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Diversity And Inclusion In The Workplace Of Civil Engineering Firms In South Africa

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RESEARCH ARTICLE

Diversity And Inclusion In The Workplace Of Civil Engineering Firms In South Africa

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WITS Business School

Thesis presented in partial fulfilment for the degree of Master of Business Administration to the Faculty of Commerce, Law, and Management, University of the Witwatersrand

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DECLARATION

I Ntsitile Ramone declare that this research report entitled '**Diversity and Inclusion in the workplace of engineering firms in South Africa**' is my own unaided work. I have acknowledged, attributed, and referenced all ideas sourced elsewhere. I am hereby submitting it in partial fulfilment of the requirements of the degree of Master of Business Administration at the University of the Witwatersrand, Johannesburg. I have not submitted this report before for any other degree or examination to any other institution.



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Signed at Johannesburg on 28th April 2021

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DEDICATION AND ACKNOWLEDGEMENT

This research article is dedicated to my mother, Mrs Masebina Ramone as she as she inspired the thesis through continuously working hard in communities in Lesotho to break down the gender stereotypes and discrimination faced by women in male dominated industries. I wish to thank her defiantly for the countless hours of reading and encouraging me throughout the entire process.

I would also like to thank and acknowledge the Graduate School of Business Administration for allowing me to conduct my research and providing the necessary assistance.

ABSTRACT

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Thesis title: **'Diversity and Inclusion in the workplace of civil engineering firms in South Africa'**

The narrative of engineering as a masculine profession has replicated the observation that engineering is incongruous for women. Although efforts to encourage females to get into the engineering field have been made, a number of them have failed. At the same time, it has been argued that the way gender is 'done' in work can help diminish or increase inequality between the sexes. Diversity symbolises the synchronicity of employees with an extensive variation of socio-cultural, socio-economic as well as demographic characteristics. Inclusion designates the optimal employment of a blended workforce for the development and success of an organisation by providing a sense of connection, empowerment, acknowledgement, respect to the diverse workforce as well as integration. Gender inequality can also be viewed as the cultural and social situation in which gender determines different rights and self-worth for women and men, which are echoed in their imbalanced access to rights, as well as the hypothesis of pigeonholed social and cultural roles

Using case study research exploring diversity and inclusion in the workplace of South African civil engineering firms in Gauteng, this study aims to explore the relationship between diversity and inclusion attributes such as gender inequality, pay disparities, gender based discrimination, skills as well as unfavourable work conditions and how they affect job performance and in turn inhibit growth in the industry. A case study approach was used through conducting semi-structured interviews that enabled in-depth insights from participants to get a thorough understanding of the concepts under review.

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INTRODUCTION TO THE RESEARCH

1.1 Background and context

Despite the enhancements and the encouraged transformation in the engineering sector, the segregation amongst gender is still prevalent which suggests that the workplaces are not as diverse and inclusive as portrayed to be. In male dominated industries, women are constantly discriminated against based on the perception that their male counterparts are more skilled and competent (Martin & Barnard, 2013). This research aims to evaluate diversity and inclusivity in the workplace of civil engineering firms in South Africa with a focus on gender inequality, pay disparities, educational background and skills as well as the unfavourable work conditions that females are subjected to as opposed to males that essentially affect job performance and inhibit growth in the industry.

1.1.1 The engineering industry background in South Africa

For the longest time, the engineering sector in South Africa was primarily immersed of males as it was deemed a more masculine profession that women would never fit into. However, off late, the narrative has drastically changed as more women are registering at universities to study engineering. The demographics of the student population have changed over the years from a student body that was White and mostly male before the sixties to one with about eighty percent Black Africans and over thirty percent female in 2019 (Grimson & Grimson, 2019). However, the South African engineering industry somewhat still fails to entice, instigate as well retain a significant number of women in the industry.

1.1.2 Diversity and Inclusion concepts in the workplace

The historically ingrained gender bias and male dominance has prevented many endowed female engineers from succeeding in the sector. As a result, women are often consigned lesser jobs of projects, which basically makes them feel side-lined.

Because of these dynamics, more than one in four women are envisaging what many would have considered improbable a while ago that is, downshifting their careers or leaving the workforce entirely (Thompson, 2015). Many companies risk losing women in leadership and future women leaders, as a result of years of scrupulous progress towards gender diversity.

Fouad & Singh (2011), further allude to this narrative that the Science, Technology, Engineering and Mathematics industry have a high chance of losing female leaders due to the rife discrimination of women, particularly, black women in the industry. This is because most engineering degrees and apprenticeships show a disparate discrepancy in favour of men.

1.1.3 Diversity and Inclusion in the workplace of Civil Engineering firms in South Africa

Historically, the statistics of females in the civil engineering sector have been significantly low. Despite efforts that have been made to have a diverse, gender neutral and inclusive sector, the civil engineering industry remains predominantly engrossed by males which is perturbing considering the efforts that are being made to bring in more women in the sector (Haupt & Fester 2012). Could the issue be that the rules made in the sector are not conducive for all constituents, or are the rules intentionally made stringent to not accommodate all stakeholders? Are males more skilled hence, they climb the corporate ladder faster than women do? Are the rules being made by men for men, which automatically exclude a significant fraction of women?

1.2 Research conceptualisation

1.2.1 The research problem statement

In the Civil Engineering industry, the disproportion of males to females is vast. This is an implication that the industry is not as gender neutral, diverse and inclusive despite the large number of female graduates and professionals in the country. A study by Meiksins & Layne (2019) connotes that a majority of small to medium enterprises in the engineering field has a high concentrate of males than females, especially where the enterprises are owned by a male, which suggests a level of bias from recruitment. Even-though companies are being incentivised to recruit more females, especially those of colour, the numbers of professionally registered females in the sector are still not improving (Grimson & Grimson, 2019; Martin & Barnard, 2013; Faulkner, 2009). This is due to the perception that males are still viewed as more capable than their female counterparts regardless of how qualified women may be. On that note, this encourages talented women engineers to leave the sector as they feel undervalued (Fouad, Chang & Wan, 2017; Powell, Dainty & Bagilhole, 2010). This study aims to discuss the rarity of diversity and inclusion in the workplace of civil engineering firms in Johannesburg, Gauteng in South Africa. Diversity denotes introducing and advancing the profession of engineering to all genders, nationalities, races as well as

sexualities (Grimson & Grimson, 2019). Women and racial minorities constitute a minute fraction in the grand scheme of the industry. Furthermore,they earn an average of 10% less than their male counterparts (Fouad, Chang & Wan, 2017). Confronting diversity with a focus on gender inequality in the civil engineering industry may be a complicated task due to steadfast years of the issue. However, failure to maintain a diverse and inclusive work environment may result in loss of talent by virtue of skills and different perspectives to the norm (Grimson & Grimson, 2019). Engineering firms are significant in South Africa as they form part of the critical skills that are required to boost the economy, hence it is imperative that the Science, Technology, Engineering and Mathematics sector garner interest and systems to solve the obstinate problem.

