotional, that they will eventually leave the organization to return to familial responsibilities or that women leaders are just not as effective as male leaders.

This archaic and demoralizing way of thinking has not gone unnoticed by female employees. If allowed to permeate the environment, it could very well be considered a contributing factor towards women leaving the organization or even the workforce, knowing that they will never have an opportunity to advance within the ranks. This in itself, could be seen as a demotivating construct that mitigates any potential interest female employees may have in seeking advancement opportunities.

For the purposes of this study, organizational climate support will be defined as the overall culture of an organization, as related to institutional norms and beliefs, shared by employees. Using select, validated questions from a study conducted aby Furnham and Goodstein (1997), as well as data from a study conducted by Wudarzewski (2018), this study will seek to test the following hypothesis relative to organizational climate support:

H3: There is a positive relationship between ***Organizational Climate Support*** *and Interest in Advancement Opportunities, such that respondents experiencing a more supportive organizational climate support, will exhibit greater Interest in Advancement Opportunities.*

As initially noted at the beginning of this research discussion, gender roles have been clearly defined and ingrained upon humankind, for as far back as history is able to record. There has always been a place for the female role and the male role within communities. When thinking of the female role in particular, it is relatively easy to understand why many women may want to consider advancement opportunities within their organizations, but may feel they are somewhat hindered due to organizational norms and culture.

If workplace leadership and management teams are not supportive of female advancement, then it is likely that any assessment or evaluation of female workers completed, will be negatively perceived. This ultimately leads to the incorrect assumption that there is a lack of interest on the part of female workers to advance in their careers, thereby resulting in fewer women in leadership positions.

"Women's lack of ascension to higher management is at least partly explained by women not getting the opportunities and encouragement, that is, the critical organizational development, necessary to aspire to upper management positions" (Hoover et al., 2014 as cited in O'Neil and Hopkins, 2015). If the culture of an organization is not inclusive of training programs, mentorship and other career development programs that are not only geared towards male leaders, but also that of the women in their workforce, it is likely these women will be less inclined to show interest in career progression, knowing that they will not be supported.

These organizational and systemic factors, contribute to the incorrect narrative that "…women's lagging advancement into the ranks of senior leadership has been ascribed not only to a lack of confidence, but also to a personal choice to "opt out" (Belkin, 2003 as cited in O'Neil and Hopkins, 2015) or "off ramp" from their professional lives…" (Hewlett, 2007 as cited in O'Neil and Hopkins). It is unfortunate that these opinions have focused on "…women self-selecting out of the work world due to personal choices involving family and care-giving and to viewing the costs of ascending to senior leadership roles as too high to pay in terms of the impact on their personal lives." (O'Neil and Hopkins, 2015).

The reality of the situation is simply that "… women may choose different paths because the traditional organizational route to the top does not support women simultaneously being accomplished careerists and responsible care-givers. To call these actions a matter of choice ignores the cumulative impact of decades spent slogging through challenging organizational contexts. In other words, this is a false choice." (O'Neil and Hopkins, 2015). This premise lays the foundation for the next hypothesis in the research model, which will be tested using researcher developed questions:

H4: There is a negative relationship between ***Interest in Advancement Opportunities*** *and Female Underrepresentation in Management, such that respondents exhibiting less interest in Advancement Opportunities, will experience greater levels of female underrepresentation in management.*

During the phases of this study, it is expected there will be notable gender differences between male and female respondents. These gender differences will be examined from an observatory perspective, as well as from a moderating lens. It is expected that female participants will respond differently to that of the male respondents.

When taking a closer look at the construct of **intrinsic motivation**, it is easy to assume that there will be a certain level of motivation exhibited on an equal level. According to studies conducted by Eagly, Karau, Miner, & Johnson, 1994, males seem to score higher in motivation to manage than females, thereby demonstrating that gender differences were relatively small.

In terms of **work-life balance**, and observations made in relation to the corresponding construct, gender differences are apparent in this aspect and seem to follow the traditional roles of males working outside the home, while females work inside the home. For females who venture out into the working world, it is difficult to find a balance between home and work life, due to the work environment, "…it is striking that work–life balance was perceived as a personal issue to be dealt with using individual strategies and not as a structural problem caused by a lack of flexibility in the workplace and a lack of affordable childcare…" (Emslie & Hunt, 2008).

When it comes to the **work environment**, studies conducted by Davies, Broekema, Nordling, & Furnham, 2017, cite obstacles such as discrimination, gender stereotypes and work environment as primary contributors to the lack of progression of female leaders.

Overall, there is an expectation that gender will moderate the constructs of intrinsic motivation, work life balance and organizational climate support. The observations noted above, will lay the foundation for the following hypothesis, involving the effects of gender differences in the research model:

H5: Gender will moderate the relationships between Intrinsic Motivation, Work Life Balance, and Organizational Climate Support and Interest in Advancement Opportunities.

CHAPTER IV. METHODOLOGY AND DESIGN

The three variables of interest, at the forefront of this research study, as related to female underrepresentation in the workplace are: 1) ***Intrinsic Motivation (MOT)*** - The desire to achieve a goal, or the will to take some kind of an action, 2) ***Work Life Balance***

(WLB) - one's ability to spend time on the job producing work, but also spending a proportionate amount of time outside of the workplace, taking care of non-work-related matters, and 3) ***Organization Climate Support (ORC)*** - the overall culture of an organization, as related to institutional norms and beliefs, shared by employees.

In addition to the above-mentioned variables, this study considers the control variables of age and job tenure of participants. These control variables were essentially incorporated to mitigate the risk of omitted variable bias. Age was controlled by asking participants to select the age range they most closely matched, beginning at age eighteen. Job tenure was controlled by asking participant's to select from a range of years they were in their current jobs, if employed. The range began with being employed for less than one year, and ending with those who had been with their employers for fifteen years or more.

For purposes of this research, gender referred to the male and female genders, and was considered as a grouping variable. Participant responses were grouped by the genders selected, which allowed the overall research model to be initially tested with the full sample. Following this test, gender was further examined, as a moderator, and was tested separately for the male gender and the female gender in the sample collected. Results were then compared to determine the effect of these genders and how they added to the research model.

The overall intent was to consider both genders in terms of interest in career advancement, as well as how each gender was perceived within their organizations. This perception would ultimately define the manner in which each gender was treated, in terms of organizational support and selection for leadership roles.

Sample and Data Collection

In an effort to collect data related to the above-mentioned research topic, an online survey was used to gather pertinent data from subjects. For the survey, the intent was to primarily use validated questions from similar studies, with a blend of questions developed by the researcher. Previously used validated questions, for example, intrinsic motivation, were measured using validated questions from the MSLQ survey that Pintrich and DeGroot (1990) previously researched. For the construct of work life balance, these questions were selected from a survey created and validated by research conducted by Banu and Duraipandian (2014). For organization climate support, items were chosen from a validated survey created by Furnham and Goodstein (1997). The synthesized survey used in this research, was created in the Qualtrics platform, and utilized a 7-point Likert Scale. The scales ranged from Strongly Disagree (1) to Strongly Agree (7).

The unit of analysis was on the individual level, and targeted a population of participants who were currently, or were previously, employees of an organization. The population consisted of participants who were interested in taking the survey via an online platform named Amazon MTurk. Participants received a nominal reward for their submissions, which in the case of this study was $1.00 for each completed survey, for both the pilot and the main study.

Prior to the initiation of the pilot and main study, the researcher obtained formal IRB approval. The IRB was established to provide oversight on researchers and their work involving human subjects. This study required data collection from human subjects and as such, an IRB approval was needed, before releasing the online survey to begin gathering data.

While waiting on the final IRB approval, an informed pilot was conducted and consisted of a population of five doctoral student colleagues, from the Doctorate in Business Administration (DBA) Program at Florida International University (FIU). There were three males and two females, who were allotted a seven day window to review the survey questions. The student participants were asked to provide feedback based on their review of the survey structure, as well as what they believed the questions were measuring. They also reviewed the survey in terms of consistency and applicability for the subsequent, formal pilot and main study.

Once feedback was received from these students, the survey instrument was revised accordingly. For example, some items were rearranged to more adequately align with the construct being measured, the attention check questions were strategically placed in between sections, instead of being placed together, and overall formatting of the survey was edited to allow for a more user friendly experience.

During the analysis phase of this research, testing began with exploring demographic information provided by respondents in all pilots. Following the descriptives on the demographic data, an Exploratory Factor Analysis (EFA) was conducted on survey items, as well as reliability tests on variables. In addition to the EFA, a Confirmatory Factor Analysis (CFA) was conducted for additional validation, and finally a regression analysis using Structural Modeling Equation (SEM) was used as related to hypotheses testing.

In addition to the above, the following measures were also checked when analyzing variables: Kaiser and Meyer-Olkin (KMO) test to check for sampling adequacy and variance. Cronbach's Alpha to measure internal consistency of testing constructs in this survey.

Upon completion of the informed pilot, and receipt of IRB approval to move forward with the formal pilot and main study, the formal pilot was then conducted. The target sample size for this pilot was 150 participants. Over a period of seven days, 181 responses were collected, of which a total of 140 fully completed survey responses were used for analysis. All participants were provided with the online survey link to the Qualtrics platform.

Before participating in the formal pilot and main study, participants were asked to complete an informed consent form, which provided details on the research topic and their rights as subjects participating in the study. Once consent was obtained, access was provided to begin the online survey.

Regarding demographics, the population of the pilot consisted of both the male and female genders, ranging from age eighteen and above. Respondents were asked to provide additional information on race, household size, education, income, employment status, and position title. This information was requested in an effort to not only measure the corresponding constructs, but to also obtain insightful data on the participants involved in this study.

The primary focus of gathering data from both genders was to compare the two groups in terms of professional level, as well as interest in advancement opportunities within organizations. The intent of this study was to highlight potential gender disparity within management levels. The expected results of each, in terms of demographics, would be to observe the ratio of male to female respondents, as well as the age groups represented within the workforce. The annual income level is another component that was observed, and it would be expected that higher income individuals. would more likely be in management positions.

CHAPTER V. DATA ANALYSIS AND RESULTS

Pilot Study

For the pilot survey, 181 responses were received, of which only 140 were used after removing 41 incomplete responses. Of these 41 responses, 26 did not fully complete the survey, 7 failed to correctly respond to the attention check questions. One of the attention check questions asked participants to select a beverage, however, there were only 3 options, and the participants were told which drink to select. In addition to this, there was 1 respondent who made inappropriate comments, 1 was a preview response and 6 respondents either answered the survey in less than two minutes, or answered the survey for an extended period of time ranging from one hour or more.

Of the 140 participants, there were 51 (36.4%) female participants and 87 (62.1%) male participants, with 2 (1.4%) of the participants who preferred not to disclose gender (see Table 1).

Table 1

Demographics – Participant Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	87	62.1	62.1	62.1
Female	51	36.4	36.4	98.6
Prefer not to say	2	1.4	1.4	100
Total	140	100	100	

In terms of population age, of the 140 participants, there were 55 (39.3%) participants who fell between the 25 – 34 year old age range. The second closest age range was 54 (38.6%) of the participants who fell between the 35 – 44 age range (see Table 2). Participants in this age range, would most likely be interested in career advancement opportunities.

Table 2

Demographics – Participant Age

Age	Frequency	Percent	Valid Percent	Cumulative Percent
25 - 34	55	39.3	39.3	39.3
35 - 44	54	38.6	38.6	77.9
45 - 54	17	12.1	12.1	90
55 or older	14	10	10	100
Total	140	100	100	

Of the 140 participants, there were 78 (55.7%) participants who were Caucasian. The second highest ethnic group was Asian with 44 (31.4%) of the participants identifying as Asian (see Table 3).

Table 3

Demographics – Participant Ethnicity/Race

Ethnicity/Race	Frequency	Percent	Valid Percent	Cumulative Percent
Hispanic or Latino or Spanish Origin of any race	6	4.3	4.3	4.3
American Indian or Alaskan Native	2	1.4	1.4	5.7
Asian	44	31.4	31.4	37.1
African American	10	7.1	7.1	44.3
Caucasian	78	55.7	55.7	100
Total	140	100	100	

Of the 140 participants, just over half of the subjects had a Bachelor's degree at 89 (63.6%). The second highest were participants who attended some college, with 21 (15%) (see Table 4).

Table 4

Demographics – Participant Education

Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
Less than high school	1	0.7	0.7	0.7
High school graduate	11	7.9	7.9	8.6
Some college	21	15	15	23.6
Bachelor's degree	89	63.6	63.6	87.1
Master's degree	17	12.1	12.1	99.3
PhD/Doctoral degree	1	0.7	0.7	100
Total	140	100	100	

Of the 140 participants, there were 106 (75.7%) who were head of their households, and 34 (24.3%) who were not considered head of household (see Table 5).

Table 5

Demographics – Participant Household Status

Status	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	106	75.7	75.7	75.7
No	34	24.3	24.3	100
Total	140	100	100	

Of the 140 participants, 40 (28.6%) of the subjects lived in a home with more than 3 people, while 35 (25%) households consisted of two people (see Table 6).

Table 6

Demographics – Participant Household Size

Size	Frequency	Percent	Valid Percent	Cumulative Percent
1 person	35	25	25	25
2 people	35	25	25	50
3 people	30	21.4	21.4	71.4
More than 3 people	40	28.6	28.6	100
Total	140	100	100	

Of the 140 participants, 84 (60%) households had no children under the age of eighteen living with them. There were 32 (22.9%) households with children under the age of eighteen. This data could potentially support a long-standing societal norm, in terms of the female gender being the primary caregiver to children (see Table 7).

Table 7

Demographics – Participant Household Members/Children

# Children	Frequency	Percent	Valid Percent	Cumulative Percent
No children under the age of 18 (living in household)	84	60	60	60
1 child under the age of 18	32	22.9	22.9	82.9
More than 1 child under the age of 18	24	17.1	17.1	100
Total	140	100	100	

Of the 140 participants, there were 40 (28.6%) participants making an annual salary between $50,000.00 to $74,999.00. This was followed by 26 (18.6%) participants who fell in the range of $35,000.00 to $49,999.99. Those making a higher salary, would most likely already be in a supervisory or management level position (see Table 8).

Table 8

Demographics – Participant Income Level

Income	Frequency	Percent	Valid Percent	Cumulative Percent
Less than $20,000	14	10	10	10
$20,000 - $34,999	24	17.1	17.1	27.1
$35,000 - $49,999	26	18.6	18.6	45.7
$50,000 - $74,999	40	28.6	28.6	74.3
$75,000 - $99,999	15	10.7	10.7	85
More than $100,000	21	15	15	100
Total	140	100	100	

Table 9 below reflects the employment status of all 140 participants. There were 131 (93.6%) employed participants and only 9 (6.4%) unemployed (see Table 9).

Table 9

Demographics – Participant Employment Status

Status	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	131	93.6	93.6	93.6
No	9	6.4	6.4	100
Total	140	100	100	

Of the 141 participants, 54 (38.6%) worked with their organizations between 4 to 7 years, with 32 (22.9%) participants working for their organizations between 8 to 14 years (see Table 10).

