Global Journal of Human Resource Management
Vol.12, No.2 pp.1-39, 2024
Print ISSN: 2053-5686(Print),
Online ISSN: 2053-5694(Online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development-UK

Gender Bias at Workplace: A Study of the Unspoken Bias Towards Female Leaders Competencies in A Male Dominated Work Environment

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doi: https://doi.org/10.37745/gjhrm.2013/vol12n2139 Published March 02, 2024

Citation: Benco O.C. (2024) Gender Bias at Workplace: A Study of the Unspoken Bias Towards Female Leaders Competencies in A Male Dominated Work Environment, *Global Journal of Human Resource Management*, Vol.12, No.2 pp.1-39

ABSTRACT: *The aim of the study was to explore the existence of stereotypical gender bias in relation to gender preference and the perceived leadership behaviors and competencies that female leaders would need in order to be successful in a male dominated industry using the oil and gas industry as a case study. To achieve this objective, a research questions was asked, "Does a negative perception of female leaders' competences and stereo typical bias still persist in the male dominated environment like the oil and gas industry".To appropriately answer this question and meet the objectives of the study, a quantitative positivism research design was adopted as the methodology. Survey questionnaire with 88 scaled questions and 1 open-ended questions was used as data collection method. 134 respondents comprising of 54 females and 80 males participated in the study. The data was analyzed using the IBM SPSS software. The role congruity theory of prejudice towards female leaders, the 'Think manager – Think Male' notion, the double bind concept and the competency framework were used as a theoretical concept to drive the study.Key findings from the study includes the role of factors like organizational, culture, and gender bias as an unspoken barrier for female leaders to succeed in the oil and gas industry. Other findings include a unified bias in which both male and female favorably rated a female leader they have worked with satisfactorily; the female leaders in the oil and gas industry are not disliked for being professional or assertive rather they earn the same respect as with the males from their subordinates. Evidence suggests that the leadership styles that was found to be mostly associated with female leaders in the oil and gas industry is the participative and relation-oriented style of leadership and this in human resources management is the recommended best practice and more effective approach.*

KEYWORDS: gender bias, leadership, female leaders, role congruity, stereotypical bias, unspoken bias

Women in Leadership as a concept has unarguably received attention in the past few years and the attitude of men towards women in leadership has improved to some extent with respect to agreeably working with a female leader. A survey carried out by Harvard Business Review in 2006, revealed that men now have a more positive attitude towards working with female leaders (Carlson et al, 2006). However, this dissertation is focus on a male dominated context of the oil and gas industry, where such acceptance may not be prevalent. Indeed, it is possible that negative attitudes as for example, inaccurate evaluation of leadership competences and leadership abilities or traits expressed towards a female leader may have been the fundamental cause of the non-acceptance and such negative attitudes can pose a number of barriers, challenges, bias for females in general, most especially female leaders in a male dominated environment. It could threaten their performance, success and acceptance by the business community as competent leaders (Carlson et al, 2006; Boateng, 2018). Researchers have also shown that gender bias against women and/or female leaders is a continuous evolving issue which has been discussed and caught attention of many researchers. These studies have proven to be significant in the area of strategic leadership and diversity management at workplace.

Problem Definition

In order to address the issue of bias, it is necessary to know that bias can be external, for example, organizational practices, individual actions. and internal for example, gender bias within oneself (Madsen, 2017). As researchers have asserted that even females have "hidden gender-based biases", most women's in leadership literature focus on female navigating thesebiases around them but there has been a paradigm shift geared towards helping female leadersbecoming aware of their own biases (Bolton, 2016; Madsen & Andrade, 2018). Ibarra et al (2013) argued that gender bias studies should be a fundamental element for women to learn how to attain leadership. Typically in a male dominated-environment, femaleleaders are expected to show a high level of competency for a technical role; outperform theirmale counterpart to be perceived as competent; they are expected to prove their competencesover and over again by displaying a higher level of capability, even though sometimes theircompetencies are being overlooked (BCG & WPC, 2019). For example, in 2009, one of the highest ranking and top female executives in SHELL resigned despite leading the company's LNG (Liquid natural gas) capacity to rise to 60% in the space of 5years from when she assumed the position amidst speculation that she was passed over for higher position. (Donovan, 2009). When highly regarded and competent female leaders are being passed over for higher responsibilities, this will most likely lead to resignation. Consequently, this research aims to understand if unconscious bias or reservation against women leader's competence persist in a male-dominated work environment like the oil and gas industry.The oil and gas industry is a highly technical and challenging environment, considered to be'dark and dangerous' (Wells, 2019) for women and so the men tend to challenge and query the competence of any woman that is appointed to a technical leadership position.

LITERATURE REVIEW

This section provides a groundwork for the theoretical background and an overview of who a leader is, women inleadership, the implicit bias against female in general or female leaders, which could be unconscious, unspoken but inherent at the workplace, the barriers that female leaders facegenerally with regards to their competencies in a male dominated work environment.The role congruity theory of prejudice towards female leaders by Eagly and Karau (2002), inconjunction with the, 'Think manager – Think Male' notion and the double bind concept of Jamieson (1997); the competency framework of Esser, et al (2018) are the key point to studying the unspoken bias towards female leaders competencies in a male dominated like the oil and gas.

The Concept of Leadership

Over the years, the concepts of leadership and its definition has evolved, and the definitions are as many that have attempted to define it. Certain researchers postulated that leadership is an influence on others rather than dominance in a shared direction (Seeman 1960); some say it is a combination of behavior or traits (Peters & Waterman, 1982); and some says it is the "ability to inspire people to carry out a duty" (Veliu, et al 2017). The 21st century birthed some emerging leadership approaches like the authentic leadership; servant leadership; adaptive leadership. Northouse (2016) defined leadership, "as a process whereby an individual influence a group of individuals to achieve a common goal". By implication, everyleader, irrespective of the gender must possess the skills, traits, ability to influence others in order to achieve the goals of the organization. Historically, leadership position and qualities have been masculinized such that majority of women in paid employment find themselves in the middle management level (Carli & Eagly, 2001).Schein (1975) revealed that successful middle managers (both male and male) show agenticcharacteristics that are similar to men and to which Heilman, et al (1995) agreed with that tobe a successful manager is not by gender.

Women in Leadership

Women in leadership have been widely researched for most major corporations in developedcountries (ILO Global report, 2015) and United States has been fulcrum to such research (Yanosek et al, 2019). Other researchers have also followed this trend of women leadership study in Europe etc. (Garcia-Retamero & López-Zafra, 2006). The greater part of these studies has been focused mostly on the barriers and the difficulties that women face as they move up the leadership ladder (Eagly et al, 2007). In a male dominated work environment, most female leaders when compared with the men, must often fight their way amidst many barriers to be able to reach the leadership position (Eagly & Johannesen-Schmidt, 2001).Studies have equally shown that women are not the first consideration for leadership role in most organization (Ridgeway, 2011), and this could be as a result of wrong evaluation of their competencies and authority as leaders (Eagly et al, 1992; Ritter & Yoder, 2004). In the experimental studies which explored the reactions to the success of a female on a male gender-typed job, the result supported the idea that unconscious bias can be provoked throughgender stereotyping in the 'evaluative judgement' of successful women who have demonstrated competence on their job regardless if it is male gender-typed role (Heilman et al, 2004).

Statistics of Female Leaders

Since the 80s', most major corporations have been promoting diversity to increase the percentage of women in 'top management positions' with diversity policies, programs, mentoring programs, trainings, etc. but notwithstanding the number of women in top management position has not improved as expected. Statistically, over the last decade the number of female managers has increased globally but challenges still exist with women advancing to the top-level management (Schein, 1973).

The Global Gender Gap Report 2020 by the World Economic Forum gave the statistics of women in company board of directors in different countries. France, Iceland and Norway were the 1st top three countries with more than 40% of female in companies board of directors. The report revealed that there is a significant challenge in having gender parity because of women under representation in emerging roles. This is often attributed to the glassceiling phenomenon that prevent female from advancing in their career and from being successful as leaders (O'Leary & Ickovis,1992; Deal & Stevenson, 1998). Although, there arestill bias which rocks major organizations that are male dominated like those in oil and gas and these biases also prevents women from getting to the top management positions (Rein, 2003).

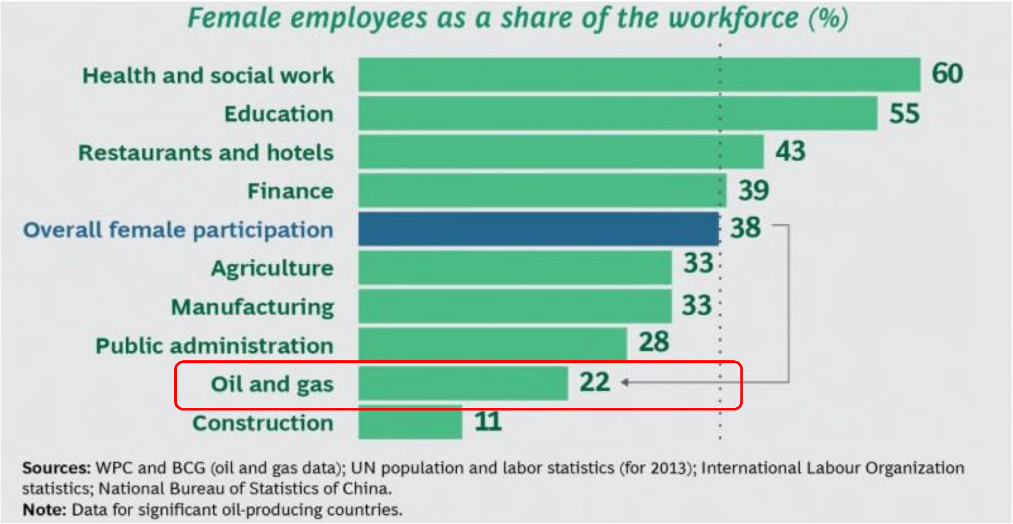
The International Labor Organisation (2019) and Catalyst (2019) in their studies affirmed thatthe percentage of women in senior management position is gradually increasing and a tremendous increase has also been witnessed in corporate boards having one or more women members but still less than 30% of senior management roles are occupied by women. In 2018, similar figures were observed in the OECD statistics for 'share of female managers' given at 32%. Mckinsey report 2019 considered these figures as an improvement in the last 5years with many companies now appreciating the value of more women in leadership and seeing it as a move in the right direction but some researchers have argued that it would take more than 250 years to achieve gender equality with equal number of male and female CEOs (Slaughter, 2014). In line with this, recent researchers have revealed that gender balance remains out of reach (Huang et al, 2019; Pieta & Dijksma, 2013).

The Oil and Gas Industry is not left out in this scenario being a male dominated work environment. Compared with other industries, studies have also shown that the proportion ofwomen working in oil and gas has been relatively low (Yanosek et al, 2019), more especiallyin technical/field roles when compared with other business support roles.

Statistics of Women in the Oil & Gas Industry - A male dominated environment

Globally, fewer women choose to work in oil and gas workforce than in any other major sector and the lack of gender diversity at the senior level of management (which could be as aresult of bias within the industry) does not make the oil and gas industry a woman's first career choice etc. (Rick et al, 2017; Huang et al 2018). Recent researches postulated that generally companies with significant number of female leaders have recorded improvement in financial business performance, profit margins and results, when compared with their competitors who have a smaller number of female leaders at same level of senior management (Rick et al, 2017; Campuzano, 2019).

One of the key factors that can appeal to women in the oil and gas industry and retain them iscareer advancement and if this is missing then there will be less women than expected in the industry (Anderson, 2014).



Source: *Untapped Reserves: Promoting Gender Balance in Oil and Gas, July 2017 | Article*

Research on Gender (Unspoken) Bias Towards Female Leader and their Competencies

Bias whether spoken or unspoken against a female leader has implications on a persons' evaluation and expectations of what a female leader must be like or act like and the consequence is a devaluation of their competence and performance (Babcock, 2006; Heilman2002). This is a decision that can affect their career, turnover and quality of life (Babcock, 2006). Reiners (2019) described gender bias as favoring one gender over the other and in thiscase, for instance, preferring a male leader to a female leader. Another researcher said it is 'subtle bias's against women in which an individual unconsciously ascribes low profile judgement or certain behaviors and stereotype to another individual or group on their work, capabilities, competences, assessment of their interpersonal skills and mentoring (Rein, 2003). Ely et al (2011) called it 'invisible barriers' to a woman's advancement at the workplace.