1.2.2 The research purpose (aim and objectives) statement

The purpose of this study is to discuss the implications for the lack of diversity and inclusion in the workplace of civil engineering firms. The study unpacks how lack of diversity and inclusion in the workplace affects job performance and inhibits growth of minority groups, particularly women in the industry. This study discusses diversity with a focus on aspects such as pay disparities, unfavourable work conditions, experience as well as skills as a result of gender inequality. On achievement of the desired results, the researcher aims to get management and supervisors' buy-in by employing blind hiring tools for diversity hiring; implementing key performance indicators and balanced scorecards. Inherently, the employment of key performance indicators will enable management to measure performance and compensate employees based on skills and performance rather than gender. A balance in pay will essentially transform the work environment, as it will improve morale and encourage employees (especially women) to put in more effort than before as they will be fairly compensated. The impact of this study will have in the industry will be demonstrated through; seizing balanced work environments in civil engineering firms, more females will be supported and recommended for work, increased numbers of females will register professionally as well as balanced pay for all employees will be based on skills and performance. Lastly, an inclusive environment that encourages and allows for continuous improvement and growth for all stakeholders.

To achieve the aforementioned, structured interviews with employees from various civil engineering firms were utilised in order to get an in-depth assessment of the environment.

1.2.3 The research questions

1.2.2.1 Question 1:

In your opinion, what are the reasons for lack of diversity and inclusion in the workplace of civil engineering firms in South Africa?

1.2.2.2 Question 2:

In your opinion, how do you think lack of diversity and inclusion affects an organisation?

1.2.3.3 Question 3:

In your opinion, how do you think gender inequality and lack of inclusion affect job performance and career growth of female engineers in the industry?

1.3 Delimitations and assumptions of the research study

This study aims to unpack the root causes of lack of diversity and inclusion, particularly gender inequality in the civil engineering firms in South Africa, Gauteng province. There are numerous causes but the most prominent ones will be discussed. This study aims to discuss diversity and inclusion in civil engineering firms with a focus on gender inequality, as well as divulge the impact it has on job performance, organisational growth as well as career development in the organisation. Lack of diversity and inclusivity is realised in civil engineering firms due to the evident gender based discrimination. As a result, gender inequality translates to pay disparities, lack of skills development and slow career advancement, inadequate promotion opportunities and minimal leadership roles, poor working conditions, the old narrative that deems men as more skilled than women, the industry being deemed as masculine as well as women being employed just to meet employment equity conditions. For these reasons, the delimitations of the study are that it is focused on only females in the civil engineering industry in Johannesburg, Gauteng instead of the engineering sector in South Africa as a whole. This will enable the researcher to get indepth experiences of the targeted sample in the industry. On the other hand, the assumptions of the study are that the engineering industry has a bias to gender, and the most significant causes for gender inequality and inclusivity are pay disparities and lack of skills and continuous development. It is apparent that to date, males still are paid more than females, especially females of colour. Moreover, women struggle to climb the corporate

ladder in the engineering industry, which inhibits their progression and success, and eventually the opportunities to even be considered for managerial positions (Kaur, 2013).

1.4 Significance of the research study

This study is significant as it encourages transformation in the engineering sector across all disciplines. A thorough comprehension of women's experiences in this industry may expedite stratagems geared towards their retention and stimulus in male-dominated professions. A diverse workplace that represents employees from an array of backgrounds, cultures, gender as well as way of thinking not only leads o increased profitability, access to a wide talent pool, innovation, but it also enhances employees'morale, sense of belonging as well as improved employee performance(Boykin, 2017). Failure to adapt to a more gender equal and inclusive environment will see many companies fail as a concentration of like-minded people is very detrimental in the long run. Kaur (2013) further alludes that a robust homogeneous culture can stifle accepted cognitive diversity due to the pressure to conform.

Most engineering firms have a high concentrate of males that think alike and make rules that are mostly convenient and suitable to them and their needs. As a result, this inhibits progress and impedes performance for women and minority groups as the rules are not so favourable to them, essentially suggesting that there will be a sluggish progress of deliverables on projects at some point (Meiksins & Layne, 2019). For instance, in many engineering firms, the rules are not conducive for women taking care of their families because the narrative according to society is that women do not work long hours, but can only manage a nine to five workday, as they have to take care of families after work (Sheperd, 2019). Therefore, in a traditional home, this suggests that only males will be considered to work long hours at work which essentially translates to them earning and gaining more experience than a typical female who would have been excluded because of their home situation. On that note, failure to have a transformed work environment suggests that managers and leaders will continue making bias decisions which somewhat underrepresent women, and will in turn affect operational efficiencies thus progress and growth.

In a nutshell, this study will portray its significance such that, it may serve as a guidance for male-dominated organisations to cultivate policies and instrument strategies, policies as well

as advances focused towards enticing, preserving and encouraging women already in the sector and those who would potentially want to join the industry.

1.5 Preface to the research report

To this end, this report comprises six chapters. Subsequent to the this introductory chapter one, Chapter two reflects the literature review whereby the researcher comprehensively explicates the significant phenomenon. Chapter three reflects the research methodology whereby the research paradigm, research design, the population, sample, data collection as well as research intruments, reliability and validity as well as an ethical considerations will be discussed. In chapter four and five, the results will be presented and discussed respectively, in accordance with the research questions. Lastly, chapter six concludes the research findings as well as summarises the research, discloses the limitations of the study and makes recommendations and suggestions for future research.

2 LITERATURE REVIEW

To date, engineering is still largely seen as a man's world, with men outnumbering women by a considerable margin on university campuses and even more so in the professional environment. Engineering Council South Africa (2013), did a survey which established that, out of the 23.4% of women that register to become professional engineers, approximately 12.1% do persist to see their registration which leaves the bulk of it to their male counterparts. Many countries globally experience a large number of women exiting the engineering industry despite their skills and demonstrated competence (Silbey, 2016). This has been mainly influenced by years of prejudicial chauvinist outlooks by society dictating that males should naturally be inclined to science, technology, engineering and maths while women opt for softer skills or professions like the arts and humanities (Thompson, 2015). As a result, the choice of women stepping into the engineering industry has been beheld as a strange one hence the hostility and discrimination that still lingers to date in the industry. This section will give an overview of the diversity and inclusion in the workplace of civil engineering firms in South Africa with a focus on the aspect of gender inequality in the sector.

