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Muslim Women and Centered Leadership Practices

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Muslim Women and Centered Leadership Practices

Women Empowerment

DePaul
University



Meaning

Managing Energy

College of
Education

Positive Framing



Connecting

A Capstone in Education
with a Concentration in
Educational Leadership
By
Raheela Al Karim



Engaging

Submitted in Partial Fulfillment
of the Requirement for the Degree of
Doctor of Education
June 2020
© 2020 Raheela Al Karim



I approve the capstone of Raheela Al Karim

A handwritten signature in black ink that reads "Andera Kayne". The signature is written in a cursive, flowing style.

05/22/2020

Capstone Advisor
Andera Kayne, JD
DePaul University
Doctoral Program Director &
Associate Professor
in Educational Leadership

Date

Certification of Authorship

I certify that I am the sole author of this capstone. Any assistance received in the preparation of this capstone has been acknowledged and disclosed within it. Any sources utilized, including the use of data, ideas and words, those quoted directly or paraphrased, have been cited. I certify that I have prepared this capstone according program guidelines, as directed.

A handwritten signature in black ink, appearing to read "Rahel", written over a horizontal line.

Author

24 April 2020

Date

Executive Summary

In the workplace, female leaders are understated compared to their male counterparts (Barsh, 2015). This gap is particularly pronounced in the fields of science, technology, English, and mathematics (S.T.E.M.), including information technology (IT); a field that is notorious for organizational cultures that are unwelcoming to female leaders (Sani, 2018). This gap also persists despite the benefits associated with female leaders across all industries, which include strong intercultural empathy, diversity, and diplomacy. Centered leadership, a five-prong leadership model, is particularly compatible with the fortes and limitations of women leaders (Barsh & Lavoie, 2014). This model—which involves meaning, managing energy, positive framing, connecting, and engaging—also proves useful when helping females who belong to one or more minority groups to navigate and succeed in leadership positions (Barsh & Lavoie, 2014).

One of the demographics of minority females markedly underrepresented in leadership positions in the IT industry, in addition to other industries universally, is Muslim women. To date, research has explored gender disparities of women in the workforce, including studies about minority females in the workplace, focusing largely on women of African American or Latino descent, yet discussions on Muslim female leadership remains absent (Davis & Maldonado, 2015; Hayashida, 2019; Pew Research Center, 2018; Wynch, 2004). This lack of research remains, despite the growing population of female Muslim leadership entering the IT field each year. By increasing awareness of centered leadership practices, the intent is for female Muslim professionals in the IT industry to benefit from growth and presence in leadership positions. The benefit also stands for the IT industry to benefit as a whole, because of its nature as a continuously growing field, especially in the present day, and increasing awareness of centered leadership in this context can help to promote equality among leaders in the global market.

Also pertinent to the discussion of Muslim female leadership in the IT industry is the role of Muslim customs and practices, as the role of religious restrictions, sexism, and discrimination, which may influence a Muslim female leader's experience in a leadership role and, consequently, her ability to lead most efficiently. Further, it is significant to consider the role of religious customs, such as practicing hijab and refraining from consuming alcohol; the latter of which is often present at vocational-related networking functions, like conferences and trade shows. When exploring the conversation of female Muslim leadership in the IT industry, it is fundamental to consider the role of religious-related practices, and how both female Muslim leaders and their employers can facilitate a greater level of awareness and acceptance, not only for this population, but for a wider range of people, who may belong to any number of religious backgrounds or ethnicities with their own respective cultures, practices, and customs.

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Centered leadership is a holistic model that is strength-based, focusing on various aspects of a leader's personhood such as their emotions, cognitions and intellect, spirituality, and interpersonal relationships in order to thrive and flourish as leaders.

(Barsh & Lavoie, 2014).

INTRODUCTION AND BACKGROUND

Females in leadership roles remain largely underrepresented across all industries worldwide (Kneebone & Wilkins, 2018). Particularly prevalent is the gender wage gap, or the “glass ceiling,” that exists in terms of equal pay for male and female professionals (Kneebone & Wilkins, 2018; Remington & Kitterlin-Lynch, 2018). In the information technology (IT) industry, female minorities, specifically Muslim women, remain markedly unrepresented, despite their ability to contribute to notably to the workplace environment through centered leadership. Holistic in nature, centered leadership entails a five-prong approach that involves meaning, managing energy, positive framing, connecting, and engaging (Barsh & Lavoie, 2014). It is imperative for the IT industry, coupled with all industries, universally, to encourage the development of female Muslim leaders and to embrace the unique value that these powerful leaders present to the workforce, and for employers to facilitate a welcoming environment that communicates acceptance of Muslim women’s culture practices regarding work-related affairs.

This capstone centers on the perspectives of female Muslim leaders working in the information technology (IT) sector. While researchers have studied leadership approaches extensively, the lack of extant literature on several topics related to female leaders working in the IT sector and/or female leaders who are religious minorities parallels the lack of female leaders in many global industries (Marinakou & Giousmpasoglou, 2017). Thus, this research is aimed at highlighting female Muslim leaders' perceptions of centered leadership within the context of the IT industry. Ultimately, this capstone will culminate in the development of a study guide for female Muslim leaders who wish to apply a centered approach to leadership to benefit their peers, followers, organizations, and themselves.

FEMALE LEADERSHIP IN THE IT WORKPLACE

In the American workplace, female leaders can provide unique benefits to the organization, institution, company, department, or group of people they are responsible for leading. Promoting female leadership results in positive outcomes for businesses, with earlier research indicating that female leaders successfully implement strategies and mechanisms that prove constructive for companies. Female leaders have been found to have the ability to persevere. However, the IT industry, particularly, is notorious for inequality in regards to women in leadership positions. Additionally, there is a lack of diversity in the IT industry, which is reflected in the low number of women who hold positions in leadership in IT (Atal et al., 2019). Further, issues that commonly affect women in leadership positions today are sexual harassment, sexism, prejudice, and the continual questioning of female authority (Kenny & Donnelly, 2019; Smith & Gayles, 2018). With this being the current channel, it’s imperative that women leaders working in IT, particularly minority women—who are even more underrepresented—learn the strategies and techniques to effectively lead and identify themselves as powerful leaders and change-makers in the field.



CHALLENGES FOR FEMALE LEADERS TO OVERCOME

- The presence of a “glass ceiling” and a “glass cliff”
 - Working in more difficult conditions to achieve leadership positions than men
 - Presence of sexism, prejudice, sexual harassment and questioning of female authority in the workplace
 - Gender stereotypes and challenges
-

BACKGROUND

Strong and effective leadership in the business world has historically been associated with male leaders (Javidan, Bullough, & Dibble, 2016). Some sectors, most notably those in S.T.E.M. fields, have a particularly pronounced difference between the number of female and male leaders that are employed (Jenkins, 2017; Malloy & Smith, 2019; Sample, 2018). This lack of female leadership exists despite several notable research studies that have indicated the success of female-run companies and the soundness of business decisions made by female leaders (Barsh, 2015). Further, recent data indicate that female and male leaders each contribute certain unique strengths and competencies in the organizational environment depending on their gender and organizational context; female leaders are more likely to exhibit strong intercultural empathy, diversity, and diplomacy, while male leaders are more likely to exhibit strong self-efficacy pertaining to business savvy, interpersonal impact and cosmopolitan outlook (Javidan et al., 2016). Some leadership styles, approaches, and models may also be more applicable or compatible with leaders of a particular gender. Centered leadership, the leadership model at the center of the current study, is particularly compatible with the strengths and weaknesses associated with female leadership (Mahmood, 2015).

Despite both male and female leaders regularly exhibiting leadership competencies that could help information technology (IT) businesses succeed in the global marketplace, leadership in this sector is significantly dominated by men. In some countries such as the U.S. and the U.K. that are dominated by Western, Eurocentric culture, women who also experience marginalization based on race, religion, and other aspects of identity are even less likely to hold positions of leadership at IT firms (Tariq & Syed, 2017). Gendered stereotypes, bias, cultural expectations, familial responsibilities, and other factors contribute significantly to the gendered leadership gap (Diehl & Dzubinski, 2016; Marinakou & Giousmpasoglou, 2017).

One method of combatting inequality and discriminatory norms in the IT industry is by developing new empirical evidence and information about the experiences of marginalized leaders. By conducting research that elucidates the perspectives of female Muslim leaders in the IT sector, the researcher hopes to clarify how these underrepresented leaders apply a centered leadership approach. The IT sector is intertwined with many fields that rely on IT to operate and thrive, such as manufacturing and healthcare (Baller, Dutta, & Lanvin, 2016). Thus, addressing significant leadership disparities in the IT sector, a field that is anticipated to sustain growth in both the near and distant future, could be the key to improving gender equality among leaders in the broader global market (Tanwir & Khemka, 2018).

WHAT IS A “GLASS CEILING?”

A “glass ceiling” is a colloquial term used to reference a subvert system that favors a patriarchal view of leadership (Remington-Kitterlin-Lynch, 2018).



WHAT IS A “GLASS CLIFF?”

A “glass cliff” is a term used to describe the phenomenon that pushes women out or away from leadership positions, which is facilitated by male-driven environments, followed by the creation of obvious and subtle challenges that enable women’s performance to be compared to their male counterparts—and it is something that needs to be eradicated (Chrishom-Burns & Spivey, 2017; Davis & Maldonado, 2015; Eagley, 2007; Kulich et al, 2015; Silva et al., 2016; Peterson, 2016).



Women in the Workforce

WHAT PERCENTAGE OF WOMEN MAKE UP THE POPULATION?

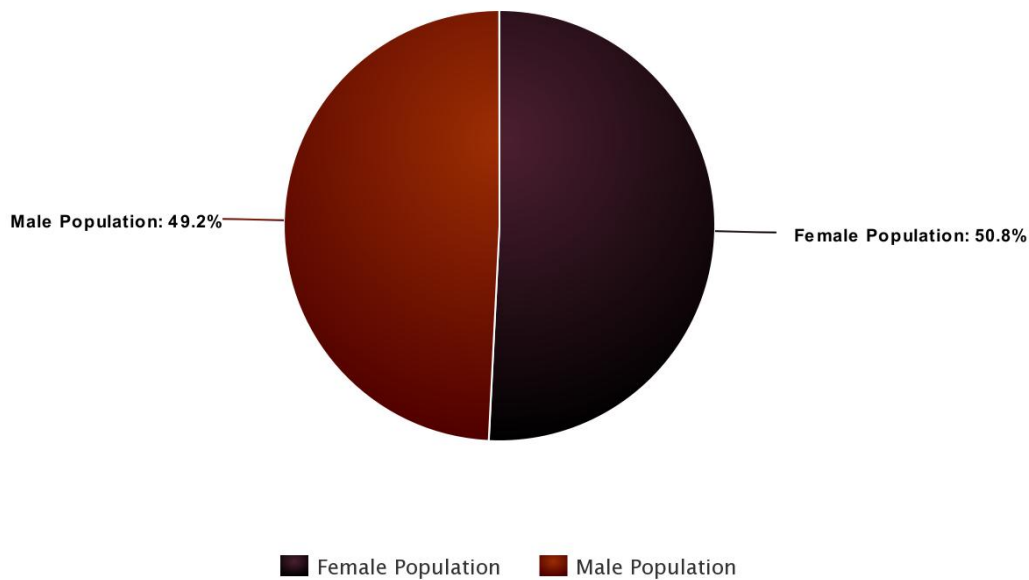


Figure 1. Percentage of Women in the US

In the U.S., women comprise the majority of the population—**50.8%**.

Source: American Progress

WHAT PERCENTAGE OF WOMEN MAKE UP THE WORKFORCE?

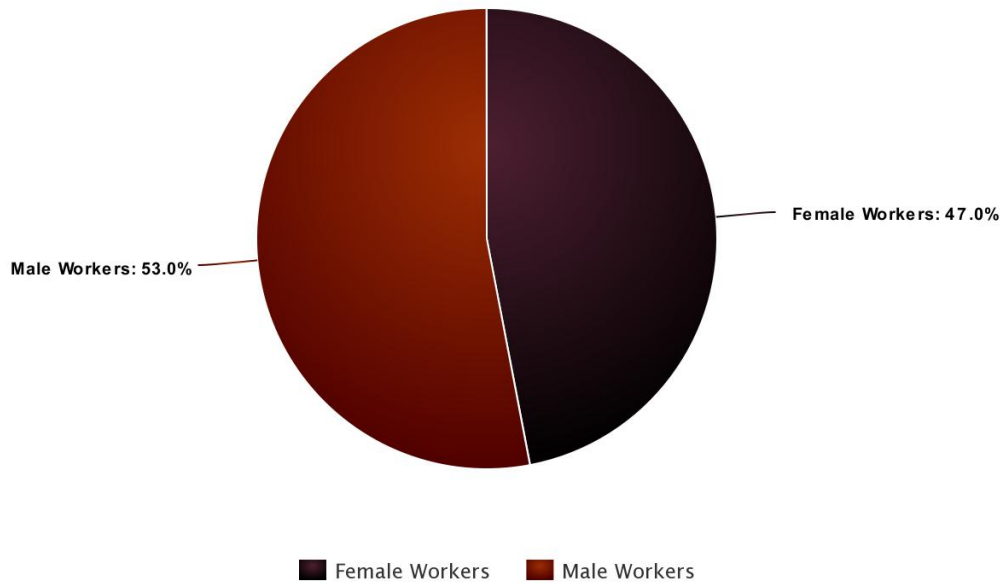


Figure 2. Percentage of Women in the US Workforce
In the U.S., women comprise **47%** of the workforce.

Source: American Progress

A CLOSER LOOK AT LEADERSHIP INEQUALITIES FOR WOMEN

- Few women are CEOs in the world's largest companies. In 2019, only **6.6%** of women, or 33 women in total, were CEOs of Fortune 500 companies.
- Worldwide, women represent **29%** of senior-level roles.
- In 2018, American women earned **\$0.82** for every **\$1** earned by men annually.

Sources: Catalyst, Grant Thornton, U.S. Census Bureau

Minorities in the IT Workforce

WHAT PERCENTAGE OF MINORITIES MAKE UP THE WORKFORCE?

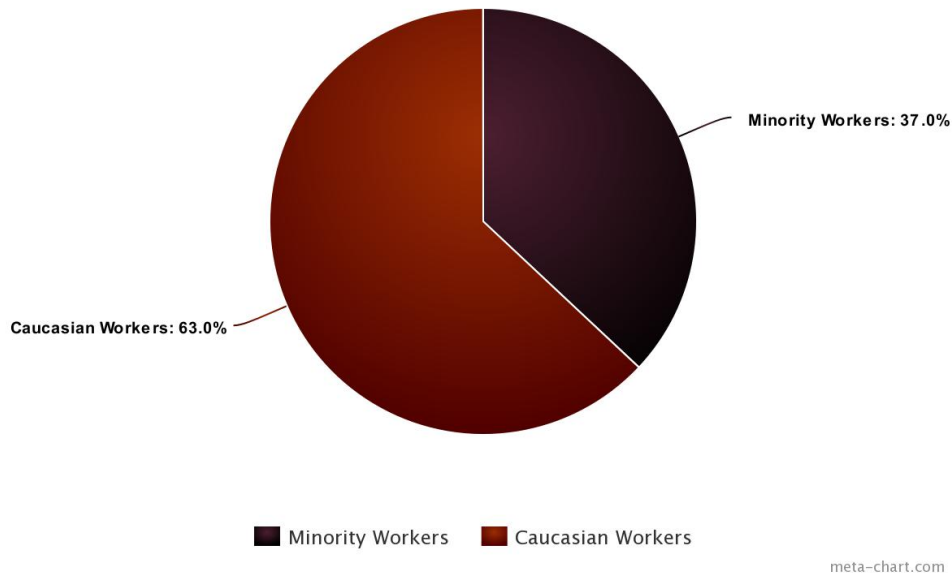


Figure 3. Percentage of Minorities in the US Workforce

In the U.S., minority workers, both male and female, comprise **37%** of the workforce.