In order to ascertain the existence gender bias against female leaders, Elsesser & Lever (2011) carried out a survey on actual bosses and generally evaluated employee's preference for male or female leaders. The responses were used to examine whether biases exist againstthe female leaders. Little or no gender bias existed according to the survey, but they asserteda correlation between the acceptance of a female manager competence and the relationship that exist between the assessor (subordinate or superior) and the manager. And this relationship influences how such manager would be evaluated. It was concluded that care must be taken extending laboratory experiments made with hypothetical bosses to actual organizational settings. Heilman's (1995) examination on men and women perception of female that are depicted as managers confirmed that there still exists stereotypical bias at theworkplace as more successful female leaders were negatively judged by the men based on their interpersonal relationship with them and not their competence.

Eagly and Karau (2002) also asserted that the bias against female leaders is dependent on the leadership qualities and the personality of who is evaluating. Over the last 40 years, it has been reported that the number of men that are comfortable working with women (indirectly accepting their leadership and competencies) have increased tremendously from 35 to 88% (Carlson et al, 2006). Certain researchers suggest that the evaluation of a female leader's competence could be dependent on the role occupied if it is a male-dominated position (Eaglyet al, 1992; Heilman et al, 2004; Johnson et al, 2008).

Theoretical Perspectives 0f Gender Bias

Social Role Theory

According to Catalyst (2020) report, societal expectation and belief about women's leadershipabilities and perception of females in leadership roles, accounts for one of the bias that femaleface in a male dominated industry. Eagly (1987) social role theory is centered around the beliefs of the society on male and female behaviors of which he posited that male and female differs in various social behaviors which originates from the expectations of the society. This expectation is what Bakan (1966) referred to as Gender Stereotype which has been responsible for the existence of different beliefs on male and female social behaviors and characteristics. From the perspective of the social role theory, the different social roles that men and women also occupy in the family or at the workplace has been responsible for the gender-role expectations for example some researchers have argued that females are believed to be suited for the roles they naturally occupy particularly in the area of bearing children anddomestic activities because of certain behaviors and attributes that is unique to them.

The gender-role expectation can be summarized into two categories - the communal and agentic. Female roles are communal and so they are expected to show kindness, sensitivity,etc. and they are assumed to be relationship-oriented while on the other hand the males areperceived as having agentic characteristics such as competitiveness, taking active stance in the face of problem and they are assumed to be task-oriented (Diekman & Goodfriend, 2006).Leadership role has been seen as a male prerogative in most sectors of the society (Esser et al,2018) and when the society stereotype a social group incongruent with the attributes required for success in a social role, then a potential for unspoken bias exist.

Garcia-Retamero and López-Zafra (2006) argued that the agentic characteristics are essential in predicting who is or would be an effective leader and these characteristics are ascribed to leaders irrespective of the gender. And so because the society viewpoint of an effective leaderis agentic and female are communal, this gender stereotyping creates a **'Double Bind'** situation for female leaders. This double bind situation creates a vulnerability for females such that they are face with bias reactions that limits their admission to leadership roles and also a negative bias of their performance as leaders. And the negative evaluation is more pronounced when men are the evaluators putting the females at a disadvantage (Eagly & Karau, 2002). Studies have shown that female leaders who have attempted to exercise their leadership abilities (managerial effectiveness) by acting like men (gender appropriateness) often find themselves in this unbreakable double bind situation such that as they exercise their leadership abilities in a male stereotype behavior like ‘aggressiveness’ they are seen to be ‘hard’ and are not liked and when they act in their stereotype feminine role by showing concerns and empathy, they risk being seen as ‘incompetent’ or too soft (Jamieson, 1995; Catalyst, 2019; Elsesser & Lever, 2011). Catalyst (2007) through surveys and interviews, reported that this type of gender stereotype is a, ‘Damned if You Do, Doomed if You Don’t’ situation for female leaders because of the limitations on the evaluation criteria for leadershiproles.

In addition, researchers have claimed that the communal behaviors of the female gender haveaffected their statistics in the workplace as leaders thus limiting them to such roles as
secretary, teachers and so one). And on the other hand, the typical agentic attributes of the male gender naturally favor them and put them in the position of power in the society and theeconomy. But some researchers have identified that female display of feminine behaviors is becoming more accepted and as such the stereotypical image of the leadership role is changing as more females are becoming leaders and so gradually diminishing the stereotypical bias expectations of a leader. (Eagly, et al, 2000; Schmidt & Møller, 2011).

Role Congruity Theory

Role Congruity as A Potential for The Existence of Unspoken Bias

Eagly and Karau (2002 p.573) asserted that bias can “arise from the relations that people perceive between the characteristics of members of a social group and the requirements of thesocial roles that group members occupy or aspire to occupy”.

Eagly and Karau (2002) suggested that the “perceived incongruity between a leadership roleand female role” can lead to two types of bias in any work environment; (i) perception of female less favorably for leadership roles and (ii) the less favorable evaluation of the behavior that meets the prerequisites of a leadership position on the premise that it is performed by a woman.Perceptions often result in the evaluation of female leaders based on the congruence betweentheir personalities as prescribed by their gender communal stereotypes which is constant across various cultures and the prescription of the leadership roles that they assume (Eagly etal., 2000; Eagly & Karau, 2002; Heilman, 2012; Garcia-Retamero & López-Zafra, 2006).

Gender role congruity bias, therefore, refers to the inconsistencies that exist between the characteristics associated with gender and typical roles such as leadership roles (Garcia- Retamero & López-Zafra, 2006) which has found its way in to the work place as an unspoken ‘background identity’ of which can be termed as unspoken bias (Ridgeway, 1997) thereby contributing to the negative or wrong perception of women working in a male dominatedenvironment (Koch et al, 2015).

Rosenwasser & Dean (1989) tested this on politicians and it showed similar inconsistenciesbetween the roles and the leadership position. Roles can be divided into two: Descriptive norms which represent consensual expectations from members of a particular group and Prescriptive norms which describes the consensual expectations of how a group of people should ideally behave (Eagly & Karau, 2002; Brown et al, 2014). In a male-dominated environment where the roles are congruent or incongruent with gender, female leaders could be targets of prejudice which could limit their chances of having equal opportunities as men or creates a stumbling block in becoming successful in theleadership function (Garcia-Retamero & López-Zafra, 2006; Esser et al, 2018; Eagly & Karau, 2002).

In many cases, female that are successful leaders are perceived to be masculine in character which is incongruent with their gender role and even though they are successful, they could be evaluated less favorably for not being feminine. However, at the work place female leaders are often evaluated from the perspective of their gender which could also depend on the leaders' relationship with or the characteristics of the perceivers. This is one of the causalfactors of gender bias. (Eagly & Karau, 2002; Garcia-Retamero & López-Zafra, 2006; Elsesser & Lever, 2011).

Furthermore, the 'role congruity theory of prejudice towards female leaders', however, posited that some situations could lessen the bias against females (Eagly & Karau, 2002), for example, in the situation whereby the incongruity between the descriptive norm of the femalerole and the leadership role is 'weakened or absent'. It also pointed out that females are moreprone to role incongruity bias with respect to leadership since leadership is portrayed as masculine but male leaders who display prescriptive and descriptive female norms could be exposed to prejudice as well. (Eagly & Karau, 2002; Garcia-Retamero & López-Zafra, 2006).Whisenant, et al (2015) used the role congruity theory to establish whether attitudes towards female leaders in sport management are less positive than attitude towards men and the findings partially supported the theory in that only the men were inclined to perceive the female directors less favorably compared with the women. Furthermore, Koca & Öztürk (2015) examined the view of the employees working with a Turkish sport organization on thepreference for either male or female managers and their perception of their female managers. And the results showed that the under-representation of women at the management is partly explained by the gender role stereotypes and attitudes toward women career advancement. It was implied that the preference for male sport managers is because the organization is stereotyped as a masculine field requiring the agentic characteristics and competence attributed to men.

In summary, the role congruity theory was postulated on the assumptions that social and gender roles, influences people's perception and their evaluation of female leaders behavior. Female leaders' action or inaction is also influenced by their gender roles. It

was also established that gender roles stereotypically put men and women in a certain construct such that they are expected to act and behave in such a manner. Generally, females are expected tobe communal, and the males be agentic and when a female act in an agentic manner, it is perceived by the society as an anomaly against her gender role thereby instigating a negative evaluation from her perceivers (Skelly & Barger Johnson, 2011). This perception incongruitybetween the female gender role and the leadership position can result into unspoken bias.
This theory was used in this study to have more depth in understanding the perception (negative or positive) and evaluation of female as leaders in a male dominated environment.

'Think Manager – Think Male' Notion As A Potential For Unspoken Bias Having established that gender stereotype is an underlying factor that contributes to the absence of female leaders in male dominated environment with role congruity theory, the "think manager, think male" stereotypical view of leadership further accentuate the existence of bias and affirms with the social role and role congruity theory (Metcalfe & Altman, 2001; Heilman et al.,1995).

Many people have pre-existing expectations of a leader and if asked to evaluate someone's leadership abilities there is the tendency to compare the abilities to the expectations. And because the expectations are masculine inclined, the females are not likely to be seen as good fit. This unspoken bias of the mental understanding of leadership abilities is why females arenot considered for leadership role, promotion, placement, etc. and can prevent them from succeeding in this managerial function. Despite the statistical progress of female in the workforce, many men continue to perceive that masculine characteristic is required to become successful as a manager. This notion creates problems for females aspiring to leadership roles. In the early 70s, an empirical investigation was conducted by Schein V. (1973) to understand the connection between the gender stereotype and the requisites for managers' attributes using 92 descriptive terms. The research affirmed that there is a strong belief of the 'think manager – think male' norm among the middle managers most especiallyamong the males. Agreeing to this, Eagly (2005:463) stated that, 'when leadership is defined in masculine terms, the leaders who emerge are disproportionately men, regardless of the sexcomposition of the community of followers'. Schein (1975) studies also revealed that managers possess the temperaments and behaviors commonly attributed to males than to females in general.

Some recent replication of the theory confirmed that the traditional thinking is still in place today as it has been 40 years ago (Brands, 2015). A recent researcher, Tan (2020) posited thatthe, 'think manager – think male' mindset among male should be a global phenomenon because men are perceived to have what it takes to be a successful manager and as such areperceived as leaders.

Complimenting this 'think manager – think male' bias, another researcher (Braun et al, 2017)conducted a study on social roles of women and followership, the 'think follower

– think female' and posited that women are perceived to be 'ideal fit for followership position' and this further contributes to keeping women away from leadership positions and compelling men to become leaders. But Schein & Davidson (1993) argued that the phenomenon should become 'Think manager – Think qualified person' which would afford female leaders' equal opportunities as the men because it is not lack of competencies or skills that makes the femalemanagers to be outnumbered by the male counterparts but because men have tarried too long in the position of authority which has now made management position to be perceived as masculine (Amaechi, 2020).

Heilman (2012) discovered another form of bias, a phenomenon called 'glass cliffs' which means that women are considered for a leadership role when there are economic crises that has little or no chance of success and so they can be held accountable for the consequences. When a leadership role is focused as male-dominated, it results in people according more power to men thereby, making them more dominating at the workplace and consequently impacting on how female feel about themselves as leaders (Garcia-Retamero & López-Zafra, 2006). Females sometimes feel less comfortable and confident when in a leadership role thanthe males. This could be explained from the viewpoint of the role congruity theory as discussed and also from the Impostor Syndrome Phenomenon.

Impostor Syndrome – Unspoken Bias against themselves

Clance & Imes (1978) invented the term "imposter phenomenon," where it was found through observations in a clinical setting, some successful and intelligent women with high achievements 'experiencing internal feelings of intellectual phoniness' not recognizing their own abilities, internalizing their accomplishments' and worrying about being unmasked as frauds (Clance & Imes, 1978; Mount & Tardanico, 2018). Psychologist & career experts termed this, 'self-doubt or impostor feeling' (Mount & Tardanico, 2018; Muller-Heyndyk, 2019). This is a phenomenon whereby female leaders doubt their own competences to deliverin a male-led environment.