2.1 An analysis of Diversity and Inclusion in engineering firms in South Africa

The engineering industry in South Africa is still largely dominated by males despite efforts that have been made and implemented to dilute the gender variation. Regardless of a large number of women registering for engineering programmes in university, there is simultaneously a large number of women also leaving the engineering sector. The reasons for most women exiting the engineering industry are due to factors such as; discrimination in the workplace, work environments that are not as inclusive as perceived to be, work conditions that are not accommodating to females as they are made by men for men, harassment at workplaces, unfair pay, prejudicial perception of women’s competencies, sluggish career development, work/life imbalance as well as socio-cultural issues (Schmitt, 2020). Basically, the aforementioned factors have led to detrimental symptoms in the industry such that, women are paid way below men regardless of skills and competencies, little opportunities in leadership roles, lack of support in career development and continuous learning to mention a few. Essentially, this section of research sets out to discuss the problem analysis of lack of diversity based on gender inequality and inclusion in the workplace of engineering firms in South Africa.

2.1.1 Root causes of diversity, specifically gender inequality and inclusion in the workplace of engineering firms in South Africa

The perception of engineering being a field for males still persists to date. This emanates from a stereotype that perceives a typical engineer as a classic male not female or any member of the minority groups. To date, civil engineering firms lack diversity due to the persistent stereotype that deems the profession as suited for males not females (Kaur, 2013). So far, civil engineering still suffers a gender imbalance that stems from the perception of the profession being suitable for males hence the lack of diversity and transformation in the sector (Boykin, 2017). Clearly, the civil engineering sector is confronted by the systemic barriers that include sexism, systemic racism, lack of coaching and mentorship as well as inequities that emanate from cultural stereotypes (Suyono & Mudjanarko, 2017).

Gender hierarchies that emanate from socio-cultural beliefs and norms are still apparent to date despite efforts that have been made to encourage women to consider careers in male dominated professions. In the engineering industry, women remain immeasurably underrepresented, hence the slothful progression of their careers (Grimson & Grimson, 2019). A study by Smith & Gayles, (2018) expounds that women enter the engineering industry at low rates compared to men, but leave the industry at much higher rates after a considerable time of being in the industry. This is resultant of prominent gender inequality and lack of inclusion in the male dominated sectors (Martin & Barnard, 2013).

In male dominated industries, women are constantly discriminated against due to the perception that their male counterparts are more skilled and competent. Consequently, women are often delegated projects that are less challenging and technical but expected to perform project administration work that requires less analytical capabilities (Tiedeu, Para-mallam, & Nyambi, 2019). Males are perceived to have the birth right of being in technical professions whilst women should undertake softer skills.

On the contrary, Azhar & Griffin (2014), argue that assigning lesser tasks to women is not an implication of discrimination, but rather an allowance that enables them to carry out tasks that will not occupy them, as they still need to maintain a work/life balance in order to take care of their families. Yeoh (2017), further complements the sentiments by suggesting that women should put in a comparable work effort of assigned tasks like men do. Sublimely, this

suggests that women should rather focus on working as hard as their male counterparts which will ideally result in them assuming the recognition they deserve, as constantly flagging the gender narrative only does more harm than good since it gives out a perception that women are not capable enough to undertake duties (Yeoh, 2017; Azhar & Griffin, 2014).

Basically, this suggests that women are presumed to be better domesticated than in professional male dominated industries (Thompson, 2015). However, less utilisation of females in the industry only causes more harm than good, as morale gets depleted enormously which thus affects productivity and performance as well as operational efficiencies (Smith, 2018; Silbey, 2016). As a result, women are forced to conform to work environments that are not conducive in order to fit in and be accepted in the work environment, which unfortunately is not a guarantee that technical assignments will be delegated to them without a male supervisor (Powell, Bagilhole & Dainty, 2009). In most cases, this obvious gender stereotyping together with cushy projects, underrepresentation and in some cases blatant sexual harassment isolates women so much that they end up reconsidering the engineering profession altogether.

Moreover, women are not only discriminated against in terms of utilisation, but they are discriminated against in terms of attaining lack of career advancement and training opportunities in the predominant male industries (Fouad & Singh, 2011). (Meiksins & Layne, 2019) further attest to this notion as they divulge that training and advancement, mentorship and apprenticeships are usually availed to men, which inherently slows down progression of women in the industry. Schmitt (2020) echoes this perception by findings that identify that inadequate training and mentorship opportunities are professional barriers to career advancement hence incorporating women in the engineering field will be challenging.

Additionally, the notion of diversity and lack of inclusion in the workplace of civil engineering firms is seen through ubiquitous gender discrimination, unfavourable working conditions that are only advantageous to males, as well as inflexible demanding work environments that make work/life balance extremely difficult (Fouad, Chang & Wan, 2017). Fernando, Cohen & Duberley, (2018) further elaborates that the working conditions and culture in most engineering firms are those that are most likely to accommodate men than women as men for men set them up, which puts pressure on the female counterparts as they feel obligated to behave in a masculine way in order to fit in. Long (2020), goes further to

intricate the poor work conditions encourage the segregation of genders such that women fail to perform certain tasks due to the stringent expectations on them that are not mandatory to the male counterparts.

In a nutshell, the aforementioned root causes give a clear view that gender inequality in engineering firms is still relevant in this age. For women to progress in their careers in such a sector, the organisational culture per company, policies that are not bias or belittle women and their capabilities as well as representing women in the most adequate manner will see industries seize operational efficiencies. By developing women continuously will not only upgrade their knowledge and careers but will also encourage them to consider leadership roles, which in turn yields better decision making.

2.1.2 Symptoms of Diversity and Inclusion in the workplace Engineering firms in South Africa

As a result of the aforementioned root causes, pay disparities in the engineering sector are thus far the most significant. Inherently, a diverse and inclusive culture that endorses equality with equal value and pay for all employees enables all stakeholders to progress to higher positions, to be more likely to achieve, propagate as well as innovate (Tiedeu, Para-Mallam & Nyambi, 2019). Inequitable compensation in the sector is so rife that it has become a norm to many. Women are paid less regardless of their skills, the knowledge they bring and value add, competence as well as experience as the gender stereotype that still governs many view women as beneath men not equal (Donnelly, 2019). Additionally, lack of utilisation suggests that there will be low numbers of women in senior positions and assuming leadership roles as their progress is stifled by redundancy (Meiksins & Layne, 2019). Mcgee & Bentley (2017) further elaborate that lack of utilisation and recognition in the industry leads to idleness, which in turn births demotivation to the job thus affecting operations. Gender discrimination not only results in inequality between genders but it affects the knowledge production and simulation in firms (Silbey, 2016). Rogers (2017) goes further to say that women become prone to sexual harassment in order to climb the corporate ladder, which is something that men would be confronted with.