In IT, women make up **36% to 48%** if the population

In the IT industry, the breakdown of races represented are as follows:

- **Caucasians, 63.5% to 68.5%**
- **Hispanics, 8% to 13.9%**
- **African American, 7.4% to 14.4%**
- **Asian Americans, 5.8% to 14%**

The statistics for Muslims in the IT workforce, including both men and women, are not even represented. This needs to change.

Source: ArchPoint Consulting, U.S. Equal Employment Opportunity Commission

PROBLEM STATEMENT

Though female leadership has become an increasingly common topic in recent years, female leaders remain significantly underrepresented in industries around the world (Javidan, Bullough, & Dibble, 2016; Marinakou & Giousmpasoglou, 2017). The current study takes place within the context of the information technology (IT) industry, a field that is notorious for organizational cultures that are unwelcoming to female leaders (Jenkins, 2017; Long, Segalo, & Laidlaw, 2016; Sargent, 2018). When considering leaders of Fortune 500 companies, only 24 were led by women as of 2015 (Barsh, 2015).

Among female leaders, women who are minorities based on race, religion, or other factors are even less common (Tariq & Syed, 2017). Data analyzed in 2017 revealed that of 289 executives overseeing top companies identified by the Financial Times Stock Exchange (FTSE), only 12 were held by women and only ten were held by ethnic minorities (Tariq & Syed, 2017). The lack of female leadership in a myriad of industries parallels a lack of extant literature concerning female leadership styles, female leadership in certain organizational contexts, and leadership by ethnic and/or religious minority women, among other subtopics (Latchanah & Singh, 2016; McGee, 2018). Thus, the problem this research is aimed at addressing is an existing lack of understanding concerning how female Muslim leaders use centered leadership in the information technology industry from their perspectives.

RESEARCH QUESTION

RQ1: How do female Muslim leaders perceive they utilize centered leadership in the information technology industry?

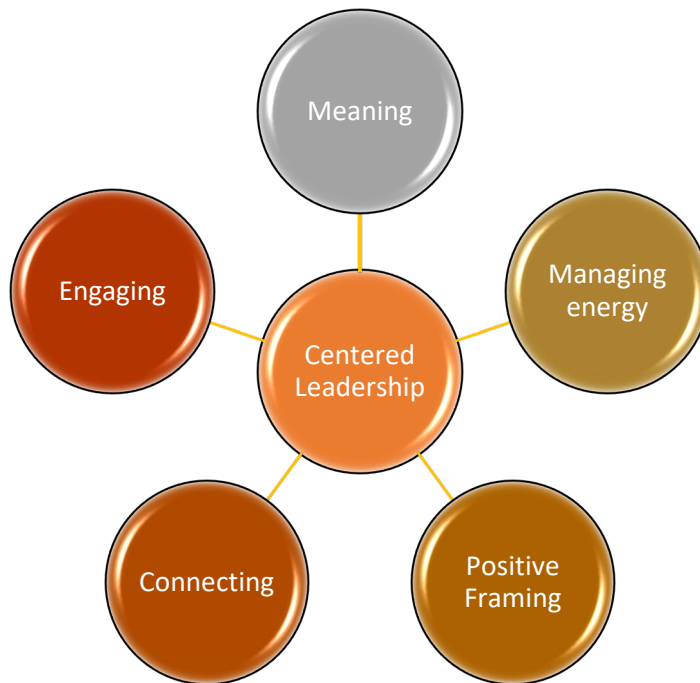
A CENTERED LEADERSHIP APPROACH

A solution to leading that can help female Muslim leaders to succeed

A centered leadership approach is a well-rounded strategy for leadership that can help female Muslim leaders in the IT industry to facilitate an environment that is effective, results-driven, and solution-oriented (Barsh & Lavoie, 2014). Centered leadership is the preferred leadership approach because, according to earlier research, it is particularly compatible with the strengths and weaknesses associated with female leadership (Barsh & Lavoie, 2014). Further, the concepts of centered leadership are most aligned with Muslim women in leadership roles, and the five elements of centered leadership, discussed in full in this section, are used to nest the practices of female Muslim leaders where their activities are aligned with the elements of centered leadership including engaging, connecting, positive framing, managing energy, and meaning.

WHAT IS CENTERED LEADERSHIP?

Centered leadership is a five-tier approach to leadership based on five dimensions: meaning, managing energy, positive framing, connecting, and engaging (Barsh & Lavoie, 2014).

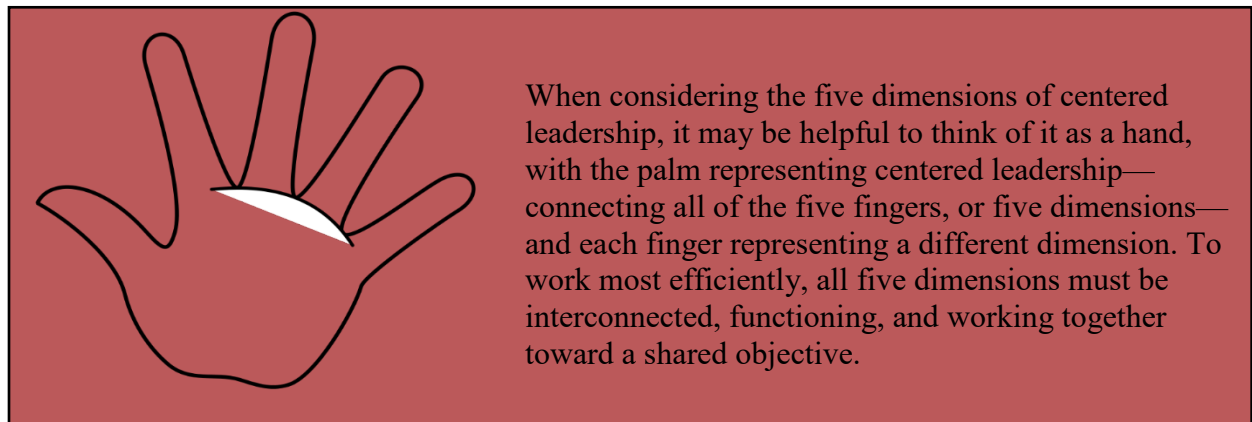


(Barsh & Lavoie, 2014).

Figure 4. Model of Centered Leadership

WHY IS THIS MODEL SIGNIFICANT TO MUSLIM WOMEN IN IT?

The centered leadership model addresses how components such as spiritual beliefs, religion, and gender influence leadership (Barsh & Lavoie, 2014). Spiritual beliefs can strengthen multiple dimensions of the model, as religiousness or spiritual beliefs may contribute to a person's development of self-identity, positive outlook, social network, and other factors associated with the model (Barsh & Lavoie, 2014). The model also demonstrates, in many ways, how gender can influence leadership experiences (Barsh & Lavoie, 2014). For instance, the lack of female leadership in many industries, IT included, may experience a second shift of energy that is often required for them to transition from leadership in their careers to serving as caregivers at home (Barsh & Lavoie, 2014).



Literature Review

In the United States, female leadership has grown rapidly. Academic researchers, such as Eagly (2007) noted that female leaders are documented as being incredibly effective leaders in the workplace. However, there are still some concerns with the representation of female leadership across the United States. Some examples of this are evident in recent analyses by the Center for American Progress (2018). In a 2018 report, the Center for American Progress noted that women make up 50% of the population in the United States. Additionally, 59% of all master's degrees are awarded to women. However, the same report documented that only in professions such as Academia, only 30% of professors are women.

Female representation in leadership has risen since the early 1990s; however, as of 2019, only 4.8% of Fortune 500 companies were lead by women (Pew Research Center, 2019). A recent assessment by Remington and Kitterlin-Lynch (2018) argued that women are still stuck underneath the “glass ceiling.” The glass ceiling is a colloquial term referring to a subvert system that favors patriarchal values of leadership (Remington & Kitterlin-Lynch, 2018). The same concerns of failure to equalize gender representation in the workplace are mirrored by multiple academic authors (Maida & Weber, 2019; Yu & Wang, 2018). Assessments of female leadership, across multiple fields, indicates that sexual harassment, sexism, prejudice, and continued questioning of female authority is an issue that continues to exist in the modern workplace (Hque & Tubbs, 2019; Kenny & Donnelly, 2019; Smith & Gayles, 2018).

In particular, the representation of Muslim female leaders in the United States is proportionally underrepresented compared to non-Muslim females and male leaders. The report from the Center for American Progress (2019) also noted that the only Muslim women in political leadership were Ihan Omar and Rashida Tlaib who were elected in 2018. However, in the same report, the mentions of Muslim women are absent. In a similar report, conducted by the Pew Research Center (2018), data concerning female leaders (particularly of Latino or white descent) were abundant, but discussion of Muslim female leaders was also absent. Assessments of the underrepresentation of Muslim female leaders are understudied in academic researcher. Some researchers have focused on how Muslim socio-cultural and religious values impact Muslim female leaders (Khalil & DeCuir, 2018; Vince, 2019). Popular media assessments, such as Medium, Fast Company (2019), and Forbes (2019), have highlighted Muslim female involvement in the computer science and information technology field. Indicating that Muslim female leadership in IT fields is common and growing each year. More commonly, female leadership is assessed from perspectives or racial inclusivity, that intermittently mention Muslim women (Dhillon, 2018). However, these assessments fail to assess why Muslim women are underrepresented in leadership. This issue is particularly concerning as there fails to be a representation of the unique struggles that some Muslim women face in leadership.

The understudied aspect of this issue also extends towards the issue of information technology (IT). Though some research has been extended towards assessing the experiences of Muslim women and leaders (Brooks, 2018; Dhillon, 2018; Schweisfurth, Davies, & Symaco, 2018), there is little research concerning how Muslim women experience leadership in IT-related fields. For this chapter, the information that is relevant to this study will be examined starting with the broadest concept of female leadership. Throughout this chapter, gaps in the literature will be

emphasized as they relate to the purpose of this study. As such, the following section presents a brief recap of the research problem before assessing the research gap as it pertains to this study.

PURPOSE OF THE STUDY

The purpose of this study is to assess Muslim female leadership in information technology (IT). Ideally, this study will further the understanding of Muslim women in IT. As this chapter illustrates, there is limited research regarding Muslim female leadership in IT. As such, this proposed study will ideally fill this gap and contribute to the academic understanding of Muslim women in the field of IT. The following section reviews the current gap in the literature that is relevant to the purpose of this study.


RESEARCH GAP

This section will demonstrate the research gap that is related to the purpose of this study which is to assess Muslim female leadership in information technology (IT). In terms of female leadership, there is ample research regarding multiple variables related to leadership, the glass, ceiling, and strategies for improvement. Within the past five years (e.g., 2015-2019), researchers have focused on the current state of female leadership in business organizations (Place & Vardeman & Winter, 2018).

In these examinations, female leadership is frequently focused on specific industries. For example, Place and Vardeman-Winter (2018) assessed how women experience leadership in the field of public relations. The authors noted that despite making headway in gender equality, women still face struggles in meeting the same pay and respect as their male counterparts. Similarly, Velte (2018) explored female leader experiences in CEO positions. Velte (2018) argued that women are increasingly experiencing a phenomenon known as the glass cliff, in which women are placed in leadership positions, but subjected to increased criticism and sexism- leading them to leave the positions (e.g, falling off of the glass cliff). Flabbi, Macis, Moro, and Schivardi (2019) explored the issue of female leadership in executive positions and noted that appointing women in female leadership positions has increased gender representation and firm performance.

However, in each of these assessments, the representation of gender equality of Muslim women is not discussed (Flabbi et al., 2019; Place & Vardeman-Winter, 2018; Velte, 2018). An examination of the representation of Muslim women in specific industries is greatly understudied. Other explorations of female leadership are more refined towards the lived experiences of women in the workplace. Syed, Ali, Hennekem (2018) assessed female experiences in Saudia Arabia to assess how their unique cultural experiences influenced their positions in the workplace. The authors found that women have advanced greatly in the workplace. Syed et al. (2018) argued for more research specific to cultural experiences. Similarly, Buse (2018) noted that women are underrepresented in academic fields. The authors explored the lived experiences of women, who argued that sexual harassment, prejudice, and sexism is a major obstacle to their success in academia.

However, in these examinations, the assessment of Muslim women is notably lacking. Examinations of female leadership specifically in regards to information technology are documented generally in academic research. Smith and Gayles (2018) noted that women are more frequently enrolling in engineering classes; however, they also found that women in engineering



experience increased harassment and discrimination. Similarly, Kenny and Donnelly (2019) noted that women in information technology experience increased gendered issues due to being surrounded by primarily male staff. Kenny and Donnelly (2019) also noted that there is a lack of support structures for women in the information technology field.

The experiences of female leadership towards Muslim women are notably limited in academic research. However, some studies have provided insight into the experiences of Muslim women. Tariq and Syed (2018) explored Muslim women's issues in employment and found that many women struggle to enter the workplace. The authors examined Muslim women in the United Kingdom and found that inequality is related strongly to prejudice that is related to gender, race, and religion. In the same vein, Haque and Tubbs (2019) noted that there are increased micro-aggressions and Islamophobia targeted towards Muslim women in the United States who are working towards their medical degrees. However, neither Haque and Tubbs (2019) and Tariq and Syed (2018) did not consider the experiences of Muslim female leaders in their explorations.


However, when searching for research regarding Muslim women in information technology there is a notable absence of literature. Some research has been conducted more generally towards Muslim women in technology and STEM degrees. For instance, Sani (2018) discussed the representation of women in Saudi Arabia and noted Muslim women are a growing population in STEM fields. Similarly, Islam (2019) noted that more and more Muslim women are navigating towards STEM fields in the middle east, Europe, and in the United States.

Problematically, these studies only point to increased enrollment of Muslim women in STEM-related fields, such as information technology; however, they fail to indicate how Muslim women experience leadership in IT fields. More research is needed to assess the experiences of female Muslim leaders in the information technology field. As such, this study will fill this gap in the literature by contributing to the understanding of how Muslim women experience leadership in information technology. Ideally, this study will fill this gap and provide a further understanding of the unique experiences of Muslim women who are professionals and leaders in the information technology field.

CONCEPTUAL FRAMEWORK

The conceptual framework of this study is the concept of centered leadership. This section provides a historical assessment of the concept, presents the usage of the concept in contemporary academic literature, and emphasizes the application of the concept of centered leadership towards the purpose of this study.

The concept of centered leadership has been used variably throughout academic research. Covey (1992) first noted that centered leadership, which he referred to as principle-centered leadership, referred to assessing personal strengths and applying these to the workplace. Other models have focused more specifically on the aspect of change or group-centered leadership, referring to the concept of centering leadership around changing an atmosphere or group learning (Gordon, 1995; Ekvall & Arvonen, 1991). In these previous assessments, the idea of centered leadership was vaguely defined and used for interchangeable contexts.