Research has shown that female exhibit higher impostorism than the males (Kumar & Jagacinski, 2006). This is because they tend to have confidence in other people's opinions and think of themselves as less competent and talented (Clance & Imes, 1978; Kolligan & Sternberg, 1991). Consequently, these negative self-views have effect on their aspirations andcould cause the female leaders to quit their jobs and as such hinders their ability to advance and succeed in leadership position (Mclean, 2017). Female leaders sometimes worry that theydo not deserve success or a leadership role even after there are physical evidences and recognition of their competence and achievements.
Studies have shown impostor syndrome could have been developed in females while growingup because parents tend to convey negative feedback to their daughters than their sons (Lundgren & Rudawsky, 1998), even when the sons perform at equivalence as the daughters (Lewis et al, 1992). Hence, females could be more at risk for impostor syndrome than males developmentally. A female leader with impostor syndrome would feel like a pretender, unworthy of the position which often affect their ability to make decisions, inability to delegate work to others and consequently impacting on their job

performance and satisfaction(Mount & Tardanico, 2018). The feeling of not believing in one's ability to succeed can also lead to decrease in female leaders' persistence in leadership roles. Female leaders have also been reported to have less confidence than men in career pursuit (Kimball & Gray, 1982).

Female Leadership Behaviors and Competencies

Based on the understanding of the social role theory, the societal expectations of female as mothers and home-makers associates them with attributes such as creative or generative, emotional sensitive in addition to being caring, communal, having the ability to listen and help others, etc. of which are considered to be typical female leadership competencies.

Considering the leadership definition by Bennis (2009) and characteristic identified above, females are seen to show more leadership attributes than the males. But recent researches have revealed that even female with outstanding qualifications are still considered to be less competent leaders because traditionally leadership is evaluated upon agentic characteristics (Esser et al. 2018). This then pose the questions; how can a female leader be seen as competent in a male -dominated environment? What defines the leadership competencies andbehaviors she must possess to be successful?

Esser et al (2018) developed a competency framework with emphasis on male leaders' perspective on the key competencies essential for female leaders in a male dominated environment. Social gender role bias, leadership challenges, and perception of female leadersby male colleagues have been argued to be the factors that determines the kind of competencies that is required of female leaders to successfully operate in a male dominated environment. Hence, it is important to explore the specific competencies for female leaders in the context of unspoken bias as the understanding of effective leadership seems to be changing in emerging business environment (Chin et al.,2016). Research on leadership style found the males with task-oriented, directive, autocratic style of leadership and the females with relationship-oriented, participative, democratic leadership style. This confirms the perceived differences between both gender leadership competencies (Rigg & Sparrow, 1994; Oshagbemi & Gill, 2003; Trinidad & Normore, 2005; Glass & Cook, 2016; Esser et al, 2018).

Some recent researchers posited that some females have considered to remain true to their feminine gender stereotype because acting outside it results to loss of authenticity. (Cunningham, 2015; Rosner, 2015). And some have argued that female have to strongly adapt the masculine leadership behavior if they are aiming to lead in a male dominated workplace and get into the 'boys network' (Ronald, 2011; Powell, 2011; ; Eagly & Carli, 2007; Paustian-Underdahl et al, 2014). Some also argued that it is possible to integrate both male and female leadership competencies than adapting to male leadership behavior (Koeniget al., 2011; Gartzia & Van Engen, 2012).

Watkins & Smith (2014) asserted that the ability to look for and build powerful networks at work is important in order to attain respect in a male dominated environment. In exploring the leadership competencies that female leaders require in real-life workplace settings, Esseret al (2018) categorized the leadership competencies into five categories:

(1) Analytical competencies: This is the ability to think outside the obvious and go beyond. Itincludes competencies such as being alert to new opportunities, having sound judgement without prejudice, etc.
(2) Communicational competencies: The ability to communicate through body, written orverbal language in order to exchange information or ideas. This is particularly relevant inbuilding effective leader–follower relationships, and gain acceptance as a leader at the workplace (Notgrass, 2014; Alvinius et al., 2015;). It includes competencies like buildingnetworks at work, convincing self-expression, the ability to inspire, motivate and listen toothers.
(3) Organisational competencies: This is ability to lead internal organisational changes anddevelopments (Alldredge & Nilan, 2000). This includes competencies like ability to supervise, delegate, mentor others through coaching, encourage creative thinking, thereby fostering ethical behavior and trust.

(4) Personal competencies: This is considered as one of the criteria to getting a leadershipposition. It is the ability of the leader to be able to balance self-promotion and humility. It includes having self-confidence, self-discipline in the leadership framework.

(5) Professional competencies: This is the ability of a leader to carrying out organizationaltask related to the job. It includes competencies like adaptive capacity, persistency, good business acumen, taking risk, use of power positively, ability to negotiate etc.

However, Esser et al (2018) noted that not all the competencies need to be possessed by theleaders for their role.

Determination was found to be the most associated professional competency with the male leaders. Likewise, use of power, stress resistance, risk-taking were identified as typically masculine. Self-promotion and self-confidence were also found in the personal competencies'category as most-associated with male leaders. While in the range of communicational competencies category, building of networks within the workplace was seen as male related. It was further noted that the ability to balance self-promotion and remaining humble is not male associated.

On the other hand, the competencies most associated with female leadership behavior were found in the communicational competency category. Competencies such as empathy was topfor most of the interviewees. Others included ability to listen, ability to motivate, inspire others. Considering the analytical competencies, the ability to review existing processes in detail and find alternatives were found to be typically feminine while in the professional competency category, persistence and determination were noted to be related to feminine leadership behavior. Contrary to the masculine-related personal competencies, 'finding balance between self-promotion and humility' was strongly linked with female leaders.

However, it was also pointed out being humble for female leaders could turn into a negativecompetency

In the research, from the male viewpoint, the competencies considered to be most importantfor female leaders are in the categories of professional, communicational and personal competency categories. Professional expertise, adaptive capacity and use of power were considered key. Female leaders were advised to possess certain flexibility to be able to survive in a male dominated environment.

However, the ability to take on masculine behavior, such as networking, determination, use of power, are also considered as important as well as getting on well at an interpersonal level can greatly impact female leaders' success within the male-dominated environment.

Unspoken bias exists in the workplace and remains one of the greatest barriers to a female leader's accomplishment which could subsequently slowdown productivity and hold back business. The review of this literature has been able to establish the role congruity theory as ameans to understand people's perception of leadership roles in relation to gender and if such situation still persists focusing on organizational experiences. The social role theory with the double bind concept gave an insight to the societal beliefs of roles and gender and how it generates unspoken bias in the workplace while The ‘think manager-think male notion’ would be explored the apparent preference of a male leader for a leadership position. The Impostor Syndrome gave a deeper understanding of how female leaders stereotype themselves and their achievements while the competency framework theoretically identifies the leadership competencies that female leaders need to gain respect in a male dominated environment.

RESEARCH METHODOLOGY

This section presents an overview of the research philosophy, method and design, the reasonfor the choice and its implementation. It includes the research methodology and design, sampling, data collection methods, instruments, procedures and data analysis.

Research Philosophy

Research philosophy addresses the way the data about the research objectives would be collected, analyzed and discussed. This study is concerned with exploring the correlations between stereotypical gender bias, preference for a male for leadership position and boss andthe competencies required by female leaders in a real-life setting of a male dominated environment. Therefore, the research is focused on gender bias and it is aimed at bringing to light the existence of unspoken stereotypical bias in the oil and gas industry. Consequently, gender plays an important role in the research, so the main focus is not to change the stereotypical perception of female leaders among the male in a male dominated environment but to understand if it exist and measure the extent of its existence using numbers and mathematical derivations and establishing relationships or correlations between two variablesor factors, for instance, gender and gender preference for leadership or boss or gender and perception of female leaders’ competencies.

Two epistemological position are considered to determine the research methodology of a study - positivism and interpretivism. According to Bryman & Bell (2015), positivism is concerned with applying natural science methods such as data collection to test generalizabletheories of social science related issues and establish a relationship while interpretivism is a contrast to positivism because it gives the world perspectives in relation to the social related topic of interest. The philosophical position of this research reflects a positivism approach.

By analytical construct of the responses from questions relating to gender bias, preference and perception, data collection and interpretation which is based on facts and purely objective (Bryman & Bell, 2015) may be drawn. Positivism is dependent on the observations which leads to statistical analysis (Bryman & Bell, 2015). For this research, responses would be used to generate numerical data in order to establish relationship between existing theories and the findings. Research design and Method

Because of the complexities of social behaviors that must be considered when carrying out leadership research, the research methodology must be easy to use and flexible. Generally, research methodology is categorized into quantitative and qualitative. Qualitative research method is often exploratory and used to express human behaviors, motivations and emotions. On the other hand, a quantitative research method is unable to express human feelings and emotions, but it is grounded on the principles of positivism which involve the collection of numerical data and use of statistical analysis (Adams, et al., 2014). Because the response to the research questions would be derived from analytical constructs, this research work is firmly located in the framework of quantitative research. In order to obtain answers to the research questions and accomplish the research objectives, a descriptive quantitative research design would be considered. This would involve the collection of quantitative data (Bryman & Bell, 2015) to identify participants perception of stereotypical bias in relation to gender preference and female leaders' competencies in the oil and gas industry (bearing in mind that the hardest industries for female to attain respect and equality are male dominated industries like the oil and gas industry).Since new theories are not being developed from patterns or regularities in experience, an inductive approach would not be suitable for this study. In order to have a better understanding of the research questions and objectives and test the validity of the theories studied in section two for the oil and gas industry, a deductive approach of collecting data with the purpose of evaluating the assumptions from the existing theories was used.

Sampling Method and Approach

Most of the researched theory about female leadership in major industries has been presented from an American point of view because United States has been the pivot to such researches (Yanosek et al, 2019). The oil and gas industry, among major industries that are male dominated, has the lowest percentage of women and compared with the males, most female leaders often fight their way amidst many barriers to be able to reach the leadership position (Eagly & Johannesen-Schmidt, 2001). Hence, the expectation of this research to understand if the observed paucity is as a result of stereotypical bias and negative perception towards the female leaders' competencies.

The convenience sample approach of a male dominated world of the oil and gas industry was chosen because they represent a cross section of a male dominated industry with diverse population in terms of gender, ethnicity, businesses/subsidiary comprising of the upstream and downstream sectors like the exploration and production, marketing and services, gas renewable and power, refining and chemicals, oil & gas services among other demographic variables. Because of the evidences that females in the technical roles face more bias, the target population covers a range of technical personnel, senior managers, divisional heads, officers etc. both male and female of different ethnicity, having worked at one time or the other with a female boss. And because of the shortness of time to conduct the research and the COVID-19 situation, the easiness of access to the sample was put into consideration and that contributed to the choice of the quantitative research methodology.

Data Collection and methods

Primary data were collected with the aid of questionnaire using scales and predominantly closed end questions. Questionnaire survey is one of the popular and economical method to find out the view or attitude of a selected group of respondents. Obtaining data using the questionnaire survey has the advantages of cost, time efficiency, convenience for respondents especially in the period of the global pandemic situation when movement was restricted. A cross-sectional design was used to design the questionnaire because it was a research based on a particular phenomenon at a particular time (Saunders et al., 2009), the data was collected once from each participant using the survey monkey software and was deployed for a period of one month. The Likert scale was mostly used in the questionnaire because it is generally perceived as more acceptable as it allows for "fence seaters" (Preston & Colman, 2000). The questionnaire consisted of 89 items (88 closed-ended and 1 open-ended questions; of which 72 are positively worded and 17 negatively worded) categorized into 4 sections. Section 1 had 5 items pertaining to demographic information (close-ended question) relating to gender - this required ticking of boxes, coded as 1=male, 2=female). This section gives understanding of the participants' background of the participants, if they hold or have held a leadership position and whether they report to a female boss (both question also require ticking of boxes, coded as 1=Yes, 2=No); also to know their ethnicity and business and if it have an impact on their perception of female leaders.