2.1.3 Consequences of Diversity and Inclusion in the workplace civil engineering firms in South Africa

According to the Engineering Council South Africa, 70% of female graduates leave the engineering sector a few years after a commencement of their careers due to no sense of belonging, being undervalued, underrepresentation as well as being isolated in jobs (Silva, 2019). Research at Network Engineering research has revealed that professional South African women engineers continue to battle ancient disgraces in this predominant male industry (Azhar & Griffin, 2014). Despite being promoted to managerial positions, women report that they are expected to put in thrice the effort their male counterparts would in order to fit in the industry and be taken seriously. Thompson (2015) further expounds that women are constantly expected to prove their capabilities behind desks and in the field as they can't ask numerous questions as it may be perceived as being weak. Thompson (2015) further denotes that women can't show an element of assertiveness for fear of being characterised as belligerent; they can't express sentiments in case they give the impression of being too sensitive; and they continuously have to combat the acuity of being hired to meet employment equity quotas.

Fundamentally, women engineers assume a lot of self-doubt in the industry as they are perpetually undervalued and belittled based on a perception that they cannot perform tasks to the quality that their male counterparts would (Fernando, Cohen & Duberley, 2018). Consequently, based on the aforementioned elements, a large number of women end up leaving the profession completely, without a consideration of registering professionally which would actually amp their careers (Fouad & Singh, 2011).

A study by McKinsey suggests that organisations that are more diverse and inclusive are rated to be more financially prosperous than their rivals as they are better armed to preserve talent and expertise from diverse groups(). Such companies are aslo better geared to apprehend and engage better with a global customer base (). A less inclusive and gender bias work environment is not only a harm to an organisation, but the economy of a country as a whole as it stifles progression and perpetuates traditional stigmas which aren't good for growth and innovation (Fouad, Chang & Wan, 2017).

2.2 Research knowledge gap analysis of diversity and inclusion in the workplace of Civil Engineering firms in South Africa

Each profession introduces stakeholders to its distinct culture, skills, language, practices, and values. Engineering constituents and students observe and practice these through group projects, where they learn how to think and behave like engineers as collaboration and teamwork constitute a core component of being an engineer (Yeoh, 2017). Nonetheless, for numerous women in engineering, the initial encounter with collaboration is to be treated in gender conventional ways by their peers (Moraba & Babatunde, 2019). Of course, the treatment is not blanket across all women as some have reported positive outcomes but a large have reported negative outcomes (Haupt & Fester, 2012). For instance, when working with male team members, women are often relegated to doing routine managerial and clerical jobs, and excluded from the actual technical engineering tasks. (Silbey, 2016).

In light of this, in terms of internships and apprenticeships, there has been a demonstrated culture of assigning males thought-provoking problem-solving responsibilities (Long, 2020). Fundamentally, male engineers get to cultivate analytical and technical skills, while women often are assigned administrative tasks such as copying and printing, taking minutes et cetera, which inhibits growth and renounces value due to the lack of nurturing their technical knowledge (Long, 2020; Moraba & Babatunde, 2019).

Women's experience in the industry fluctuates along two precarious dimensions; an encounter of a culture where bigotry and stereotypes are left unattended to, and minimal efforts offered towards improving society, which essentially inexplicably isolates them (Madikizela & Haupt, 2019). Because there is a low fraction of female engineers in the country, especially black female engineers, educators and businesses need to pay more attention to how a profession established on a pledge to complex problem solving, unswervingly fails to renovate this treacherous gender issue (Moraba & Babatunde, 2019).

To be able to curtail the high volumes of women leaving the field, engineering programs need to address gendered tasking and expectations among teams, in class and at internship work sites as well as work environments (Sheperd, 2019). The organisational culture needs to promote women development and progression, and also implementing policies that encourage fairness across all genders at all times. Organisations should also consider sponsoring events that are centered around diversity and inclusion in engineering, with a special focus to women especially those of colour as they remain underrepresented in the industry. A diverse workforce that comprises women and minority groups, better positions an

organisation as there will be a perception that it supports talent from vast backgrounds, which ultimately will attract new talent, knowledge and expertise (Boykin, 2017).

2.3 Qualitative attributes key to the research

This section aims to unpack the key qualitative attributes key to research. Diversity symbolises the synchronicity of employees with an extensive variation of socio-cultural, socio-economic as well as demographic characteristics (Kaur & Arora, 2020; Wentling & Palma-Rivas, 2000). Diversity denotes the inclusion of an array of people from different ethnic and social backgrounds including age, gender, religion, sexual orientations, as well as demographics (Kaur, 2013). Secondly, gender inequality is premised under the notion of social constructs and cultural norms that perceive males and females as unequal. Gender inequality can also be viewed as the cultural and social situation in which gender determines different rights and self-worth for women and men, which are echoed in their imbalanced access to rights, as well as the hypothesis of pigeonholed social and cultural roles (Lorber, 2010). On the other hand, inclusion denotes the basic right of individuals whereby all barriers, discrimination and intolerance are removed; a state or environment whereby everyone is embraced despite their demographic background such as race, age, gender, religious and cultural beliefs as well as disability (Lekh, 2019). Inclusion designates the optimal employment of a blended workforce for the development and success of an organisation by providing a sense of connection, empowerment, acknowledgement, respect to the diverse workforce as well as integration (Kaur & Arora, 2020; Daya, 2013; Employers Network for Equality & Inclusion, 2017). The notion of inclusion is premised at providing equal access to opportunities and resources for minority groups, women as well as people who might feel marginalised.

2.4 Framework(s) for interpreting research findings

The study will embark on discussing the Marxist, Radical Feminist as well as Maslow's Hierarchy theories to interpret the research findings. Radical Feminist Theory suggests that gender seclusion and sexism are the main basis of domination in employment (Ali, 2015). Radical feminist theorists regard gender division of labour as the foundation of prejudicial social relations, which enable men certain advantages over women in employment (Heilman, 2001; Dickens 2007). Lewis (2020), further elaborates that radical feminism is a philosophy that accentuates the patriarchal roots of inequality between men and women, thus endorse

social domination of women by men. Radical feminism views patriarchy as dividing societal rights, privileges, and power predominantly along the lines of sex which results in oppressing women and benefiting men (Lewis, 2020). Moreover, radical feminists view patriarchy as a social construct and the main cause of gender inequality hence men hold more power in their homes and workplaces, while women are subordinate (Thompson, 2016). In light of this, women are viewed as the social class while men are the ruling class hence women are usualyy given lower positions in the workplaces to those of their male counterparts. Essentially, Radical Feminist Theory supports the notion that workplaces are not as inclusive and diverse as they should be based on the entrenched social constructs that view males as more capable than females (Thompson, 2016; Ali, 2015; Lewis, 2020).