However, the concept of Centered Leadership was formally defined by Joanna Barsh and Johanne Lavoie (2014) in their seminal publication: *Leading with Purpose, Clarity, and Impact: Centered Leadership*. The concept of centered leadership is based upon five tenants, also referred to variably as dimensions. These include meaning, positive framing, connecting, engaging, and energizing. Meaning refers to the ability to find individual strengths and apply them to a workplace situation (Barsh & Lavoie, 2014). Positive framing refers to the aspect of understanding how to relate to your surroundings despite negative situations. Connecting indicates the ability to connect with a community, or your co-workers to increase your opportunities (Barsh & Lavoie, 2014). Engaging indicates the ability to consistently pursue opportunities. Finally, energizing refers to ensuring that you are not spreading yourself thin on the journey towards successful leadership (Barsh & Lavoie, 2014).

The concept behind centered leadership is that through the five tenants an individual can reveal their strengths and develop strategies to succeed within the workplace (Barsh & Lavoie, 2014). The concept of centered leadership has been applied significantly towards the field of female leadership (Barsh, Cranston, & Craske, 2008). In a publication concerning female leadership and centered leadership, Barsh, Cranston, and Craske (2008) noted the significant gap in the treatment of female leaders in the workplace (in comparison to male counterparts). Similarly, the authors pointed out that centered leadership, the process of incorporating personal values and strengths in the workplace, may allow women to succeed more fully in the workplace (Barsh et al., 2008).

The concept of centered leadership is particularly useful when examining the contemporary placement of female leaders and Muslim female leaders within this study. In terms of the application of centered leadership towards female leadership, there has been significant academic research. Farnsworth, Hallam, and Hilton (2019) noted that centered leadership is an effective model for improving the experiences of female leaders who are principles. The authors noted that centered leadership is useful for ensuring that the leaders are focused on their strengths and use these personal strengths to connect to their co-workers. Similarly, Hayashida (2019) focused on centered leadership for African American female leaders through exploring their lived experiences. The participants remarked that the use of centered leadership allowed them to excel through ensuring that they focused on balance and purpose in the workplace and focused on their inherent strengths. In the same vein, Syzmanska and Rubin (2018) noted that centered leadership is a useful conceptual framework for exploring gender relationships in the workplace. The authors argued that leaders who focus on the tenants of centered leadership excel due to their ability to focus on the importance of their leadership strengths.

However, the concept of centered leadership has yet to be applied to the concept of Muslim female leaders. Additionally, centered leadership has yet to be applied when considering female Muslim leadership in information technology. However, some studies are pertinent to the purpose of this study through the conceptual framework of centered leadership. Ezzani and Brooks (2019) noted that centered leadership is a useful model for assessing culturally relevant leadership. The authors noted that it is important to consider socio-cultural backgrounds when assessing the issues that leaders face. Ezzani and Brooks (2019) assessed these issues concerning Muslim-American students and noted that centered leadership was useful in considering their unique strengths while also remaining culturally relevant to the unique struggles that Muslim American students faced in the United States. Similarly, DeCuir (2019) examined how Muslim women experience emotional



mobility in the united states. The author (DeCuir, 2019) used centered leadership to frame the exploration of female Muslim participants. DeCuir (2019) noted that Muslim women face unique challenges, that may be enhanced by focusing upon their strengths that can be directly contributed to their work and social interactions.

Despite the explorations of Ezzani and Brooks (2019) and DeCuir (2019), there remains a lack of explorations that specifically focus upon Muslim female leadership in information technology. As such, the use of centered leadership serves as a useful model for exploring relevant leadership concerning Muslim female leadership in information technology. In particular, the conceptual framework will be used to guide the literature review and to guide the results of this study. Ideally, the utilization of this study will further the conceptual framework of centered leadership and provide a furthered understanding of how centered leadership can further the understanding of Muslim female leaders in information technology. The following section will provide a review of the search strategy utilized to find relevant literature within the modern timeframe for this research.

SEARCH STRATEGY

The search strategy for the following review of relevant literature included searching the following academic databases: Google Scholar, EBSCO, Science Direct, SpringerLink, JSTOR, EBSCOHost and Online Research Databases.

The following keywords were used to find relevant literature: female leadership, corporate female leadership, historical female leadership, Muslim leadership, female Muslim leadership, information technology, leadership in information technology, female leadership in information technology, Muslim leadership in information technology, female leadership in information technology, intersectionality, intersectionality perspectives on information technology, and Muslim intersectional perspectives on information technology. The aforementioned search terms yielded 85 peer-reviewed research articles. The following section will discuss the organization of the chapters and present the outline of the forthcoming sections. The next section will discuss the search organization of this chapter and provide an outline of the proceeding sections and sub-sections.

SEARCH ORGANIZATION

This chapter is organized in the following manner. First, a section is devoted to exploring the broad issue of female leadership. This will provide a basis of knowledge towards female leadership in the United States. After this, an examination of Muslim leadership is provided. This section discusses the representation of Muslim individuals in leadership in the United States. The following are narrow topics related to the purpose of this study. This includes Muslim leadership in information technology and finally, female Muslim leadership information technology. After the discussion of each of these topics, a summary and conclusion are provided to emphasizes the salient points and reinforced the need for this proposed study. Next, the following section will review the literature that is relevant to the proposed study.

LITERATURE REVIEW

The following section initiates the literature related to the purpose of this study. This literature first begins with broad subjects and will then narrow down into literature that is focused on the purpose of this study. The first section of this literature review presents the understanding of female leadership and the contemporary experiences of women in the workplace.


FEMALE LEADERSHIP

This section explores female leadership in the workplace. The advent of women being legally allowed to join the workforce was not until 1920 in the United States; however, it would not be until the 1960s that women would be given equal entry pay rates (Parpart & Stichter, 2016). The entry of women into the workplace, legally, did not end the sexism in the workplace. Multiple researchers, since the 1960s and 1970s, have researched the experience of women in the workplace and documented their struggle for equality (Parpart & Stichter 2016).

For example, Dean and Jayachandran (2019) examined how female employment has changed in India since the legalization of female working. Dean and Jayachandran (2019) argued that despite the legalization, women still face issues in achieving leadership roles and experience harassment from their workers and family for working. Similarly, Kneebone and Wilkins (2018) examined international employment trends for women. The authors found that internationally, more women are entering the workplace than compared in the last decade. In all, Canada presented with the highest female employment rates. However, women are still not offered as many leadership opportunities and experience an unequal wage gap compared to their male counterparts (Kneebone & Wilkins, 2018). In the same vein, Perivier and Verdugo (2018) examined employment markets to examine gender equality. The authors examined international gender gaps and found that female involvement in the labor market is increased, but leadership roles for women are lagging behind male counterparts.

Though women have made headways in the United States workforce, there are still issues with the representation of women in leadership roles. Several authors have examined this issue. For example, Tate and Yang (2015) examined female leadership by exploring the displacement of plant workers that were displaced and looking for work due to the closure of the plant. The authors examined panel data to assess how women and men fared in the light of losing their jobs due to the closure of the plant. The authors found that women who left the plant were less likely to find similar leadership roles (in comparison to the leadership roles they had at the closed plant). In particular, Tate and Yang (2015) found that female-led plants were more likely to hire women, while, male-led plants were less likely to hire women. Similarly, Sidani, Knorad, and Karam (2015) examined the factors that impact female leaders in the workplace. To accomplish this, the authors interviewed female leaders and analyzed their responses thematically. Sidani et al. (2015) reported that patriarchal structures lean towards favoring men over women in the workplace and subsequently lead female leaders to face more challenges than their male counterparts. The authors also reported that female leaders are often assigned “mothering” roles (e.g, organizing a party) by their male colleagues, indicating that they are taken less seriously than their male co-workers (Sidani et al., 2015).

Despite the problematic occurrence of sexism in the workplace, authors such as Downs, Mathad, Reif, and McNairy (2016) noted that promoting female leadership only leads to positive outcomes




for business organizations. The authors examined female leadership positions in global health organizations and assessed the outcomes of female leaders who have had sufficient time to implement policies and actions to impact business organizations (e.g., 2+ years). Downs et al. (2016) noted that female leaders were successful in implementing structures that were useful and productive for business organizations. The authors argued that this ideally hiring more female leaders will only result in positive changes and eventually lead to increased gender equality within the field of global health (Downs et al., 2016).

Other studies have examined how women fair in leadership roles. Examples of this included direct comparisons that were designed to assess if male or female leadership was more, or less useful (Chapman, 1975). However, contemporary literature within the past five years (e.g., 2015-2019) has focused on assessing the disadvantages that women face in entering leadership roles. Eagly (2004) examined the experiences of female leadership and assessed the advantages and disadvantages that are frequently discussed in the academic literature concerning female leadership. Eagly (2004) noted that previous literature has often compared female and male leadership and has failed to focus on how women experience the issues of leadership in the workplace. The author argued for further research that takes a more critical look at the disadvantages that women in the workplace face and how these can be ameliorated (Eagly, 2004).

One of these disadvantages is the “glass ceiling” which is a term that defines a subvert patriarchal limit to what a woman can achieve in the modern workplace (Davis & Maldonado, 2015). Davis and Maldonado (2015) examined the phenomena of the glass ceiling in terms of African American women in higher education by conducting interviews with participants and thematically analyzing their responses. The authors found that African American women expressed having to work significantly harder than their male counterparts on the journey to their leadership positions; however, they also expressed communal feelings with their female cohort that has allowed them to create more gender-equal workplaces and environments. The authors argued that perseverance is a key element of women who can achieve as leaders, however, women are still subject to harder conditions to reach leadership positions than male counterparts (Davis & Maldonado, 2015). The phenomenon of the glass ceiling is similarly studied by Chrishom-Burns and Spivey (2017). The authors examined research related to female leadership roles in the United States and compared this with a systematic review of current literature related to the barriers of women in the workplace. The authors noted that despite high numbers of women working, the barriers that they face are challenging. According to Chrisholm-Burns and Spivey (2017), this includes overt and subvert sexism, which includes increased pressure to adopt traditional “male” characteristics to fit into the workplace. In the same vein, Silva, Preminger, and Slezak (2016) examined the glass ceiling for women attempting to rise to leadership positions within the field of plastic surgeons. The authors noted that in the field of plastic surgery, there is an underrepresentation of female leaders. The authors examined interviews with female students who desired to be plastic surgeons and enter leadership roles. The authors found that women faced unique challenges included a male-driven environment that did not foster female involvement. Silva et al. (2016) argued that the field of plastic surgery needs to change their workplace and academic environments to be inclusive towards female students and leaders.

The glass ceiling is one term that is used to explore the challenges that women face in the workforce. However, the glass cliff has been a recent term used to describe specifically the



challenges that female leaders face. One example of this was provided by Peterson (2016) who describes the glass cliff as a phenomenon that “pushes” women out of (or away from) leadership positions. This is accomplished by initiating male-driven environments, and by creating challenges (both overt and subvert) that enable their performance compared to their male counterparts. In particular, this phenomenon occurs by placing them in positions of leadership when a particular organization is in a dire position and has a series of challenges that could lead to the failure of the female leader. This assessment is mirrored in Kulich, Lorenzi-Cioldi, Lacoviello, and Faniko (2015) who noted that there are multiple documented cases of the glass cliff phenomenon which included the issue of appointing female leaders to positions that have unique challenges that will ultimately choose to make significant changes or to move to a new position or organization. Examples of this phenomenon are evident in the work of Main and Gregory-Smith (2018), who examined the glass cliff phenomena in relation to the historical records of United Kingdom business organizations. The authors found that female leaders, appointed in times of business crises, experience more board room exits than male leaders appointed in similar times of crises (Main & Gregory-Smith, 2018).

Overall, female leaders experience different challenges than men do in the workplace. This is evident from the literature from multiple authors. Liu (2019) noted that female leaders face increased gender stereotypes and challenges. The authors examined the lived experiences of female leaders to assess their perspectives on female leadership. The participants remarked that they frequently experienced gender harassment and stereotyping in the workplace. Liu (2019) noted that women who worked with other female leaders remarked feeling increased support and decreased harassment. One example of the challenges that female leaders face was provided by Cline, Rosson, and Weeks (2019). The authors explored challenges by forming a panel of female leaders in the agricultural region. The participant responses in the panel were used to assess challenges and solutions to mitigate issues. The panel participants remarked that they did face challenges that they did not witness their male coworkers experiencing, such as sexism, stereotyping, and questioning their abilities (Cline et al., 2019). However, the panel also remarked that expressing their experiences with other women helped them to discuss models for mitigating the issues.

Glass and Cook (2016) also examined the challenges that women face as leaders in business organizations. Differing from previous assessments, the authors also examined the factors that may contribute to the challenges that women face. To analyze these, the authors assessed the career trajectories of female leaders in CEO positions and interviews with female executives in multiple fields. Some of the challenges that were remarked by the participants were that they had short tenures compared to men and that they felt that their authority was often challenged by their male counterparts. Participants also reported that they felt that they had more pressure and scrutiny from their male subordinates and colleagues. Some of the factors that they argued contributed towards these issues was a traditional patriarchal work environment that was unaccustomed to female leadership (Glass & Cook, 2016).

To summarize, despite the advent of women’s rights, sexism is still rampant in the workplace (Parpart & Stichter, 2016). The authors reviewed in this section noted that harassment and sexism present as a challenge for women to enter into leadership roles (Dean & Jayachandran, 2019). Additionally, women are offered leadership positions at lower rates than men when assessing

international gender employment statistics (Kneebone & Wilkins, 2018; Perivier & Verdugo, 2018). Despite these challenges, women are entering leadership positions at higher rates than in previous decades; yet, female leaders still face issues in achieving similar pay and opportunities as their male counterparts (Sidani et al., 2015; Tate & Yang, 2015). These include issues of sexism, harassment, prejudice, and continually questioning of their authority (Downs et al., 2016; Sidani et al., 2015).

In particular, women are placed in leadership positions at precarious points of time in business organizations, pushing them off of the glass cliff (Kulich et al., 2015; Peterson, 2016). The assessments that were reviewed in this literature indicate that women face unique challenges in the workplace, which at times, disadvantage their ability to reach and stay in leadership positions. Yet, the majority of female leadership studies group race and religion as a monolithic group. This shows general perceptions of the challenges that women face, but also ignore the unique challenges that women of color experience in leadership studies. The information garnered in this section indicates the need for a furthered assessment of female leadership in terms of Muslim women to assess their experiences and add to the current literature. Now that the current state of women in leadership has been reviewed. The place of Muslim leadership in the United States.

MUSLIM LEADERSHIP

As there is limited information related to female Muslim leadership, the literature reviewed here will focus on both the experiences of male and female Muslim leaders in the United States; however, future sections will examine the experiences of female Muslim leaders in information technology. However, within this section, significant effort is made to focus on female Muslim leadership when available within academic literature. Additionally, a few sources here are from more dated literature (e.g, previous to 2015) due to the lack of necessary literature to assess the phenomenon of Muslim leadership.

There have been multiple assessments of Muslim leadership that include a focus on specific countries, such as the United States. For this section, information internationally will be included as literature is limited regarding Muslim (particularly female) leadership. One example of leadership studies assessing Muslim leadership was provided by Hertz-Lazarowitz & Shapira (2005). In this study, the authors examined how Muslim women experienced leadership by exploring their lived experiences. The authors performed a two-year ethnographic observation study. The female participants held teaching positions in Israeli-Arab segregated schools. Ethnographic data and participant's data revealed that women carefully navigated the boundaries of their family desires, male colleagues, and socio-cultural expectations of their leadership skills. Each of the women remarked that they did have traditional home and life values, but their leadership roles required establishing independence within their work environments, which at times was challenged due to a mostly patriarchal setting. However, the authors argued that future studies should explore female Muslim leaders from their lived experiences to fully assess their cultural background, their unique experiences, and challenges (Hertz-Lazarowitz & Shapira, 2005).