Table 10

Demographics – Participant Job Tenure

Tenure	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 1 year	2	1.4	1.5	1.5
1 to 3 years	30	21.4	22.9	24.4
4 to 7 years	54	38.6	41.2	65.6
8 to 14 years	32	22.9	24.4	90.1
15 or more years	13	9.3	9.9	100
Total	131	93.6	100	
Missing System	9	6.4		
Total	140	100		

For participant position title categories, there were 38 (27.1%) participants who were in a Clerk/Associate position, however, the combined total for Supervisor, Manager, Professional, Director and Executive type positions was 86 (61.4%) (see Table 11).

Table 11

Demographics – Participant Position Title

Position	Frequency	Percent	Valid Percent	Cumulative Percent
Laborer	6	4.3	4.6	4.6
Clerk/Associate	38	27.1	29	33.6
Team Lead/Supervisor	24	17.1	18.3	51.9
Manager/Sr. Manager	31	22.1	23.7	75.6
Professional	29	20.7	22.1	97.7
Director	1	0.7	0.8	98.5
Executive/Owner	1	0.7	0.8	99.2
Other	1	0.7	0.8	100
Total	131	93.6	100	
Missing System	9	6.4		
Total	140	100		

Of the 140 participants there were 118 (84.3) fulltime employed participants, with only 13 (9.3) employed on a part-time basis. (See Table 12).

Table 12

Demographics – Participant Status

Status	Frequency	Percent	Valid Percent	Cumulative Percent
Employed full time	118	84.3	84.3	84.3
Employed part time	13	9.3	9.3	93.6
Unemployed looking for work	2	1.4	1.4	95
Retired	3	2.1	2.1	97.1
Homemaker	2	1.4	1.4	98.6
Unable to work	2	1.4	1.4	100
Total	140	100	100	

Following the review of the demographics, an evaluation of the survey instrument and subsequent corresponding constructs and associated items was conducted. The survey instrument initially consisted of 60 total questions for the informed pilot. Once revisions were made to the formal pilot, the questions were reduced to 55.

The constructs and corresponding items used in the questionnaire, were as follows: 1) ***Intrinsic Motivation (MOT)*** which was measured using 7 validated questions from a study conducted by Pintrich and DeGroot (1990), 2) ***Work Life Balance (WLB)*** which was measured using 7 validated questions from a study conducted by Banu and Duraipandian (2014), 3) ***Organizational Climate and Support (ORC)*** which was measured using 9 validated questions from research conducted by Furnham and Goodstein (1997), 4) ***Interest in Advancement Opportunities (IAO)*** which was measured using 8 questions developed specifically for this study, based on the definition of this construct, which later proved to be valid during statistical testing phases of this study, and 5) ***Female Underrepresentation (FUM)*** which was also measured by using 10 questions developed specifically for this study, based on the definition of this construct, which later proved to be valid during statistical testing phases of this study. The remaining items in the survey gathered data on demographics, and also included two attention check questions used to identify careless responses to questions, and to mitigate non-response bias (see APPENDIX A).

Once the survey window closed, data review and analysis was initiated, using SPSS 27. For the pilot study, an Exploratory Factor Analysis (EFA) was conducted, using the direct oblimin method with the Principal Axis Factoring approach. The EFA was used to measure the items associated with the MOT, WLB, ORC, IAO and FUM factors.

Initial loading of the items, using the base model with 5 constructs, resulted in an output of 9 factors. These factors were then further reduced to 7 factors, by removing items which cross loaded on more than one factor, as well as those that failed to load at a minimum level of 0.40. The 7 factors used were MOT, which was divided into two constructs and is reflected in the final research model included in APPENDIX I. The two constructs were 1) MOTCH, using items referencing an individual's desire to seek work that challenges them, and 2) MOTEF, using items referencing an individual's desire to put forth personal effort in their work, 3) WLB, 4) ORC, 5) IAO which also divided into two factors. These factors were IAO, which selected items referencing an individual's desire to pursue advancement opportunities and IAOR, which selected items that essentially referenced the reverse of the IAO factor, thereby including items that reflected an individual's desire to not pursue advancement opportunities. However IAOR items were removed due to sampling inadequacy measures. The remaining factors were 6) FUM which was also split into two factors (see APPENDIX I), with the reverse order questions forming the construct of 7) FUMRN (see Table 13).

Table 13

Updated - Constructs and Abbreviations

Construct	Abbreviation
Intrinsic Motivation - Challenge	MOTCH
Intrinsic Motivation - Effort	MOTEF
Work Life Balance	BAL
Organizational Climate and Support	ORC
Interest in Advancement Opportunities	IAO
Female Underrepresentation	FUM
Female Underrepresentation - Reverse	FUMRN

Factor items were measured on an individual and overall basis, using the Kaiser-Meyer-Olkin (KMO) test to determine sampling adequacy for factor analysis. To further review adequacy and consistency, each factor was tested using Cronbach Alpha, to determine the reliability of each item.

For the initial MOT factor, there were 7 items tested. The overall KMO value for the MOT factor was .795 which is considered to be "middling" (Kaiser, 1974). When this construct was divided into two, the results were as follows: 1) MOTCH – measuring 4 items, the overall KMO for this factor was .837, with most items over .815 and only one item at .693, 2) MOTEF – measured 3 items, with an overall KMO of .660. Most items measured over .764 and one item measured .598.

For the BAL factor, there were 4 items that reflected an overall KMO of .820, with all items measuring over .699. For the ORC factor, there were 5 items measured with an overall KMO of .860, with most items measuring over .641 and only one with a KMO of .558. For the IAO factor, that was also split into two factors in the initial loading of 9 factors, the overall KMO measuring 4 items was .826, with most items over .818 and one item measuring .572. The IAOR factor measured 2 items with an overall KMO of .500, and both items measuring .816. These items were subsequently removed from the analysis as they were inadequate. For the FUM factor, that was split into two factors, the results were as follows: 1) FUM – measured 3 items with an overall KMO of .704, with all items measuring over .736 and 2) FUMRN – measured 4 items with an overall KMO of .773, with all items over .632 (see Table 14).

Table 14

KMO and Bartlett's Test – Sampling Adequacy

Scale	KMO	Approx. Chi-Square	df	Sig.	N of Items
Interest in Advancement Opportunities (IAO)	0.826	379.705	6	0.000	4
Female Underrepresentation (FUM)	0.704	313.354	3	0.000	3
Work Life Balance (BAL)	0.820	332.373	6	0.000	4
Organization Climate (ORC)	0.860	319.212	10	0.000	5
Intrinsic Motivation - Challenge (MOTCH)	0.837	400.008	6	0.000	4
Intrinsic Motivation - Effort (MOTEF)	0.660	159.918	3	0.000	3
Female Underrepresentation - Reverse (FUMRN)	0.773	282.128	6	0.000	4

The Cronbach Alpha was used as a measure of internal consistency, and as an indication of how closely related corresponding items are, once grouped together in assigned factors. Measures that fall within a range of .70 or above, are generally considered to be acceptable. The survey instrument used for this study, utilized a 7-point Likert Scale, ranging from Strongly Disagree (1) to Strongly Agree (7). The values for each item and corresponding scale are shown in Table 15 below.

Table 15

Cronbach Alpha Values – Measures

Scale	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Interest in Advancement Opportunities (IAO)	0.899	0.897	4
Female Underrepresentation (FUM)	0.904	0.903	3
Work Life Balance (BAL)	0.892	0.893	4
Organization Climate (ORC)	0.870	0.871	5
Intrinsic Motivation - Challenge (MOTCH)	0.912	0.914	4
Intrinsic Motivation - Effort (MOTEF)	0.790	0.811	3
Female Underrepresentation - Reverse (FUMRN)	0.866	0.866	4

All 7 factors had eigenvalues over the value of 1, with an overall cumulative variance of 77.33%. In addition to the EFA used to test survey items, two Confirmatory Factor Analysis (CFA) tests were conducted, using the lavaan package for the R statistical environment (Rosseel, 2012), as an additional validation check on survey items. One test checked the base model for fit measures and the second test used a split model.

The single model incorporated related items as indicators of corresponding factors. The model also specified each item loading on its original construct, and reflected the manner in which it was initially conceptualized. There were five factors associated with this model. They were the same factors identified in the EFA and were as follows: 1) ***Interest in Advancement Opportunities (IAO)*** using 4 related items, **2)** ***Female Underrepresentation (FUM)*** using 7 related items, ***Intrinsic 3***) ***Work Life Balance (WLB)*** using 4 related items, **4)** ***Motivation (MOT)*** using 7 related items and **3)** ***Organizational Climate (ORC)*** using 5 related items. (See APPENDIX B).

The second CFA test allowed for two additional, separate constructs, in terms of the FUM and MOT constructs. Similar to the EFA, the MOT construct was split into MOTCH and MOTEF. The FUM construct was split into FUM and FUMR. There were seven final factors associated with this model. They were the same factors identified in the EFA and were as follows: 1) ***IAO***, 2) ***FUM1*** using 3 related variables, referencing female leaders, 3) ***FUM2*** using 4 related items, referencing advancement, 4) ***BAL***, 5) **MOT1** using 3 related items, referencing effort 6) ***MOT2*** using 4 related items, referencing challenge and 7) ***ORC***. APPENDIX C reflects the CFA split model with constructs and related items.

Two models were created, one with two dimensions of constructs together in one place, and a split model that then created additional constructs for motivation (MOT) and female underrepresentation (FUM). Both CFA models were run against the data, which demonstrated good statistical fit. However, the split model was a much better fit, therefore making it the preferred model going forward.

The Comparative Fit Index (CFI) for the baseline model was 0.770 and for the split construct model it was 0.905. Generally, good values for this index are 0.9 and above. The split model had a higher fit than the single model. The Root Mean Square Error of Approximation (RMSEA) for the baseline model was 0.118 and 0.077 for the split model. Values up to 0.08 are generally acceptable and considered a good fit. The split model once again reflected the better fit. The Standardized Root Mean Square Residual (SRMR) index for the single model was 0.114 and for the split model it was 0.064. Generally, values that are .08 or below are indicative of a well-fitting model (See Table 16).

Table 16

CFA Single and Split Models – Fit Statistics Comparison

Model	CFI	RMSEA	SRMR
Single	0.770	0.118	0.114
Split	0.905	0.077	0.064

Other results, specifically pertaining to the split model, include reliabilities, which were all similar to that of the EFA analyses, average variance extracted (avevar) and discriminant validity. Table 17 below shows the results for construct reliabilities and average extracted variances. The alpha column indicates strong reliability and the average variance extracted column, all indicate levels around 0.5 or higher, which are all good indicators.

Table 17

CFA Split Model – Reliability and Average Variance Extracted

Construct	Alpha	Avevar
IAO	0.897	0.730
FUM1	0.904	0.789
FUM2	0.866	0.623
BAL	0.892	0.679
MOT1	0.790	0.563
MOT2	0.912	0.726
ORC	0.870	0.586

When establishing discriminant validity, the recommended approach is to first specify a constrained CFA model, so that a pair of constructs is forced to be perfectly correlated. Once complete, the constrained model is then fit to the data. Since the constrained model is nested within the relaxed model, where all constructs are allowed to freely correlate, the difference in the absolute fit statistics follows a chi-square distribution, with one degree of freedom (Rönkkö and Cho, 2022).

A significant statistic, as was the case here for every comparison, indicates that forcing two constructs to be perfectly correlated, introduces significant misfit. This, in turn, demonstrates that each construct is significantly different from the other and therefore provides proof of discriminant validity (Rönkkö and Cho, 2022). The discriminant validity of the split model in Table 18 below, reflects small p-values, well below 0.05, which indicate the constructs are significantly different from one another. Similar observations were made with the EFA analyses, and is another measure of a good model fit.

Table 18

CFA Split Model – Discriminant Validity

#	lhs op rhs	est	Chisq diff	Pr(>Chisq)
1	IAO ~~ FUM1	-0.05256259	203.27014	4.03871E-46
2	IAO ~~ FUM2	-0.28828985	134.78427	3.68064E-31
3	IAO ~~ BAL	0.35054015	124.56970	6.3219E-29
4	IAO ~~ MOT1	0.35633877	100.95830	9.39407E-24
5	IAO ~~ MOT2	0.57728242	67.39792	2.21883E-16
6	IAO ~~ ORC	0.65523491	41.35246	1.27112E-10
7	FUM1 ~~ FUM2	0.54915871	71.48470	2.79416E-17
8	FUM1 ~~ BAL	0.08955993	190.90807	2.01428E-43
9	FUM1 ~~ MOT1	-0.25520219	141.88905	1.02835E-32
10	FUM1 ~~ MOT2	-0.08894528	194.03178	4.19111E-44
11	FUM1 ~~ ORC	0.19209696	162.05291	4.02837E-37
12	FUM2 ~~ BAL	0.00770937	200.74699	1.43491E-45
13	FUM2 ~~ MOT1	-0.06764076	152.13553	5.91842E-35
14	FUM2 ~~ MOT2	-0.36358943	117.34224	2.41571E-27
15	FUM2 ~~ ORC	-0.08578622	178.56912	9.95053E-41
16	BAL ~~ MOT1	0.23034848	139.69732	3.1003E-32
17	BAL ~~ MOT2	0.20825622	161.20958	6.1571E-37
18	BAL ~~ ORC	0.46588345	87.14257	1.00974E-20
19	MOT1 ~~ MOT2	0.31042182	119.31925	8.91604E-28
20	MOT1 ~~ ORC	0.26135703	121.89656	2.43192E-28
21	MOT2 ~~ ORC	0.60087034	55.38219	9.92313E-14

When reviewing all of the above mentioned results, from a holistic approach, the reliabilities, the average variance extractions and the discriminant validities are good for both models. However, when comparing the item loadings and associated constructs for the split model, APPENDIX D shows all items loading significantly in the constructs. Overall, based on the results from both the EFA and CFA analyses, it was determined the split model was the better fit. As such, this model was used as the preferred model, going forward.

Main Study

Upon completion of the pilot, the main study was conducted using an updated survey instrument, which included the split constructs that emerged from the pilot analysis (see APPENDIX F). Specifically, the FUM construct was split between two constructs, that being FUM and FUMR. The FUM construct contained 5 items related to advancement opportunities for females in the workplace. The second construct, FUMR, contained 5 items related to lack of advancement opportunities for females in the workplace. Another split construct that emerged during the pilot was demonstrated in the motivation construct. Here the construct of MOTEF, referencing motivation through effort, contained 3 items. The second construct of MOTCH, referencing challenging tasks, contained 4 items. Data collection for the main study followed the same procedures as conducted in the pilot study, with regards to population of interest, compensation and online questionnaire.

Regarding demographics, the population of the main study consisted of both the male and female genders, ranging from age eighteen and above. Respondents were asked to provide additional information on gender, ethnicity/race, education, household size, family, income, employment status, job tenure, and position title.

The main study was conducted with a target sample size of 300 participants. Over a period of two weeks, 312 responses were collected, and 284 fully completed survey responses were used for analysis, after removing 28 incomplete responses. Of these 28 responses, 15 did not fully complete the survey, 2 failed to correctly respond to the attention check questions. 2 respondents made inappropriate comments, 1 was a preview response and 8 respondents either answered the survey in less than two minutes, or answered the survey for an extended period of time ranging from one hour or more.

Of the 284 participants, there were 121 (42.6%) female participants and 163 (57.4%) male participants, with all participants selecting either a male or female gender. There were no participants who selected the option, not to disclose gender (see Table 19).