On the other hand, Marxist theorists suggest that the conflict between labour and capital is the primary cause of inequality employees in organisations as they regard gender inequality to be result of class conflict (Ali, 2015; Hartman, 1979; Eisentein, 1983). Marxism theorists suggest that inequality in the workplace arises from class dynamics of capitalism on the basis that class inequality is the primary axis of oppression in capitalist societies (Teo & Sheivari, 2016). Marxist theory is premised on the patriarchal ideology that justifies economic exploitation of women such that, family systems benefit capitalism and men, expectations that hold dual roles for women at work and families, reservations of certain jobs for males, for example, working in the army or engineering jobs. Furthermore, the Marxist theory embraces gender socialisation as it supports feminine and masculine cultural roles such that men are socialised into exploitative relationships at work whch essentially continue into their homes thus affects how they relate to women (Ali, 2015). Evidently, this substantiates the gender discrimination entrenched in many organisations thriving in the capitalist era that deem men as more powerful and capable than women. Women continue to be exploited by capitalism and the communist society as social class is deemed to be off importance (Thompson, 2016).

Lastly, Maslow's Hierarchy of Needs depicts human motivation and organisational behaviour based on the pursuit of psychological needs, safety, belonging, esteem as well as self-actualisation (Kaur, 2013). **Psychological needs** address essentials like food, water, shelter as well as clothing are imperative to human beings. Fair pay for all employees results in employees' self-sufficiency and their ability to provide these essentials for their families(Shoura & Singh, 1999). Ideally, women and under-represented groups should be paid in accordance with their work as well as equal salaries in line with what their male

counter-parts are getting. Inherently, a culture of equality with equal value and pay for all employees enables all stakeholders to progress to higher positions, to be more likely to achieve, propagate as well as innovate (Tiedeu, Para-Mallam & Nyambi, 2019). As a result, this will not only fuel employee engagement but will also inspire all employees to adapt to a high performance culture. **Safety** is imperative that employers implement policies, procedures as well as practices that protect and ensure that safety in the workplace in terms of employment and conduct are guaranteed (Hopper, 2020). **Belongingness** states that women are often delegated projects that are less challenging and technical but expected to perform project administration work that requires less analytical capabilities which basically makes them feel like they do not belong. (Tiedeu, Para-mallam, & Nyambi, 2019). Belongingness embraces the feeling of being wanted and appreciated socially and professionally which then enables one to perform at an optimum if the need is met (Hopper, 2020). A workplace that encourages a sense of connectedness and inclusivity is more likely to retain employee morale and optimum performance (Tiedeu, Para-mallam, & Nyambi, 2019). **Esteem** encompasses the need to feel good about oneself. Esteem comprises two aspects, that is, self-confidence and feeling good about oneself as well as feeling valued and recognised by others for our contributions and achievements. **Self-Actualization** depicts the feeling of fulfilment and living up to one's potential by doing what we are paasionate about and meant to do. Employees that feel empowered and trusted with big projects are likely to be more effective and conduct work in the most efficient manner as they have a sense of fulfilment (Shoura & Singh, 1999). Inherently, an organisation that embraces diversity directly endorses empowerment and adequately addresses the aforementioned needs which translates to improved performance and continuous development (Suyono & Mudjanarko, 2017). Maslow's Hierarchy of needs theory substantiates the incumbents' need to feel included, involved as well as contributing at work results in better performance and cultivates productivity and increases morale (Shoura & Singh, 1999).

Essentially this study will discuss the three theories as a tool to elaborate more on the discussion of diversity and inclusion in the workplace of civil engineering firms in South Africa.

2.5 Summary and conclusion

2.5.1 Summary of literature reviewed

The literature reviewed gives a synopsis of the gaps in the engineering industry pertaining diversity and inclusion in South African civil engineering firms. According to the literature, it is evident that the traditional stigma and cultural norms that perceive women as incapable to do analytical jobs in Science, Technology, Engineering and Mathematics still hold, as these professions have been associated with males since the 1900s. Research further shows that females are not discriminated on facts that they are incapable, but rather on assumptions derived from the early ages. On that note, females in the engineering industry experience pay disparities in comparison to their male counterparts even-though the qualifications and skills are the same, in some cases even better. Women are also subjected to hostile, poor working conditions that are only suitable for their male colleagues as they are created by them for them.

The numbers of women in the engineering sector drastically decrease post joining the sector from university due to the aforementioned aspects. Most women get discouraged to even register professionally because of the hostility and discrimination towards them in the industry. Continuous development and learning is bias to males as they are usually the preferred candidates for courses which as a result insinuates that they are inclined to getting promoted as their skills are constantly being developed. The Marxist and Radical Feminist Theories are unpacked to further substantiate the notion of gender inequality and inclusion in engineering firms and its pertinence since the early sixties. Lastly, the Maslow's Hierarchy of Needs is also discussed as it highlights human motivation indicators and triggers to perform in a workplace.

2.5.2 Proposed research strategy, design, procedure and methods arising from the literature reviewed

From the literature that has been interrogated by the researcher, a qualitative research study was undertaken by the authors with a use of case studies and interviews. Purposive sampling was also made use of a research procedure.

3 RESEARCH STRATEGY, DESIGN, PROCEDURE AND METHODS

3.1 Research strategy

Research strategy/ approach is a broad direction to conducting a business research (Bryman & Bell, 2014). There are three types of research strategies, which are;

Qualitative –is characterised by aims correlated to understanding some aspects of social life and its methods (McCusker & Gunaydin, 2015). It primarily makes emphasis on an inductive approach to the association between theory and research, with importance placed on producing rather than corroborating theories. A qualitative research study places emphasis on words instead of the quantification in collection and analysis of data. On the other hand, a Quantitative research study places importance on the quantification in the collection and analysis of data and assumes a deductive approach whereby prominence is placed on the testing of theories to the relationship between theory and research (McCusker & Gunaydin, 2015). Mixed methods approach is a hybrid such that it conjoins the two approaches.

The researcher embarked on a qualitative study as it expounds an interpretivist epistemology of the phenomena and its structure is based on the nature of reality and resonates with real life. On that note, Interpretivism designates the observations of researchers from different spheres who are acute on the use of any precise model to learn the society (Bryman & Bell, 2014). A qualitative research strategy generally aims to thoroughly fathom the experiences and attitudes of the targeted incumbents.