In a similar study, Sohrabi (2016) examined Muslim leaders who were located in Australia. The authors conducted interviews with 30 participants to gain their perspectives as Muslim leaders in Australia. Participants were mostly men and women. The participants remarked that they did

experience some challenges due to Islamophobia, however, they were able to establish lasting relationships within their workplace that increased their success within their leadership roles. The participants did remark that the government of Australia, anti-Islamophobia strategies, did seem to help them to gain a support group of individuals that supported their leadership without prejudice. However, the study did not assess how Muslim women (if they did) experienced challenges as leaders. Conversely, Akbarzaedh (2016) assess Muslim employment in Australia and found differing results from Sohrabi (2016). Akbarzaedh (2016) examined Muslim individuals in Australia through participant interviews and found that many individuals experienced extreme harassment and prejudiced from non-Muslim individuals. Though this study does not specifically examine leadership, it is important to note that Muslim individuals face varied experiences in employment that are expounded by troubling issues of racism and prejudice (Akbarzaedh, 2016). This also raises the question of how female leaders in Australia, or other countries, deal with Islamophobia and alienation in the workplace. Indicating the need for further research, such as this study, addressing this issue.

Other studies have assessed Muslim experiences from a standpoint of Intersectionality. Intersectionality refers to the examination of an individual's experience while acknowledging that race, religion, and gender, play unique factors in a person's experiences in socio-cultural settings (Tariq & Syed, 2017). Tariq and Syed (2017) studied Intersectionality in the workplace by exploring South Asian Muslim women's experience being employed in the United Kingdom. The authors did not specifically address Muslim female leaders, but they did note that many of the participants were struggling to enter leadership positions in their current employment. Participants that were interviewed remarked that they did face challenges in prejudice, Islamophobia, and sexism. However, women in the participant group noted that one way for them to overcome this was by developing unique groups of similar women, and Muslim women, who they could connect with and provide support to each other. However, the study of Tariq and Syed (2017) indicates that Muslim women face challenges that are mirrored from the same studies aforementioned regarding female leadership but are also intensified due to their status as minorities in the United Kingdom.

Other assessments towards female Muslim leadership, include explorations of experiences in academia. Almaki, Silong, Idris, and Wahat (2016) examined Muslim academic leaders in Saudi Arabia through a series of semi-structured interviews. The authors attempted to understand how Muslim female academic leaders experience leadership and if they face challenges that are documented in previous leadership research. Participant interviews revealed that leadership was experienced differently by each individual; however, similarities were identified in the need to identify a group that could increase solidarity and a sense of belonging for Muslim female leaders. Notably, Almaki et al. (2016) noted that Muslim female leaders experience similar elements of sexism and harassment as noted in previous literature, however, it is variably intensified with racism and prejudice by their subordinates and co-workers.

A similar assessment was provided by Asmi and Cladwell (2018) who examined Muslim perspectives of leadership. Participants for the study were located in Oman. The authors argued that it was important to consider the unique cultural factors that Muslim individuals may experience during leadership; however, female leadership was not a focus of their study. The authors based their assessments upon participant interviews with Muslim leaders. They found that

culturally, Muslim leaders are focused on short-term goals and place high value towards community and family, which strengthens their bond with their co-workers and creates strong objectives that strengthen the entire company. Asmi and Cladwell (2018) argued for further studies that assess the cultural context of Muslim leaders.

In sum, multiple studies assess Muslim leadership; however, these studies often group Muslim experiences and do not assess how these experiences are experienced differently by Muslim women. The information in these studies also indicated that Muslim leaders face various challenges such as Islamophobia and racism (Akbarzaedh, 2016; Hertz-Lazarowitz & Shapira, 2005; Sohrabi, 2016). However, the reviewed studies are guided towards viewing Muslim experiences as monolithic, ignoring, how these experiences may change in specific fields. As such, the next section will turn to assess studies that have examined Muslim experiences in information technology.

MUSLIM LEADERSHIP AND INFORMATION TECHNOLOGY

This section will assess information technology regarding Muslim leadership. There are limited assessments of information technology regarding Muslim leadership (for both men and women). As such, information technology-related fields, such as STEM, will be included in this section. These studies are included as a means to contextualize how Muslim individuals experience leadership in technology-related fields. Similar to the previous section, some literature from before 2015 was utilized to ensure that a robust analysis of Muslim leadership in IT analyzed. This was a needed search strategy as a search of 2015-2019 did not provide sufficient information for the assessment of the phenomenon of Muslim leadership.

One of these examples is Al-rahmi, Zeki, Alias, and Saged's (2017) exploration of an Islamic perspective of the field of IT. In their assessment, Al-rahmi et al. (2017) performed a thorough systematic review to assess cultural perspectives in the field of IT. The authors found that an increasing number of publications, from 1992 to 2016, were from Islamic based countries and authors regarding IT. The authors noted that their contributions have been impactful towards the innovation of information technology. However, Al-rahmi et al. (2017) noted that Islamic based studies were considering areas such as Malaysia and Iran; however, more research was needed to consider other countries. The authors' research is not directly related to leadership studies; however, their work indicates that Muslim individuals are directly involved in the IT field. In fact, 155 articles from the studied period were assessed. Indicating, that the understudied aspect of Muslim leadership is directly contradicting the dearth of research from Muslim leaders in the IT field.

Similar to the previous section, Intersectionality is a variable that is commonly assessed when examining information technology, which also includes Muslim individuals. Truath, Cain, Joshi, Kvansy, and Booth (2012) examined the place of intersectionality in the field of IT. The authors noted that there is an increased need to assess how minorities and specific genders (e.g., female and nonbinary) report their experiences in the IT field. As such, the authors explored the interviews with minorities and male and female individuals within the IT field. The authors found that males in the group did not remark that IT skills were guided towards men; however, women did feel that they had to fight more for their perceived intelligence in their field. Though Truath et al. (2012) noted that there is a need to explore intersectionality, they did not explore the specific experiences

of Muslim individuals. As noted in, Al-rahmi et al. (2012) there are numerous individuals of Muslim identity that are in IT; yet, studies related to Muslim leadership in IT are absent in academic literature. A similar assessment, provided by Whitney and Taylor (2019) noted that the field of information technology has room for improvement regarding inclusive and diverse spaces for minorities and women. The authors based their assessment on two IT experts who discussed the current state of the field of IT. The experts remarked that there is an increased need to consider inclusivity and diversity in the field of IT (Whitney & Taylor, 2019). Though it is important that push for diversity is considered in the field of IT, the assessment did not include a consideration of Muslim individuals or Muslim IT leaders.


To summarize, there have been limited explorations of Muslim leadership in information technology. The assessments that were reviewed in this section individual noting that there are multiple publications from Muslim authors and countries (Al-rahmi et al., 2017), but studies assessing Muslim leaders' lived experiences specifically in IT are absent. Similarly, Truath et al. (2012) noted that there are limited assessments of minorities in the field of IT despite the known enrollment and employment of minorities within the field. Whitney and Taylor (2019) similarly noted that the field of IT has yet to improve diversity and inclusivity measures, which is reflected by the absence of literature concerning Muslim leadership in IT.

FEMALE MUSLIM LEADERSHIP AND INFORMATION TECHNOLOGY

Similar to the exploration of Muslim leadership in information technology, there is a significant gap in the literature concerning Muslim female leaders in information technology. As such, literature that discusses Muslim involvement in IT will be considered in this section. In some cases, this includes an examination of STEM and science studies to contextualize the understanding of Muslim women's experiences in IT and related fields. However, the notable gap in the literature concerning Muslim female leadership in IT indicates the need for this proposed study as this issue is currently understudied.

One study, completed by Hassan, Al Marzouqi, and Forster (2011) examined the representation of women within the IT sector in the United Arab Emirates. For their study, the authors interviewed 20 women within the IT industry, with over five years of experience. The authors noted that participants remarked that they have faced unique cultural and familiar challenges in reaching their career goals. The participants remarked, that for some women in the United Arab Emirates, the lack of IT representation may be related to these struggles. The authors' study did not address specifically Muslim female leaders; however, their study is a useful examination of the issue of underrepresentation in the IT sector.

Problematically, a search for information related to Muslim women in IT, and Muslim women in IT leadership revealed little information. As such, the search year was widened to before 2015, but results were still sparse. A few examples from the literature may explain this absence of literature. For example, Mozaffarian and Jamali (2008) examined the representation of women in science in Iran and Islamic countries and noted that studies assessing Muslim female involvement are strikingly absent. The authors assessed this by conducting a review of Iranian authors in the year of 2003. Out of these articles, only 6% were female authors. Mozaffarian and Jamali (2008) argued that there is a need for more studies to examine the underrepresentation of Muslim women in Muslim countries and non-Muslim specific journals.



Wyche (2004) performed a similar assessment of African American Muslim women and noted that they are considered an “invisible” group when examining academic literature and representation in leadership. Wyche (2004) argued that previous literature has focused mainly on male leaders and has ignored Muslim women, especially African American Muslim women. Wyche (2004) further noted that the underrepresentation of Muslim women in literature only furthers to enable the creation of support structures and policies and procedures that could aid their growth in computer science fields. Wyche (2004) argued for further studies to address this issue by exploring the lived experiences of Muslim female leaders in the field of computer science and other science-related fields.

One notable study was conducted by Lagesen (2009) examined the Malaysian women’s experiences in computer sciences and provided valuable information for this study. Lagesen (2009) noted that there is a low number of women in computer science globally. However, in Malaysia women are in computer science in large numbers. The author performed an analysis of current literature, combined with assessments of gender perceptions of technology in Malaysia compared to other countries. Lagesen (2009) argued that Malaysia has a less dominant ideology of masculinity when considering computer science. After the author conducted a systematic review, data were collected from interviews with 20 female computer students. These included undergraduates and master’s students. Participants remarked that their choice to be in computer science was partially guided by their families and also the attractive job market. Lagesen (2009) argued that many of the Muslim women in the participant group remained compliant to their families, but also developed their independence in the field of computer science. However, the author's study did not specifically assess IT, or female Muslim leaders in IT. As such, the following section will now present the summary and conclusion of the studies that were reviewed in this section.

One useful study was conducted by Computer Science (2019) to examine why women are underrepresented in Information Technology. According to the report, the wage gap between genders in IT is less than any other field, which ideally would attract women to the computer science realm. However, in the same report, only 18% of women gain computer science jobs, such as IT jobs, in the United States. Similar to other reports examined, women of color and Muslim women were not a focus of the assessment.

However, the low number of women in computer science is an area that deserves further academic attention. One other report, that is not peer-reviewed, but deserves attention due to the lack of peer-reviewed literature related to Muslim women, is published by Medium in 2019. Medium is an online publication that highlights women of diversity and gender inclusivity. In their article, they highlight five technological Muslim female leaders. This included women such as Mariam Mohamed, a computer science graduate student who works as a project leader at DTE Energy. In the assessments of each woman, small excerpts were included to highlight their experiences in IT. One comment, by Faten Hijazi a program manager at Google, is useful for this assessment:

“In that industry, few women hold that kind of role. My gender suddenly had become very apparent to me in a way I did not feel in engineering. As an engineer, I was judged on my technical deliverables. In business, I was judged by what people thought I could do. As a Muslim woman of color who wore hijab, I looked very different than my male counterparts. My power and authority were often under scrutiny. Yet I had a business to manage.”

This assessment by Faten Hijazi (2019) is a useful example of the ideal exploration that should be represented in peer-reviewed academic literature. However, the representation of Muslim female leaders in IT is limited to showcases such as these provided by Medium (2019) online publication. Additionally, it appears that peer-reviewed literature has yet to catch up with the assessments available in popular media.

For example, a recent publication in Fast Company (2019), noted that Muslim women are now starting to move to the United States to enter the tech industry. As a result, the U.S. State Department created a special program that is designed to mentor Muslim women and provide them with opportunities for excelling in technology (Boyd, 2019). Companies that took part in the mentoring program included Google, Facebook, Yahoo, HP, IBM, and Microsoft (Boyd, 2019). These initiatives ideally provide a place for Muslim women to excel in computer science and IT and establish long-term careers. Additionally, the program is focused on providing opportunities for female leadership, that many women would not be afforded. This program indicates that Muslim women are involved in IT and computer science fields; however, this assessment has yet to be represented in academic literature.

A similar assessment useful for this study is a review of Hedra Yusuf who works at iCog as a coder and IT specialist. In the review article, Yusuf remarked the following: As a devout Muslim, who grew up in the northern part of Ethiopia in which Islam and Christianity coexist, she hasn't felt excluded. However, it has been a challenge to find a time and place to pray. “We Muslims do pray five times in a day, and two of my prayer times were during my working time,” she explains. Yusuf reserved lunch and tea breaks to pray but has had to look for quiet places. “While I was in iCog Labs,” she says there was a designated spot, “and I am thankful for that.”

Yusuf further remarked that as a Muslim woman in IT, she tries to connect with other Muslim women and provide support groups to encourage female solidarity in the male-dominated field (Bessi, 2019). The remarks of Yusuf (2019) indicate that exploring the lived experiences of women in IT could provide a further understanding of their challenges and support systems. Unfortunately, the assessments provided by Yusuf and Hijazi are not represented in academic literature. These two reports are provided by online publications that highlight diversity and female empowerment. However, these reports are not peer-reviewed and indicate the need for furthered research, such as this proposed study to fill this gap in academic literature and provide a robust academic examination of Muslim female leadership in IT.

To conclude, female Muslim leadership in IT is notably limited. Studies specifically related to Muslim female leaders were not identified in academic literature; however, some studies were available that assessed Muslim women's experiences in IT and science-related fields. However, the studies reviewed were generalized and did not provide specific examinations of how Muslim female leadership reported their experiences in IT. Hassan et al. (2011) identified that there is an underrepresentation of women in the IT sector; however, in the United Arab Emirates, some Muslim women are working within the field. In Malaysia, Muslim women are increasingly joining the IT field; however, studies assessing female leadership in Malaysian IT fields are also absent in academic literature (Lagesen, 2009).

Similarly, in a review of Muslim women in Iran journals, only 6% were women. Wyche (2004) corroborated that Muslim women, especially African American Muslim women, are significantly understudied in academic literature. This gap further emphasizes the need for this proposed study. The lack of literature concerning Muslim female leadership or Muslim female involvement in IT requires furthered academic research to represent the experiences of Muslim women in IT leadership. Ideally, the purpose of this study, which is to explore Muslim female leaders in IT, will address this gap and provide useful information regarding the lived experiences of Muslim women in IT.

SUMMARY AND CONCLUSION

The problem that this study will address is the phenomenon of Muslim female leadership in information technology (IT). This literature review provided a comprehensive overview of female leadership, Muslim leadership, and female Muslim leadership in contemporary academic literature. First, the research gap was identified and related to the proposed problem statement. This included noting that leadership studies within the past five years (e.g., 2015-2019) are focused on female leadership in business organizations, but fail to consider female Muslim leadership in IT. Next, an assessment of the conceptual framework for this study was discussed. The concept of centered leadership was reviewed and discussed as it applies to the exploration of the problem statement.

The first section of the literature review discussed female leadership in contemporary literature. This included assessments that originated shortly after women gained the legal right to work in the 1920s (in the United States) (Parpart & Stichter, 2016). The most salient points from this section included the challenges that women face as leaders in the modern workplace. In fact, despite the now longstanding establishment of women's rights, there is still a strong issue with the representation of female leaders in the workplace (Dean & Jayachandran, 2019; Perivier & Verdugo, 2018).