Table 19

Demographics (Main Study) – Participant Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	163	57.4	57.4	57.4
Female	121	42.6	42.6	100.0
Total	284	100.0	100.0	

In terms of population age, of the 284 participants, there were 103 (36.3%) participants who fell between the 25 – 34 year old age range. The second closest age range was 88 (31.0%) of the participants who fell between the 35 – 44 age range (see Table 20). Participants in this age range, would most likely be interested in career advancement opportunities.

Table 20

Demographics (Main Study) – Participant Age

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18 - 24	5	1.8	1.8	1.8
25 - 34	103	36.3	36.3	38.0
35 - 44	88	31.0	31.0	69.0
45 - 54	49	17.3	17.3	86.3
55 or older	39	13.7	13.7	100.0
Total	284	100.0	100.0	

Of the 284 participants, there were 175 (61.6%) participants who were Caucasian. The second highest ethnic group was Asian with 54 (19.0%) of the participants identifying as Asian (see Table 21).

Table 21

Demographics (Main Study) – Participant Ethnicity/Race

Ethnicity/Race	Frequency	Percent	Valid Percent	Cumulative Percent
Hispanic or Latino or Spanish Origin of any race	17	6.0	6.0	6.0
American Indian or Alaskan Native	9	3.2	3.2	9.2
Asian	54	19.0	19.0	28.2
Native Hawaiian or Other Pacific Islander	2	0.7	0.7	28.9
African American	19	6.7	6.7	35.6
Caucasian	175	61.6	61.6	97.2
Two or more races/ethnicities	4	1.4	1.4	98.6
Other	4	1.4	1.4	100.0
Total	284	100.0	100.0	

Of the 284 participants, just over half of the subjects had a Bachelor's degree at 159 (56.0%). The second highest were participants who held Master's degrees at 52 (18.3%) and a substantial number of participants who attended some college, at 42 (14.8%) (see Table 22).

Table 22

Demographics (Main Study) – Participant Education

Education	Frequency	Percent	Valid Percent	Cumulative Percent
Less than high school	1	0.4	0.4	0.4
High school graduate	29	10.2	10.2	10.6
Some college	42	14.8	14.8	25.4
Bachelor's degree	159	56	56	81.3
Master's degree	52	18.3	18.3	99.6
PhD/Doctoral degree	1	0.4	0.4	100
Total	284	100	100	

Of the 284 participants, there were 226 (79.6%) who were head of their households, and 58 (20.4%) who were not considered head of household (see Table 23).

Table 23

Demographics (Main Study) – Participant Household Status

Status	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	226	79.6	79.6	79.6
No	58	20.4	20.4	100.0
Total	284	100.0	100.0	

Of the 284 participants, 87 (30.6%) of the subjects lived in a home with more than 3 people, while 72 (25.4%) households consisted of two people (see Table 24).

Table 24

Demographics (Main Study) – Participant Household Size

Size	Frequency	Percent	Valid Percent	Cumulative Percent
1 person	59	20.8	20.8	20.8
2 people	72	25.4	25.4	46.1
3 people	66	23.2	23.2	69.4
More than 3 people	87	30.6	30.6	100.0
Total	284	100.0	100.0	

Of the 284 participants, 146 (51.4%) households had no children under the age of eighteen living with them. There were 92 (32.4%) households with at least one child under the age of eighteen (see Table 25).

Table 25

Demographics (Main Study) – Participant Household Members/Children

# Children	Frequency	Percent	Valid Percent	Cumulative Percent
No children under the age of 18 (living in household)	146	51.4	51.4	51.4
1 child under the age of 18	92	32.4	32.4	83.8
More than 1 child under the age of 18	46	16.2	16.2	100.0
Total	284	100.0	100.0	

Of the 284 participants, there were 66 (23.2%) participants making an annual salary between $50,000.00 to $74,999.00. This was followed by 58 (20.4%) participants who fell in the range of $35,000.00 to $49,999.99. Those making a higher salary, would most likely already be in a supervisory or management level position (see Table 26).

Table 26

Demographics (Main Study) – Participant Income Level

Income	Frequency	Percent	Valid Percent	Cumulative Percent
Less than $20,000	22	7.7	7.7	7.7
$20,000 - $34,999	43	15.1	15.1	22.9
$35,000 - $49,999	58	20.4	20.4	43.3
$50,000 - $74,999	66	23.2	23.2	66.5
$75,000 - $99,999	55	19.4	19.4	85.9
More than $100,000	40	14.1	14.1	100.0
Total	284	100.0	100.0	

Table 27 below reflects the employment status of all 284 participants. There were 268 (94.4%) employed participants and only 16 (5.6%) unemployed (see Table 27).

Table 27

Demographics (Main Study) – Participant Employment Status

Status	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	268	94.4	94.4	94.4
No	16	5.6	5.6	100.0
Total	284	100.0	100.0	

Of the 284 participants, 103 (36.3%) worked with their organizations between 4 to 7 years, with 77 (27.1%) participants working for their organizations between 1 to 3 years (see Table 28).

Table 28

Demographics (Main Study) – Participant Job Tenure

Tenure	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 1 year	7	2.5	2.6	2.6
1 to 3 years	77	27.1	28.7	31.3
4 to 7 years	103	36.3	38.4	69.8
8 to 14 years	57	20.1	21.3	91.0
15 or more years	24	8.5	9.0	100.0
Total	268	94.4	100.0	
Missing System	16	5.6		
Total	284	100.0		

For participant position title categories, there were 53 (18.7%) participants who were in a Clerk/Associate position, however, the combined total for Supervisor, Manager, Professional, Director and Executive type positions was 188 (66.2%) (see Table 29).

Table 29

Demographics (Main Study) – Participant Position Title

Position Title	Frequency	Percent	Valid Percent	Cumulative Percent
Laborer	22	7.7	8.2	8.2
Clerk/Associate	53	18.7	19.8	28.0
Team Lead/Supervisor	44	15.5	16.4	44.4
Manager/Sr. Manager	88	31.0	32.8	77.2
Professional	50	17.6	18.7	95.9
Director	2	0.7	0.7	96.6
VP/SVP	2	0.7	0.7	97.4
Executive/Owner	2	0.7	0.7	98.1
Other	5	1.8	1.9	100.0
Total	268	94.4	100.0	
Missing System	16	5.6		
Total	284	100.0		

Of the 284 participants there were 238 (83.8%) fulltime employed participants, with only 29 (10.2%) employed on a part-time basis. (See Table 30).

Table 30

Demographics (Main Study) – Participant Status

Status	Frequency	Percent	Valid Percent	Cumulative Percent
Employed full time	238	83.8	83.8	83.8
Employed part time	29	10.2	10.2	94.0
Unemployed looking for work	5	1.8	1.8	95.8
Retired	8	2.8	2.8	98.6
Student	1	0.4	0.4	98.9
Homemaker	3	1.1	1.1	100.0
Total	284	100.0	100.0	

Following the review of the demographics, an evaluation of the survey instrument, corresponding constructs and associated items was conducted. The survey instrument consisted of 55 total items used to measure constructs in the main study. Data review and analyses were initiated, using SPSS 27 to conduct a Factor Analysis (FA). This was followed by the use of the Lavaan package for the R statistical environment (Rosseel, 2012), to conduct a Confirmatory Factor Analysis (CFA), and subsequent Structural Equation Modeling (SEM) analysis.

The Exploratory Factor Analysis (EFA) was conducted, using the direct oblimin method, with the Principal Axis Factoring approach. Questions retained, after removing cross-loading items, were utilized in the survey instrument,. The constructs and corresponding items used were as follows: ***Intrinsic Motivation (MOT)*** which was split between two constructs, that being ***MOTEF*** and ***MOTCH.*** The ***MOTEF*** construct referenced items related to participant motivation, associated with making an effort to seek advancement. The ***MOTCH*** construct referenced items related to participant motivation, associated with taking on challenging work, and was the construct used in the final model. ***Work Life Balance (WLB)***, ***Organizational Climate (ORC)***, ***Interest in Advancement Opportunities (IAO),*** and ***Female Underrepresentation (FUM)*** which, similar to the ***MOT*** construct, also split between two factors, with the reverse order questions forming the construct of ***FUMR*** (see Table 13 above).

The remaining items in the survey gathered data on demographics, and also included two attention check questions used to identify careless responses to questions, and to mitigate non-response bias (see APPENDIX F). For example, an attention check question referencing a specific beverage was incorporated in the survey. The intent of this question was to ensure participants were focused on the survey, and answering questions accurately. Those who did not answer correctly, were removed from the final data used for analysis.

Factor items were measured on an individual and overall basis, using the Kaiser-Meyer-Olkin (KMO) test to determine sampling adequacy for factor analysis. To further review adequacy and consistency, each factor was tested using Cronbach Alpha, to determine the internal consistency of grouped items and corresponding constructs.

The overall KMO value for all factors was 0.891. For individual factors the results were as follows: MOTCH measuring 4 items, the overall KMO for this factor was .838, with most items over .796 and only one item at .629. MOTEF measured 3 items, with an overall KMO of .744 and all items measured over .796. BAL consisted of 6 items that reflected an overall KMO of .903, with most items measuring over .671, and only one item at .623. In the ORC factor, there were 6 items measured with an overall KMO of .891, with most items measuring over .662 and two measuring a KMO of .473 and .572.

For the IAO factor, 5 items were measured with the overall KMO measuring .900 and most items over .838 and one item measuring .579. The IAOR factor measured 2 items with an overall KMO of .500, and both items measuring .931. These items were subsequently removed from the analysis as they were inadequate. For the FUM factor, that was split into two factors, the results were as follows: 1) FUM – measured 5 items with an overall KMO of .844, with all items measuring over .638 and 2) FUMR – measured 5 items with an overall KMO of .857, with all items over .658 (see Table 31).

Table 31

KMO and Bartlett's Test (Main Study) – Sampling Adequacy

Scale	KMO	Approx. Chi-Square	df	Sig.	N of Items
Interest in Advancement Opportunities (IAO)	0.900	1362.993	10	0.000	5
Female Underrepresentation (FUM)	0.844	1001.773	10	0.000	5
Work Life Balance (BAL)	0.903	1162.103	15	0.000	6
Organization Climate (ORC)	0.891	867.789	15	0.000	6
Intrinsic Motivation - Challenge (MOTCH)	0.838	730.894	6	0.000	4
Intrinsic Motivation - Effort (MOTEF)	0.744	467.858	3	0.000	3
Female Underrepresentation - Reverse (FUMR)	0.857	997.591	10	0.000	5

The Cronbach Alpha was used as a measure of internal consistency, with measures that fall within a range of .70 or above, considered to be generally acceptable. In addition, the Alpha identifies the degree of overlap between a group of items and the construct they likely measure. The standardized loading is an indicator of the closeness between an individual item and its construct. The survey instrument used for this study, utilized a 7-point Likert Scale, ranging from Strongly Disagree (1) to Strongly Agree (7). The values for each item and corresponding scale are shown in Table 32 below.

Table 32

Cronbach Alpha Values (Main Study) – Reliability Measures

Scale	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Interest in Advancement Opportunities (IAO)	0.939	0.938	5
Female Underrepresentation (FUM)	0.907	0.909	5
Work Life Balance (BAL)	0.918	0.919	6
Organization Climate (ORC)	0.887	0.887	6
Intrinsic Motivation - Challenge (MOTCH)	0.898	0.899	4
Intrinsic Motivation - Effort (MOTEF)	0.885	0.885	3
Female Underrepresentation - Reverse (FUMR)	0.912	0.912	5

All 7 factors had eigenvalues over the value of 1, with an overall cumulative variance of 75.8%. In addition to the EFA used to test survey items, a Confirmatory Factor Analysis (CFA) test was conducted, using the Lavaan package for the R statistical environment (Rosseel, 2012), as an additional validation check on survey items.

The final model used for testing, incorporated related variables as indicators of corresponding factors, and removed inadequate reverse items associated with the IAOR and MOTEF factors. There were six factors associated with this model, which were also the same factors identified in the EFA, as follows: 1) ***WLB***, 2) ***FUMR***, 3) ***IAO***, 4) ***MOTCH***, 5) **ORC** and 6) ***FUM.***

The CFA model demonstrated good statistical fit, as well as strong reliability and validity. The Comparative Fit Index (CFI) for this model was 0.898. Generally, good values for this index are 0.90 and above. The Root Mean Square Error of Approximation (RMSEA) for the model was 0.078. Values up to 0.08 are acceptable and considered a good fit. The Standardized Root Mean Square Residual (SRMR) index for the was 0.067. Generally, values that are .08 or below are indicative of a well-fitting model. Table 33 below shows the comparison between the initial CFA split model that was tested for the pilot study, and the CFA final model tested for the main study (See Table 33).

Table 33

CFA Split and Final Models (Main Study) – Fit Statistics Comparison

Model	CFI	RMSEA	SRMR
Split	0.905	0.077	0.064
Final	0.898	0.078	0.067

Other results, specifically pertaining to the final model, include reliabilities, which were all similar to that of the EFA analyses, average variance extracted (avevar) and discriminant validity. Table 34 below shows the results for construct reliabilities and average extracted variances. The Alpha column indicates strong consistency and the average variance extracted column, all indicate levels around 0.5 or higher, which are all good indicators.

Table 34

CFA Final Model (Main Study) – Reliability & Average Variance Extracted

Construct	Alpha	Average Variance Extracted
IAO	0.939	0.784
FUM	0.907	0.687
WLB	0.918	0.658
MOTCH	0.898	0.696
FUMR	0.912	0.677
ORC	0.887	0.583

The discriminant validity of the final model reflects small p-values, well below 0.05 (see Table 35), which indicate the constructs are significantly different from one another. Rönkkö and Cho (2022) defined discriminant validity as "Two measures intended to measure distinct constructs have discriminant validity if the absolute value of the correlation between the measures after correcting for measurement error is low enough for the measures to be regarded as measuring distinct constructs." (Ronkko and Cho, 2022). Similar observations were made with the EFA analyses, which was used as another measure of a good model fit.

As noted in preceding paragraphs in the pilot section of this study, the recommended approach for establishing discriminant validity is to use a constrained CFA model, essentially forcing correlation between a pair of constructs. The constrained model is then fit to the data and since the constrained model is nested within the relaxed model, the difference in the absolute fit statistics will follow a chi-square distribution, with one degree of freedom.

The above approach indicates a significant statistic, as was the case here for every comparison, subsequently demonstrating that forcing two constructs to be perfectly correlated, introduces significant misfit. This confirms that each construct is significantly different from each other, and therefore provides evidence of discriminant validity.

Table 35

CFA Final Model (Main Study) – Discriminant Validity

Construct Pair	Chi-Square Difference	P-value
WLB - FUMR	373.366	0.00
WLB - IAO	274.052	0.00
WLB - MOTCH	208.420	0.00
WLB - ORC	136.856	0.00
WLB - FUM	304.458	0.00
FUMR - IAO	305.041	0.00
FUMR - MOTCH	322.512	0.00
FUMR - ORC	390.694	0.00
FUMR - FUM	207.251	0.00
IAO - MOTCH	195.669	0.00
IAO - ORC	153.425	0.00
IAO - FUM	350.554	0.00
MOTCH - ORC	213.720	0.00
MOTCH - FUM	328.896	0.00
ORC - FUM	207.630	0.00

Similar to the results of the pilot study, when reviewing all of the above mentioned results, from a holistic approach, the reliabilities, the average variance extractions and the discriminant validities are all a good fit for the model. Table 36 below compares the item loadings and associated constructs for the final model, APPENDIX E, shows all items loading significantly in the constructs. All loadings measured over 0.699,

with only one construct measuring 0.619. Overall, based on the results from both the EFA and CFA analyses, it was determined the final model showed good fit to the data and good quality of measurement, which subsequently led to the next step, that being the SEM analyses.