Section 2 had 76 items with statements regarding perception of gender role stereotype existence, gender preference for boss and leadership positions, positive and negative perception of leadership competencies and competencies requirements of a female leader for acceptance in a male-dominated environment and perception of impostor syndrome tendencies in female leaders. This section is very important in obtaining answers to the research questions following the responses of the participants. To identify the stereotypical barriers and negative perception towards female leaders, an existing questionnaire, 'Women As Managers' Scale (W.A.M.S) of Peters et al (1974), and the newly developed, 'Attitude towards Women Managers' scale (ATWOM) by Aycan et al (2012) were used as a guide to develop the survey questions considering that the scales measures the perception towards females in leadership (managerial) position and attitudes towards women mangers respectively and have been widely tested. The statements were derived from the theory and research by renowned leadership & women leadership experts (on gender role stereotype, role congruity, impostor syndrome and leadership competencies, skills and behaviors as discussed in the literature review. The items were exclusively modified to address issues surrounding the research questions. The questions were closed-ended for easy completion. Some of the items were scored on a 5-point Likert (1= Strongly Agree to 5=Strongly Disagree), statements with a 5-point likert scale includes, "The tendency to prefer a male over female for leadership position exist", "I prefer to work with a male boss", "Ability to build networks". Some required checking boxes, and some were scored on matrix/rating scale (coded as 1=Male, 2=Female, 9=Both). Lower scores on this scale were associated with higher perception of gender bias towards female leaders and higher preference. This indicates the presence of unspoken gender-role stereotypical bias while higher scores are associated with lower perception of gender role stereotype existence, lower preference and higher perception of impostor syndrome tendency. Some of the items also required checking boxes, while some were scored on matrix/rating scale (coded as 1=Male, 2=Female, 9=Both) for example, “which of the following leadership styles can you associate with the female leaders in your work environment – Relation-oriented, task-oriented, etc”.

Section 3 had 7 items referred to the overall assessment of the female boss leadership skills. Sample items includes, “How would you rate the following leadership skills of a female leader that is a peer colleagues/ you report to / have reported to?”, “Considering the leadership skills above, how satisfied are you with your female boss leadership competences?” The items in this section were scored on a 4-point Likert scale (1-Very effective to 4-Not Effective at all) and the overall rating of the female boss was scored on a 7- point Likert scale (1-Very satisfied to 7-very dissatisfied) of which a lower score signifies high satisfaction with the leadership skills of participants’ female boss.

Section 4 has 1 item, an open-ended question relating to the personal opinion about gender bias towards female leaders in the oil & gas industry. The question was used to close the questionnaire, where the respondents were allowed to express their opinion in a more appropriate way and share additional thoughts that could be significant. This method seeks to gain insight into the reasons for their choices in the questionnaire. And this was introduced following the comments from the pilot test prior to the launching of the questionnaire. The survey questionnaire templates can be found in Appendix 1.
Because not every worker in the oil and gas industry was going to participate in the study, the participants were purposively selected in a non-random way using a voluntary response sampling technique of email, weblink transferred with SMS messages, social media (LinkedIn, WhatsApp); and snowball sampling technique by using other participants to get contact with more people working in other oil and gas industries. Research has shown that email surveys has a response rate of about 25-30% on the average (Kittleson, 1995) was deployed. This has a high level of ease and simplicity.

A cover letter stating the purpose of the study and a link to the survey on the survey monkey website was also included. Informed consent of the participants was implied by the voluntary completion of the survey where the purpose of the study was indicated. Participants were asked to fill in the questionnaire at their convenience and it took approximately 5-10minutes on average to complete.

Methods of Data Analysis

Because the research is quantitative, it consists of variables. The IBM SPSS (Statistical Package for the Social Sciences) software version 26 would be use for the statistical analysis. The rationale for this choice was based on the belief that this method of data analysis is relatively straightforward for analysing variables and it brings out powerful insights from responses to survey questions, it would help to create a variety of visuals. It also offers various analytical techniques in determining correlation and relationship between the variables (Bryman & Bell, 2015).

Demographics Analysis would give an overview of the percentage of response between the independent variables and dependent variables. This would be followed by the Descriptive Statistics which would show the behavior and spread of the variables being investigated. In view of the too many questionnaire items, correlation analysis would be done to reduce the items to those that are related to the objective of the study using the Chi square test. The strength of a study is the reliability of the instrument being used; hence a reliability test would be done using the Cronbach's alpha test. In order to make generalization and inferences from the responses, a mean comparison analysis would be done using the independent t-test.

The reliability and validity of the variables would then be tested to ascertain correctness and relationships between the variables. In order to effectively carry out the data analysis, a prerequisite approach of mapping and definition of the variables would be done so as to determine the dependent and independent variables for effective data analysis which would be in line with the research methodology. This is often dependent on the theoretical considerations and the objective of the analysis (Mayring, 2002).

Evaluation of female leaders' competencies: This categorical variable address both negative and positive evaluation of female leaders' competencies and their abilities to discharge their managerial abilities. Competencies in this study would be measured by the perception female leaders' behaviors, leadership skills and leadership styles as well as the perceived competencies required in order to lead and achieve respect. Examples of statement that made up the variables includes, 'Female leaders make better leaders than men, 'A femaleleader is disliked when she displays strong competence', 'Female leaders often feel unworthyof the leadership position they have been given',etc.

Satisfaction rating of female boss: This variable assesses the perception of female leaders'competencies and it is measured by the effectiveness and satisfaction rating of the female leadership skills.
Figure 3.1 below shows a logical connection of the constructs of interest from the theoreticalframework in the literature review.

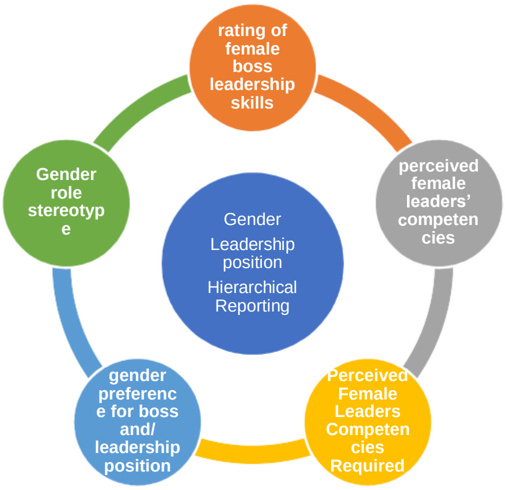

rating of female boss leadership skills
perceived female leaders' competencies
Perceived Female Leaders Competencies Required
gender preference for boss and/ leadership position
Gender role stereotype
Gender
Leadership position
Hierarchical Reporting

Figure 3.1: Logical Explanation of the Study

Internal and External Validity

The survey instrument was reviewed by the supervisor and pilot-tested with 7 participants a week before official launch. This was to identify questions that could lead to biased answers and lack focus. After the pilot test, it was recommended to include an open-ended question to seek the opinion of participants on the theme of the study. In order to validate the internal consistency of the questionnaire items and variables a reliability analysis would be carried out.

Ethical Considerations

Ethics Approval for Taught Programmes (Appendix 2) was sought at the University of Salford prior to data collection. In addition, participation in the survey was made voluntary and participants were assured that there was no penalty to non-participation and that the results obtained would be reported anonymously, the result of which may be used as a contribution to the empirical knowledge of gender bias issue in the oil and gas industry. The consent of participants to participate in this survey/questionnaire project were obtained by filling the survey and returning the form by clicking on 'send'.

Methodological Limitations

The Survey was widely circulated to various workers in the different oil and gas industry via email and social media. One of the problems encountered was the global lockdown that was experienced in many parts of the world which affected the responses received. Other problem was that 24 responses of the 158-survey data were incomplete because of some technical issues with the survey monkey tool used. These were however not included in the analysis.

The survey instrument was developed using theories from literature review and WAMS & ATWOM as guide, a reliability assessment needed to be done to test the consistency of the items.

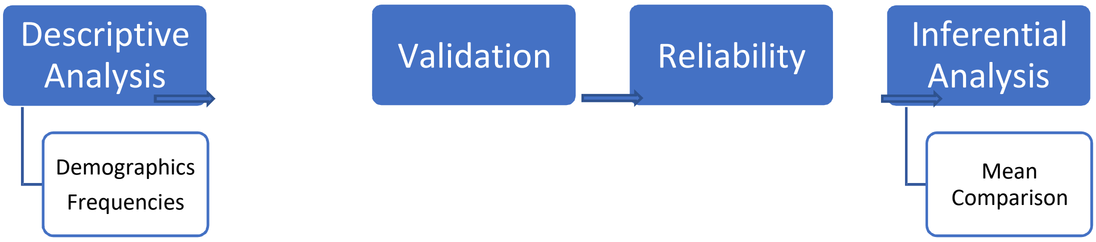
The study could have been better appreciated from a mixed research methodology, by enhancing the findings with interviews on female leaders and male subordinates to capture the experience of the participants in their role as leaders and subordinates. However, this was not possible due to time constraint and lack of accessibility.

DATA ANALYSIS, RESULTS AND FINDINGS

The objective of this chapter is to analyze and compare the findings from the survey with what has been said in theory. The scope of the analysis is to identify the perception of the existence of stereotypical bias towards female leaders which could be unspoken and unconscious in a male dominated environment like the oil and gas industry; through gender preference for boss and leadership position as well as negative evaluation of female leaders' competencies. There were no hypotheses predicted for the study, but assumptions were madebased on review of the researches done by various researchers as identified in chapter 2. The chapter starts with the data analysis, followed by a detailed discussion of the results of the analysis, relating it with the theories that had been identified in the literature review.

DATA ANALYSIS & RESULTS

The data were analyzed using the IBM SPSS version 26. Because the research is descriptivein design, the following analysis and tests were systematically carried out to ascertain if stereotypical gender bias related to gender preference for leadership position, negative perception of female leaders competencies exists and what are the perception of the leadership requirements for a female leader in the oil and gas industry.



The analysis was carried out based on the survey data retrieved from 134 respondents.

Descriptive Analysis

The descriptive analysis is a major component of the quantitative data analysis that indicatesthe normality of data. It gives the summary of the results describing the basic relationship between the variables. It includes mean, range, frequencies, and standard deviation of the data set to show the behavior and spread of the variables being investigated.

Demographic Data

The demographic analysis gave an overview of the distribution of the categorical variable overthe independent variables. The sample consisted of males and females from different businesssectors of the oil and gas industry and of diverse ethnicity. Some of whom have been leaders, have worked with female leaders, have female leaders as colleagues, etc. Generally, the oil and gas industry that was the focus had over 100,000 workers. The overallresponses totaled 160, 26 of which were incomplete and therefore eliminated from the data analysis. This produced a total of 134 subjects and, a response rate of 0.13% (based on the assumption of 100 000 workers). The sample comprised of 80 males and 54 females. The frequency tables below were based on the independent variables.

Table 4.1.1a: Frequency table for Gender

Gender Of Participants	No. Of Respondents	Cumulative Percent %
Male	80	59.7
Female	54	40.3
Total	134	100.0

Because not all the respondents report to a female boss, the N value for hierarchical reporting was 105 (Table 4.1.1b)

Table 4.1.1b: Frequency table for Hierarchical reporting

Respondents who reports to Female leaders			
Gender	**No**	**Yes**	**Grand Total**
Female	11	43	54
Male	18	62	80
Grand Total	**29**	**105**	**134**

The distribution of survey respondents that have leadership experience is evidenced in table 4.1.1c

Table 4.1.1c: Frequency Table for Leadership Experience

Respondents who have held leadership position			
Gender	**No**	**Yes**	**Grand Total**
Female	18	36	54
Male	14	66	80
Grand Total	**32**	**102**	**134**

Majority of the respondents (98) were from the Exploration & Production business sectors asshown in tables 4.1.1d. This is owed largely to the fact that the researcher works in the Exploration and Production business sector.

Table 4.1.1d: Frequency table for Business Sectors

Business Sectors	Male	Female
Exploration and Production	60	40
Marketing and Services	2	3
Gas Renewable and Power	4	2
Refining & Chemicals	3	1
Oil and Gas Services	11	8
TOTAL	**80**	**54**

Table 4.1.1e reports the frequency of the respondent's ethnicity which shows that the respondents were predominantly African (82 respondents).