In fact, in the United States women are noted to be less likely to receive leadership roles, and if provided such roles, are challenges with harassment, sexism, and prejudice (Downs et al., 2016; Sidani et al., 2015; Tate & Yang, 2015). In this vein, challenges that women face include attempting to break through the glass ceiling, or being pushed off the glass cliff due to a male-driven and patriarchal work environment (Chrishom-Burns & Spivey, 2017; Davis & Maldonado, 2015; Eagly, 2004; Kulich et al., 2015; Silva et al., 2016; Peterson, 2016). The specific challenges that women face include gender stereotypes (Liu, 2019), sexism (Cline et al., 2019), and continuous questioning of their abilities as leaders (Glass & Cook, 2016).

Despite the robust knowledge regarding the representation of women in the workplace and the struggles and achievements of female leaders, literature is notably lacking regarding Muslim leadership. The following section of the literature review examined Muslim leadership, including both male and female considerations. In this section, a substantial gap was identified concerning Muslim leadership. Some authors noted that Muslim leadership is still constrained by cultural and familial values (Hertz-Lazarowitz, & Shapira, 2015). However, others argued that in Australia, Muslim leaders can form strong bonds together and succeed in their industries (Sohrabi, 2016). Yet, other authors noted that Muslim leaders in Australia face significant challenges due to severe racism and Islamophobia (Akbarzaedh, 2016). Similarly, reviewed literature indicated that Muslim leadership is often challenged by the issues of racism and Islamophobia (Asmi & Cladwell, 2018). However, assessments that specifically explored Muslim leadership perspectives were still notably limited in comparison to a general assessment of female leadership.

The final two sections assessed Muslim leadership in IT and female Muslim leadership in IT. These assessments revealed the most notable gaps. For Muslim leadership in IT, the assessments were limited to exploring the underrepresentation of Muslim individuals in IT literature (Al-rahmi et al., 2017; Truath et al., 2012; Whitney & Taylor, 2019). However, when assessing Muslim female leadership in IT, there was little information. The only information that was garnered was that Muslim women in specific countries (e.g, Malaysia and the United Arab Emirates) are growing; however, they still appear to face constrictions from their family (Al Marzouqi & Forster, 2011; Lagesen, 2009; Mozaffarian & Jamali, 2008).

Studies examining Muslim female leadership in IT were not identified in contemporary literature. Some useful examinations were identified from online publications such as Fast Company (2019) and Medium (2019) highlighted Muslim women in information technology. These were useful for emphasizing that Muslim women are in-fact leaders in technology. The articles highlighting women are useful for assessing that Muslim women are willing to report on their experiences and discuss their challenges and their support systems. However, these experiences are not discussed in peer-reviewed literature. It is unclear why literature is limited in academic assessments in the past five years (e.g., 2015-2019). To attempt to ensure that all literature was assessed, articles from before 2015 were included; however, there remained an absence of literature assessing Muslim female leaders in IT.

Overall, the information reviewed in this literature revealed a significant gap in the understanding of female Muslim leadership in the IT sector. The literature on Muslim female leadership was also rare in academic research. This proposed study will ideally fill this gap by providing a furthered understanding of Muslim female leadership in the IT field. Additionally, this study will contribute to the understanding of the unique experiences of Muslim women who serve as leaders. Previous literature has noted that women face significant challenges in the workplace. As such, this study will ideally contribute to the unique, if any, challenges that Muslim women face as leaders in the IT workplace. Lastly, exploring the experiences of Muslim women in IT will further the understanding of how these experiences change, if at all, in comparison to previous studies of non-Muslim female leadership.



As such, the following chapter will introduce the methodologies for collecting data for this study. As this study is phenomenological, details will be provided regarding participants and the methods used to examine resultant themes collected from participant data. In the next chapter the limitations, assumptions, delimitations, and ethical concerns associated with this study are also reviewed.

Processes for Data Collection and Analysis

The purpose of this literature-based capstone is to establish the links between how Muslim women lead and the practice of centered leadership through the exploration of extant literature related to the topic. The review of literature on the topics of Muslim women in leadership roles and the key factors of centered leadership is the focus of how a model of leadership is established. Through the inclusion of literature from several different sources (professional trade journals, books, scholarly journal articles) a broad understanding of the practical and scholarly response to the application of centered leadership has formed can be established in terms of how the practice of centered leadership fits within the context of Muslim women. A literature review approach to the topic of centered leadership is the preferred approach in comparison to other forms of research because of the findings from previous research where concepts related to Muslim women in leadership roles and centered leadership can lead to the development of an evidence-based model which can inform on how Muslim women may practice leadership in effective ways. The five elements of centered leadership are used to nest the practices of Muslim women leaders where their activities are aligned with the centered leadership factors of positive framing, connecting, engaging, meaning, and managing energy. By following patterns where Muslim women leadership practices and behaviors are nested with centered leadership practices best practices based on centered leadership are identified.

The literature review approach to this project supported the establishment of an evidence-supported study guide of leadership which would not be possible through the use of a qualitative or quantitative approach to the research. While these practices could benefit from an examination of the research problem, a literature review would conclude with the establishment of a model that a quantitative or qualitative approach could lead to. A quantitative approach would be limited to the application of deductive reasoning relying upon measurements to test for the significance of factors. A qualitative approach could be useful when exploring centered leadership in terms of Muslim women in leadership positions, but the findings would be limited in the degree to which they could be generalized.

Role of the Researcher

The researcher for this literature-based capstone project is a Muslim woman with experience in leadership roles, both in and out of the workplace. As a Muslim woman with a history of holding leadership roles, the researcher has experience which can be either a benefit or a detriment to this project as there is potential for both insight and bias to influence decision-making on the fitness of pieces of literature and the models which can come from the literature. This is because with experience comes the potential for possible bias and insight regarding the topic and subsequent literature on the topic. Bias was managed in this project through note-taking and reflection on notes taken. Further, there was also additional literature search to discover information that would give alternative explanations, as checking for alternative explanations and reviewing the findings of peers are two key ways in which bias is avoided in research where there is the possibility of bias. Other methods would mean involvement by peers or other reviewers, but that was not feasible and would potentially be outside the bounds of university standards for individual research. A possible ethical issue tied to this research was the limitation of the scope of the project to Muslim women. A cursory review of the extant literature on the topic led to the discovery of findings, which

indicate that Muslim women utilize strategies that are different from other women; hence, the scope of the project was limited to only Muslim women in leadership positions.

RESEARCH DESIGN

The research design was based on the selection of extant scholarly and professional literature related to the topic of Muslim women in leadership roles. Article selection involved reviewing author credentials to determine whether the author(s) had either a scholarly or professional background that involved filling a leadership role. Study authors would need to have some background where their thoughts would be valid based on knowledge or experience. The strategy undertaken in this research as it pertained to article selection began through searches of major academic article search engines and databases, as well as a search utilizing a popular search engine. Discovery of articles relevant to the study included searching the following academic databases: Google Scholar, EBSCO, Science Direct, SpringerLink, JSTOR, EBSCOHost and Online Research Databases. Additionally, Google's search engine was utilized. Both scholarly and popular search engines were utilized in this study to conduct an exhaustive review of the academic and professional literature related to the topic of centered leadership and Muslim women in leadership roles. These search engines were reviewed using several search terms and Boolean operators. The keywords listed were utilized to discover relevant literature on the topics of centered leadership and Muslim women in leadership roles: centered leadership, female leadership, corporate female leadership, historical female leadership, Muslim leadership, female Muslim leadership, information technology, leadership in information technology, female leadership in information technology, Muslim leadership in information technology, female leadership in information technology, intersectionality, intersectionality perspectives on information technology, Muslim intersectional perspectives on information technology.

To determine the fitness of articles for the current study, abstracts were reviewed to determine the degree to which the topic and findings of the research could be relevant to the current study. Following a review of abstracts, the number of articles considered valid to include in the current study was reduced to 85. The articles utilized in the study included both scholarly and professional articles. Many articles were from 2016-2019 while seven articles were before 2016. Articles before 2016 were utilized due to their significance to the seminal literature of this topic. The following section will discuss the organization of the chapters and present the outline of the forthcoming sections. The next section will discuss the search organization of this chapter and provide an outline of the proceeding sections and sub-sections.

INSTRUMENTATION

This project did not utilize instrumentation as all of the data included was secondary and from previous research.

PROCEDURES FOR RECRUITMENT AND PARTICIPATION

There was no recruitment or participation in this research because the data was secondary and from previous research.

DATA ANALYSIS

The data in this research will be analyzed through a systematic synthesis of scholarly and professional literature. The inclusion criteria for the literature included in this research are based on the relationship that it has to the topics of centered leadership and Muslim women in leadership roles. The inclusion criteria will not constrain based on whether the literature was published in trade or scholarly journals. The lack of constraints on the literature is based in part on the literature for centered leadership itself being borne from professional journals and books, rather than being based on scholarly materials. The capstone will not constrain the literature based on the date of publication. The concept of centered leadership has existed for only a few decades; therefore, the concept itself is timely and the need for restrictions or constraints based on the timeliness of the literature does not appear relevant. The literature will be analyzed by combining the findings and discussion from research on the topic of Muslim women in leadership roles with the five factors of centered leadership, nesting the discussion of the research with these five factors where the discussion focuses on how they can be compared, contrasted and areas where centered leadership can be a benefit for Muslim women in leadership.

ETHICAL PROCEDURES

This project did not require ethical procedures as all of the data included was secondary and from previous research.

Conclusions Drawn from Analysis, Outcomes, Findings

This capstone centered on the exploration of the perceptions of female Muslim leaders working in the information technology (IT) sector to understand the lack of female leaders in many global industries and male-dominated sectors. Thus, this research study is aimed at highlighting the development of female Muslim leaders based on the centered leadership model as applied within the specific context of the IT industry. Ultimately, this capstone will culminate in the development of a study guide for female Muslim leaders who wish to apply a centered approach to leadership to benefit their colleagues, followers, organizations, and themselves.

The centered leadership model is particularly appropriate among female Muslim leaders working in the IT industry because this leadership model is useful for assessing culturally relevant leadership, emphasizing the importance of considering the socio-cultural backgrounds when assessing the issues that leaders face (Ezzani & Brooks, 2019). Muslim leaders face various challenges such as Islamophobia and racism (Akbarzaedh, 2016; Hertz-Lazarowitz & Shapira, 2005; Sohrabi, 2016), whereas female leaders experience sexism and difficulties in consolidating legitimacy (Almaki, Silong, Idris, & What, 2016). A centered leadership approach may be able to account for the unique challenges that female Muslim leaders in the IT industry may encounter in the workplace based on considerations of their religious backgrounds and gender.

The study guide that will serve as the basis for the training programs intended for female Muslim leaders working in the IT industry is the five dimensions of centered leadership model. These five centered leadership dimensions include (a) meaning, (b) managing energy, (c) positive framing, (d) connecting, and (e) engaging. The meaning dimension hinges on being able to articulate a sense of purpose for their work; the managing energy dimension focuses on the need to energize the employees; the positive framing dimension focuses on the maintenance of positive outlook despite challenges; the connecting framework involves the development of networking relationships; and the engaging framework highlights the importance of developing a professional presence (Barsh & Lavoie, 2014). These five centered leadership dimensions are further discussed in the following sections and the corresponding suggestions/recommendations for effective leadership practices among female Muslim leaders working in the IT industry are provided.

FINDING 1 (MEANING)

Female Muslim leaders in the IT sector should have a clear understanding of their purpose to enact goals and missions based on their strengths.

The meaning dimension of the centered leadership model addressed how leaders identify personal strengths and apply them to the pursuit of goals that align with their mission (Barsh & Lavoie, 2014). The meaning component of the centered leadership model is considered the most important because it provides guidance on why people choose their careers and informs their leadership behaviors and overall identity (Hayashida, 2019). A sense of meaning guides careers by reminding people of their purpose and to focus on what is important to them to experience work as a type of calling (Hayashida, 2019). Given this centered leadership model, the core strategy that female Muslim leaders in the IT industry should prioritize is articulating their purpose for being in the IT industry and why assuming a leadership position is important to them.

Within the specific context of the intersectionality of gender and religion in the leadership within the IT industry, the lack of inclusivity and diversity remains significant issues that continue to be a problem within male-dominated fields (Whitney & Taylor, 2019). For instance, retaining women's talents in the IT industry has been a persistent problem despite continuous efforts to diversify the workforce (Begum & Brindha, 2017). Hence, female Muslim leaders in IT are likely to experience challenges in their leadership, underscoring the importance of always staying to their core to honor their true purpose as a leader. The specific practices or strategies that can be adopted to embody this main principle of meaning include: (a) understanding their different personal strengths, and (b) finding purpose in one's work.

Understanding personal strengths. Having a clear understanding of one's strengths as a leader is particularly important for minorities who are occupying leadership positions in their respective organizations. Regardless of the gender of leaders, they are expected to have a high drive for success (Crossan, Byrne, Seijts, Reno, Monzani, & Gandz, 2017). Having a drive entails having a strong desire for success and excellence, able to tackle various problems with urgency and expertise, and being able to approach challenges with passion and enthusiasm. Among female Muslim leaders, personal strengths encompass cognitive, emotional, interpersonal, values/motives, and behavioral strengths (Amla & Buitendach, 2019). Having a clear understanding of one's strengths is indicative of the importance of authenticity in leadership (Cha et al., 2019). Ezzani and Brooks (2019) noted that centered leadership was useful in considering their unique strengths while also remaining culturally relevant to the unique struggles that Muslim American individuals encountered in the United States. Hence, female Muslim leaders working in the IT industry should be able to engage in self-reflection to identify their cognitive, emotional, interpersonal, values/motives, and behavioral strengths that could greatly inform their leadership behaviors and practices.

To find one's strengths as a leader, female Muslim leaders could benefit from seeking feedback from others. Turner (2019) noted that personal strengths can be highlighted or identified if leaders seek feedback from other leaders or their employees. Through objective feedback from third parties, leaders can have a fuller understanding of the specific behaviors or practices that appear to be positively resonating with other people. Because no one leadership trait or style can guarantee success, the identification of personal strengths of leaders is important to illuminate the potential for effectiveness based on their individuality (Brook & Brewerton, 2016). Hence, female Muslim leaders working in the IT industry should be able to identify their strengths to inform their unique leadership style.

If leaders know their strengths, they can stretch themselves to their potential limits (Brook & Brewerton, 2016). Being able to stretch oneself based on personal strengths can be important for the effectiveness of leaders given the increasing competitiveness of global industries (Brook & Brewerton, 2016). Hence, it is important for female Muslim leaders working in the IT industry to know their strengths so that opportunities for stretching their limits can be achieved.

Finding purpose in one's work. Another strategy that takes into account the principle of finding meaning in one's work is to articulate within themselves their purpose as a leader. Enacting goals based on personal strengths entails reflection of one's purpose. DeCuir (2019) noted that Muslim women face unique challenges, that may be enhanced by focusing upon their strengths that can be

directly contributed to their work and social interactions. Smith and Suby-Long (2019) found that women leaders who engaged in reflecting on their purpose had “a clearer identification and articulation of leadership philosophy” (p. 73). Hence, female Muslim leaders who are working in the IT industry should engage in self-reflection to fully understand their purpose based on their strengths.

Finding one’s purpose is the foundation of how leaders can lead other people (Marques, 2017). Turner (2019) provided specific strategies for illuminating the purpose in one’s work through self-assessment and seeking feedback. Insights gained from self-assessment and third-party feedback can be used to develop a leadership identity that is reflected in their behaviors and actions that are authentic, sensitive to the people and context, and make the necessary adaptations based on evaluation (Turner, 2019). Given this information, female Muslim leaders who are working in the IT industry should submit themselves to self-assessment and feedback to fully understand their purpose as leaders and derive meaning from their work.