Table 36

CFA Final Model (Main Study) – Table of Loadings

Construct	Loading		CI Lower Bound	CI Upper Bound
Work Life Balance (WLB)	0.804	*	0.757	0.850
	0.884	*	0.852	0.916
	0.787	*	0.738	0.837
	0.858	*	0.821	0.895
	0.784	*	0.734	0.834
	0.736	*	0.678	0.794
Female Underrepresentation (Reverse) (FUMR)	0.915	*	0.888	0.942
	0.757	*	0.703	0.812
	0.858	*	0.821	0.895
	0.716	*	0.654	0.777
	0.845	*	0.806	0.884
Interest in Advancement Oppty. (IAO)	0.939	*	0.921	0.957
	0.926	*	0.906	0.946
	0.900	*	0.874	0.925
	0.898	*	0.872	0.923
	0.677	*	0.611	0.743
Intrinsic Motivation (Challenge) (MOTCH)	0.889	*	0.856	0.923
	0.852	*	0.813	0.891
	0.890	*	0.857	0.923
	0.699	*	0.634	0.764
Organizational Climate/Support (ORC)	0.804	*	0.755	0.853
	0.763	*	0.707	0.818
	0.810	*	0.763	0.858
	0.826	*	0.781	0.871
	0.708	*	0.644	0.773
	0.619	*	0.541	0.697
Female Underrepresentation (FUM)	0.892	*	0.862	0.923
	0.921	*	0.896	0.947
	0.710	*	0.648	0.772
	0.803	*	0.757	0.849
	0.737	*	0.679	0.795

*Note: * indicates statistical significance ($p < .05$)*

Following the CFA analysis, Table 37 below summarizes the results from the SEM analysis conducted on the baseline model, which included both the male and female genders. Of the 5 paths in this table, only one path is not statistically significant and is reflected in the final research model included in APPENDIX I. Hypothesis 1 (H1) states, *H1: There is a positive relationship between Intrinsic Motivation and Interest in Advancement Opportunities, such that respondents with lower Intrinsic Motivation, will exhibit less Interest in Advancement Opportunities.*

There is a positive relationship between MOTCH as a predictor of IAO. Results shown in Table 37 indicate the path between these two constructs is 0.320 ($p < .001$), which is both positive and statistically significant. These results indicate that, as MOTCH decreases, so does IAO. Respondents with lower intrinsic motivation, who believe themselves to be less challenged, will most likely exhibit less interest in advancement opportunities. This path is considered to be significant and does support H1.

For Hypothesis 2 (H2), which states *H2: There is a negative relationship between Work Life Balance and Interest in Advancement Opportunities, such that respondents who are more interested in Work Life Balance, will exhibit less Interest in Advancement Opportunities.*

This hypothesis states that as WLB increases, IAO decreases, therefore indicating a negative relationship. Respondents who are more interested in work life balance, will most likely demonstrate less interest in advancement opportunities. When looking at both genders, as one group, the path reflecting work life balance as a predictor of interest in advancement opportunities, reflects a negative standardized path estimate of -0.056. Although the standardized path estimate is negative, the p-value is 0.404 ($p > .001$), which is greater than the threshold for significance, that being 0.05. Therefore, this path is not considered statistically significant and does not support H2.

Hypothesis 3 (H3), which states, *H3: There is a positive relationship between Organizational Climate and Interest in Advancement Opportunities, such that respondents experiencing a less supportive organizational climate, will exhibit less Interest in Advancement Opportunities.*

This hypothesis indicates a positive relationship between ORC as a predictor of IAO. Results shown in Table 37 indicate the path between these two constructs is 0.451 ($p < .001$), which is both positive and statistically significant. These results suggest that, as ORC decreases, so does IAO; therefore, respondents who experienced or perceived less organizational support, were more likely to demonstrate less interest in advancement opportunities. This path is not only significant, but also supports H3.

Hypothesis 4 (H4) states, *H4: There is a negative relationship between Interest in Advancement Opportunities and Female Underrepresentation in Management, such that respondents exhibiting more Interest in Advancement Opportunities, will experience fewer levels of female underrepresentation in management.*

As part of the FA, CFA and measurement model, it was determined that the FUM construct would be split between FUM and FUMR. Participants who responded positively to items on the survey, related to the FUM construct, were more likely to have an interest in advancement opportunities. In addition to their interest in advancement, it is most likely these respondents also perceived a supportive organizational climate, towards advancement of female leaders.

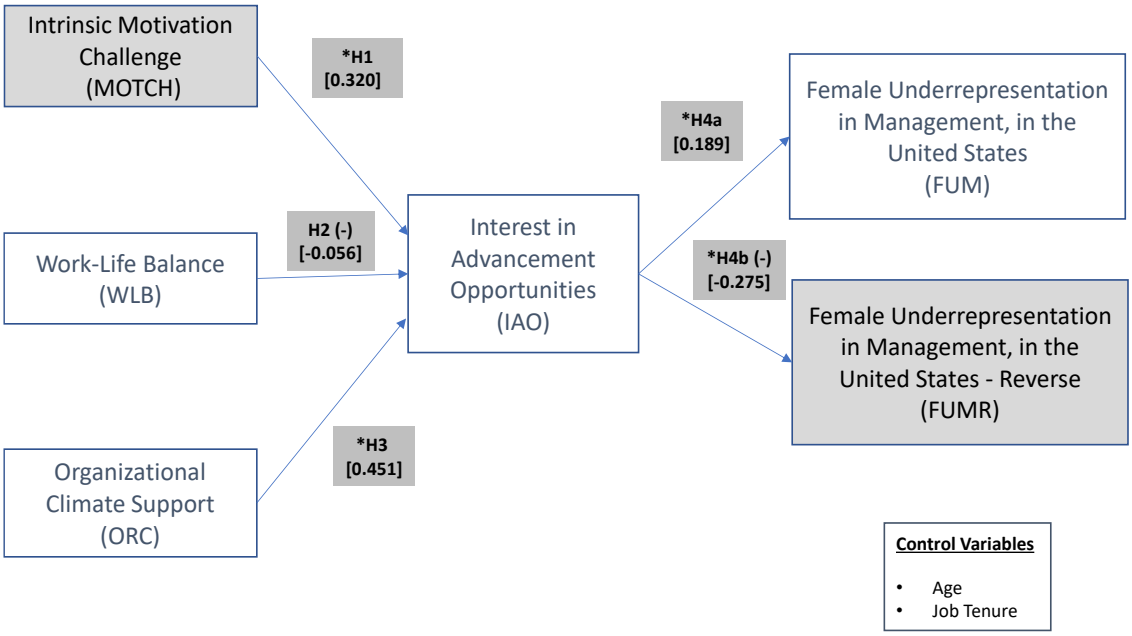
In terms of the FUMR construct, participants who responded negatively to the items related to this construct, most likely had less interest in advancement opportunities, and therefore perceived there to be a less supportive organizational climate. The relationships for these hypotheses were tested separately. For purposes of this study, H4a represents the path from IAO to FUM, and H4b represents the path from IAO to FUMR.

The H4a path looks at the relationship between interest in advancement opportunities and female underrepresentation in management. It also indicates that respondents who demonstrated an interest in advancement opportunities, were more likely to experience fewer levels of underrepresentation in management. Respondents who favored advancement opportunities, were more likely to perceive there being more opportunities or organizational support for female representation in management roles. There is a positive relationship identified for the H4a path and the standardized path estimate for this path is 0.189, with a p-value of 0.002. This indicates the path is significant and therefore, supports H4 (see Table 37).

Hypothesis 4b, the path between IAO and FUMR, reflects standardized path estimate of -0.275 and a p-value of 0.000. This relationship was negative and indicates that respondents who demonstrated less interest in advancement opportunities, were more likely to experience an increase in levels of underrepresentation in management. Respondents who were less interested in advancement opportunities, most likely perceived there to be more organizational support for male leaders and increased support for advancement opportunities for this gender. The measures for this path indicate significance and therefore support for H4b (see Table 37).

Figure 2

Revised Research Model with Hypotheses 1 – 4



*Note: * indicates statistical significance (p < .05)*

The model in Figure 2 above, denotes all constructs that emerged during the final analyses phase of this study. Table 37 below reflects the relationships between the above-mentioned paths, that being from H1 through H4. The results of the analysis confirmed that four of the five paths were statistically significant.

Table 37

Hypothesis and Relationship Testing

Hypothesis	Relationship			Standardized Path Estimate	P-value	CI Lower Bound	CI Upper Bound	Hypothesis Supported (Y/N)
H1	MOTCH	→	IAO	0.320	0.000	0.206	0.434	Y
H2	WLB	→	IAO	-0.056	0.404	-0.188	0.076	N
H3	ORC	→	IAO	0.451	0.000	0.326	0.576	Y
H4a	IAO	→	FUM	0.189	0.002	0.070	0.308	Y
H4b	IAO	→	FUMR	-0.275	0.000	-0.389	-0.160	Y

Hypothesis 5 (H5), states *H5: Gender will moderate the relationships between Intrinsic Motivation, Work Life Balance, and Organizational Climate Support and Interest in Advancement Opportunities.* In order to fully observe any difference in gender interactions, the male and female participant responses were analyzed as a pooled group and also between groups, listing all male responses under group 1 and all female responses under group 2.

Several relationships in paths tested during the SEM analysis phase, indicated significant differences between males and females. For example, when pooled together, significant gender differences may not have been as visible as when each group was analyzed separately, and between group comparisons were conducted.

For better clarity surrounding between group comparisons, a Structural Equation Modeling (SEM) analysis was completed to compare the two groups consisting of males and females. Parameters were compared and constrained, in an effort to see where differences may have emerged. Table 38 below shows a sequence of parameters, and what would be considered to be forced, to be equal. This was done before the regression paths could be compared, and the loadings and measurement errors needed to be established as the same. Each group was also measured in the same manner. The constrained tables forced the model to be equal.

The concept around this approach is that differences cannot be observed and validated, without first using the same measurements for each parameter. In this case, the parameters are the groups of male and female respondents. Table 38 shows the baseline model where loadings are separate. In the second model, the loadings are forced to be equal to determine if there was a misfit or problem with the loading. There was no misfit, therefore the next set of parameters were tested. Loadings were first constrained, followed by the intercepts, then the residuals, then the construct means, and finally the regression paths, which were forced together to be equal. This is where the significance was observed, where there are four paths and not all are equal. This significance indicates that there were differences observed, between the male group of respondents and the female group of respondents.

As Table 38 shows, imposing increasingly stricter constrains, as prescribed by Vandenberg and Lance (2000) does not lead to significant misfit. This is evidenced by a non-significant, chi-square test of the nested models, until the final constrain of equal regression paths is imposed. These results indicate that the SEM models were comparable for both groups, prior to imposing the additional constrain of equal paths, which was the mechanism by which H5 was tested.

Table 38

Constrained Models with Results

Model Invariance	Chi-square	Chi-square difference	Degree of freedom difference	Significance (P-value)
Configural	1898.6			
Metric	1934.0	35.34	25	0.082
Scalar	1963.2	29.23	25	0.254
Strict	1993.4	30.20	31	0.507
Latent Means	1998.6	5.18	6	0.521
Regression Paths	2016.1	17.49	5	0.004**

*Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

Additionally, with the paths being different for men and women, this signifies that there are some values that are different, however, they are not yet known at this point. The differences become clearer once loadings are constrained, with all else being equal.

According to Vandenberg and Lance (2000), "…a researcher's judgments concerning the appropriateness of imposed invariance constraints, depend on the fit indices associated with a specific model and/or the differences between hierarchically nested models" (Vandenberg and Lance, 2000). In this case, all loadings, measurement errors, intercepts, etc. were constrained, with each one being more constrained than the previous.

To further confirm fit, the SEM model indices were reviewed. Table 38 above denotes the nested model comparison, using the Chi-Squared Difference test. Each line in this table reflects the constraints being forced. There is no significance until the last line, sem.paths, is constrained. This is where the regression takes place, and indicates that there are paths significantly different from one another. The p-value is $p < .001$, which denotes statistical significance.

The first line in the table above, semi.config, implies that the same model was tested for the two groups, using the same items etc., The next line, sem.metric, indicates the loadings were forced to be the same, in the two groups and does not signal any concerns in the output. The third line, semi.scalar, intercepts are added and are the same for all parameters. Each line essentially has a constraint added and as noted in the table, there are no problems emerging as the p-values are greater than .05, which indicates no statistical significance.

As a prerequisite to testing the regression paths, all baseline constraints in the table above needed to demonstrate insignificance, before the paths are constrained. This occurs in the final line in the table, sem.paths, where the paths are forced together, to be the same, resulting in no significance for all prior relationships, until the regression paths are tested. This is where finally, significance emerges. The only reason this would happen, is due to there being one group that has a relationship that is either stronger or weaker than the other group.

One observation made during the testing was if paths are not constrained, or forced to be the same, there are some paths that reflect opposite measurements. For example, in the baseline model with pooled gender data, there was no significant relationship between WLB and IAO. However, when looking at the groups separately, there is a positive, although not significant, relationship for the male respondents. The female respondents reflected both a negative and significant relationship. The nested model, chi-squared test below in Table 39 reflects a p value of 0.01435, which shows significance and confirms the difference between the male and female respondents. The paths provide evidence that there are significant differences between men and women.

Table 39

Work Life Balance Path Comparison

Model	Chi-square	Degrees of freedom	Chi-square difference	Significance (p-value)
Baseline SEM	1998.6	937		
Constrained Path	2004.6	938	5.995	0.014*

*Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

Note: The Baseline SEM model has invariance constraints (configural, metric, etc.) as previously discussed (**see Table 38**). The constrained path model imposes an additional constraint, such that the WLB → IAO path is forced to be equal across both groups.

Table 40 below shows the path from WLB to IAO. For, the male respondents, the standardized path estimate measurement is 0.156, with a p-value of 0.137. However, for the female respondents, the measurement is negative, -0.178 with a p-value of 0.040. This indicates that although the path is not significant for the male gender, there is significance for the female gender. These two relationships are then considered to be significantly different from one another and demonstrates the effect gender has as a moderating

variable. For the male respondents in the survey, work life balance did not seem to affect interest in advancement opportunities. For the female respondents, there seems to be a negative effect on work life balance, as related to their interest in advancement opportunities. This finding gives further credence to a priori research that outlines societal expectations of gender based roles. Women are generally considered to be the primary caregivers in the household, which then affects time spent in the workplace.