Table 4.1.1e: Frequency Table for Ethnicity

Race/Ethnicity	Male	Female
Asian / Pacific Islander	3	2
Black or African American	8	4
Hispanic	2	1
White / Caucasian	10	19
African	55	27
Others	2	1
TOTAL	**80**	**54**

These last two variables were not considered in the data analysis because of the heterogeneity of responses. Considering the objective of the study, from the demographic data, threeindependent variables stood out as factors that could indicate the existence of perceived stereotypical bias and negative evaluation of female leaders' competencies in the industry. Thevariables include: Gender, Leadership Experience (those who are leaders of have held leadership position) and Hierarchical reporting line (respondents who reports or have ever reported to a female boss).

Validation of the Questionnaire

Having established the independent variables of interest, the next step was to reduce the dimensionalities of the dependent variables prior to analysis. This is because of the number ofthe questionnaire items, and the limitation of the analytical tool to analyze categorical variables. This was done using the Chi square analysis in the IBM SPSS to determine the correlation between the dependent and independent variables. The chi square is often used to test the relationship between two variables by cross tabulating the variables concerned. If p- value is less than 0.05, it means that the variables are not independent of each other and there exists a statistical relationship between the variables. All the 88 questionnaire items were subjected to the analysis. This helped to focus the analysis on the questions that are associated and related to the purpose of the study.

Table 4.1.2a: *Correlation (p) value for dependent and independent variables.*

Dependent Variables	**Questionnaire Items**	**Independent Variables (*p value*)**				
		Gender	**Do you hold leadership position?**	**Subsidiary**	**Ethnicity**	**Have you ever reported directly to a female boss/leader?**
Gender-role Stereotype	The tendency to prefer a male over female for leadership position exist.		0.031			0.006
	Unconsciously attributing certain attributes to female leaders occur often.	0.02			0.000	
	"Think manager- Think male" phenomenon is an unspoken rule for managerial or leadership position.	0.05	0.003			
Gender Preference	I prefer to work with a male boss	0.05	0.052			
	I am more motivated by having a maleboss rather than a female boss.			0.000		
	Leadership characteristics are moresuited to men	0.01	0.006		0.029	

Table 4.1.2a & b shows the Pearson chi square correlation (*p*) figures of only the questionnaire items that have significant relationship with the five independent variables (demographic). Fewer relationship exists between subsidiary, ethnicity and the dependent variables. For example, there is a relationship between gender and if participants have held a leadership position before and if the participant has hierarchical reporting to a female boss; arelationship also exist between gender and majority of the questionnaire items which means that gender plays a major role in the perception of female leaders competencies in the oil and gas industry.

Table 4.1.2b: *Correlation (p) value for dependent and independent variables.*

Dependent Variables	**Questionnaire Items**	**Independent Variables *(p value)***				
		Gender	**Do you hold leadership position?**	**Subsidiary**	**Ethnicity**	**Have you ever reported directly to a female boss/leader?**
Evaluation Of Female leaders Competencies	Female leaders recognize employees' needs in a timely manner	0.002				0.003
	Female leaders allow their emotions to influence their managerial behavior.		0.012			
	Female leaders cannot be assertive in business situations that demands it.	0.000				
	Female leaders cannot give priority to their work lives due to family responsibilities	0.005				0.031
	When a female leader act differently from their traditional gender norm, they risk negative evaluations.	0.021	0.006			0.001
	Female leaders sometimes feel they must work 24/7 to keep their incompetence from being exposed.	0.011				
	Female leaders worry that they do not deserve the leadership position despite physical evidences of their competence.	0.001	0.034		0.023	
	Female leaders often feel unworthy of the leadership position they have been given.	0.022				0.005
	Female leaders sometimes fail to recognize their abilities.	0.046	0.042			
le Leaders Competencies Required	To successfully lead and achieve respectin a male-dominated work environment like the oil and gas, a female leader mustabandon her feminine leadership competencies	0.049				0.051
	To successfully lead and achieve respect in a male-dominated work environment like the oil and gas, a female leader needs more than feminine competencies.	0.011	0.005			
	To successfully lead and achieve respect in a male-dominated work environment like the oil and gas, a female leader, have to perform much better than males.	0.000	0.001			0.0002
	To successfully lead and achieve respect in a male-dominated work environment like the oil and gas, a female leader, mustbuild upon powerful networks at work.	0.008				0.002
Overall rating of female Boss	Considering the leadership skills in Q15, how satisfied are you with your female boss leadership competences?	0.0001	0.002			0.000

This analysis made important questionnaire items (25) to be visible such as tendency to prefera male for leadership position in relation to gender and if the respondents hold a leadership position or not. The remaining questionnaire items that had higher correlation factor were set aside for better "comprehensive understanding and overall assessment in the discussion and conclusion.

Reliability Assessment Using Cronbach Alpha Test

The reliability of the instrument used determines the efficiency of the study. It is important tocarry out a reliability analysis to measure the internal consistency of the research instrument –the questionnaire before the reduction of the dimensionalities and after. To verify the internal consistency of the data and its suitability for use, Cronbach's alpha test was performed on all the items in the research questionnaire. This test measures the reliability of dimensions being analyzed, whether they can be used to measure the dependent categorical variables. DeVellis (2003) recommended value of 0.7 and above. When the reliability analysis was conducted on the initial 88 items, the value of Cronbach's alpha test obtained was 0.943. After the reduction of the questionnaire items to 25 items using the Chi square, the Cronbach alpha value was reduced to 0.774 which is still within the acceptable range. This indicated that the measures used were highly reliable.

Table 4.1.3a below shows the Cronbach's alpha test results.

Overall Reliability Statistics		
Cronbach's Alpha	nbach's Alpha Based on Standardized Items	N° of Items
0.774	0.767	25

Table 4.1.3b below shows the distribution of the reliability statistics for each dependent categorical variable.

Variables		**Cronbach's Alpha**	**Cronbach's Alpha Based on Standardized Items**
1	Gender role Stereotype	0.789	0.798
2	Gender Preference	0.732	0.737
3	Evaluation of Female LeadersCompetencies	0.746	0.739
4	Leadership Behavior Required for female leaders'	0.631	0.627
5	Female leaders Skills satisfactory rating	-	-

Mean Comparisons using the Independent T analysis

The independent T analysis is an inferential statistical test that indicates whether there is a significant difference or relationship between the means in two unrelated variables. It measures the difference in size relative to the variation of the sample data, *t value* which indicates if there is a greater evidence of a significant difference between the groups of data; It can also measure the effect size (cohen's *d*) which gives the standardized difference between two means. Among other things, it can also be used to compare the mean and standard deviations of the individual responses of the independent variables and how they interact with the dependent variables. Table 4.1.4

presents the mean and standard deviation of the measured variables: independent variables and dependent categorical variables to determine the existence of stereotypical gender bias as measured by the survey instrument.

The mean and standard deviation values indicate a relatively normal distribution.

Table 4.1.4a: Statistical Summary of Selected Item (Independent variables)

Independent Variables		Nº ofItems	Summary Item Statistics	
			Mean	**StandardDeviation**
1	What is your gender?	**1**	1.403	1.403
2	Do you currently hold, or have youheld a leadership role?	**1**	1.239	1.239
3	Have you ever reported directly to a female boss/leader?	**1**	1.216	1.216

Table 4.1.4b: Statistical Summary of Selected Item (Dependent variables)

Dependent Variables		**Nº of Items**	**Summary Item Statistics**	
			Mean	**StandardDeviation**
1	Gender role Stereotype	3	2.383	0.958
2	Gender Preference	3	3.371	0.990
3	Evaluation of Female Leaders Competencies	9	3.056	0.964
4	Leadership Behavior Required forfemale leaders'	4	2.856	0.984
5	Female leaders Skills satisfactory rating	1	2.272	1.246

The importance of carrying out the mean comparison was to complement the descriptive analysis and further determine if the sets of variables being tested are independent of each other or if they have a correlation. Table 4.1.5a, b, c, d indicates the mean scores and standarddeviation of the independent variables being measured against the dependent categorical variables to measure the differences (measured in means/averages) in the responses.

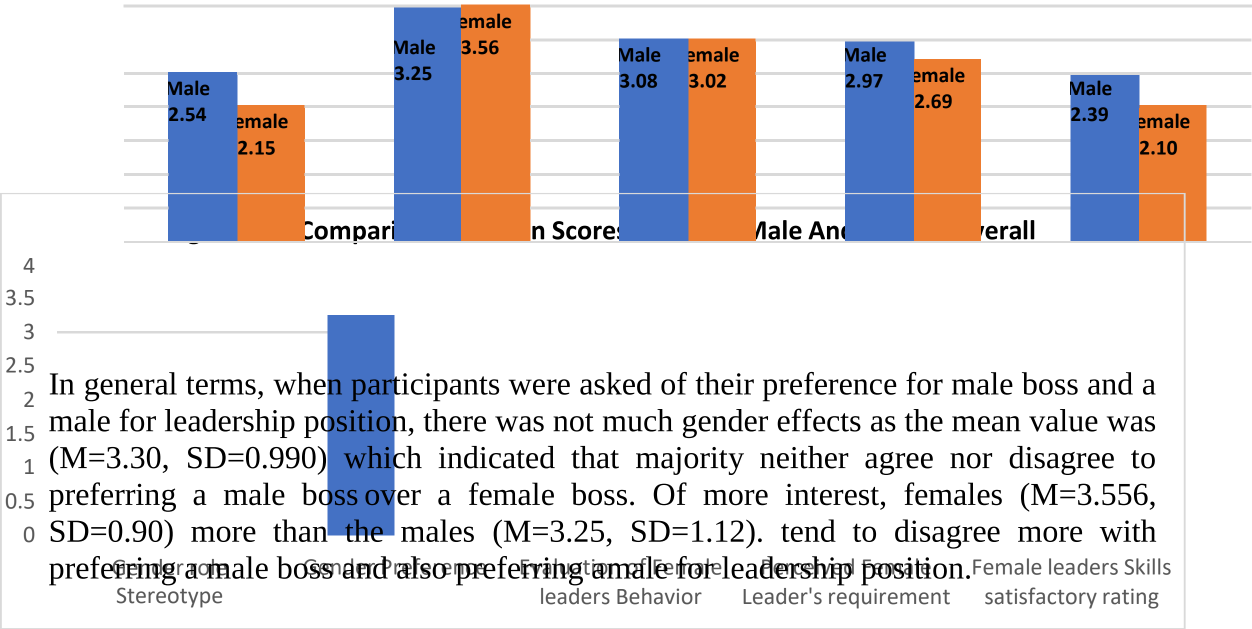
Gender Perspective

*T*able 4.1.5a & Figure 4.1.5a illustrates the comparison of the mean scores between male andfemale respondents on all the identified variables.

Table 4.1.5a: Mean Scores Of Respondents based on gender

		Gender role Stereotype	Gender Preference	Evaluation of Female leadersBehavior	Perceived Female Leader's requirement	Female leaders Skills satisfactoryrating
Male	Mean	2.54	3.25	3.08	2.97	2.39
	Standard deviation	0.96	1.02	0.87	0.92	1.32
	Nº	134	134	134	134	103
Female	Mean	2.15	3.56	3.02	2.69	2.10
	Standard deviation	0.91	0.90	1.06	1.00	1.11
	Nº	134	134	134	134	103

From the mean comparison of the categorical variable "gender role stereotype", females (M=2.15, SD=0.91) reported higher perception than the males' (M=2.54, SD=0.96). This indicates that females responded positively to the existence of the gender role stereotyping inthe workplace. More female than male (M=2.57, SD=1.01) believe that the "think manager –think male" is an unspoken rule for selecting a manager in the oil and gas industry, of which most men tend to disagree with.



In general terms, when participants were asked of their preference for male boss and a male for leadership position, there was not much gender effects as the mean value was (M=3.30, SD=0.990) which indicated that majority neither agree nor disagree to preferring a male boss over a female boss. Of more interest, females (M=3.556, SD=0.90) more than the males (M=3.25, SD=1.12). tend to disagree more with preferring a male boss and also preferring amale for leadership position.

In assessing whether female leaders are positively or negatively evaluated in the oil and gas industry, the male respondent had a mean value of (M=3.08, SD=0.87) and female (M=3.02,SD=1.06). This indicates that both male and female were 'fence seaters' in the positive evaluation of female leaders' competencies although the females agreed more to the positiveevaluations than the males.