Synthesis. In conclusion, female Muslim leaders working within the IT industry should be able to find meaning in their work to enact goals that reflect and celebrate their strengths and purpose. Finding one’s purpose serves as the core principle of the meaning dimension of the centered leadership framework because it informs the behaviors, practices, and philosophies of leaders (Hayashida, 2019). Hence, female Muslim leaders working in the IT industry should be able to identify their strengths and develop a clear purpose of their work as leaders to focus their energy on issues that matters to them.

FINDING 2 (MANAGING ENERGY)

Female Muslim leaders in the IT sector should be able to manage the energy at the workplace.

The managing energy dimension of the centered leadership model addressed issues such as being able to understand their sources of personal energy, the different factors that drain it, and how these factors that drain energy may be managed (Barsh & Lavoie, 2014). Managing the energy in the workplace involves leadership wherein high performance can be sustained and energy resources are efficiently utilized (Hayashida, 2019). The energizing dimension of centered leadership highlights the overarching principle that female Muslim leaders working in the IT industry should have the ability to use their energy effectively so that personal resources are not wasted.

In the IT industry, Whitney and Taylor (2019) noted that the field of IT has yet to improve diversity and inclusivity measures, which is reflected by the absence of literature concerning Muslim leadership in IT. Retaining women's talents in the IT industry has been generally considered a problem despite efforts to improve diversity in the workforce (Begum & Brindha, 2017). Existing literature on female leadership in the IT industry indicates that there is a lack of diversity as reflected by the continued low number of women holding leadership positions in the industry (Atal, Berenguer, & Borwankar, 2019). These previous research findings underscore the importance of being able to manage the energy of female Muslim leaders working in the IT sector given the challenges that the industry presents for women and minorities. The specific practices or strategies that can be adopted to embody this main principle of managing energy are (a) focusing on the

energy balance as opposed to the work-life balance and (b) identify specific conditions and situations that nourishes energy and those that drain energy.

Focusing on energy balance as opposed to the work-life balance. One specific strategy that is consistent with the managing energy dimension of centered leadership is to focus on energy balance as opposed to work-life balance (Barsh & Lavoie, 2014). Managing the energy in the workplace highlights the importance of managing the energy that leaders put into their worlds both at their workplace and in their private lives. More specifically, female Muslim IT leaders should focus on their spiritual and emotional well-being to remain energized despite the challenges of being a female and Muslim leader in a predominantly male industry (Barsh & Lavoie, 2014). As previously emphasized, Muslim leaders in non-Muslim settings face significant challenges due to severe racism and Islamophobia (Akbarzaedh, 2016). To succeed as female leaders in a male-dominated sector, female Muslim leaders should be able to effectively manage their emotions so that conflicts at work and home will not interfere with their leadership performance.

Specific strategies that can be adopted by female Muslim leaders in the IT industry to have balanced energy for the workplace and at home include the conscious efforts to seek informational and emotional support from other leaders. Women leaders are probably more likely to seek informational and emotional support from other female leaders because of the perception that woman leaders see them as equal, have a holistic view of their personhood, and have an understanding of the complexities of their lives as a female leader in a male-dominated role (Hurst, Leberman, & Edwards, 2017). Given this information, female Muslim leaders in the IT industry should be able to seek both informational and emotional support to effectively manage their emotions and energy, particularly support from other female leaders in the industry.

Identify conditions and situations that nourishes energy and those that drain energy. Another specific strategy that can be used to manage the energy of female Muslim leaders in the IT sector is to identify the specific conditions and situations that nourishes energy and those that drain energy. Regardless of gender, effective leaders are expected to have temperance in the sense that they remain calm, level-headed, decisive even in times of tense situations, able to remain grounded, and able to resist excessive and unnecessary emotional reactions (Crossan et al., 2017). Even though all leaders experience challenges, female leaders, in general, have to juggle different aspects of their professional and personal lives (Brue, 2018). This means that leaders should be mindful of how their private lives at homes could affect the energy that they emit in their workplace. Given this information, female Muslim leaders working within the IT industry could benefit from a proactive involvement in understanding how their energy is drained and how these negative experiences and emotions can be prevented or minimized.

Synthesis. In summary, managing the energy dimension of the centered leadership model highlights the importance of emotional control and management among leaders (Barsh & Lavoie, 2014). Informed by that core principle, female Muslim leaders in the IT industry should be able to effectively manage the energy at the workplace, both the energy of themselves as leaders and energy that affects the entire workplace. As female Muslim leaders in the IT sector, it is important to focus on their energy management for both their workplace and private life to minimize the negative effects of misplaced energy and efforts in the workplace. Female Muslim leaders working in the IT industry should make a conscious effort to identify specific conditions and situations that

nourishes their energy. Conversely, female Muslim leaders in the IT industry should also focus on identifying the conditions that deplete their energy and the ways these experiences can be minimized.

FINDING 3 (POSITIVE FRAMING)

Female Muslim leaders in the IT sector should have a positive outlook despite challenges.

The positive framing dimension of the centered leadership model addressed the process of establishing and maintaining a positive and open-minded worldview, particularly in times of challenging situations (Barsh & Lavoie, 2014). Informed by the centered leadership framework, female Muslim leaders working in the IT industry should be able to empower themselves and have and maintain a positive outlook despite challenges. Female leaders experience different challenges than men typically encounter in the workplace, underscoring the continued experiences of gender stereotypes and discrimination among female leaders (Liu, 2019). In addition to gender, religious minorities also experience challenges that further highlights the difficulties that female Muslim leaders are likely to experience as leaders (Sohrabi, 2016). The challenges that the intersectionality of gender and religion bring to the experiences of female Muslim leaders working in the IT industry highlight the importance of maintaining a positive frame.

In the IT industry, lack of inclusivity and diversity are issues that experts have remarked as needing further consideration both in practice and in research settings (Whitney & Taylor, 2019). Wyche (2004) argued that previous literature has focused mainly on male leaders and has ignored Muslim women, especially African American Muslim women. Hence, the application of the centered leadership within this specific leadership context presupposes that the positive framing dimension of the model can be an optimal practice for female Muslim leaders in the IT sector. The specific practices or strategies that can be adopted to embody this main principle of positive framing are: (a) empowering oneself and (b) consciously viewing events from a positive perspective.

Empower oneself. When leaders are empowered, they are more likely to positively influence their employees in terms of their job satisfaction and work engagement (Park, Kim, Yoon, & Joo, 2017). Having a positive outlook entails being able to withstand setbacks and challenges that leaders typically experience (Hayashida, 2019). Being able to maintain a positive outlook despite experiencing challenges can make female Muslim leaders in the IT sector appear more in control and professional in the eyes of their employees, greatly enhancing their effectiveness as leaders. Given this information, female Muslim leaders in the IT industry are encouraged to make an effort to consciously empower themselves to remain grounded despite experiencing challenges.

Consciously view events from a positive perspective. Consciously viewing events from a positive perspective entails having optimism and interpreting events in a more hopeful perception (Barsh & Lavoie, 2014). Previous research has shown that optimism from leaders is consistent with the benefits associated with the application of a positive framework in organizational leadership (Warren, Donaldson, Lee, & Donaldson, 2019). Among women leaders, maintaining optimism has been identified as a particularly popular and effective strategy for dealing with problems and challenges (Mayer, Oosthuizen, & Surtee, 2017). Given this information, female Muslim leaders in the IT industry are encouraged to remain optimistic despite experiencing challenges to prevent negative energy from interfering with their effectiveness.

Synthesis. In summary, female Muslim leaders working in the IT industry should be able to empower themselves and maintain a positive outlook despite encountering challenges. Despite achieving leadership positions in their careers, many female Muslim leaders continue to experience similar elements of sexism and harassment that regular minorities encounter; however, it is variably intensified with racism and prejudice by their subordinates and co-workers (Almaki et al., 2016). Hence, female Muslim leaders working in the IT industry should have a positive frame of mind to remain grounded and effective despite experiencing systemic challenges.

FINDING 4 (CONNECTING)

Female Muslim leaders in the IT sector should develop strong relationships to build resources to lead effectively.

The connecting dimension of centered leadership addressed the importance for leaders to build a network of personal and professional support and resources (Hayashida, 2019). Connecting allows female Muslim leaders in the IT industry to develop a network of support systems that can be useful in enacting goals through access to advice, mentorship and sponsorship, and the ability to nurture other people. When female Muslim leaders who are working in the IT industry are well-connected to their organizations, including other leaders and their subordinates, they are more likely to have a strong support system that can assist them in times of difficulties and challenges. For instance, researchers such as Smith and Suby-Long (2019) found that sharing their narratives helped leaders identify times of leadership authenticity, participants indicated they intended to use similar practices to make current and future leadership/career decisions.

Within the specific context of the IT industry, there have been limited explorations of Muslim leadership in this field of work. There are multiple publications from Muslim authors and countries (Al-rahmi et al., 2017), but studies assessing Muslim leaders' lived experiences specifically in IT are absent. However, from a female leadership perspective, previous research studies have shown that only 17% of leadership positions in the IT industry are occupied by women (Atal et al., 2019). The diversity issues within the IT industry, both from a religious and gendered perspective, highlight the importance of centered leadership approach in developing strong relationships to build resources to lead effectively as a female and as a Muslim leader. The specific practices or strategies that can be adopted to embody this main principle are: (a) building networking relationships and (b) engaging in mentorship or sponsorships.

Building networking relationships. One specific strategy that is consistent with the principle of connecting within the centered leadership model is building networking relationships. Regardless of gender, being able to collaborate is one of the leadership qualities that is associated with effectiveness (Crossan et al., 2017). Collaboration entails being able to maintain positive relationships with coworkers, able to encourage fruitful dialogue that does not lead to defensiveness when challenged, able to foster sharing of ideas among the different people within the organization, and able to connect with other people in the most fundamental ways (Crossan et al., 2017).

Given that women leaders are not the norm in many contexts, they would particularly benefit from building their networks to develop and grow as leaders (Solomon & Secrest, 2017). For instance, women continue to face issues in achieving leadership roles and experiencing harassment from

their workers and family for working (Dean & Jayachandran, 2019). Solomon and Secrest (2017) found that women leaders who can successfully build their networks can benefit as a result of having access to consistent and strong support system at work.

Of particular importance in the process of building networking resources, is being able to develop individual relationships with other senior colleagues. According to Vongalis-Macrow (2016), the gender of the senior colleagues does not significantly matter to many female leaders because the more important consideration is the perceived quality of their colleagues' leadership actions, practices, and qualities. Given this information, female Muslim leaders should be able to develop individual relationships with senior colleagues to enhance their networking resources regardless of the gender, as long as the said senior leader is perceived to be highly effective and successful.

The importance of building and cultivating networking relationships among female leaders is supported by the literature. For instance, Cline et al. (2019) found that expressing the experiences of female leaders with other women helped them to discuss models for mitigating issues such as sexism, stereotyping, and questioning their abilities. Tariq and Syed (2017) also found that being able to develop a network of support systems can be helpful for women Muslim leaders in terms of handling challenges and difficulties in the workplace as minority leaders. Given this information, female Muslim leaders in the IT industry could significantly benefit from building a network of support systems that could assist in times of difficulties and challenges.

Engage in mentorship or sponsorship. Another specific strategy that is consistent with the principle of connecting within the centered leadership model is engagement in mentorship or sponsorship. Female Muslim leaders working in the IT sector could benefit from proactively looking for opportunities to be mentored or sponsored by more senior leaders. One specific example that female Muslim leaders can utilize to connect develop their network is through sponsorship. According to Hayashida (2019), sponsorship is different mentorship in that sponsorship involves senior leaders who have the actual power to make changes in the company. Sponsorship allows female leaders to gain legitimacy and expand their potential for further advancement (Proudford & Washington, 2017). Given this information, female Muslim leaders in the IT industry could significantly benefit from being mentored or sponsored by more senior leaders.

Synthesis. In summary, the connecting dimension of centered leadership focuses on the importance of building a community (Hayashida, 2019). More specifically, leaders should be able to develop networking resources and actively seek mentorship or sponsorship from senior colleagues. Hence, Female Muslim leaders in the IT sector should be able to develop strong relationships to build resources to lead effectively. As a minority both in terms of their religious backgrounds and gender, female Muslim IT leaders should prioritize relationship and network building to empower themselves, particularly in times of challenges and difficulties.

FINDING 5 (ENGAGING)

Female Muslim leaders in the IT sector should be consistent in terms of their interaction and collaboration with others to develop a professional presence. The engaging dimension of the centered leadership framework addressed the development of a personal voice and identity that is consistent across the different interactions and collaborations of leaders within their organizations


(Barsh & Lavoie, 2014). Regardless of the gender of leaders, effective leaders are expected to have integrity, which means that leaders have high moral standards that they follow even in challenging situations, exhibit consistency with their beliefs and values, and able to follow organizational policies and rules (Crossan et al., 2017).

Being engaged also means having the ability to take risks and having ownership of one's decisions. Female Muslim leaders in the IT industry should be able to develop their professional presence (Hayashida, 2019). This professional presence entails developing one's leadership style that allows leaders to engage with their employees productively and effectively. Engagement also entails being able to draw attention from one's accomplishments to facilitate the development of a commanding professional presence (Hayashida, 2019). The reluctance to draw attention from accomplishments is sometimes considered a barrier for female leaders to further advance in their careers.

As indicated in the previous sections of this study, there have been limited explorations of Muslim leadership within the specific sector of the IT industry. However, existing literature on female leadership in the IT industry indicates that there is a lack of diversity as reflected by the continued low number of women holding leadership positions in the industry (Atal et al., 2019). Hence, the application of the centered leadership within this specific leadership context presupposes that the engaging dimension of the model can be an optimal practice for female Muslim leaders in the IT sector. The specific practices or strategies that can be adopted to embody this main principle of being engaged as a leader include: (a) acquire skills needed to develop a commanding professional presence, (b) taking smart risks, and (c) ownership of decisions.

Acquire skills needed to develop a commanding professional presence. A specific strategy that is consistent with the principle of engaging within the centered leadership model is the acquisition of the skills needed to develop a commanding professional presence. In a research study conducted by Almaki et al. (2016) about the conceptualizations of leadership among women Muslim leaders, the authors noted that some women Muslim leaders subscribe to the notion that leaders need to possess a certain special presence or charisma that would allow them to be effective leaders. Even though these special presence and charisma are perceived to be natural and born traits, women Muslim leaders also recognize the need to possess certain sets of skills to complement these natural traits. Hence, female Muslim leaders' search for professional presence might be grounded on the acquisition or development of important skills that are unique to them. Specific examples of how female Muslim leaders working in the IT industry can develop their professional presence in the workplace include ownership of situations, setting goals to facilitate self-improvements, and taking professional risks (Hayashida, 2019).

According to researchers such as Wille, Wiernik, Vergauwe, Vrijdags, and Trbovic (2018), female leaders tend to adopt the same archetypal leadership behaviors and qualities that men leaders are known for such as being assertive, having high-level of strategic thinking, and being decisive. Female and male leaders also vary little in terms of their conscientiousness, emotional stability, and extraversion. The same patterns were not observed between male and female employees. These similarities in traits and behaviors between male and female leaders suggest that for women to be successful as leaders, they have to acquire these archetypal leadership traits. Even though authenticity is a valued trait for leaders (Cha et al., 2019), female leaders may have to make some



adjustments to succeed in male-dominated leadership positions without sacrificing their authenticity. Given this information, female Muslim leaders in the IT industry could significantly benefit from acquiring the necessary leadership skills to develop a commanding professional presence.