Table 40

Regression Paths by Gender (Standardized)

Path	Group	Standardized Estimate	P-value	Significant Path within Group	Significantly Different Between Groups
WLB → IAO	Male	0.156	0.137	N	Y
WLB → IAO	Female	-0.178	0.040	Y	
MOTCH → IAO	Male	0.401	0.000	Y	N
MOTCH → IAO	Female	0.239	0.004	Y	
ORC → IAO	Male	0.186	0.073	N	Y
ORC → IAO	Female	0.612	0.000	Y	
IAO → FUM	Male	0.143	0.078	N	Y
IAO → FUM	Female	0.254	0.005	Y	
IAO → FUMR	Male	-0.396	0.000	Y	Y
IAO → FUMR	Female	-0.135	0.153	N	

Another observation of interest is the path from ORC to IAO for male respondents, with a standardized path estimate of 0.186 and a p-value of 0.073. Female respondents have standardized path estimate of 0.612 with a p-value of 0.000. This indicates that this path is not significant for males, but it is significant for females. For the male participants, organizational support as an indicator of interest in advancement opportunities is not significant. This indicates that organization support does not affect their interest in advancement. However, for female respondents, there is a significant effect meaning that organizational support, or lack thereof, does affect female interest in advancement opportunities.

A third observation of interest was related to the path from IAO to FUM for males, where the standardized path estimate is 0.143, with a p-value of 0.078. For females, the measure is 0.254, with a p-value of 0.005. This indicates that the path is not significant for males, but it is significant for females. The male respondents, perceive that their interest in advancement opportunities does not affect female underrepresentation in management. However, this path is significant for female respondents, as their perception is that their interest in advancement is affected by female underrepresentation in management.

The fourth path from IAO to FUMR, for men, shows -0.396 with a p-value of 0.000. For women, there is a standardized path estimate of -0.135 and a p-value of 0.153. This path reflects significance for male respondents, but it is not significant for female respondents. This indicates that IAO is not an indicator of female underrepresentation reversed, meaning that participants perceive there to be a lack of female leaders in their organizations, and there may be more support for male leaders. The only path that did

not reflect significant differences between the male and female groups, was that of MOTCH and IAO. When observing the results from a high level overview, there were 5 paths tested, of which 4 are significantly different and 1 is not. Overall, the results of all analyses were good, indicating strong models.

When observing the path from MOTCH to IAO for men, in the table above, the standardized path estimate is 0.401 and p-value 0.000. Females have a standardized path estimate of 0.239 and p-value of 0.004. This indicates the path is significant for both males and females, in terms of intrinsic motivation challenging respondents, who associate this motivation as a predictor of interest in advancement opportunities.

Additionally, Table 41 below shows the results for the MOTCH path comparison using the chi-squared test. The p value is 0.1655 which, although not significant, confirms that there are no differences that stand out between the two groups. In other words, if there was significance, then this would mean there could be a marked difference between males and females. However, in Table 40 above, the fact that the path for both groups is significant, indicates that they are both affected by motivation, as related to challenging work and interest in advancement opportunities.

Table 41

Intrinsic Motivation Path Comparison

Model	Chi-square	Degrees of freedom	Chi-square difference	Significance (P-value)
Baseline SEM	1998.6	937		
Constrained Path	2000.5	938	1.9229	0.1655

For the path from ORC to IAO for males, the standardized path estimate is 0.186 with a p-value of 0.073. For females the standardized path estimate is 0.612 with a p-value of 0.000. This indicates that this path is not significant for males, but it is significant for females, in terms of interest in advancement opportunities being affected by organizational climate support.

Male respondents seem to not be affected by this path, however, female respondents who are interested in advancing are negatively impacted by lack of organizational climate support. Table 42 below confirms a pvalue of 0.002, which provides support for the significant difference between these two groups, in terms of how males and females are supported within the workplace.

Table 42

Organizational Climate and Support Path Comparison

Model	Chi-square	Degrees of freedom	Chi-square difference	Significance (P-value)
Baseline SEM	1998.6	937		
Constrained Path	2008.1	938	9.5431	0.002**

*Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

Similar to the above, the path from IAO to FUM, for the male respondents, the standardized path estimate measured 0.143, with a p-value of 0.078. The female respondents had a measure of 0.254, with a p-value of 0.005. This indicates that the path is not significant for males, but it is significant for females. This indicates that female underrepresentation in management is affected by the level of interest in advancement opportunities, which appears to be different for both groups. Table 43 below reflects a p

value of 0.545, which is not significant. Although insignificant, the paths are so similar that they are, in and of themselves, not significantly different. Overall, the relationship is positive for both males and females, but are so similar in magnitude, that it appears to be somewhat fairly stronger for women than for men.

Table 43

Interest in Advancement Opportunities to FUM Path Comparison

Model	Chi-square	Degrees of freedom	Chi-square difference	Significance (P-value)
Baseline SEM	1998.6	937		
Constrained Path	1998.9	938	0.36479	0.5459

The fourth path from IAO to FUMR, for males, shows -0.396 with a p-value of 0.000. For females, the standardized path estimate is -0.135 and a p-value of 0.153. Table 44 below, reflects a p-value of 0.026 which is significant. This path indicates that males were affected by the female underrepresentation in reverse, meaning that the male participants perceived there to be more support for male leaders in their workplace, while female participants recognize that there is a lack of support and fewer female leaders.

Table 44

Interest in Advancement Opportunities to FUMR Path Comparison

Model	Chi-square	Degrees of freedom	Chi-square difference	Significance (P-value)
Baseline SEM	1998.6	937		
Constrained Path	2003.5	938	4.9465	0.02614*

*Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

In addition to all of the above data analyses and results, there was one final regression test conducted on the control variables of participant age and job tenure. The model was run with and without the control variables of age and gender. Ultimately, the results were not substantially different to make any statistically significant observations (see Table 45).

Table 45

SEM Regressions with Control Variables

Path	Estimate	Std.Err	z-value	P(>|z|)
IAO ~				
WLB	-0.027	0.089	-0.309	0.758
MOTCH	0.356	0.074	4.814	0.000
ORC	0.596	0.106	5.601	0.000
FUM ~				
IAO	0.234	0.075	3.113	0.002
AGE	-0.117	0.229	-0.514	0.607
TENURE	-0.314	0.241	-1.304	0.192
FUMR ~				
IAO	-0.314	0.076	-4.150	0.000
AGE	0.267	0.230	1.161	0.246
TENURE	-0.489	0.242	-2.025	0.043

CHAPTER VI. DISCUSSION

The focus of this study was on contributing factors that affect female underrepresentation in management, motivated by a lack of female leaders in the workplace. Additionally, the research takes a closer look at the relationship between, and the impact of, gender effect and career advancement opportunities. For purposes of this study, gender refers to the traditional male and female genders.

As previously mentioned in Chapter I of this research, there were a few overarching questions, derived from the research question, related to the above mentioned topic. Questions related to gender differences in terms of MOT, IAO and WLB. One such question inquires on if both men and women have equal levels of interest in pursuing leadership roles in the workplace. This was addressed with Hypothesis 1 (H1) that proposed a positive relationship between MOT and IAO, such that respondents with lower MOT, will exhibit less IAO.

Respondents with lower intrinsic motivation, who believe themselves to be less challenged, will most likely exhibit less interest in advancement opportunities. This path was both significant and in the predicted direction, provided support for H1. However, when reviewing regression paths by gender, there were no differences that stood out between the two genders. In other words, if there was substantial significance, then this would mean there could be a marked difference between males and females. The fact that the path for both males and females was significant, indicated that they are both affected to a similar degree, as related to challenging work and interest in advancement opportunities.

Another question of interest was that of whether work life balance affects males differently to females. This was addressed via Hypothesis 2 (H2) which proposed a negative relationship between WLB and IAO, such that respondents who were more interested in WLB, would most likely exhibit less interest in advancement opportunities. Although H2 was not considered statistically significant, when reviewing the WLB path comparison there is indication that males are not affected by this, however, there is significance for females who seem to be negatively affected in terms of their interest in advancement opportunities.. These two relationships are then considered to be significantly different from one another and demonstrate the effect gender has as a moderating variable.

One last question of interest is that of whether women in the workforce feel supported by their organizations, in terms of mentorship and development, as opposed to their male counterparts. Hypothesis 3 (H3) addresses this question and proposed a positive relationship between ORC and IAO such that respondents who experienced a more supportive organization climate, were likely to exhibit greater interest in advancement.

H3 was supported and following the path comparison of ORC to IAO, there was indication that it was not significant for males, but it was significant for females, in terms of interest in advancement opportunities being affected by organizational climate support. Male respondents seem to not be affected by this path, however, female respondents who are interested in advancing are negatively impacted by lack of organizational climate support. There is support for the significant difference between these two groups, in terms of how males and females are supported within the workplace.

Several relationships in paths tested during the SEM analysis phase, indicated significant differences between males and females. For example, when pooled together, significant gender differences may not have been as visible, when each group was analyzed separately, and between group comparisons were conducted.

One observation made during the testing was if paths are not constrained, or forced to be the same, there are some paths that reflect opposite measurements. For example, in the baseline model with pooled gender data, there was no significant relationship between WLB and IAO. However, when looking at the groups separately, there is a positive, although not significant, relationship for the male respondents. The female respondents reflected both a negative and significant relationship. Evidence of support demonstrating significant differences between males and females.

Based on results established upon completion of analytical processes, it should be noted that of the 5 hypotheses proposed in this research, there were 4 with statistical significance in favor of the hypotheses. These results provided substantial support for implications made, in terms of differences experienced between the two genders of interest, discussed throughout this study.

Similar studies have been conducted separately on the factors of intrinsic motivation, work life balance and organization climate, especially as related to leadership roles. However, these factors have not been explored together, to determine if there are significant contributions to female interest in advancement opportunities, leading to underrepresentation and subsequent, potential disregard of advancement opportunities.

Based on the results of this study, sufficient evidence has been provided to suggest that males and females are affected differently in terms of acknowledging and experiencing career interests and as related to contributing factors of female underrepresentation in management. During the hypotheses testing phase of this study, it was determined that of the 5 proposed hypotheses, 4 were supported in terms of being statistically significant. There was only one hypothesis, that of WLB as a predictor of IAO, that was not significant.

Following this phase, during the SEM analysis, observations were recorded in terms of the regression paths by gender. Of the 5 observations noted, there were 3 that demonstrated statistical significance, towards the females.

Limitations

One limitation associated with this study includes sample size. Although, the sample sizes used in this study were relatively small, the data and results were very strong. However, based on prior research, with a larger sample size, the likelihood of obtaining even richer data is greater. This would in turn produce estimates and measures that would be more closely related to the actual population, in terms of human subjects.

Another limitation is participant perception. For example, an individual forms their own opinions on matters, thereby conducting themselves in the manner in which they have perceived a situation to be. For this study, participants provided information in the survey based on their perceptions. Although this is still valid data, and the research was thoroughly reviewed, the fact remains that the data was provided from the perspective of each individual who completed the survey.

While there are certainly many benefits to using an online survey, one drawback could also be when participants self-select surveys, they would like to participate in, which essentially leads to participant bias. For example, if a participant is more in tune with female ideology and women's civil rights, they may be inclined to select surveys structured around feminism. On the other hand, participants who voluntarily participate in studies, are apt to be more open and honest when providing feedback.

In addition to the above, participants may be easily distracted while taking the survey, thereby increasing completion time, or perhaps, not completing the survey at all. With the researcher not being physically present, participants may have questions on survey items, which are not answered in real time. They may be more inclined to select responses that are not fully aligned with their opinions, had they received initial clarification.

Going forward, to address the above concerns with participant perceptions, bias and distractions, consideration may be given to having a third party survey organization conduct a study on whether people's perceptions of underrepresentation are accurate or not. In doing so, this limitation now becomes a potential future study, which can be conducted over a period of time.

Taking time into consideration, leads to one more limitation, that being time itself. This study was conducted over a period of a few months. Consideration should be given to a longitudinal study, which will allow more time to gather and track data.

In addition to the above, another limitation worth noting, was the split constructs that emerged during the testing phase of this study. Follow up studies to this research should include further investigation of the FUM and FUMR constructs, as well as the MOTCH and MOTEF constructs. All tests confirmed a split in these constructs, therefore potentially indicating there may be underlying factors that were not revealed in this study.

One final limitation worth noting is that of gender. For purposes of this study gender referred to male and female participants, which is measured from a binary perspective. Participants were asked to identify their genders in the survey, with the option to also not self-identify. In the pilot, only 2 (1.4%) participants chose not to identify, and in the main study 284 (100%) of the respondents identified as either male or female.

Consideration should be given to advancing this study in terms of exploring gender effects related to segments of the population who identify as non-binary or another gender. Future studies should also research gender identities in relation to organizational culture, as well as cross-cultural possibilities, which may help to further explain differences between these roles.

Conclusion

Prior research studies on topics similar to those addressed in this research is limited, but the results of these studies further justify the need to continue to explore and study gender underrepresentation.

One way to address lack of representation, would be through organizations embracing the training and development of female leaders. Career development occurs when there is support from the leadership team, which implies that if there are more female leaders on the team, then this support would be more likely to come from those female leaders. The caveat to this is female underrepresentation in management.

For female leaders who have been able to advance within organizations, it is often difficult to garner support for diversity and inclusion efforts, as related to females. The reason being if other members of the management team are male, and have preconceived judgments about gender roles within the workplace. it is likely going to be more difficult for female leaders to obtain their support.

Understanding historical patterns and present conditions, as well as being able to yield results which may persuade organizations to implement programs and/or incentives, that could attract and retain women leaders is essential to the continued advancement of women in the workforce. This study may also add to other research works, geared towards making contributions and positive advances towards levelling the playing field, while affording equal employment opportunities to both genders.

If the culture of an organization is not inclusive of training programs, mentorship and other career development programs that are not only geared towards male leaders, but also that of the women in their workforce, it is likely these women will be less inclined to show interest in career progression, knowing that they will not be supported (Hoover et al., 2014 as cited in O'Neil and Hopkins, 2015).

In addition to all of the above, it is essential to note that this research was conducted during the 2020 to 2022 global coronavirus pandemic. While it may still be too early to measure effects of this pandemic on women, consideration should be given to conducting future studies as related to the effects of the pandemic on women in the workforce, as well as the effect on advancement opportunities and leadership roles within an organization.

The global pandemic has offered no assistance to this sector of the population. In fact, according to recent studies conducted on the effect of the pandemic on women in the workforce, "… more than one in four women are contemplating … downshifting their careers or leaving the workforce completely." (Coury, Huang, Kumar, Prince, Krivkovic & Yee, 2020).

With women exiting the workforce in large numbers, this now represents a crisis not only for corporate America, but ultimately a crisis in terms of the small, but significant progress made over the last few decades, as related to female career progression.

This especially affects women in current leadership positions, and those who could potentially have a progressive future within their organizations. The disparate impact of the pandemic has essentially forced many women to rethink their careers and to make difficult decisions in an effort to continue to place their families ahead of their professional advancement.

A few studies and research works have been completed on female underrepresentation, and an overall lack of women in leadership and management positions. This research would not be complete without acknowledging that the pandemic has affected every aspect of life over the last two years, including highlighting major gender disparities at many levels, but especially in the workforce. According to Mckinsey.com, "… major groups have experienced some of the largest challenges: working mothers, women in senior management positions... This disparity came across as particularly stark with parents of kids under ten: the rate at which women in this group were considering leaving was ten percentage points higher than for men."