Exploring the competencies that are most important for female leaders in a male dominated industries like the oil and gas industry as viewed from the perspective of gender, more females (M=2.70, SD=1.00) than males (M=2.97, SD=0.92) agreed that female leaders require more than feminine competencies to be able to lead and achieve respect in a male dominated environment, while both male and female respondents showed more favorable response to female leaders having the need to build upon powerful networks and understand the ‘male’ game to be able to belong in the ‘boys’ club. (Appendix 1 Figure 6.5). Also, in rating the leadership skills for female leaders, male respondents (M=2.39, SD=1.32) rated theleadership skills less favorable than the female (M=2.10, SD=1.00) and significantly rated low was the people – management skills.

Leadership Experience Perspective

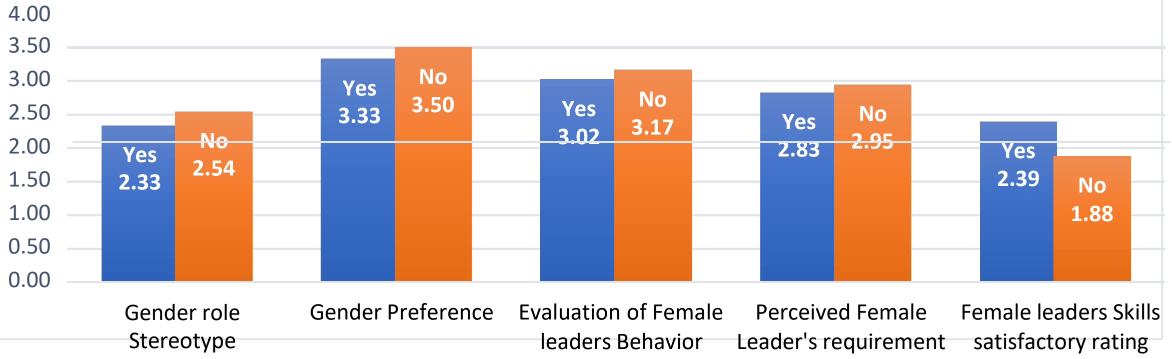
The table and figure 4.1.5b below summarize the comparison of the mean scores for those with leadership experience and those who have never held a leadership position based on thequestion, ‘Do you currently hold, or have you held a leadership role?’

Table 4.1.5b: Mean Scores Of Respondents With Leadership experience

		Gender role Stereotype	Gender Preference	Evaluation of Female leaders Behavior	Perceived Female Leader's requirement	Female leaders Skills satisfactory rating
Yes	Mean	2.33	3.33	3.02	2.83	2.39
	Standard deviation	0.96	0.99	0.97	0.99	1.30
	Nº	134	134	134	134	103
No	Mean	2.54	3.50	3.17	2.95	1.88
	Standard deviation	0.94	0.98	0.91	0.98	0.99
	Nº	134	134	134	134	103

The results indicate no significant difference in the responses of those who have or have notheld a leadership position. When analysing the mean ratings of those with leadership experience, participants with leadership experience “Yes” (M=2.33; SD=0.96) agreed more to the existence of gender role stereotyping than those without leadership experience, “No” (M=2.54, SD=0.94).

Fig. 4.1.5b: Comparison Of Mean Scores of Respondents with Leadership Position



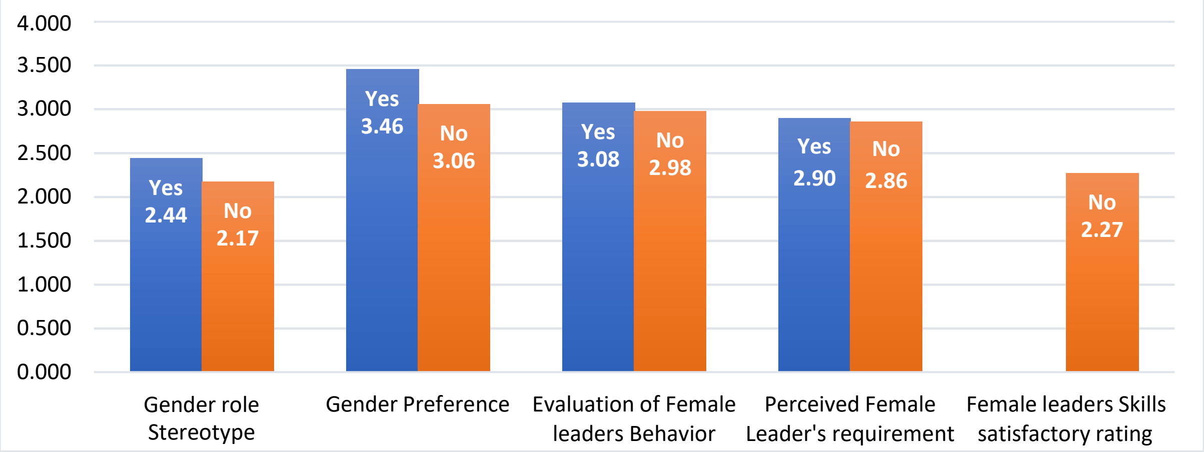
In terms of gender preference, those without leadership experience (31%) showed more preference to a male boss than those who had (21%). Further analysis on whether participantsare more motivated by having a male boss showed more disagreement especially from those without leadership experience (M=3.50, SD=0.98). Equally, those with leadership experienceshowed a high disagreement to the negatively worded statements and they also expressed lessfavorable response to being satisfied with the leadership skills of a female leader.

4.1.1.1 Hierarchical Reporting Perspective

Table & Figure 4.1.5c shows that, majority of the participants who reports to a female boss orhave reported to a female boss are mostly satisfied with their leadership skills.

Hierarchical Reporting to a female boss	Statistics	Gender role Stereotype	Gender Preference	Evaluation of Female leaders Behavior	Perceived Female Leader's requirement	Female leaders Skills satisfactory rating
Yes	Mean	2.44	3.46	3.08	2.90	2.27
	Standard deviation	0.95	1.00	0.96	1.01	1.25
	Nº	134	134	134	134	103
No	Mean	2.17	3.06	2.98	2.86	-
	Standard deviation	0.98	0.91	0.97	0.91	-
	Nº	134	134	134	134	103

Fig. 4.1.5c: Mean Score Comparison of Respondents who reports to a female boss



Regarding the hierarchical reporting factor, those who do not report to a female boss agreed more to the existence of gender role stereotyping (M=2.17; SD=0.98) than those with female boss (M=2.44, SD=0.95). Majority of the participants agreed that unconsciously ascribing certain attributes to female leaders occur in the oil and gas industry. In the same vein, those who report to a female boss showed more disagreement to having a male in leadership position (M=3.06, SD=0.91) than those who do not report to a female boss (M=3.46, SD=1.0). Interestingly, these group of respondents showed more agreement to the negative perception of the female leaders' competencies

(M=2.981, SD=0.97). But concerning the competencies that is agreed to be more important for female leaders in a male dominated environment, there was no significant difference between the response of those who reports to a female boss (M=2.85, SD=1.01) and those who do not (M=2.90, SD=0.91). Satisfaction rating of a female leader was less favorable by the male respondents (M=2.39, SD=1.32) than the female (M=2.10, SD=1.00) and most significantly rated leadership skills for women was the people – management skills.

DISCUSSION

Following the interpretation of the findings in the previous chapter, further deductions can still be drawn from the study. In the literature review, it was highlighted that unspoken bias can arise when low profile judgement is ascribed to a particular social group (Rein, 2003) andthis gender stereotype has been responsible for the existence of different perception on male and female social behaviors and characteristics (Bakan, 1966). Also, according to Bakan (1966), despite all the typically feminine behaviors, certain behaviors and attributes are ascribed to female leaders because they are female, and this aligned with the expression of the male respondents in their responses and in their personal opinion on the subject matter.

From the findings, men are perceived to be more natural in the role as leader considering the response rate of those who agreed that leadership position are more suitable to the males than the females although. An additional interesting thing is that while most female think that the ‘think manager think male phenomenon’ is an unspoken rule for managerial or leadership position, most male did not agree to it and as such do not think that stereotypical bias exist in the oil and gas industry. The analysis of the results for gender role stereotype did not show a significant difference between the male and female perception. This indicates that the men and women in the oil and gas industry are equal in terms of perceived stereotypical bias.

Turning to the literature of Eagly et al (1992), that found male leaders favorably evaluated more than female leaders and Elsesser & Lever (2011) which showed no gender difference in the ratings of managers, the results showed consistency with Elsesser & Lever (2011) as there was no significant difference between the genders in the satisfaction rating of a female leader that they had worked with. The leadership skills of a leader tell a lot about the competence, so the relationship between the job satisfaction rating and the effectiveness of leadership skills of a female leader is an indication of the level of competence. The presence of positive relationship between the effectiveness of the identified skills and high rating of satisfaction with female leader suggest that the two constructs are related.

On the perspective of gender preference for boss &leadership position in the oil and gas industry, the most common justification of male preferring male bosses more than female is centered upon negative perception of female leaders. In particular, the male agreed more with the impostor syndrome statements that puts the female leaders as “petty”, “micromanage”, “worrisome”, “arrogant”. These spoken and unspoken stereotypical adjectives are commonly used to look down on female leaders and considered them as unfit as leaders and that was why many respondents tend to disagree that they make better leaders than men.

CONCLUSION

With regards to the research objective 'if unspoken bias against female leader competencies exists in the oil and gas industry, the answer is 'yes' and 'no'. In any male-dominated environment, there is the tendency of unspoken gender bias and stereotyping, but this is dependent on a variety of factors like organizational culture, societal culture, leadership stylesand relationship with subordinates.

Although, organizational culture was not considered in the objective of the research, comments from the survey revealed that the work environment, the workplace norms, the team one works with, and the recruitment process plays a major role in concluding that unspoken gender bias exists within the organization. This aligns with the Oakley (2000) categories of barriers which identifies organization culture as a barrier preventing female leaders from having equal opportunities as the male Some negative comments also directly revealed the negative perception of female leaders' competence in leadership position, whichclearly supported the role congruity theory's concept of descriptive bias, by revealing that some males have unspoken bias towards the ability of women to lead in the oil and gas industry. Having a personal working experience with a female boss influences the perception of their competencies. Those that reports to female bosses or had during their career reported to a female boss, tend to show less gender bias towards female leaders probably because the exposure to and experience with a female boss diminishes the effect of unspoken gender bias.And this observation is also reflected in the gender preference for boss. The justification for preferring a male boss to female boss was observed to be coherent with the stereotypical perception that the males have the ability to take on risks and active stance in the face of problem and the females have the ability to communicate, possess emotional intelligence, sensitivity to employee's needs etc. The study clearly implied that there is no preference for boss gender, although majority admitted being comfortable working with a female boss and this was further confirmed by some of the comments made by the respondents.
Furthermore, the study findings revealed the existence of bias and stereotyping against female leaders in the oil and gas industry. And again, this was attributed to the cultural dominance of men in the African society and the cultural beliefs about women as being the supportive gender. Premised on these cultural beliefs, the oil and gas industry world which is dominated by males now seems to be hostile to females as African men do not like to be dominated by females even when they are competent and capable. This was made apparent when ethnicity was brought into focus especially with the males.

Leadership styles influences the perceived differences between the male and female leadership competencies. The leadership styles mostly associated with female leaders in the oil and gas industry is the participative and relation-oriented style of leadership which actually is the recommended best practice and more effective approach in human resources management (Beale & Hoel, 2010). Another leadership style identified in the female leaders is task-oriented style which did not align with Esser et al (2018) theory in which the style was associated more with male leaders and not female leaders. The former style of leadership correlates with the transformational style of leadership. Concerning the leadership behaviors and competencies female leaders should adopt in order to be visible and accepted in a male- dominated work environment, this study revealed a mix of gender-related behaviors in the oil and gas industry, mostly at the organizational level such as innovative thinking, the ability to mentor and develop others, and professional level such as determination, adaptive capacity and willingness to take on responsibility. From the results, it can be concluded that female leaders in the oil and gas might lack self-confidence and the ability to take on risk. However, it is considered that female leaders would require more than feminine competencies to succeed and be accepted in the oil and gas industry, although they might not necessarily had to apply masculine leadership behavior but they will need to perform better than the male counterpart in the area of building powerful network at work like the males and having the determination to understand the role or game that men play while operating in male dominances.