The journal that has applied the strategy I have committed to is the Journal of Engineering, Construction and Architectural Management. The authors applied a qualitative research strategy. The aims and objectives of their research was to identify the main issues that translate to the current difficulties of women that work in construction sites, as well as establishing good practices that may provide a better environment. The authors selected a qualitative approach as they wanted to get an in-depth insight and material about the gender cracks in the construction environment. Detailed information about gender perceptions and good practices was obtained from the structured interviews conducted.

The benefit of the qualitative strategy to my study will be derived from the semi-structured interviews that will be conducted with respondents. Such interviews are necessary as they

will be conducted in neutral places that will allow the respondent to be as comfortable as they can to share information.

3.2 Research design

Bryman & Bell, (2012) define research design as a tool that provides a background for the collection and analysis of data such that priority is given to the subsequent dimensions; articulating causal influences between variables; accepting behaviour and the connotation of that behaviour in its social context and lastly; having a time-based gratitude of social portents and their interconnections.

There are five generic research designs, which can be defined as follows;

Cross-sectional – necessitates the collection of data on more than one case and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables, which are then examined to detect patterns of association (Bryman & Bell, 2012).

Longitudinal design – is used to plot change and contextualise the instruments and developments through which variations in organisations are generated (Bryman & Bell, 2014).

Case study – involves the thorough and rigorous analysis of one or more cases which the researcher intends to pursue in-depth (Bryman & Bell, 2012).

Comparative design – involves using various identical methods for several contrasting cases (Bryman & Bell, 2014).

Experimental design – this is whereby two groups are created by the researcher and the division into two groups forms basis for investigational manipulation of the independent variable (Bryman & Bell, 2014).

The study was conducted through a case study design (Explanatory case). The reason behind the choice is based on the notion that the case study approach is a stratagem for doing research which embraces a widespread and rigorous investigation of one or multiple cases which the researcher aims to study in-depth (Fontana & Frey, 2000).

Stake (2008), notes that as a form of research, the case study can be defined by interest in an individual case, not by the methods of inquiry used, and that the object of study is a specific, unique, and bounded system.

The case study approach in research can be used when, the focus of the study is to answer “how” and “why” questions; the researcher cannot manipulate the behaviour of the people

involved in the study; the researcher wants to cover contingent conditions because they are relevant to the phenomenon under study; or the precincts are not clear between the phenomenon and context (Yin, 2003).

In contrast, the case study approach does receive criticism in terms of its lack of robustness as a research tool, constructing the design of case studies is of supreme importance. Researchers can adopt either a single-case or multiple-case design depending on the nature of the question. In cases where there are no other cases available for replication, the researcher can adopt the single-case design (Lovell, 2006).

According to Yin (1994), generalisation of results from case studies, from either single or multiple designs, stems on theory rather than on populations researched. By replicating the case through pattern-matching, a technique linking several pieces of information from the same case to some theoretical proposition (Campbell, 1975; Collis & Hussey, 2003), multiple-case design enhances and supports the previous results. This helps raise the level of confidence in the robustness of the method. Ultimately, the researcher pursued a single case study primarily in the civil engineering sector in South Africa.

Advantages of case study approach

There are a number of advantages in using case studies. Firstly, the examination of the data is most often conducted within the context of the research (Yin, 1984). The researcher must observe the subject within her environment, such as reading in classroom or reading for leisure. This would contrast with experiment, for instance, which deliberately isolates a phenomenon from its context, focusing on a limited number of variables (Zaidah, 2003).

Secondly, variations in terms of intrinsic, instrumental and collective approaches to case studies allow for both quantitative and qualitative analyses of the data. Some longitudinal studies of individual subjects, for instance, rely on qualitative data from journal writings which give descriptive accounts of behaviour. On the other hand, there are also a number of case studies which seek evidence from both numerical and categorical responses of individual subjects (Hosenfeld, 1984; Block, 1986). While Yin (1984) cautions researchers not to confuse case studies with qualitative research, he also notes that “case studies can be based entirely on quantitative evidence”.

Thirdly, the detailed qualitative accounts often produced in case studies not only help to explore or describe the data in real-life environment, but also help to explain the complexities of real life situations which may not be captured through experimental or survey research (Yin, 2003). A case study used by an individual subject, for instance, can give access to not

only the numerical information concerning the strategies used, but also the reasons for strategy use, and how the strategies are used in relation to other strategies (Collin & Hussey, 2003). As reading behaviours involve complex cognitive processes, each reading strategy cannot be examined in isolation but rather in relation to other strategies (Zaidah, 2003).

3.3 Research procedure and methods

3.3.1 Research data and information collection instrument(s)

A research data collection instrument can be defined as a tool or instrument that is utilised to collect data (Bryman & Bell, 2014). Examples are but not limited to, questionnaires, surveys or interviewing systems, observation schedule as well as interview schedule.

The researcher made use of the interview schedule. In this case, the researcher was the research instrument and conducted semi structured, in-depth interviews to get a thorough understanding of the case being investigated. In-depth interviewing can therefore be defined as a conversational interaction between the interviewer and the respondent, set up to excavate virtuous evidence of the respondents' proficiencies with the objective of getting thorough insight of a phenomena, which in turn may even result in the interviewer getting more knowledge of the society beyond the latitude of the interface (Legard, 2005).

3.3.2 Research target population and selection of respondents

3.3.2.1 Research target population

Target population is the total group of individuals from which the sample will be drawn. The targeted population of the study was 10 female incumbents between the ages of 27 - 50 from various departments in the civil engineering sector of South Africa, Johannesburg, Gauteng province. The aforementioned target population was selected, as it comprises entry-level women engineers to those with significant senior management level work experience.

3.3.2.2 Sampling or selecting respondents from the target population

The researcher conducted the study through purposive sampling as it epitomizes a non-probability sampling practice. Purposive sampling is a non-random method that does without fundamental viewpoints or predictable number of subjects as the researcher decides on what is crucial and finds people who are keen to provide data by virtue of familiarity (Tongco, 2007).

Purposive sampling (also known as judgment, selective or subjective sampling) is a sampling technique in which researcher relies on his or her own judgment when choosing members of

population to participate in the study (Black, 2010). Purposive sampling is a non-probability sampling method and it occurs when “elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money (Black, 2010). In purposive sampling personal judgment needs to be used to choose cases that help answer research questions or achieve research objectives.

3.3.3 Ethical considerations when collecting research data

Ethics in research serve as an instrument that administrates the standards of conduct for scientific researchers thus the importance of adhering to the ethical principles in order to protect the dignity, welfare and rights of research participants is imperative (Bryman & Bell, 2014).