The intent of this study was to further contribute to explanations and discussions, around the topic of gender underrepresentation within management. At the very least, perhaps even further validate, or substantiate, results from prior studies, thereby being considered as an additional contribution. One that could theoretically support the advancement of females from being an underrepresented gender, to an equally represented gender.

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APPENDIX A

Survey Instrument (Pilot)

2021 Pilot 1 Research Survey - Underrepresentation in Management

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Start of Block: Informed Consent & Acknowledgement

This survey is being conducted to gather information for a research project, being completed on the topic of underrepresentation in management in the United States, within the workplace. The focus of the study will be on three, identified contributing factors towards underrepresentation, specifically in management.
If you choose to participate in this study, you will be one of between 150 to 400 participants who will be asked to complete a series of questions related to the above-mentioned topic. You will only need to respond to this survey one time. Each question should take approximately 15 seconds or less to review and respond. Questions are related to specific demographics, self-attributes, and other related traits pertinent to this study.
If you agree to be in the study, you will be asked to do the following: 1) complete this informed consent form, 2) after submission of the informed consent form, you will have access to the online survey to complete, and 3) submit survey, upon completion.
There are minimum risks associated with this survey. The main risk (or discomfort) from participating in this research is the possibility of losing focus, or becoming distracted, while answering questions. In addition, based on responses provided, there may be a possibility of highlighting disparities within the workplace. Aside from this, there are no other foreseen benefits, risks or discomfort associated with taking this survey.
All records for this study will be kept secure and confidential. Your participation is voluntary, and there are no costs to you. Participants are free to partake in the research, or withdraw consent at any time during the study.

If you have any questions relating to this research study, you may contact Nushine Hosseini at nhoss002@fiu.edu. The Doctoral Program Director is Dr. George Marakas, who may also be reached at Florida International University, at (305) 348-2830 or gmarakas@fiu.edu.
If you would like to talk with someone other than the above, about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity at 305-348-2494 or ori@fiu.edu.
For Participants: I have read the information in this consent and agree to participate in this study. I understand I am able to ask any questions I have about this study, and they will be answered for me. I understand that I can request a copy of this form for my records, at any time.

By clicking on the button below, I am providing my consent (or no consent) to participate in an online survey, which is part of this study.

- ○ I consent/agree to participate in this study (1)
- ○ I do not consent to, agree with, participating in this study (2)

Skip To: End of Survey If This survey is being conducted to gather information for a research project, being completed on t... = I do not consent to, agree with, participating in this study

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Display This Question:

If This survey is being conducted to gather information for a research project, being completed on t... = I consent/agree to participate in this study

Thank you for agreeing to participate in this study. It is essential that each question is answered and

Q1 For each of the statements below, please indicate your level of agreement

	Strongly agree (53)	Agree (54)	Somewhat agree (55)	Neither agree nor disagree (56)	Somewhat disagree (57)	Disagree (58)	Strongly disagree (59)
I prefer work that really challenges me, so I can learn new things (8)	○	○	○	○	○	○	○
I select challenging assignments, that I can learn from, even if they do not guarantee a promotion (9)	○	○	○	○	○	○	○
I prefer assignments that arouse my curiosity, even if they are difficult to learn (10)	○	○	○	○	○	○	○
I prefer more challenging assignments, but may not always have the time to dedicate to these assignments (11)	○	○	○	○	○	○	○
I put a lot of effort into my job (13)	○	○	○	○	○	○	○
It is important to me to do well in my job (14)	○	○	○	○	○	○	○
I make every effort to perform my job, to the best of my abilities, when I am at work (15)	○	○	○	○	○	○	○

End of Block: MOT

Start of Block: WLB

Q2 For each of the statements below, please indicate your level of agreement

	Strongly agree (22)	Agree (23)	Somewhat agree (24)	Neither agree nor disagree (25)	Somewhat disagree (26)	Disagree (27)	Strongly disagree (28)
I am successful in managing my home and work demands (8)	○	○	○	○	○	○	○
I have the time to achieve my personal and professional goals in a satisfactory manner (9)	○	○	○	○	○	○	○
I am satisfied with my ability to meet the needs of my job, and also with those of my personal life (10)	○	○	○	○	○	○	○
I have a flexible work schedule (11)	○	○	○	○	○	○	○
I work in an environment that is supportive of my family and personal commitments (12)	○	○	○	○	○	○	○
I have sufficient time to spend with my family and friends, even after working long hours (13)	○	○	○	○	○	○	○
I am often able to participate in recreational activities (14)	○	○	○	○	○	○	○

End of Block: WLB

Start

RC What color is unicorn grass? (Select the color purple from the list below)

- ○ Blue (1)
- ○ Green (2)
- ○ Purple (3)

End of Block: RC

Start of Block: FUM

Q3 For each of the statements below, please indicate your level of agreement

	Strongly agree (22)	Agree (23)	Somewhat agree (24)	Neither agree nor disagree (25)	Somewhat disagree (26)	Disagree (27)	Strongly disagree (28)
My management team consists of more male leaders than female leaders (8)	○	○	○	○	○	○	○
There are not many female leaders in my organization (9)	○	○	○	○	○	○	○
Female managers are underrepresented in my company (10)	○	○	○	○	○	○	○
There are not many opportunities for the advancement of female leaders in my organization (11)	○	○	○	○	○	○	○
My company supports the advancement of female leaders (12)	○	○	○	○	○	○	○
Many senior managers in my company are female (13)	○	○	○	○	○	○	○
I have seen an increase in the number of female leaders in my management team (14)	○	○	○	○	○	○	○
My company has female leaders in many senior positions (15)	○	○	○	○	○	○	○
Female leaders have many opportunities for advancement in my company (16)	○	○	○	○	○	○	○
Male leaders are supported more than female leaders in my management team (17)	○	○	○	○	○	○	○

Q4 For each of the statements below, please indicate your level of agreement

	Strongly agree (27)	Agree (28)	Somewhat agree (29)	Neither agree nor disagree (30)	Somewhat disagree (31)	Disagree (32)	Strongly disagree (33)
I am interested in advancing within my current organization (3)	○	○	○	○	○	○	○
I would be interested in being promoted to a more senior position in the future (4)	○	○	○	○	○	○	○
I can see myself advancing to a position with more responsibility (5)	○	○	○	○	○	○	○
I do not believe a promotion is the right path for me (6)	○	○	○	○	○	○	○
My organization offers career advancement programs (7)	○	○	○	○	○	○	○
I would like to take on a more senior management role (8)	○	○	○	○	○	○	○
I am not interested in being promoted to another position (9)	○	○	○	○	○	○	○
I believe I am ready to make decisions independently/autonomously (10)	○	○	○	○	○	○	○

End of Block: IAO

Start of Block: RC

RC Based on the list below, what drink do you prefer? (Choose Pepsi from the list below)

- ○ Sprite (1)
- ○ Pepsi (2)
- ○ Mountain Dew (3)

End of Block: RC

Start of Block: ORC

Q5 For each of the statements below, please indicate your level of agreement

	Strongly agree (22)	Agree (23)	Somewhat agree (24)	Neither agree nor disagree (25)	Somewhat disagree (26)	Disagree (27)	Strongly disagree (28)
I am valued by my co-workers in my department (8)	○	○	○	○	○	○	○
My management team values my position within the organization (9)	○	○	○	○	○	○	○
My company supports the growth and development of all employees (10)	○	○	○	○	○	○	○
My management team supports diversity and inclusion efforts, specifically as related to female employees (11)	○	○	○	○	○	○	○
Employees are promoted within my organization, based on knowledge, skills and abilities (12)	○	○	○	○	○	○	○
I am able to develop my career with my current employer (13)	○	○	○	○	○	○	○
Leadership and career development is a priority for my employer (14)	○	○	○	○	○	○	○
The manner in which female employees are treated in this company, is likely to attract the interest of other women to work for this organization (15)	○	○	○	○	○	○	○
Female employees are provided the same opportunities in the organization, as compared to male employees (16)	○	○	○	○	○	○	○

End of Block: ORC

DEM Demographic Data - You have reached the final section of this survey

Q6 What age bracket applies to you?

- 18 - 24 (1)
- 25 - 34 (2)
- 35 - 44 (3)
- 45 - 54 (4)
- 55 or older (5)

Q7 Please select one:

- Male (3)
- Female (4)
- Non-binary / third gender (5)
- Prefer not to say (6)

Q8 Which of the following do you most closely identify with?

- Hispanic or Latino or Spanish Origin of any race (1)
- American Indian or Alaskan Native (2)
- Asian (3)
- Native Hawaiian or Other Pacific Islander (4)
- African American (5)
- Caucasian (6)
- Two or more races/ethnicities (7)
- Other (8) _____

Q9 What is your highest level of education completed?

- Less than high school (1)
- High school graduate (2)
- Some college (3)
- Bachelors degree (4)
- Masters degree (5)
- PhD/Doctoral degree (6)
- Other (8) _____

Q10 Are you the head of your household?

- ○ Yes (1)
- ○ No (2)

Q11 What is the size of your household (including you)?

- ○ 1 person (1)
- ○ 2 people (2)
- ○ 3 people (3)
- ○ More than 3 people (4)

Q12 If there are children under the age of 18, living in the same household, please select one of the following:

- ○ No children under the age of 18 (living in household) (1)
- ○ 1 child under the age of 18 (2)
- ○ More than 1 child under the age of 18 (3)

Q13 What is the average annual income of your household combined?

- ○ Less than $20,000 (1)
- ○ $20,000 - $34,999 (2)
- ○ $35,000 - $49,999 (3)
- ○ $50,000 - $74,999 (4)
- ○ $75,000 - $99,999 (5)
- ○ More than $100,000 (6)

Q14 Are you currently employed?

- ○ Yes (1)
- ○ No (2)

Skip To: Q17 If Are you currently employed? = No

Q15 If employed, how long have you been with your current employer?

- ○ Less than 1 year (1)
- ○ 1 to 3 years (2)
- ○ 4 to 7 years (3)
- ○ 8 to 14 years (4)
- ○ 15 or more years (5)

Q16 Please select one of the following categories, most closely associated with your current position/title:

- ○ Laborer (1)
- ○ Clerk/Associate (2)
- ○ Team Lead/Supervisor (3)
- ○ Manager/Sr. Manager (4)
- ○ Professional (5)
- ○ Director (6)
- ○ VP/SVP (7)
- ○ Executive/Owner (8)
- ○ Other (9) _____

Q17 What is your current status?

- ○ Employed full time (1)
- ○ Employed part time (2)
- ○ Unemployed looking for work (3)
- ○ Unemployed not looking for work (4)
- ○ Retired (5)
- ○ Student (6)
- ○ Homemaker (7)
- ○ Unable to work (8)

Thank you for your participation in this survey. Your feedback is greatly appreciated!

End of Block: DEM

Start of Block: Random ID

MTurk Participants ${e://Field/Random%20ID}

_____

End of Block: Random ID

APPENDIX B

CFA Single Model - Constructs and Related Items

Item	Related Construct
Q4_1IA	IAO - I am interested in advancing within my current organization
Q4_6IA	IAO - I would like to take on a more senior management role
Q4_3IA	IAO - I can see myself advancing to a position with more responsibility
Q4_8IA	IAO - I believe I am ready to make decisions independently/autonomously
Q3_6F	FUM - Many senior managers in my company are female
Q3_8F	FUM - My company has female leaders in many senior positions
Q3_7F	FUM - I have seen an increase in the number of female leaders in my management team
Q3_4FRN	FUMR - There are not many opportunities for the advancement of female leaders in my organization
Q3_10FRN	FUMR - Male leaders are supported more than female leaders in my management team
Q3_3FRN	FUMR - Female managers are underrepresented in my company
Q3_2FRN	FUMR - There are not many female leaders in my organization
Q2_3B	BAL - I am satisfied with my ability to meet the needs of my job, and also with those of my personal life
Q2_2B	BAL - I have the time to achieve my personal and professional goals in a satisfactory manner
Q2_7B	BAL - I am often able to participate in recreational activities
Q2_1B	BAL - I am successful in managing my home and work demands
Q1_6M	MOTEF - It is important to me to do well in my job
Q1_7M	MOTEF - I make every effort to perform my job, to the best of my abilities, when I am at work
Q1_5M	MOTEF - I put a lot of effort into my job
Q1_1M	MOTCH - I prefer work that really challenges me, so I can learn new things
Q1_3M	MOTCH - I prefer assignments that arouse my curiosity, even if they are difficult to learn
Q1_2M	MOTCH - I select challenging assignments, that I can learn from, even if they do not guarantee a promotion
Q1_4M	MOTCH - I prefer more challenging assignments, but may not always have the time to dedicate to these assignments
Q5_3OO	ORC - My company supports the growth and development of all employees
Q5_7OO	ORC - Leadership and career development is a priority for my employer
Q5_2OO	ORC - My management team values my position within the organization
Q5_5OO	ORC - Employees are promoted within my organization, based on knowledge, skills and abilities
Q5_6OO	ORC - I am able to develop my career with my current employer

APPENDIX C

CFA Split Model – Constructs and Related Items

Construct		Related Items
FUM1	Q3_6F	FUM - Many senior managers in my company are female
	Q3_8F	FUM - My company has female leaders in many senior positions
	Q3_7F	FUM - I have seen an increase in the number of female leaders in my management team
FUM2	Q3_4FRN	FUMR - There are not many opportunities for the advancement of female leaders in my organization
	Q3_10FRN	FUMR - Male leaders are supported more than female leaders in my management team
	Q3_3FRN	FUMR - Female managers are underrepresented in my company
	Q3_2FRN	FUMR - There are not many female leaders in my organization
MOT1	Q1_6M	MOTEF - It is important to me to do well in my job
	Q1_7M	MOTEF - I make every effort to perform my job, to the best of my abilities, when I am at work
	Q1_5M	MOTEF - I put a lot of effort into my job
MOT2	Q1_1M	MOTCH - I prefer work that really challenges me, so I can learn new things
	Q1_3M	MOTCH - I prefer assignments that arouse my curiosity, even if they are difficult to learn
	Q1_2M	MOTCH - I select challenging assignments, that I can learn from, even if they do not guarantee a promotion
	Q1_4M	MOTCH - I prefer more challenging assignments, but may not always have the time to dedicate to these assignments