The issue of unspoken bias is a topic that should not be denied but needs to be deliberately addressed, although some believed that because it is a cultural thing, it would disappear with time as more female leaders continue to emerge. As human, there are excuses as to why leadership position is assigned to another gender and this could easily be ascribed to gender bias, but importantly when female leaders prove to be an added value, they would certainly be respected and recognized. If the females are given adequate recognition in leadership, the issue of negative evaluation of their competencies would be reduced or eliminated.

Recommendations

Based on the findings from this study, the following research recommendations were made:

- There are different forms of organizational culture in the oil and gas industry and there is the need to test the impact the different cultures may have on the perception of stereotypical bias. And so, future studies should develop a new reliable survey that is more specific to organizational culture.
- Diversity culture could have an impact on individual attitude and negative evaluation of female leaders in the workplace, hence it would be interesting to utilize a larger sample size to maximize results.
- Gender stereotype may be consistent with cultural difference; hence future studies should obtain more subjects from minority ethnicities.

The study provides the basis to understand the perception of gender bias existence in the oil and gas industry as it relates to the gender preference for leadership position and evaluation

of female leaders’ competencies. In addition, it can be seen as a valuable requirement for human resource department in the industry aiming to improve the employment process of female leaders in male-dominated technical professions. Equally present and future female leaders can obtain interesting information that could be complementary and therefore contribute immensely to the argument of why only few women are present at the top management level in male-dominated industries like the oil and gas . Thus, the study can be seen as a good start for future researches in the context of the diversity related issues in the oil and gas work environment in which it was assessed. It can however be used as a reference for clearer understanding of under-researched perspective on competencies required from female leaders in male-dominated environment.

REFERENCES

Adams, J., Khan, H. T. & Raeside, R. (2014). Research Methods for Business and Social Science Students.s.l.:SAGE Publications.
Al-Halwachi, L.F., (2018). Female Leadership Style: Evolving Paradox. International Journal of Academic Research in Business and Social Sciences.
Alldredge, M.E. & Nilan, K.J. (2000). 3M’s leadership competency model: an internally developed solution. Human Resource Management, Vol. 39 Nos 2/3.
Alvinius, A., Boström, M.E. & Larsson, G. (2015). Leaders as emotional managers.
Leadership & Organization Development Journal, Vol. 36 No. 6.
Amaechi, E. (2020). Women in Management: Disrupting the Prescribed Gender Norms.10.1007/978-3-030-29710-7_7.
Anderson, R. (2014). Elevating women in oil and gas: Critical factors for attraction and retention. World Oil.
Aycan, Z., Bayazit, M., Berkman, Y.& Boratav, H.B (2012) Attitudes towards women managers: Development and validation of a new measure with Turkish samples. European Journal of Work and Organizational Psychology, 21:3, 426-455.
Babcock, P. (2006). Detecting hidden bias. HR Magazine, Vol. 51 No. 2.
Bass, B.M. and Aviolo, B.J. (1997). Shatter the glass ceiling: women may make better managers. in Grint, K. (Ed.), Oxford University Press, New York, NY.
Beale, D. & Hoel, H. (2011). ‘Workplace bullying and the employment relationship: exploring questions of prevention, control and context’, Work, Employment and Society, 25(1).
Bennis, W. G. (2009). On becoming a leader. Rev. and updated. New York: Basic Books Bierema, L. (2017). No woman left behind. In Madsen, S. R. (Eds.), Handbook of research on
gender and leadership (pp. 145-162). Northampton, MA: Edward Elgar Publishing.
Boateng, D. A. (2018). Experiences of female academics in Ghana: negotiation and strengths as strategies for successful careers. African Journal of Social Work, 8(1).
Bolton, E. (2016). The science behind implicit bias.
Available at: http://www.aauw.org/2016/05/19/science-behindimplicit-bias/
Boyatzis, R.E. (1982). The Competent Manager: A Model for Effective Performance. John Wiley & Sons, New York, NY.
Boyatzis, R.E. and Sala, F. (2004). Assessing emotional intelligence competencies. in Geher, G. The Measurement of Emotional Intelligence, Novas Science

Publishers, Hauppauge, NY.

Boyatzis, Richard. (2008). Competencies in the 21st century. Journal of Management Development.

Brackett, M.A., Rivers, S.E., Shiffman, S., Lerner, N. and Salovey, P. (2006), "Relating emotional abilities to social functioning: a comparison of self-report and performance measures of emotional intelligence", Journal of Personality and Social Psychology, Vol. 91 No. 4.

Brands, R. (2015), "Think manager- think man' stops us seeing woman as leaders", The Guardian.

Available at: www.theguardian.com/women-in-leadership/2015/jul/15/think-manager-think-manwomen-leaders-biase-workplace

Braun, S. & Stegmann, S. & Hernandez Bark, A. & Junker, N. & Dick, R.(2017). Think manager-think male, think follower-think female: Gender bias in implicit followership theories. Journal of Applied Social Psychology.

Brown S.G.U., Stuhlmacher A.F. & Keegin M.M. (2014). Job Role Congruence and Gender.

In: Michalos A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, DordrechtRetrieved 23 January 2020 Available at:https://www.cipd.co.uk/knowledge/fundamentals/people/performance/competency-factsheet

Clance, P. R. & Imes, S. A. (1978). The impostor phenomenon in high achieving women: Dynamics and therapeutic intervention. Psychotherapy: Theory,Research & Practice, 15(3), 241-247.

Cunningham, E. (2015). 14 New York women spill their tips for career domination.Refinery29. Retrieved 26 April 2020 Available at: https://www.refinery29.com/en-us/male-dominated-industries-career-advice#slide

Deal, J.J. & Stevenson, M.A. (1998). "Perceptions of female and male managers in the 1990s: Plus ca change.", Sex Roles, vol. 38, no. 3, pp. 287-300.

DeVellis, R. (2003). Scale development: Theory and applications. 2nd ed. s.l.:Thosand Oaks, CA: Sage Publications.

Diekman, A. & Goodfriend, W. (2006). Rolling with the Changes: A Role Congruity Perspective on Gender Norms. Psychology of Women Quarterly. 30. 369 - 383.

Donovan, J (2009). Shell's top gas executive, Linda Cook, resigns ahead of CEO change Retrieved 01 February 2020

Available at: https://royaldutchshellplc.com/2009/05/26/shells-top-gas-executive-linda-cook-resigns-ahead-of-ceo-change/

Eagly, A. H. (1987). John M. MacEachran memorial lecture series; 1985. Sex differences in social behavior: A social-role interpretation. Lawrence Erlbaum Associates, Inc.

Eagly, A.H. & Johnson, B.T. (1990), "Gender and leadership style:a meta-analysis", Psychological Bulletin, Vol. 108, pp. 233-56.

Eagly A.H., Makhijani M.G. & Klonsky B.G. (1992). Gender and the evaluation of leaders: A meta-analysis. Psychological Bulletin 111(1): 3–22.

Eagly A.H., Karau S. & Makhijani M. (1995). Gender and the effectiveness of leaders:

A meta-analysis. Psychological Bulletin 117(1): 125–145.

Eagly, A.H. & Johannesen-Schmidt, M.C. (2001), “The leadership styles of women and men”, Journal of Social Issues, Vol. 57, pp. 781-97.

Eagly, A.H. & Karau, S.J. (2002), “Role congruity theory of prejudice toward female leaders”. Psychological Review, Vol. 109 No. 3, pp. 573-598.

Eagly, A. H., Johannesen-Schmidt, M. C., & Van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men. Psychological bulletin, 129(4), 569

Eagly, A. H., & Carli, L. L. (2007). Through the labyrinth: The truth about how women become leaders: Harvard Business Press.

Eastin, J. & Prakash, A. (2013). Economic Development and Gender Equality: Is There a Gender Kuznets Curve? World Politics. 65.

Elmuti, D., Jia, H. & Davis, H.H. (2009). Challenges Women Face in Leadership Positions and Organizational Effectiveness: An Investigation. Journal of Leadership Education. Volume 8, Issue 2.

Elsesser, K. & Lever, J. (2011). Does gender bias against female leaders persist?

Quantitative and qualitative data from a large-scale survey. Human Relations Ely, R. & Ibarra, H. & Kolb, Deborah. (2011). Taking Gender Into Account: Theory and

Design for Women's Leadership Development Programs. Academy of Management Learning & Education.

Esser, A., Kahrens, M., Mouzughi, Y., & Eomois, E. (2018). A female leadership competency framework from the perspective of male leaders. Gender in Management: An International Journal, Vol. 33, pp. 138-166 © Emerald Publishing Limited.ExxonMobil Gender Pay Gap Report (2018).

Retrieved 01 March 2020Available at: https://www.exxonmobil.co.uk/-/media/UnitedKingdom/Files/2018-Gender-pay-report.pdf

Fagenson, E. A. (1990). Perceived masculine and feminine attributes examined as a function of individuals' sex and level in the organizational power hierarchy: A test of four theoretical perspectives. Journal of Applied Psychology, 75(2), 204–211.

Garcia-Retamero, R. & López-Zafra, E. (2006). Prejudice against Women in Male-congenial Environments: Perceptions of Gender Role Congruity in Leadership. Sex

Roles 55, 51–61.

Gartzia, L. & Van Engen, M. (2012). Are (male) leaders “feminine” enough? Gender traits of identity as mediators of sex differences in leadership styles. Gender in Management: An International Journal, Vol. 27 No. 5, pp. 296-314.

Grant Thornton (2019). Women in Business: Building a Blueprint for Action. An instinct for growth. p. 5.Retrieved 01 March 2020Available at: https://www.grantthornton.global/globalassets/global-insights---do-not-

edit/2019/women-in-business/gtil-wib-report_grant-thornton-spreads-low-res.pdf

Girod S., Fassiotto M., Grewal D., Ku M.C., Sriram N., Nosek, B.A. & Valantine H. (2016).

Reducing implicit gender leadership bias in academic medicine with an educational intervention. Acad Med. 91: 1143-50.

Gizelis Theodora-Ismene (2009). Gender Empowerment and United Nations Peacebuilding.

Ghani, F.A., Derani, N., Aznam, N., Mohamad, N., Zakaria, S. & Toolib, S.N. (2018). An Empirical Investigation of the Relationship Between Transformational, Transactional Female Leadership Styles and Employee Engagement. Global Business and Management Research: An International Journal, 10(2), p.724.

Glass, C. & Cook, A. (2016). Leading at the top: understanding women's challenges above the glass ceiling. The Leadership Quarterly, Vol. 27 No. 1, pp. 51-63.

Heilman M.E., Block C.J. & Martell R. (1995). Sex stereotypes: Do they influence perceptions of managers? Journal of Social Behavior and Personality 10(6): 237–252

Heilman M.E (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. Journal of Social Issues 57(4): 657– 674.

Heilman M.E., Wallen A.S., Fuchs D & Tamkins M.M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. Journal of Applied Psychology 89(3): 416–427.

Heilman M.E. (2012). Gender stereotypes and workplace bias. Department of Psychology, 6 Washington Place, room 551, New York, NY 10003, United States.

Hejase, H., Haddad, Z., Hamdar, B., Massoud, R. & Farha, G. (2013). Female Leadership: An Exploratory Research from Lebanon. American Journal of Scientific Research. 28- 52.

Huang J., Krivkovich, A., Starikova,I., Yee, L., & Zanoschi, D. (2019). Women in the Workplace 2019 Article. McKinsey & Company

Ibarra, H., Ely, R., & Kolb, D. (2013). Women rising: The unseen barriers. Harvard business review, 91(9), 60-66.

ILO - Bureau for Employers' Activities (ACT/EMP) (2015). Women in Business and Management: Gaining momentum.Retrieved 20 January 2020Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_316450.pdf

Jamieson, K. H. (1995). The Binds That Tie. In Beyond The Double Bind: Women and Leadership (pp. 3-21). New York: Oxford University Press.

Jamieson, K. H. (1997). Beyond The Double Bind, Women and Leadership. Oxford University Press

Johnson, G., Scholes, K., & Whittington, R., (2008). Exploring Corporate Strategy: Text & Cases. Helgeson, S. (1990), The Female Advantage: Women's Ways ofLeadership, Doubleday, New York, NY.