The researcher will conduct a study on diversity and inclusion in the workplace of civil engineering firms in South Africa. The researcher chose the topic from experience of working in the engineering sector and therefore realizing how wide the gap between genders is. Basically, women are subtly discriminated against solely based on their gender, as engineering is perceived to be a predominant male profession. Inherently, women are not discriminated due to incapability and incompetence; however, they are excluded on a perception that males are better suited for technical and analytical jobs. On that note, this research investigated and made an analysis on whether aspects such as; unfavourable work conditions, skills, gender related discrimination, pay disparities have a direct implication on diversity and inclusion, which simultaneously inhibits continuous development, career growth as well as job performance in civil engineering firms in South Africa.

In light of this, the researcher focused solely on gender inequality as a facet of diversity and inclusion by conducting semi-structured interviews with participants, mostly female, to get their insights on the study which will entail collecting data from staff members at senior and junior levels of management.

Before research began, all participants were required to give written or verbal consent. Responses from participants were treated confidentially, and identities that comprise (their names and the name of the organisation) was kept anonymous unless otherwise expressly indicated. The researcher will ensure that individual privacy will be upheld in all published and written data that results from the study. The researcher did not deceive the respondents in

any manner, as the interview was strictly aligned with the research questions as approved by the ethics committee. In essence, the results will be communicated in the MBA research project as part of the findings from the interview.

The research participants were not advantaged or disadvantaged in any way. The participants were neither stressed nor harmed in any manner, or made to lose their self-esteem in order for the research gains of the researcher. They were reassured that they can withdraw their permission at any time during the project without any penalty. There were no foreseeable risks in participating in this study. The participants were not be paid for this study.

All research data will be destroyed after three years if the researcher has no use for it.
In light of this, permission to conduct the research study was granted by all respondents from various organsations they work for. The respondents were not representing any specific company, hence formal approval from their particular organisations was not required for the purpose of this study. However, the researcher ensured that all participants duly sign the consent forms.

For the significance of this study, appropriate procedures in accordance with the Wits University's ethical framework were adhered to.

3.3.4 Research data and information collection process

For this study, ten employees were interviewed face to face, of which (n = 10), five will be at senior management level, while five were at junior management level. Confidentiality and anonymity of all participants was therefore maintained.

3.3.5 Research data and information processing and analysis

For the purpose of coding to analyse data, qualitative content analysis was used. Content analysis is a research practice that discloses the peculiar construal of the content of information through a logical categorisation procedure of coding and distinguishing patterns and themes (Hsieh & Shannon, 2005). Content analysis can also be viewed as a procedure of concrete, precise and pragmatic analysis of texts within their context of communication and successive content analytic minus impetuous quantification (Mayring, 2000). Patton (2002) further defines content analysis as any qualitative data reduction through the deduction

method that incorporates a bulk of qualitative information and tries to detect core uniformities and connotations.

3.4 Research strengths—reliability and validity measures applied

Reliability is the extent to which conclusions of a research study are steadfast and comparable over time and disclose a detailed representation of the general populace under study (Joppe, 2000).

Credibility – to warrant trustworthiness, a systematic description of phenomenon under study should be considered (Lincoln & Guba, 2000).

Confirmability – to warrant confirmability, steps that will assist in ensuring that the conclusions found are based on the participant's views but not the researcher's ones should be taken (Lincoln & Guba, 2000).

3.5 Research weaknesses—technical and administrative limitations

Technical limitations of;

3.5.1 Research Strategy- A qualitative study can be faulted for reasons such as; being too subjective which makes its authenticity questionable, it lacks transparency as it usually deals with human respondents as it may be difficult to establish the legitimacy of answers from participants; information cannot be generalised for this research strategy and it is also difficult to replicate the findings (Bryman & Bell, 2014).

3.5.2 Research design

i) Case studies are often critiqued for a deficiency in assiduousness (Yin, 1984).
ii) As a result of a small number of subjects being used, case studies provide minute foundation for scientific generalisation (Yin, 1984).
iii) Case studies are difficult to generalise as they make use of single case exploration (Tellis, 1997).

3.5.3 Procedure

i) Susceptibility to blunders in judgment by researcher
ii) Low level of consistency and high levels of partiality.
iii) Incompetence to simplify research findings

Limitations of in-depth interviews	
Prone to bias	Responses from participants are likely to be biased out of fear of being exposed
Can be time-intensive	
Interviewer must be appropriately trained in interviewing techniques	The interviewer has to adopt a people skill such that she will make the interviewees relaxed enough to disclose relevant informant without yes or no answers.
Not generalizable	

3.6 **Conclusion**

This chapter has meticulously exposed the techniques that the researcher employed to collect data with regards to the main objectives, the population and sample, the instruments used as well as analyse data by using qualitative content analysis to narrow the raw data extracted from the participants. The technical limitations of the research strategy, design as well as procedure were also disclosed.

4. PRESENTATION OF RESEARCH RESULTS

This chapter sets out to present the results found during the four weeks of interviews, conducted in Johannesburg, Gauteng, South Africa. The findings are based on semi-structured interviews with female engineers from various sectors in the engineering industry. The main objective of this chapter is to determine the reasons for lack of diversity and inclusion in the workplace of civil engineering firms in South Africa. The second objective is to determine the impact gender inequality and lack of inclusion have on job performance and career growth of female engineers in this industry. Therefore, this chapter will present and discuss research findings of the subsequent research questions; Section 4.1 What are the reasons for lack of diversity and inclusion in the workplace of civil engineering firms in South Africa? Section 4.2 How does gender inequality and lack of inclusion affect job performance and career growth of female engineers in the industry? To conclude, this section will provide answers to questions one and two.

4.1 The reasons for lack of diversity and inclusion in the workplace of engineering firms in South Africa

4.1.1 Presentation of empirical research results

4.1.1.1 Discussion of key themes

Diversity symbolises the synchronicity of employees with an extensive variation of socio-cultural, socio-economic as well as demographic characteristics (Kaur & Arora, 2020; Wentling & Palma-Rivas, 2000). Diversity encapsulates the inclusion of an array of people from different ethnic and social backgrounds including gender, religion, sexual orientations, as well as demographics (Kaur, 2013). Inclusion depicts the basic right of individuals whereby all barriers, discrimination and intolerance are removed; a state or environment whereby everyone is embraced despite their demographic background such as race, age, gender, religious and cultural beliefs as well as disability (Lekh, 2019). Inclusion designates the optimal employment of a blended workforce for the development and success of an organisation by providing a sense of connection, empowerment, acknowledgement, respect to the diverse workforce as well as integration (Kaur & Arora, 2020; Daya, 2013; Employers Network for Equality & Inclusion, 2017).

4.1.1.2 Research question 1: What are the reasons for lack of diversity and inclusion in the workplace of civil engineering firms in South Africa?