APPENDIX D

CFA Split Model – Table of Loadings

#	lhs	op (indicators)	rhs	est.std	se	z	pvalue	ci.lower	ci.upper
1	IAO	=~	Q4_1IA	0.904	0.021	43.015	0.000	0.863	0.945
2	IAO	=~	Q4_6IA	0.878	0.024	36.406	0.000	0.831	0.925
3	IAO	=~	Q4_3IA	0.893	0.022	40.160	0.000	0.850	0.937
4	IAO	=~	Q4_8IA	0.646	0.053	12.300	0.000	0.543	0.749
5	FUM1	=~	Q3_6F	0.942	0.018	51.736	0.000	0.906	0.977
6	FUM1	=~	Q3_8F	0.947	0.018	52.973	0.000	0.911	0.982
7	FUM1	=~	Q3_7F	0.732	0.042	17.490	0.000	0.650	0.814
8	FUM2	=~	Q3_4FRN	0.768	0.041	18.654	0.000	0.687	0.849
9	FUM2	=~	Q3_10FRN	0.653	0.054	12.085	0.000	0.547	0.759
10	FUM2	=~	Q3_3FRN	0.883	0.029	30.559	0.000	0.826	0.940
11	FUM2	=~	Q3_2FRN	0.816	0.036	22.858	0.000	0.746	0.886
12	BAL	=~	Q2_3B	0.923	0.023	40.996	0.000	0.879	0.967
13	BAL	=~	Q2_2B	0.793	0.036	21.722	0.000	0.721	0.864
14	BAL	=~	Q2_7B	0.748	0.042	17.839	0.000	0.666	0.830
15	BAL	=~	Q2_1B	0.827	0.032	25.467	0.000	0.763	0.890
16	MOT1	=~	Q1_6M	0.788	0.045	17.410	0.000	0.699	0.876
17	MOT1	=~	Q1_7M	0.928	0.039	23.932	0.000	0.852	1.004
18	MOT1	=~	Q1_5M	0.610	0.060	10.213	0.000	0.493	0.727
19	MOT2	=~	Q1_1M	0.920	0.019	48.488	0.000	0.883	0.957
20	MOT2	=~	Q1_3M	0.872	0.025	35.427	0.000	0.824	0.921
21	MOT2	=~	Q1_2M	0.877	0.024	36.400	0.000	0.829	0.924
22	MOT2	=~	Q1_4M	0.739	0.042	17.719	0.000	0.657	0.821
23	ORC	=~	Q5_3OO	0.781	0.039	19.970	0.000	0.704	0.858
24	ORC	=~	Q5_7OO	0.826	0.034	24.452	0.000	0.759	0.892
25	ORC	=~	Q5_2OO	0.726	0.046	15.903	0.000	0.636	0.815
26	ORC	=~	Q5_5OO	0.652	0.054	12.084	0.000	0.546	0.757
27	ORC	=~	Q5_6OO	0.798	0.037	21.572	0.000	0.726	0.871

APPENDIX E

Standardized Solution by Gender (Main Study)

#	lhs	op	rhs	group	label	est.std	se	z	pvalue	CI lower	CI upper
1	WLB	=~	Q2_1WLB_7	1		0.802	0.026	30.401	0	0.750	0.853
2	WLB	=~	Q2_1WLB_2	1	.p2.	0.883	0.018	49.033	0	0.848	0.919
3	WLB	=~	Q2_1WLB_6	1	.p3.	0.788	0.028	28.441	0	0.734	0.842
4	WLB	=~	Q2_1WLB_3	1	.p4.	0.860	0.021	41.915	0	0.819	0.900
5	WLB	=~	Q2_1WLB_1	1	.p5.	0.786	0.028	28.135	0	0.731	0.840
6	WLB	=~	Q2_1WLB_5	1	.p6.	0.737	0.032	22.713	0	0.673	0.800
7	FUMR	=~	Q3_1FR_3	1		0.915	0.015	59.702	0	0.885	0.945
8	FUMR	=~	Q3_1FR_5	1	.p8.	0.747	0.031	23.851	0	0.685	0.808
9	FUMR	=~	Q3_1FR_2	1	.p9.	0.851	0.021	39.589	0	0.809	0.893
10	FUMR	=~	Q3_1FR_4	1	.p10.	0.706	0.035	20.350	0	0.638	0.774
11	FUMR	=~	Q3_1FR_1	1	.p11.	0.834	0.023	35.974	0	0.789	0.879
12	IAO	=~	Q4_1IA_2	1		0.931	0.011	83.510	0	0.910	0.953
13	IAO	=~	Q4_1IA_5	1	.p13.	0.919	0.013	73.304	0	0.894	0.943
14	IAO	=~	Q4_1IA_3	1	.p14.	0.891	0.016	57.121	0	0.860	0.921
15	IAO	=~	Q4_1IA_1	1	.p15.	0.890	0.016	56.691	0	0.859	0.921
16	IAO	=~	Q4_1IA_6	1	.p16.	0.656	0.037	17.686	0	0.583	0.728
17	MOTCH	=~	Q1_MOT_2	1		0.875	0.020	43.364	0	0.836	0.915
18	MOTCH	=~	Q1_MOT_3	1	.p18.	0.839	0.023	35.718	0	0.793	0.885
19	MOTCH	=~	Q1_MOT_1	1	.p19.	0.883	0.019	45.359	0	0.845	0.921
20	MOTCH	=~	Q1_MOT_4	1	.p20.	0.675	0.037	18.137	0	0.602	0.748
21	ORC	=~	Q5_1OO_3	1		0.790	0.029	27.533	0	0.734	0.846
22	ORC	=~	Q5_1OO_5	1	.p22.	0.753	0.032	23.592	0	0.690	0.815
23	ORC	=~	Q5_1OO_6	1	.p23.	0.800	0.028	28.735	0	0.745	0.854
24	ORC	=~	Q5_1OO_7	1	.p24.	0.812	0.027	30.405	0	0.760	0.864
25	ORC	=~	Q5_1OO_2	1	.p25.	0.692	0.037	18.842	0	0.620	0.764
26	ORC	=~	Q5_1OO_4	1	.p26.	0.585	0.044	13.303	0	0.499	0.671
27	FUM	=~	Q3_5F_2	1		0.900	0.016	55.842	0	0.868	0.931
28	FUM	=~	Q3_5F_4	1	.p28.	0.930	0.013	71.174	0	0.905	0.956

APPENDIX F

Survey Instrument (Main Study)

2022 Main Research Survey - Underrepresentation in Management

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Start of Block: Informed Consent & Acknowledgement

This survey is being conducted to gather information for a research project, being completed on the topic of underrepresentation in management in the United States, within the workplace. The focus of the study will be on three, identified contributing factors towards underrepresentation, specifically in management.
If you choose to participate in this study, you will be one of between 150 to 400 participants who will be asked to complete a series of questions related to the above-mentioned topic. You will only need to respond to this survey one time. Each question should take approximately 15 seconds or less to review and respond. Questions are related to specific demographics, self-attributes, and other related traits pertinent to this study.
If you agree to be in the study, you will be asked to do the following: 1) complete this informed consent form, 2) after submission of the informed consent form, you will have access to the online survey to complete, and 3) submit survey, upon completion.
There are minimum risks associated with this survey. The main risk (or discomfort) from participating in this research is the possibility of losing focus, or becoming distracted, while answering questions. In addition, based on responses provided, there may be a possibility of highlighting disparities within the workplace. Aside from this, there are no other foreseen benefits, risks or discomfort associated with taking this survey.
All records for this study will be kept secure and confidential. Your participation is voluntary, and there are no costs to you. Participants are free to partake in the research, or withdraw consent at any time during the study.

If you have any questions relating to this research study, you may contact Nushine Hosseini at nhoss002@fiu.edu. The Doctoral Program Director is Dr. George Marakas, who may also be reached at Florida International University, at (305) 348-2830 or gmarakas@fiu.edu.
If you would like to talk with someone other than the above, about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity at 305-348-2494 or ori@fiu.edu.
For Participants: I have read the information in this consent and agree to participate in this study. I understand I am able to ask any questions I have about this study, and they will be answered for me. I understand that I can request a copy of this form for my records, at any time.

By clicking on the button below, I am providing my consent (or no consent) to participate in an online survey, which is part of this study.

- ○ I consent/agree to participate in this study (1)
- ○ I do not consent to, agree with, participating in this study (2)

Skip To: End of Survey If This survey is being conducted to gather information for a research project, being completed on t... = I do not consent to, agree with, participating in this study

Display This Question:

If This survey is being conducted to gather information for a research project, being completed on t... = I consent/agree to participate in this study

Thank you for agreeing to participate in this study. It is essential that each question is answered and responses are complete. In addition, questions should be answered based on your experiences over the course of your employment history. If you are not currently working, or have not yet joined the workforce, please answer the questions based on what you believe to be true for yourself.

End of Block: Informed Consent & Acknowledgement

Start of Block: MOT

Q1_MOT For each statement below, please indicate your level of agreement

	Strongly agree (7)	Agree (6)	Somewhat agree (5)	Neither agree nor disagree (4)	Somewhat disagree (3)	Disagree (2)	Strongly disagree (1)
I prefer work that really challenges me, so I can learn new things (1)	○	○	○	○	○	○	○
I select challenging assignments, that I can learn from, even if they do not guarantee a promotion (2)	○	○	○	○	○	○	○
I prefer assignments that arouse my curiosity, even if they are difficult to learn (3)	○	○	○	○	○	○	○
I prefer more challenging assignments, but may not always have the time to dedicate to these assignments (4)	○	○	○	○	○	○	○
I put a lot of effort into my job (5)	○	○	○	○	○	○	○
It is important to me to do well in my job (6)	○	○	○	○	○	○	○
I make every effort to perform my job, to the best of my abilities, when I am at work (7)	○	○	○	○	○	○	○

End of Block: MOT

Start of Block: WLB

Q2_1WLB For each statement below, please indicate your level of agreement

	Strongly agree (7)	Agree (6)	Somewhat agree (5)	Neither agree nor disagree (4)	Somewhat disagree (3)	Disagree (2)	Strongly disagree (1)
I am successful in managing my home and work demands (8)	○	○	○	○	○	○	○
I have the time to achieve my personal and professional goals in a satisfactory manner (9)	○	○	○	○	○	○	○
I am satisfied with my ability to meet the needs of my job, and also with those of my personal life (10)	○	○	○	○	○	○	○
I have a flexible work schedule (11)	○	○	○	○	○	○	○
I work in an environment that is supportive of my family and personal commitments (12)	○	○	○	○	○	○	○
I have sufficient time to spend with my family and friends, even after working long hours (13)	○	○	○	○	○	○	○
I am often able to participate in recreational activities (14)	○	○	○	○	○	○	○

End of Block: WLB

Start of Block: RC_1

RC What color is unicorn grass? (Select the color purple from the list below)

- ○ Blue (1)
- ○ Green (2)
- ○ Purple (3)

End of Block: RC_1

Start of Block: FUMR

Q3_1FR For each statement below, please indicate your level of agreement

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
My management team consists of more male leaders than female leaders (18)	○	○	○	○	○	○	○
There are not many female leaders in my organization (9)	○	○	○	○	○	○	○
Female managers are underrepresented in my company (10)	○	○	○	○	○	○	○
There are not many opportunities for the advancement of female leaders in my organization (11)	○	○	○	○	○	○	○
Male leaders are supported more than female leaders in my management team (17)	○	○	○	○	○	○	○

End of Block: FUMR

Start of Block: FUM

Q3_5F For each statement below, please indicate your level of agreement

	Strongly agree (7)	Agree (6)	Somewhat agree (5)	Neither agree nor disagree (4)	Somewhat disagree (3)	Disagree (2)	Strongly disagree (1)
My company supports the advancement of female leaders (1)	○	○	○	○	○	○	○
Many senior managers in my company are female (2)	○	○	○	○	○	○	○
I have seen an increase in the number of female leaders in my management team (3)	○	○	○	○	○	○	○
My company has female leaders in many senior positions (4)	○	○	○	○	○	○	○
Female leaders have many opportunities for advancement in my company (5)	○	○	○	○	○	○	○

End of Block: FUM

Start of Block: IAO

Q4_1IA For each statement below, please indicate your level of agreement

	Strongly agree (7)	Agree (6)	Somewhat agree (5)	Neither agree nor disagree (4)	Somewhat disagree (3)	Disagree (2)	Strongly disagree (1)
I am interested in advancing within my current organization (3)	○	○	○	○	○	○	○
I would be interested in being promoted to a more senior position in the future (4)	○	○	○	○	○	○	○
I can see myself advancing to a position with more responsibility (5)	○	○	○	○	○	○	○
My organization offers career advancement programs (7)	○	○	○	○	○	○	○
I would like to take on a more senior management role (8)	○	○	○	○	○	○	○
I believe I am ready to make decisions independently/autonomously (10)	○	○	○	○	○	○	○

End of Block: IAO

Start of Block: IAOR

Q4_4IAR For each statement below, please indicate your level of agreement

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
I do not believe a promotion is the right path for me (1)	○	○	○	○	○	○	○
I am not interested in being promoted to another position (2)	○	○	○	○	○	○	○

End of Block: IAOR

Start of Block: RC_2

RC Based on the list below, what drink do you prefer? (Choose Pepsi from the list below)

- ○ Sprite (1)
- ○ Pepsi (2)
- ○ Mountain Dew (3)

End of Block: RC_2

Start of Block: ORC

Q5_1OO For each statement below, please indicate your level of agreement

	Strongly agree (7)	Agree (6)	Somewhat agree (5)	Neither agree nor disagree (4)	Somewhat disagree (3)	Disagree (2)	Strongly disagree (1)
I am valued by my co-workers in my department (8)	○	○	○	○	○	○	○
My management team values my position within the organization (9)	○	○	○	○	○	○	○
My company supports the growth and development of all employees (10)	○	○	○	○	○	○	○
My management team supports diversity and inclusion efforts, specifically as related to female employees (11)	○	○	○	○	○	○	○
Employees are promoted within my organization, based on knowledge, skills and abilities (12)	○	○	○	○	○	○	○
I am able to develop my career with my current employer (13)	○	○	○	○	○	○	○
Leadership and career development is a priority for my employer (14)	○	○	○	○	○	○	○
The manner in which female employees are treated in this company, is likely to attract the interest of other women to work for this organization (15)	○	○	○	○	○	○	○
Female employees are provided the same opportunities in the organization, as compared to male employees (16)	○	○	○	○	○	○	○

End of Block: ORC

Start of Block: DEM

DEM Demographic Data - You have reached the final section of this survey

Q6 What age bracket applies to you?

- 18 - 24 (1)
- 25 - 34 (2)
- 35 - 44 (3)
- 45 - 54 (4)
- 55 or older (5)

Q7 Please select one:

- Male (3)
- Female (4)
- Non-binary / third gender (5)
- Prefer not to say (6)

Q8 Which of the following do you most closely identify with?

- ○ Hispanic or Latino or Spanish Origin of any race (1)
- ○ American Indian or Alaskan Native (2)
- ○ Asian (3)
- ○ Native Hawaiian or Other Pacific Islander (4)
- ○ African American (5)
- ○ Caucasian (6)
- ○ Two or more races/ethnicities (7)
- ○ Other (8) _____

Q9 What is your highest level of education completed?

- ○ Less than high school (1)
- ○ High school graduate (2)
- ○ Some college (3)
- ○ Bachelors degree (4)
- ○ Masters degree (5)
- ○ PhD/Doctoral degree (6)

Q10 Are you the head of your household?

- ○ Yes (1)
- ○ No (2)

Q11 What is the size of your household (including you)?

- ○ 1 person (1)
- ○ 2 people (2)
- ○ 3 people (3)
- ○ More than 3 people (4)

Q12 If there are children under the age of 18, living in the same household, please select one of the following:

- ○ No children under the age of 18 (living in household) (1)
- ○ 1 child under the age of 18 (2)
- ○ More than 1 child under the age of 18 (3)

Q13 What is the average annual income of your household combined?

- ○ Less than $20,000 (1)
- ○ $20,000 - $34,999 (2)
- ○ $35,000 - $49,999 (3)
- ○ $50,000 - $74,999 (4)
- ○ $75,000 - $99,999 (5)
- ○ More than $100,000 (6)

Q14 Are you currently employed?

- ○ Yes (1)
- ○ No (2)

Skip To: Q17 If Are you currently employed? = No

Q15 If employed, how long have you been with your current employer?