Kark, R. & Eyal, O. (2004). How Do Transformational Leaders Transform Organisations? A Study of the Relationship between Leadership and Entrepreneurship. Leadership and Policy in Schools. 3. 211-235.

Kimball, M. M., & Gray, V. A. (1982). Feedback and performance expectancies in an academic setting. Sex Roles, 8, 999–1007.

Kittleson M. J. (1995). An assessment of the response rate via the postal service and e-mail.J Hlth Behav Educ Promot ;19(2):27-29

Koca C. & Öztürk P. (2015). Gendered perceptions about female managers in Turkish sport organizations. European Sport Management Quarterly, 15:3, 381-406.

Koch, A. J., D'Mello, S. D., & Sackett, P. R. (2015). A meta-analysis of gender stereotypes and bias in experimental simulations of employment decision making. Journal of Applied Psychology, 100(1), 128–161.

Koenig, A.M., Eagly, A.H., Mitchell, A.A. & Ristikari, T. (2011). Are leader stereotypes masculine? A Meta-analysis of three research paradigms. Psychological Bulletin, Vol. 137 No. 4, pp. 616-642.

Kolligan Jr, J., & Sternberg, R. J. (1991). Perceived Fraudulence in Young Adults: Is There an 'Impostor Syndrome'?. Journal of Personality Assessment, 56(2), 308-326.

Kompaso, S. & Sridevi, M. (2010). Employee Engagement: The Key to Improving Performance. International Journal of Business and Management.

Kumar, S., & Jagacinski, C. M. (2006). Impostors have goals too: The impostor phenomenon and its relationship to achievement goal theory. Personality and Individual Differences, 40(1), 147-157.

Laerd Statistics, 2015. Statistical tutorials and software guides.. [Online] Retrieved 15 April 2020Available at: https://statistics.laerd.com

Lewis, M., Alessandri, S. M., & Sullivan, M. W. (1992). Differences in shame and pride as a function of children's gender and task difficulty. Child Development, 63(3), 630-638.

Lundgren, D. C., & Rudawsky, D. J. (1998). Female and male college students' responses to negative feedback from parents and peers. Sex Roles, 39(5), 409-429

Lyness, K. S., & Heilman, M. E. (2006). When fit is fundamental: Performance evaluations and promotions of upper-level female and male managers. Journal of Applied Psychology, 91(4), 777–785

Madsen, S. R. (Ed.) (2017). Handbook of research on gender and leadership. Cheltenham, England: Edward Elgar Publishing.

Madsen Susan R. & Andrade Maureen S. (2018). Unconscious Gender Bias: Implications for Women's Leadership Development.

Mandell, B. & Pherwani, S. (2003), “Relationship between emotional intelligence and transformational leadership style: a gender comparison”, Journal of Business and Psychology, Vol. 17 No. 3, pp. 387-404

Mayring, P. (2002), Einführung in Die Qualitative Sozialforschung, 5th ed., Beltz, Weinheim/Basel.

Mclean, M.C (2017). The Impostor Syndrome: An Obstacle To Women’s Pursuit Of Power.New Brunswick, New Jersey

McCleskey, Jim. (2014). Situational, transformational, and transactional leadership and leadership development. Journal of Business Studies Quarterly. 5. 117-130.

Metcalfe B. & Altman Y. (2001). Leadership in E.Wilson (ed). Organisational Behaviour.A gender Critique. London: British Institute of Management.

Morrison, A. M., White, R. P., & Van Velsor, E. (1987). Breaking the Glass Ceiling.Reading, MA.: Addison -Wesley

Mount, P. & Tardanico, S. (2018). Beating the Impostor Syndrome

Muller-Heyndyk, R. (2019). Female and younger leaders more susceptible to imposter syndrome Retrieved 20 March 2020Available at: https://www.hrmagazine.co.uk/article-details/female-and-younger-leaders-more-susceptible-to-imposter-syndrome

Nava, M. (2014). Exploratory study of leadership styles and gender: an analysis of female HR managers styles over their career trajectory in Ireland.

Northouse, P. G. (2016). Leadership: Theory and practice (7th ed.). Thousand Oaks, CA: Sage. Pages: 494.

Notgrass, D. (2014). The relationship between followers' perceived quality of relationship and preferred leadership style. Leadership & Organization Development Journal, Vol. 35 No. 7, pp. 605-621.

OECD Statistics (2018). Share of employed who are managers, by sex.Retrieved 20 March 2020

Available at: https://stats.oecd.org/index.aspx?queryid=54752

O'Leary, V.E. & Ickovis, J.E. (1992). Cracking the glass ceiling: overcoming isola and alienation", in Sekaran, U. and Leong, E.R.L. (Eds). Womanpower: Managing in Times of Demographic Turbulence, Sage Publications, Newbury Park, CA.

Oshagbemi, T. & Gill, R. (2003). Gender differences and similarities in the leadership styles and behaviour of UK managers. Women in Management Review, Vol. 18 No. 6, pp. 288-298.

Painter-Morland, Mollie (2011). "Gender, Leadership and Organization." In Values and Ethics for the 21st Century. Madrid: BBVA.

Parker K., Horowitz, J. & Igielnik, R. (2018). "Women and Leadership 2018". Pew Research Center, September 2018.

Retrieved 23 January 2020Available at: https://www.pewsocialtrends.org/wp-content/uploads/sites/3/2018/09/Gender-and-leadership-for-PDF_updated-10.1.pdf

Paustian-Underdahl, S.C., Walker, L.S. & Woehr, D. (2014). Gender and perceptions ofleadership effectiveness: a meta-analysis of contextual moderators. Journal of Applied Psychology, Vol. 99, No. 6, pp. 1129-1145.

Pelaez, B.B. (2017). Examining the Relationships between Gender Role Congruity, Identity, and the Choice to Persist for Women in Undergraduate Physics Majors.

PESA (2018). Gender Diversity Study. Prepared for PESA by Accenture Retrieved 02 February 2020

Available at: https://pesa.org/wp-content/uploads/2018/04/PESA-Gender-Diversity-Report-April-2018.pdf

Peters, L. H., Terborg, J. R., & Taynor, J. (1974). Women as Managers Scale (WAMS): A measure of attitudes toward women in management positions. JSAS Catalog of Selected Documents in Psychology, 4, 27

Peters, T.J., & Waterman, R.H. (1982). In Search of excellence: Lessons from America's best-run companies. NewYork: Warner Books

Pieta, B. & Dijksma, A. (2013). A male perspective on female leaders: Multiple case study from four male dominated organizations (Dissertation).

Retrieved 02 February 2020Available at: http://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-21591</div

Piterman, H. (2008). Women in Management: The Leadership Challenge. Department of Families, Housing, Community Services and Indigenous Affairs.

Retrieved 30 January 2020Available at: https://www.dss.gov.au/our-responsibilities/women/publications-articles/economic-independence/the-leadership-challenge-women-in-management

Powell, G. N. (Ed.). (1999). Handbook of gender and work. Sage Publications, Inc.

Preston, C. C. & Colman, A. M. (2000). Optimal number of response categories in rating scales: reliability,validity, discriminating power, and respondent preferences. Acta Psychological, Volume 104, pp. 1-15.

Probert, B. (2005). ‘I Just Couldn’t Fit It In’: Gender and Unequal Outcomes in Academic Careers. Gender, Work & Organization. 12. 50 - 72. 10.1111/j.1468-0432.2005.00262. x.

Rein C.A. (2003). Working Together: How Workplace Bonds Strengthen a Diverse Democracy. Oxford University Press.

Reiners, B. (2019). What is gender bias in the workplace? More than 70 statistic-backed examples of gender bias and ways to reduce it in your workplace.

Reskin, B. F., & Ross, C. E. (1995). Jogs, authority, and earnings among managers: The continuing significance of sex. In J. A. Jacobs (Ed.), Gender inequality at work (pp. 127–151). Thousand Oaks: Sage

Rick K., Iván M. & Ulrike V.L. (2017). Gender Balance in Oil and Gas: An important and attainable – goal. World Petroleum Council, Global Perspective Publication. Pg. 50 Retrieved 23 January 2020

Available at: https://www.worldpetroleum.org/docs/docs/Gender/WPC_Strategic_Review_2017_Genderbalance.pdf

Ridgeway, C. L. (2011). Framed by gender: How gender inequality persists in the modern world: Oxford University Press.

Rigg, C. & Sparrow, J. (1994). Gender, diversity and working styles. Women in Management Review, Vol. 9 No. 1, pp. 9-16.

Ritter, B. A., & Yoder, J. D. (2004). Gender differences in leader emergence persist even for dominant women: An updated confirmation of role congruity theory. Psychology of Women Quarterly, 28(3), 187-193.

Ronald J. B. (2011). Women and Men in Management, 4th edition by Gary N. Powell, Journal of Women & Aging, 23:4, 377-379, DOI: 10.Retrieved 30 March 2020Available at: https://www.tandfonline.com/doi/abs/10.1080/08952841.2011.611074

Rosener, J.B. (1990). Ways women lead. Harvard Business Review, November-December, pp. 119-25.

Rosenwasser, S. M., & Dean, N. G. (1989). Gender role and political office: Effects of perceived masculinity/femininity of candidate and political office. Psychology of Women Quarterly, 13, 77–85.

Rosner, C. (2015). Know what you stand for – how to thrive in a male dominated industry.Forbes Women. Retrieved 29 March 2020Available at: www.forbes.com/sites/womensmedia/2015/06/02/know-what-you-standfor-how-to-thrive-in-a-male-dominated-industry/#725815fb5343

Ross, H. J. (2014). Everyday bias: Identifying and navigating unconscious judgments in our daily lives. Lanham, MD: Rowman & Littlefield

Rutherford, S. (2001). Any difference? An analysis of gender and divisional management styles in a large airline. Gender, Work and Organization, Vol. 8, pp. 326-45.

Sasha R. (2019). South Africa's Zozibini Tunzi crowned Miss Universe 2019.Retrieved 23 January 2020Available at: https://yourstory.com/herstory/2019/12/miss-universe-2019-south-africa-zozibini-tunzi

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research Methods for Business Students (5 ed.). Harlow: Prentice Hall Financial Times.

Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. Journal of Applied Psychology, 57(2), 95–100.

Schein, V.E. & Davidson, M.J. 1993, "Think manager, think male", Management Development Review, vol. 6, no. 3, pp. 24.

Schmidt T. M. & Møller A. L. (2011). Stereotypical Barriers for Women in Management.Retrieved 08 March 2020Available: https://pdfs.semanticscholar.org/5e2e/d47d9cf6354c5bd447d8c79db09b29d4716b.pdf?_ga=2.24929401.230389671.1597013786-1035323511.1584907018Seeman, M. (1960). Social status and leadership. Columbus: Ohio State University, Bureau of Educational researchell UK Gender Pay Gap Report (2018).Retrieved 23 March 2020Available at: https://www.shell.co.uk/media/2019-media-releases/shell-uk-publishes-2019-gender-pay-gap-report.html

Simmons, W. W. (2001b, January 11). When it comes to choosing a boss, Americans still prefer men.

Retrieved 24 March 2020Available: http://www.gallup.com/poll/releases/

Skelly, J. & Barger Johnson, J. (2011). Glass Ceilings and Great Expectations: Gender Stereotype Impact on Female Professionals. Southern Law Journal.

Slaughter, A. (2014). Foreword. In Williams J. & Dempsey R. (Authors), What Works for Women at Work: Four Patterns Working Women Need to Know (pp. Xiii-Xviii). NYU Press.

Retrieved March 21, 2020,Available at: www.jstor.org/stable/j.ctt9qgbd2.3

Stalinski, S. (2014). Female executives and the glass ceiling: a phenomenological Study of stubborn, systemic barriers to career advancement. Published by ProQuest LLC (2014). Copyright in the Dissertation held by the Author.

Tan, B. U. (2020). The Effects of Values and Gender Role Perceptions on Attitudes Towards Women Managers. In B. Tan (Ed.), Macro and Micro-Level Issues Surrounding Women in the Workforce: Emerging Research and Opportunities (pp. 37-57).

Hershey, PA: IGI Global.The Advocates for Human Rights Annual report (2018).Retrieved 23 March 2020

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