Taking smart risks. Taking risks is another way that leaders can demonstrate their engagement with their work and with the company. Fisk (2018) found that men are more likely to engage in risk-taking behaviors at work, which is consistent with the popular notion that women tend to be more risk-averse. According to Fisk, the tendency of women to be less engaged in taking risks can affect their upward mobility and the ability to flourish within their organizations, highlighting the need for women leaders to be more comfortable with taking professional risks. Given this information, female Muslim leaders in the IT industry could significantly benefit from engaging in smart risks to establish their professional presence.

Ownership of decisions and actions. Another manifestation of an engaged leader is the ability to own decisions, including those that may not have turned out the way they were originally intended. Regardless of gender, leaders are expected to have accountability, which means that they are expected to accept responsibility for their decisions, take ownership of challenges, and remain reliable in times of difficulties (Crossan et al., 2017). Given this information, female Muslim leaders working within the IT industry could significantly benefit from owning one's decisions to establish their commanding professional presence in their organization.

Synthesis. In summary, the engaging component of the centered leadership model highlights the importance of developing a professional presence, taking smart risks, and the ability to take ownership of decisions that have been taken as a female and Muslim leader (Barsh & Lavoie, 2014). Female Muslim leaders in the IT sector should be able to practice consistency in terms of interaction and collaboration with others to develop a professional presence. Developing a professional presence is important for female Muslim leaders because recognition of their effectiveness is necessary to gain the respect of their employees.

Centered leadership is a leadership model that highlights the importance of focusing on strengths from the various aspects of a leader's personhood to thrive and flourish (Barsh & Lavoie, 2014). The centered leadership model has been selected as the foundation of this Capstone study because it provides a framework for understanding the experiences and potentials of female Muslim leaders working in the IT industry. This leadership model is useful for assessing culturally relevant leadership, emphasizing the importance of considering the socio-cultural backgrounds of leaders when evaluating their ability to thrive and flourish (Ezzani & Brooks, 2019).

The application of a centered approach to leadership by female Muslim leaders entails the use of the five components of the model, which include: (a) meaning, (b) managing energy, (c) positive framing, (d) connecting, and (e) engaging. These five components of centered leadership take into consideration the various unique challenges that many female Muslim leaders could experience as a result of the complex intersectionality of gender and religion in a predominantly male-dominated industry such as the IT industry. These core principles that are rooted in the centered leadership framework can be utilized by female Muslim leaders working in the IT industry as foundational guidelines for their further development as effective leaders.



Given the compounded challenges brought about by gender and religious backgrounds, female Muslim IT leaders are susceptible to various kinds of leadership obstacles that could compromise their effectiveness. Muslim leaders face various challenges such as Islamophobia and racism (Akbarzaedh, 2016; Hertz-Lazarowitz & Shapira, 2005; Sohrabi, 2016), whereas female leaders experience sexism and other gender-based discrimination (Atal et al., 2019). Framed by the centered leadership model and the current literature, the following core principles can be used to guide current or future female Muslim leaders in the IT industry to succeed and thrive:

1. Female Muslim leaders in the IT industry should have a clear understanding of their purpose to enact their goals and missions based on their strengths.
2. Female Muslim leaders working in the IT industry should be able to effectively manage the energy at the workplace, including their energy both at work and at home.
3. Female Muslim leaders in the IT sector should have a positive outlook despite challenges.
4. Female Muslim leaders working in the IT industry should be able to develop strong relationships to build resources and support systems to lead effectively.
5. Female Muslim leaders in the IT industry should be consistent in terms of their interaction and collaboration with others to develop a positive professional presence.

These core principles that have been transformed into actual leadership practices are rooted in the centered leadership model. Female Muslim leaders in the IT industry might be able to benefit from the following core principles because it recognizes the intersectionality of gender and religious background in leadership effectiveness. In addition to being rooted in a theoretical model, these prescribed leadership practices are also supported by the literature in terms of their application in minority groups. The current Capstone study applied the centered leadership dimensions within the specific context of female Muslim leaders working in the IT industry.

Recommendations

► MEANING:

Female Muslim leaders in the IT industry should have a clear understanding of their purpose to enact goals and missions based on their strength.

- The meaning component is considered **the most important** because it provides guidance on why people choose their careers and informs their leadership behaviors and overall identity (Hayashida, 2019).
- A sense of meaning guides careers by reminding people of their purpose and to focus on what is important to them to experience work as a type of calling (Hayashida, 2019).

ACTION: The core strategy that female leaders in the IT industry should prioritize is articulating their purpose for being in the IT industry and why assuming a leadership position is important to them. Female leaders in IT are likely to experience challenges in their leadership, underscoring the importance of always staying true to their core to honor their purpose as a leader.

HOW CAN THIS BE DONE? **By adopting two strategies:**

- A) Understanding unique personal strengths
- B) Finding purpose in one's work

● **Understanding personal strengths.**

For female Muslim leaders, personal strengths entail cognitive, emotional, interpersonal, values/motives, and behavioral strengths. If a leader knows their true strength, they can stretch themselves to their potential limits; an important attribute in competitive industries, particularly (Crossan, Byrne, Seijts, Reno, Monzani, & Gandz, 2017).

● **Finding purpose in one's work.**

To understand personal strengths, female Muslim leaders need to engage in self-reflection or seek out feedback from other leaders (DeCuir, 2019).

► MANAGING ENERGY:

Female Muslim leaders in the IT sector should be able to manage the energy at the workplace.

- Managing energy entails the ability to understand one's sources of personal energy, the different factors that drain it, and how these factors that drain energy may be managed (Barsh & Lavoie, 2014).
- Managing energy in the workplace involves leadership wherein high performance can be sustained and energy resources are efficiently used (Hayashida, 2019).

ACTION: Female Muslim leaders working in the IT industry should have the ability to use their energy effectively so that personal resources are not wasted.

HOW CAN THIS BE DONE? **By adopting two strategies:**

- A) Focusing on the energy balance as opposed to the work-life balance
- B) Identify specific conditions and situations that nourishes energy and those that drain energy

● **Focusing on energy balance as opposed to the work-life balance.**

Managing the energy in the workplace highlights the importance of managing the energy that leaders put into their worlds both at their workplace and in their private lives. To succeed as female leaders in a male-dominated sector, female Muslim leaders should be able to effectively manage their emotions so that conflicts at work and home will not interfere with their leadership performance. Ensure balanced energy by consciously making an effort to seek informational and emotional support from other leaders (Brue, 2018).



● **Identify conditions and situations that nourishes energy and those that drain energy.**

Regardless of gender, effective leaders are expected to have temperance in the sense that they remain calm, level-headed, decisive even in times of tense situations, able to remain grounded, and able to resist excessive and unnecessary emotional reactions. Female leaders must be especially mindful of how their private lives at home can affect the energy they emit in the workplace (Crossan et al., 2017).

► **POSITIVE FRAMING:**

Female Muslim leaders in the IT sector should have a positive outlook despite challenges.

- Female leaders experience different challenges than men typically encounter in the workplace, underscoring the continued experiences of gender stereotypes and discrimination among female leaders (Barsh & Lavoie, 2014).

ACTION: Female Muslim working in the IT industry should be able to empower themselves and have and maintain a positive outlook despite challenges.

HOW CAN THIS BE DONE? **By adopting two strategies:**

- A) Empowering oneself
- B) Consciously viewing events from a positive perspective

● **Empowering oneself.**

When leaders are empowered, they are more likely to positively influence their employees in terms of their job satisfaction and work engagement (Park, Kim, Yoon, & Joo, 2017). Female Muslim leaders in the IT industry are encouraged to make an effort to consciously empower themselves to remain grounded despite experiencing challenges.

● **Consciously view events from a positive perspective.**

Consciously viewing events from a positive perspective entails having optimism and interpreting events in a more hopeful perception (Barsh & Lavoie, 2014). Female Muslim leaders in the IT industry are encouraged to remain optimistic despite experiencing challenges to prevent negative energy from interfering with their effectiveness.

► **CONNECTING:**

Female Muslim leaders in the IT sector should develop strong relationships to build resources to lead effectively.

- Connecting allows female Muslim leaders in the IT industry to develop a network of support systems that can be useful in enacting goals through access to advice, mentorship and sponsorship, and the ability to nurture other people (Hayashida, 2019).

ACTION: Female Muslim leaders in the IT industry should be well-connected to their organizations, including other leaders and their subordinates, so they will be more likely to have a strong support system that can assist them during times of difficulty.

HOW CAN THIS BE DONE? **By adopting two strategies.**

- A) Building networking relationships
- B) Engaging in mentorship or sponsorships

● **Building networking relationships.**

Collaboration entails being able to maintain positive relationships with coworkers, able to encourage fruitful dialogue that does not lead to defensiveness when challenged, able to foster sharing of ideas among the different people within the organization, and able to connect with other people in the most fundamental way (Crossan et al., 2017). Of particular importance in the process of building networking resources, is being able to develop individual relationships with other senior colleagues (Crossan et al., 2017). Female Muslim leaders should be able to develop individual relationships with senior colleagues to enhance their networking resources regardless of gender, as long as the said senior leader is perceived to be highly effective and successful.

● **Engage in mentorship or sponsorship.**

Female Muslim leaders in the IT sector could benefit from proactively seeking opportunities to be mentored or sponsored by more senior leaders, including through sponsorship (Hayashida, 2019; Proudford & Washington, 2017).



▶ ENGAGING:

Female Muslim leaders in the IT sector should be consistent in terms of their interaction and collaboration with others to develop a professional presence.

- Regardless of the gender of leaders, effective leaders who are expected to have integrity, which means that leaders have high moral standards that they follow even in challenging situations, exhibit consistency with their beliefs and values, and able to follow organizational policies and rules (Crossan et al., 2017).
- Being engaged also means having the ability to take risks and having ownership of one's decisions (Crossan et al., 2017).
- Engagement also entails being able to draw attention from one's accomplishments to facilitate the development of a commanding professional presence (Hayashida, 2019).

ACTION: Female Muslim leaders in the IT industry should be able to develop their professional presence.

HOW CAN THIS BE DONE? By adopting three strategies:

- A) Acquire skills needed to develop a commanding professional presence
- B) Taking smart risks
- C) Ownership of decisions

● Acquire skills needed to develop a commanding professional presence.

Muslim leaders' search for professional presence may be grounded in the acquisition or development of important skills that are unique to them. Female Muslim leaders working in IT can develop their professional presence in the workplace by ownership of situations, setting goals to facilitate self-improvements, and taking professional risks (Hayashida, 2019).

● Taking smart risks.

Female Muslim leaders in the IT industry could significantly benefit from engaging in smart risks to establish their professional presence (Fisk, 2018).

● Ownership of decisions and actions.

Regardless of gender, leaders are expected to have accountability, which means that they are expected to accept responsibility for their decisions, take ownership of challenges, and remain reliable in times of difficulty (Crossan et al., 2017). Female Muslim leaders could significantly benefit from owning one's decisions to establish their commanding professional presence in the organization (Barsh & Lavoie, 2017).

Muslim Females in the IT Workforce –Common Issues and Solutions

To create a workforce that is all-inclusive and encourages the growth of Muslim females into leadership positions in the IT industry, there is a level of diversity that demands acceptance. Common concerns of Muslim women, leaders included range from racism toward practicing hijab and hand-shaking between Muslim women and men in the workplace, alcohol consumption and related religious restrictions, and discrimination related to religion. Here, we'll look further into these issues from a Muslim woman's perspective.

PRACTICING HIJAB

Zaina is a 37-year-old professional working for a computer software company. She is responsible for leading a team of 16 IT employees, most of whom are male. Although she has 11 years of experience working in the IT industry, she has been with her current employer for two months. Before starting her current position, Zaina informed the hiring manager about her religion, and her associated decision to practice hijab. The human resources manager assured Zaina that the IT company was fully compliant and accommodating of diversity-related matters, such as her Muslim religion and decision to practice hijab, however, soon after Zaina was hired, she was subject to unfavorable comments and ill-treatment from colleagues that suggested their lack of acceptance of unwillingness to consider diversity, in her experience, which, Zaina said, affected her ability to fully exercise her powers as an effective leader.



Another example of a Muslim female professional's experience related to business and wearing a hijab is provided by Faten Hijazi (2019), a program manager at Google:

“In that industry, few women hold that kind of role. My gender suddenly had become very apparent to me in a way I did not feel in engineering. As an engineer, I was judged on my technical deliverables. In business, I was judged by what people thought I could do. As a Muslim woman of color who wore a hijab, I looked very different than my male counterparts. My power and authority were often under scrutiny. Yet I had a business to manage.”

HOW CAN EMPLOYERS PROVIDE A SOLUTION?

Zaina's experience indicates an encounter that may be a common one for female Muslim professionals who practice hijab in the workplace. It must be communicated that practicing hijab does not suggest a mindset that is “anti-American,” but, rather, communicates the message that this professional identifies as Muslim (Koura, 2008). Further, it must also be communicated by employers that wearing the hijab in the workplace does not serve as something that demonstrates a difference, but, rather, should serve as a way to convey a more positive perception of Muslims in general (Koura, 2008). Wearing the hijab in the workplace should, therefore, be presented as a “transformative” means of building and growing awareness, rather than something that promotes the existence of disparities.

HAND-SHAKING

Saadia, a 43-year-old professional with 20 years of experience, applied for a job recently at an IT company that specialized in fiber optics. She felt the interview went well, and that she met all of the relevant qualifications for the job. At the end of the interview, she declined to shake hands with the hiring manager due to religious reasons; a decision that was followed promptly by an awkward exchange. Two weeks later, Saadia found out that the position was offered to someone else. She wondered whether her decision to reject his handshake influenced the hiring manager not to follow through with his offer to her.



HOW CAN AN EMPLOYER PROVIDE A SOLUTION?

If a female Muslim professional does not wish to shake hands at work or during workplace interactions, then there are different ways to mitigate the scenario. First, it is possible to for employers to downplay the decision not to shake hands as one that is religion-based, and instead develop tactics in the workplace that can communicate this refusal in a gentler way that does not influence “liberal sensitivities” (Fadil, 2009).

ALCOHOL CONSUMPTION DURING BUSINESS RELATIONS OR EVENTS

Rabya, a 27-year-old professional with five years’ experience in the IT industry, currently works in the IT department of an industry association serving marketing agencies. Her day-to-day duties involve the upkeep of the backend of the association’s website, along with managing the technicalities of security-related procedures associated with email and other company operations. Throughout the year, the association Rabya works for holds trade shows and other events, during which networking social mixers are held. Nearly all of Rabya’s coworkers consume alcoholic beverages, but Rabya politely declines due to her religion. Recently, when Rabya declined a beverage from a client of the association, the client interpreted this as rude and relayed this feeling to Rabya’s manager.



HOW CAN AN EMPLOYER PROVIDE A SOLUTION?

For female Muslim professionals who do not consume alcohol, the presence of events, conferences, networking, and other work-related affairs where consuming alcohol is relevant or prevalent may cause discomfort (Berger, Essers, & Himi, 2017). When professionals find

themselves within these situations, an effective practice may be to focus on the purpose of the event and the reason for their attendance and to remember the significance of this choice (Berger et al., 2017). Professionals can attend these events alongside coworkers who choose to consume alcoholic beverages, while deciding to consume non-alcoholic beverages while doing so (Berger et al., 2017). Certainly, though some work-related events may be mandatory to attend, these professionals also have the opportunity to opt-out of participating in non-obligatory events where alcohol may be served (Berger et al., 2017). Three strategies that can be used to approach this situation, including adapting and negotiating, avoiding, and rejecting and resisting (Berger et al., 2017). Further, company management should support Muslims in the workplace concerning their personal decisions regarding the decision not to consume alcohol.