- ○ Less than 1 year (1)
- ○ 1 to 3 years (2)
- ○ 4 to 7 years (3)
- ○ 8 to 14 years (4)
- ○ 15 or more years (5)

Q16 Please select one of the following categories, most closely associated with your current position/title:

- ○ Laborer (1)
- ○ Clerk/Associate (2)
- ○ Team Lead/Supervisor (3)
- ○ Manager/Sr. Manager (4)
- ○ Professional (5)
- ○ Director (6)
- ○ VP/SVP (7)
- ○ Executive/Owner (8)
- ○ Other (9) _____

Q17 What is your current status?

- ○ Employed full time (1)
- ○ Employed part time (2)
- ○ Unemployed looking for work (3)
- ○ Unemployed not looking for work (4)
- ○ Retired (5)
- ○ Student (6)
- ○ Homemaker (7)
- ○ Unable to work (8)

Thank you for your participation in this survey. Your feedback is greatly appreciated!

End of Block: DEM

Start of Block: Random ID

MTurk Participants ${e://Field/Random%20ID}

_____

End of Block: Random ID

APPENDIX G

CFA Final Model - Constructs and Related Items

Item	Related Construct
Q4_1IA_2	IAO - I am interested in advancing within my current organization
Q4_1IA_5	IAO - I would be interested in being promoted to a more senior position in the future
Q4_1IA_3	IAO - I can see myself advancing to a position with more responsibility
Q4_1IA_1	IAO - I would like to take on a more senior management role
Q4_1IA_6	IAO - I believe I am ready to make decisions independently/autonomously
Q3_5F_2	FUM - My company supports the advancement of female leaders
Q3_5F_4	FUM - Many senior managers in my company are female
Q3_5F_3	FUM - I have seen an increase in the number of female leaders in my management team
Q3_5F_5	FUM - My company has female leaders in many senior positions
Q3_5F_1	FUM - Female leaders have many opportunities for advancement in my company
Q3_1FR_3	FUMR - My management team consists of more male leaders than female leaders
Q3_1FR_5	FUMR - There are not many female leaders in my organization
Q3_1FR_2	FUMR - Female managers are underrepresented in my company
Q3_1FR_4	FUMR - There are not many opportunities for the advancement of female leaders in my organization
Q3_1FR_1	FUMR - Male leaders are supported more than female leaders in my management team
Q2_1WLB_7	WLB - I am successful in managing my home and work demands
Q2_1WLB_2	WLB - I have the time to achieve my personal and professional goals in a satisfactory manner
Q2_1WLB_6	WLB - I am satisfied with my ability to meet the needs of my job, and also with those of my personal life
Q2_1WLB_3	WLB - I work in an environment that is supportive of my family and personal commitments
Q2_1WLB_1	WLB - I have sufficient time to spend with my family and friends, even after working long hours
Q2_1WLB_5	WLB - I am often able to participate in recreational activities
Q1_MOT_2	MOTCH - I prefer work that really challenges me, so I can learn new things
Q1_MOT_3	MOTCH - I select challenging assignments, that I can learn from, even if they do not guarantee a promotion
Q1_MOT_1	MOTCH - I prefer assignments that arouse my curiosity, even if they are difficult to learn
Q1_MOT_4	MOTCH - I prefer more challenging assignments, but may not always have the time to dedicate to these assignments
Q5_1OO_3	ORC - I am able to develop my career with my current employer
Q5_1OO_5	ORC - Leadership and career development is a priority for my employer
Q5_1OO_6	ORC - My management team values my position within the organization

APPENDIX H

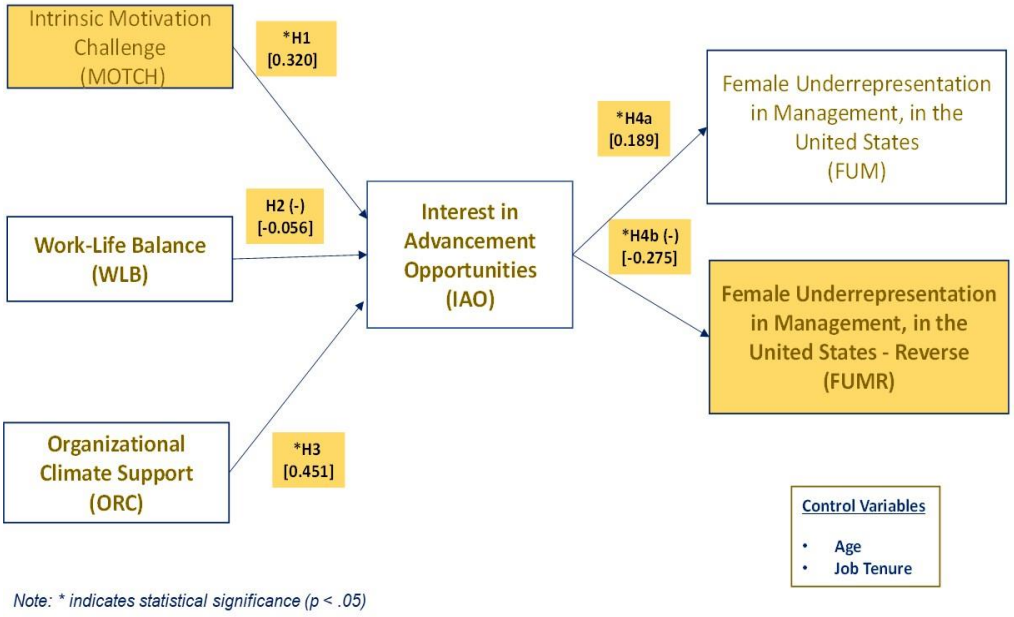
CFA Final Model – Table of Loadings

#	lhs	op	rhs	est.std	se	z	pvalue	ci.lower	ci.upper
1	WLB	=~	Q2_1WLB_7	0.804	0.024	33.888	0.000	0.757	0.850
2	WLB	=~	Q2_1WLB_2	0.884	0.016	54.026	0.000	0.852	0.916
3	WLB	=~	Q2_1WLB_6	0.787	0.025	31.249	0.000	0.738	0.837
4	WLB	=~	Q2_1WLB_3	0.858	0.019	45.793	0.000	0.821	0.895
5	WLB	=~	Q2_1WLB_1	0.784	0.026	30.751	0.000	0.734	0.834
6	WLB	=~	Q2_1WLB_5	0.736	0.030	24.785	0.000	0.678	0.794
7	FUMR	=~	Q3_1FR_3	0.915	0.014	65.926	0.000	0.888	0.942
8	FUMR	=~	Q3_1FR_5	0.757	0.028	27.164	0.000	0.703	0.812
9	FUMR	=~	Q3_1FR_2	0.858	0.019	45.650	0.000	0.821	0.895
10	FUMR	=~	Q3_1FR_4	0.716	0.031	22.770	0.000	0.654	0.777
11	FUMR	=~	Q3_1FR_1	0.845	0.020	42.257	0.000	0.806	0.884
12	IAO	=~	Q4_1IA_2	0.939	0.01	102.094	0.000	0.921	0.957
13	IAO	=~	Q4_1IA_5	0.926	0.010	89.130	0.000	0.906	0.946
14	IAO	=~	Q4_1IA_3	0.900	0.013	69.310	0.000	0.874	0.925
15	IAO	=~	Q4_1IA_1	0.898	0.013	67.954	0.000	0.872	0.923
16	IAO	=~	Q4_1IA_6	0.677	0.033	20.220	0.000	0.611	0.743
17	MOTCH	=~	Q1_MOT_2	0.889	0.017	52.729	0.000	0.856	0.923
18	MOTCH	=~	Q1_MOT_3	0.852	0.020	42.652	0.000	0.813	0.891
19	MOTCH	=~	Q1_MOT_1	0.890	0.017	52.820	0.000	0.857	0.923
20	MOTCH	=~	Q1_MOT_4	0.699	0.033	21.041	0.000	0.634	0.764
21	ORC	=~	Q5_1OO_3	0.804	0.025	32.394	0.000	0.755	0.853
22	ORC	=~	Q5_1OO_5	0.763	0.028	26.843	0.000	0.707	0.818
23	ORC	=~	Q5_1OO_6	0.810	0.024	33.409	0.000	0.763	0.858
24	ORC	=~	Q5_1OO_7	0.826	0.02	36.075	0.000	0.781	0.871
25	ORC	=~	Q5_1OO_2	0.708	0.033	21.496	0.000	0.644	0.773
26	ORC	=~	Q5_1OO_4	0.619	0.040	15.564	0.000	0.541	0.697
27	FUM	=~	Q3_5F_2	0.892	0.016	57.456	0.000	0.862	0.923
28	FUM	=~	Q3_5F_4	0.921	0.013	70.027	0.000	0.896	0.947
29	FUM	=~	Q3_5F_3	0.71	0.032	22.358	0.000	0.648	0.772
30	FUM	=~	Q3_5F_5	0.803	0.024	34.023	0.000	0.757	0.849
31	FUM	=~	Q3_5F_1	0.737	0.029	25.015	0.000	0.679	0.795
32	Q2_1WLB_7	~~	Q2_1WLB_7	0.354	0.038	9.279	0.000	0.279	0.429
33	Q2_1WLB_2	~~	Q2_1WLB_2	0.219	0.029	7.557	0.000	0.162	0.275
34	Q2_1WLB_6	~~	Q2_1WLB_6	0.38	0.040	9.571	0.000	0.302	0.458
35	Q2_1WLB_3	~~	Q2_1WLB_3	0.264	0.032	8.210	0.000	0.201	0.327
36	Q2_1WLB_1	~~	Q2_1WLB_1	0.385	0.040	9.630	0.000	0.307	0.463
37	Q2_1WLB_5	~~	Q2_1WLB_5	0.458	0.044	10.474	0.000	0.372	0.544
38	Q3_1FR_3	~~	Q3_1FR_3	0.162	0.025	6.390	0.000	0.113	0.212
39	Q3_1FR_5	~~	Q3_1FR_5	0.427	0.042	10.108	0.000	0.344	0.509
40	Q3_1FR_2	~~	Q3_1FR_2	0.264	0.032	8.188	0.000	0.201	0.327
41	Q3_1FR_4	~~	Q3_1FR_4	0.488	0.045	10.853	0.000	0.400	0.576
42	Q3_1FR_1	~~	Q3_1FR_1	0.286	0.034	8.483	0.000	0.220	0.353

43	Q4_1IA_2	~~	Q4_1IA_2	0.119	0.017	6.865	0.000	0.085	0.152
44	Q4_1IA_5	~~	Q4_1IA_5	0.142	0.019	7.396	0.000	0.105	0.180
45	Q4_1IA_3	~~	Q4_1IA_3	0.19	0.023	8.148	0.000	0.145	0.236
46	Q4_1IA_1	~~	Q4_1IA_1	0.194	0.024	8.199	0.000	0.148	0.241
47	Q4_1IA_6	~~	Q4_1IA_6	0.542	0.045	11.955	0.000	0.453	0.631
48	Q1_MOT_2	~~	Q1_MOT_2	0.209	0.030	6.958	0.000	0.150	0.268
49	Q1_MOT_3	~~	Q1_MOT_3	0.275	0.034	8.075	0.000	0.208	0.341
50	Q1_MOT_1	~~	Q1_MOT_1	0.208	0.030	6.948	0.000	0.150	0.267
51	Q1_MOT_4	~~	Q1_MOT_4	0.512	0.046	11.037	0.000	0.421	0.603
52	Q5_1OO_3	~~	Q5_1OO_3	0.354	0.040	8.859	0.000	0.275	0.432
53	Q5_1OO_5	~~	Q5_1OO_5	0.418	0.043	9.658	0.000	0.334	0.503
54	Q5_1OO_6	~~	Q5_1OO_6	0.343	0.04	8.729	0.000	0.266	0.420
55	Q5_1OO_7	~~	Q5_1OO_7	0.318	0.038	8.400	0.000	0.244	0.392
56	Q5_1OO_2	~~	Q5_1OO_2	0.498	0.047	10.679	0.000	0.407	0.590
57	Q5_1OO_4	~~	Q5_1OO_4	0.617	0.049	12.520	0.000	0.520	0.713
58	Q3_5F_2	~~	Q3_5F_2	0.204	0.028	7.352	0.000	0.149	0.258
59	Q3_5F_4	~~	Q3_5F_4	0.151	0.024	6.230	0.000	0.104	0.199
60	Q3_5F_3	~~	Q3_5F_3	0.496	0.045	11.012	0.000	0.408	0.585
61	Q3_5F_5	~~	Q3_5F_5	0.355	0.038	9.366	0.000	0.281	0.429
62	Q3_5F_1	~~	Q3_5F_1	0.457	0.043	10.523	0.000	0.372	0.542
63	WLB	~~	WLB	1.000	0.000	NA	NA	1.000	1.000
64	FUMR	~~	FUMR	1.000	0.000	NA	NA	1.000	1.000
65	IAO	~~	IAO	1.000	0.000	NA	NA	1.000	1.000
66	MOTCH	~~	MOTCH	1.000	0.000	NA	NA	1.000	1.000
67	ORC	~~	ORC	1.000	0.000	NA	NA	1.000	1.000
68	FUM	~~	FUM	1.000	0.000	NA	NA	1.000	1.000
69	WLB	~~	FUMR	-0.122	0.063	-1.935	0.053	-0.246	0.002
70	WLB	~~	IAO	0.334	0.056	5.933	0.000	0.224	0.445
71	WLB	~~	MOTCH	0.441	0.053	8.331	0.000	0.337	0.544
72	WLB	~~	ORC	0.564	0.046	12.194	0.000	0.474	0.655
73	WLB	~~	FUM	0.259	0.060	4.313	0.000	0.141	0.376
74	FUMR	~~	IAO	-0.275	0.058	-4.709	0.000	-0.390	-0.16
75	FUMR	~~	MOTCH	-0.217	0.062	-3.533	0.000	-0.338	-0.1
76	FUMR	~~	ORC	-0.069	0.065	-1.064	0.287	-0.196	0.058
77	FUMR	~~	FUM	0.447	0.052	8.583	0.000	0.345	0.549
78	IAO	~~	MOTCH	0.478	0.050	9.611	0.000	0.381	0.576
79	IAO	~~	ORC	0.546	0.046	11.767	0.000	0.455	0.637
80	IAO	~~	FUM	0.181	0.061	2.967	0.003	0.061	0.300
81	MOTCH	~~	ORC	0.415	0.055	7.513	0.000	0.306	0.523
82	MOTCH	~~	FUM	0.205	0.062	3.327	0.001	0.084	0.326
83	ORC	~~	FUM	0.415	0.055	7.592	0.000	0.308	0.522

APPENDIX I

Final Research Model



VITA

NUSHINE W. HOSSEINI

Miami, Florida

2001-2005	B.A., Business Administration Florida International University Miami, Florida
2007-2008	M.S., Human Resource Management Florida International University Miami, Florida
2005-2020	Senior Human Resources Manager Del Monte Fresh Produce Coral Gables, Florida
2020-2022	Senior Human Resources Manager Center for Autism and Related Disorders Hybrid/Remote Based
2022-Present	Human Resources Director Cultivate Behavioral Health Remote Based
2019 -2022	Doctoral Candidate Florida International University Miami, Florida