PRAYER IN THE WORKPLACE



Alya is a 54-year-old professional working for a company that specializes in computer software programming. Alya, a practicing Muslim, prays five times a day, which is in accordance with her religion. Alya works in the IT department of her company, which is comprised of six desks that are adjacent to each other. Alya noticed that her employer did not have a communal space, aside from the co-working kitchen and breakroom, that she could use for prayer. After confronting her employer about this, the employer responded that she will discuss with higher management about making the necessary accommodations. A few weeks have since passed and Alya has yet to hear an update and has instead been praying in a small area behind the office, despite feelings of discomfort with doing so.

HOW CAN AN EMPLOYER PROVIDE A SOLUTION?

For practicing Muslims, the most popular strain, Sunni Islam, requires five prayers each day. Three of these prayers, the Dhuhr and 'Asr, and the Maghrib, which takes place following sunset, overlap with traditional working hours (Malone, 2017). The ability for employees to practice their religious obligations is safeguarded under the Civil Rights Act of 1964 and is required for employers who employ 15 or more employees (Malone, 2017). In this example, if Alya's workplace employs 15 or more employees, the company is legally obligated to accommodate Alya's request. If the employer refuses to accommodate Alya's request, she may file a complaint with the Equal Employee Opportunity Department within 180 days of the discrimination (Malone, 2017).

To mitigate a discrimination complaint from being followed, employers must create and follow an anti-discrimination policy that is shared with employees and included in employee training, and this policy should include a designated area where employees can practice prayer (Malone, 2017). Further, employers should immediately seek to complete the request, as it would provide the most comfortable and accommodating experience for the employee who requested these accommodations, and potentially others, whether future or current employees (Malone, 2017).

Conclusions

This capstone focused on exploring the phenomenon of female Muslim leadership within the context of the information technology (IT) sector to understand the lack of female leaders in many global industries and male-dominated sectors. Thus, this research study was aimed at highlighting the development of female Muslim leaders based on the centered leadership model as applied within the specific context of the IT industry. This chapter will be centered on discussing the findings, providing conclusions, and generating recommendations.

The summary of the research findings indicated that the centered leadership model can be applied in the development of female Muslim leaders in the IT industry. The findings can be summarized based on the following five principles: (a) Female Muslim leaders in the IT industry should have a clear understanding of their purpose to enact their goals and missions based on their strengths; (b) Female Muslim leaders working in the IT industry should be able to effectively manage the energy at the workplace, including their energy both at work and at home; (c) Female Muslim leaders in the IT sector should have a positive outlook despite challenges; (d) Female Muslim leaders working in the IT industry should be able to develop strong relationships to build resources and support system to lead effectively; and (e) Female Muslim leaders in the IT industry should be consistent in terms of their interaction and collaboration with others to develop a positive professional presence. The interpretation and implications of these research findings are discussed in this chapter.


INTERPRETATION OF THE FINDINGS

In this section, the capstone findings from the previous chapter will be discussed to provide an interpretation of their significance based on the existing literature about centered leadership and female Muslim leaders. The discussion will be framed using the centered leadership model, which includes the key principles of (a) meaning, (b) managing energy, (c) positive framing, (d) connecting, and (e) engaging. Finally, the interpretation of the findings will be organized based on the five dimensions of centered leadership, which served as the foundation of the capstone findings.

Leadership Principle 1 (Meaning): Female Muslim leaders in the IT sector should have a clear understanding of their purpose to enact goals and missions based on their strengths.

The meaning dimension of the centered leadership model addressed how leaders identify personal strengths and apply them to the pursuit of goals that align with their mission (Barsh & Lavoie, 2014). The meaning dimension is considered the most important because it guides leaders' career decisions and behaviors (Hayashida, 2019). Finding one's purpose is the foundation of how leaders can lead other people (Marques, 2017). Even though not directly applied in the IT context, centered leadership was useful in considering their unique strengths while also remaining culturally relevant to the unique struggles that Muslim American individuals encountered in the United States (Ezzani & Brooks, 2019).

Within the specific context of the intersectionality of gender and religion in the leadership within the IT industry, the lack of inclusivity and diversity remains significant issues that continue to be a problem within male-dominated fields such as the IT industry (Whitney & Taylor, 2019). For



instance, retaining women's talents in the IT industry has been a persistent problem despite continuous efforts to diversify the workforce (Begum & Brindha, 2017). Because of the limited literature on this particular context, the suggestions provided were extrapolations from existing studies on female Muslim leadership, underscoring the further need to strengthen the literature on IT leadership.

Leadership Principle 2 (Managing Energy): Female Muslim leaders in the IT sector should be able to manage the energy at the workplace.


The managing energy dimension of the centered leadership model addressed issues such as being able to understand their sources of personal energy, the different factors that drain it, and how these factors that drain energy may be managed (Barsh & Lavoie, 2014). Managing the energy in the workplace involves leadership wherein high performance can be sustained and energy resources are efficiently utilized (Hayashida, 2019). To assist their ability to manage their energy, seeking informational and emotional support are effective strategies. For instance, Hurst et al. (2017) found that women leaders are probably more likely to seek informational and emotional support from other female leaders because of the perception that woman leaders see them as equal, have a holistic view of their personhood, and have an understanding of the complexities of their lives.

Within the IT industry, retaining women's talents in the IT industry has been generally considered a problem despite efforts to improve diversity in the workforce (Begum & Brindha, 2017; Whitney & Taylor, 2019). Existing literature on female leadership in the IT industry indicates that there is a lack of diversity as reflected by the continued low number of women holding leadership positions in the industry (Atal et al., 2019). These previous research findings underscore the importance of being able to manage the energy of female Muslim leaders working in the IT sector given the challenges that the industry presents for women and minorities.

Leadership Principle 3 (Positive Framing): Female Muslim leaders in the IT sector should have a positive outlook despite challenges.

The positive framing dimension of the centered leadership model focuses on the establishment and maintenance of a positive and open-minded worldview (Barsh & Lavoie, 2014). Informed by the centered leadership framework, female Muslim leaders working in the IT industry should be able to empower themselves and have and maintain a positive outlook despite challenges. The importance of positive framing is supported by the literature, wherein when leaders are empowered, they are more likely to positively influence their employees in terms of their job satisfaction and work engagement (Park et al., 2017). Previous research has also shown that optimism from leaders is consistent with the benefits associated with the application of a positive framework in organizational leadership (Warren et al., 2019).

Within the specific context of the IT industry, lack of inclusivity and diversity are issues that experts have remarked as needing further consideration both in terms of practice and in research settings (Whitney & Taylor, 2019). For instance, Wyche (2004) argued that previous literature has focused mainly on male leaders and has ignored Muslim women, especially African American Muslim women. Hence, the application of the centered leadership within this specific leadership



context presupposes that the positive framing dimension of the model can be an optimal practice for female Muslim leaders in the IT sector.

Leadership Principle 4 (Connecting): Female Muslim leaders in the IT sector should develop strong relationships to build resources to lead effectively.

The connecting dimension of centered leadership focuses on the importance of building a network of personal and professional support and resources (Hayashida, 2019). Connecting allows female Muslim leaders working in the IT industry to develop a network of support systems that can be useful in terms of acquiring advice, mentorship, and the ability to nurture other people. This networking benefit is supported by the literature, indicating that sharing their narratives helped female leaders identify times of leadership authenticity and gain a model for leadership decisions and behaviors (Smith & Suby-Long, 2019).

Within the specific context of the IT industry, there have been limited explorations of Muslim leadership in this field of work. The connecting dimension of centered leadership has not been directly applied to female Muslim leaders in the IT industry. However, there are multiple publications from Muslim authors and countries on the experiences of female leaders (Al-rahmi et al., 2017), but studies assessing Muslim leaders' lived experiences specifically in IT are absent. The diversity issues within the IT industry, both from a religious and gendered perspective, highlight the importance of centered leadership approach in developing strong relationships to build resources to lead effectively as a female and as a Muslim leader.

Leadership Principle 5 (Engaging): Female Muslim leaders in the IT sector should be consistent in terms of their interaction and collaboration with others to develop a professional presence.

The engaging dimension of the centered leadership framework focuses on the importance of the development of a personal voice and identity of a leader that is consistent across different interactions and collaborations (Barsh & Lavoie, 2014). This professional presence entails developing one's leadership style that allows leaders to engage with their employees productively and effectively. Engagement also entails being able to draw attention from one's accomplishments to facilitate the development of a commanding professional presence (Hayashida, 2019). Being engaged also means having the ability to take risks and having ownership of one's decisions and behaviors. The specific practices or strategies that can be adopted to embody this main principle of being engaged as a leader include acquiring the necessary skills to develop a commanding professional presence, taking smart risks, and ownership of decisions and behaviors.

The engagement dimension of centered leadership has not been directly applied to female Muslim leaders in the IT industry. However, Almaki et al. (2016) noted that the conceptualizations of leadership among women Muslim leaders indicated that they subscribe to the notion that leaders need to possess a certain special presence or charisma that would allow them to be effective leaders. This perception could explain why female leaders tend to adopt the same archetypal leadership behaviors and qualities that men leaders are known for such as being assertive, having a high level of strategic thinking, and being decisive (Wille et al., 2018).

LIMITATIONS OF THE STUDY

One limitation of the Capstone findings is the lack of generalizability of the different principles of centered leadership that were highlighted. The research was delimited to female Muslim leaders who are working in the IT industry. This means that findings may not be applicable in other populations that do not match the same intersectional characteristic in terms of gender, religion, and work sector. Generalizations about the findings should be made with reflection to avoid incorrect assumptions and conclusions.


Another limitation of this research study involves the reliance on the literature and the centered leadership model in generating the findings. The use of the literature and an existing leadership model limited the empirical assertions generated from this study through the findings. The principles, suggestions, and recommendations made about leadership involving female Muslim leaders in the IT sector still need further verification in an empirical study. Another limitation involves the minimal research available that specifically focused on the experiences of female Muslim leaders working within the IT industry. This means that the foundation of the findings was extrapolated from the existing literature on female and Muslim leadership only, failing to find literature that included the IT setting as part of the context. Failure to find literature on female Muslim leadership in the IT industry highlights the further need to validate the suggested principles in more controlled research studies.

IMPLICATIONS

Centered leadership is a leadership model that highlights the importance of focusing on strengths from the various aspects of a leader's personhood to thrive and flourish (Barsh & Lavoie, 2014). Even though centered leadership served as the foundation of the Capstone findings based on previous literature, there was limited research available that specifically focused on the experiences of female Muslim leaders in the IT industry. Future studies could conduct a qualitative research study that specifically explores the perceptions and experiences of female Muslim leaders in the IT industry.

Based on the findings of the study regarding the importance of finding one's purpose to inform one's leadership, future research could focus on determining whether having a well-defined purpose leads to more effective leadership behaviors among female Muslim leaders in the IT industry. Future researchers could explore if there is a significant difference in the leadership effectiveness of female Muslim leaders in the sector based on the clarity of their purpose. Possible moderating variables that can be explored include the age of the leaders or the location of the workplace (rural or urban).

Another recommendation for future research is to further expand the professional knowledge of female Muslim leadership within the specific context of the IT industry through the examination of the differences in outcomes in terms of mentorship and sponsorship. Both mentorship and sponsorship are important networking resources for female Muslim leaders (Hayashida, 2019; Proudford & Washington, 2017). Future researchers could further differentiate these two sources of networking relationships in terms of various leadership outcomes among female Muslim leaders in the IT industry.



The implications of the findings for positive social change is the formulation of a framework consisting of principles on how female Muslim leaders in the IT industry could succeed or further thrive. Existing literature on female leadership in the IT industry indicates that there is a lack of diversity as reflected by the continued low number of women holding leadership positions in the industry (Atal et al., 2019). Hence, this study provides some needed focus on the unique experiences of female Muslim leaders in the IT industry.

At the society and policy levels, the findings can be used to help younger female Muslim leaders in the IT industry to acquire some basic insights on how centered leadership can be applied to thrive and flourish. Talent management policies could be informed by the findings that were generated from this research to develop future female Muslim leaders in the IT industry. Hence, a deeper understanding of how female Muslim leaders in the IT industry can flourish and thrive could be instrumental in encouraging more women to occupy more leadership positions and be successful in their pursuit of advancement.


Previous studies on female Muslim leadership have not only been scarce but those that did have been less grounded on existing theoretical models. The theoretical implication of this study is that research on centered leadership model should be further supported and validated by empirical research. This means that the theoretical components that make up the centered leadership model should be empirically examined within the specific context of focusing on the experiences of female Muslim leaders in the IT industry.

Based on the research findings that were reported and discussed in this chapter, the current study provided information that could be of use for female Muslim leaders in the IT industry. Previous literature has focused mainly on male leaders and has ignored Muslim women, especially African American Muslim women (Wyche, 2004). Hence, the application of the centered leadership within the specific leadership context of female Muslim leaders in the IT sector presupposes that the different components of the framework can be an optimal framework. More complex research approaches and designs need to be developed to advance the literature on female Muslim leadership.

CONCLUSION

Centered leadership is a holistic, strength-based model, focusing on various aspects of a leader's personhood such as their emotions, cognitions and intellect, spirituality, and interpersonal relationships to thrive and flourish as leaders (Barsh & Lavoie, 2014). Based on applications in other related populations, research findings indicated that centered leadership may be applied among female Muslim leaders to understand their growth and development as leaders (Ezzani & Brooks, 2019). The core principles of meaning, managing energy, positive framing, connecting, and engaging serve as the foundation for helping female Muslim leaders in the IT industry to continue to thrive and flourish.

Despite the recommendations that were made using the core principles of centered leadership, it is important to note that the findings were not based on research that specifically focused on female Muslim leaders in the IT industry. The unique challenges and difficulties that may be unique to the IT industry were not able to be reflected in the studies that were used to develop the findings. Extrapolations were made primarily from studies that only focused on the intersectionality of



gender and religious backgrounds in leadership. Hence, the results of the current study need further expansion and validation using more empirical methods such as direct interviews or surveys.

Do's and Don'ts for Employers Concerning Female Muslim Professionals in the IT Workplace

Based on this informational booklet, the following do's and don'ts are outlined for employers to consider in terms of navigating the challenges that female Muslim professionals may face in the IT workplace and how best to accommodate them proactively.

DO'S:

- Develop an anti-discrimination policy that is shared with new employees at onboarding and during employee training, and ensure these policies are strictly adhered to.
- Facilitate a workplace environment that is anti-discrimination, anti-sexism, and anti-racism by listening to and accommodating employees' requests and facilitating a company atmosphere that supports diversity
- Emphasize focus on employees' unique assets and contributions in the workplace rather than their differences, and if differences do arise, frame the differences as opportunities to build awareness and develop further as individuals and as a company.
- Respond to employees' requests, such as requests for a space for prayer, proactively, and immediately.

DONT'S:

- Take a lackadaisical approach to accommodate employees' requests such as that of space for prayer.
 - Hear the requests of employees or witness discriminatory practices occurring in the workplace without a plan in place as to how to address these circumstances in a way that promotes positivity and development for all employees.
 - Avoid the creation of an anti-discriminatory policy or playbook that precisely outlines what must and what must not occur in the workplace.
 - Develop a policy that is loosely adhered to, or is followed sometimes, but not always. Consistency is key.
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