FEM 1- "It is a male dominated industry that has been that way for years. In ancient times, women were seen as family caretakers not in the professional world, especially engineering. I think it is hard for most of the employers to shift their mind-sets and acknowledge that women are capable as much as men are."

FEM 3- "It is just the inability to accept change, especially gender related change. Most engineering firms are a boys club that accommodates men more than anything. Slotting diversity in would kill the narrative."

FEM 4- "Because they are managed and owned by old school traditionalists (men) who are reluctant and resist change."

FEM 8- "Most of these firms were founded by old school traditional men. Therefore, you can just imagine how hard it is for them to acknowledge women having the piece of the pie in their space when we supposedly belong in the kitchen. Men are threatened by women hence we are constantly side-lined in the industry. It is a boys club, and I believe we have a long way to go before we actually see transformation in this male predominant industry."

Fem 10- "Reluctance to adapt to change, gender and minority groups bias especially towards people of colour. It is a boys club and they are just unwilling to dilute their norms and accept a more diverse environment that accommodates women. I believe that men in this industry do not want to out done by women; it is always a competition hence they do not want to give us a seat on the table. I am positive that we will just take anyway."

According to the above responses, there was a common understanding regarding the reasons for lack of diversity and inclusion in the workplace of engineering firms in South Africa. The women interviewed all shared a common view that the reasons underlying the lack of diversity are due to men being reluctant and resistant to change. They referred to it being a boys club hence the disinterest in enabling women and the minority groups to be a part of it. They have described that most of these firms are founded and owned by traditional males who perceive women as family caretakers not professional engineers who are capable of doing the job. They suggest that diluting the engineering landscape with diversity would actually kill the narrative that holds that it is a male dominant industry with strict entry

barriers.

4.1.1.3 Research question 2: In your opinion, how does lack of diversity and inclusion affect an organisation?

FEM 1 - ***"Lack of diversity and inclusivity drive away employees due to lack of skills transfer as well as utilisation that impacts career growth negatively . Basically, if a large number of employess leave an organisation, this will have anegative impact on it as lt will suffer endless recruitment costs as well as loss of skills and talent. It will be faced will continuously spending money an training new employees which can be quite expensive. Employees are driven away based on lack of utilisation and development, workplace inferiority, knowledge transfer and as well as little opportunities for growth.Diverse work environments offer a variety of skills which basically suggests knowledge transfer amongst employees and teams. Lack of it obviously means that all the above mentioned will be deprived from employees, especially women as civil engineering is dominated by males."***

FEM 3- ***"Lack of diversity and inclusivity results in high staff turnover due to the inability to adapt to change and hostility in the workplace. The organisation I am currently working for is not diverse at all. Women are constantly sanctioned as they are not offered equal opportunities as their male counter-parts. There is no skills development programmes for women as well as knowledge transfer as my organisation is owned by a traditional male who believe women are meant to be taking care of their homes not performing teachinal masculine duties at work. Most women in my organisation leave because they feel that they do not belong as they are constantly excluded from the 'boys club' that is more engaging and offers development. The culture of my organisation encourages women to work in silos and be competitive towards one another which bascally alienates them. However, men are made to feel that they belong despite their backgrounds or skills.***

FEM 5 – ***"Lack of diversity and inclusion affect an organisation in a negative way as employees are prone to moving to companies that appreciate diversity and encourage inclusivity and connectedness which fuels belonging. Lack of diversity breeds enmity. Therefore, when a work environment is hostile, knowledge transfer and opportunities fro***

growth will be limited. I work in an environment whereby I am sanctioned based on my gender not my capabilities as management belive that my male colleagues are better equipped than I am. It is shocking that I have worked for my employer for sometime now but I have never been offered any continuous development opportunities as my manager always jokes about me ultimately resigning or taking family responsibility leave to take care of my family. "

FEM 7 – ***"Lack of diversity affects an organisation as it hampers with its potential to grow and do things differently. Diversity appreciates a variety of people, which suggests a variety of ideas, which is quite essential in these times. Lack of it basically means the organisation's inability to adapt to change and connectedness in the workplace. I work for an organstion with a discriminatory work environment as there are no female engineers encouraged to be in management. Lack of diversity suggests a homogenous stagnant work environment that is unwilling to transform and adapt to change. Basically this just implies that there will be no growth or innovation as well as opportunities for continuos development which will essentially result in a certain group being marginilised. Such an environment encourages people working in silos instead of collectivity. Females are usually made to feel like they do not belong. "***

FEM 10- ***"A company that lacks diversity and inclusion exemplifies the unwillingness to adapt to change and learn different ways of doing things. Therefore, such a company is highly unlikely to make it in the global market and it prefers its own traditional ways of operating. This basically means that it is prone to losing a lot of employees due to stagnant operational behaviour as well as employees feeling like they do not belong. Diverse organisations embrace variety which creates a sense of belonging, lack of diversity breeds the opposite.This may result in financial losses as well as sluggish growth in the long run."***

According to the above responses, there is a common understanding of how lack of diversity and inclusion can affect an organisation. The respondents have a unanimous agreement that an organisation that lacks diversity and inclusion is prone to losing many of its employees due to its stagnant operational ways of running the business. The respondents alluded that an organisation that lacks diversity and inclusion is reluctant and in able to adapt to change hence it would be hard for it to make it in the global markets. The participants mentioned that an organisation that lacks diversity and inclusion encourages employees working in silos instead of connectedness in a workplace. Some participants mentioned that they usually feel

isolated and that they do not belong in such organisations as the work culture and environment is not accommodating towards them. The partipants mentioned that there is a homogenous culture in civil engineering firms that is more supportive to males and constantly excludes female employees.

4.2 The impact gender inequality and lack of inclusion have on job performance and career growth of female engineers in the industry.

4.2.1 Discussion of key themes

Gender inequality - Gender inequality is premised under the notion of social constructs and cultural norms that perceive males and females as unequal. Gender inequality can also be viewed as the cultural and social situation in which gender determines different rights and self-worth for women and men, which are echoed in their imbalanced access to rights, as well as the hypothesis of pigeonholed social and cultural roles (Lorber, 2010). On the other hand, inclusion denotes the basic right of individuals whereby all barriers, discrimination and intolerance are removed; a state or environment whereby everyone is embraced despite their demographic background such as race, age, gender, religious and cultural beliefs as well as disability (Lekh, 2019).

4.2.2 Response to the research question 3: How does gender inequality and lack of inclusion affect job performance and career growth of female engineers in the industry?

Fem 2 – “The two deflate performance as no individual in their right mind would want to work hard for an organisation that constantly discriminates against them and does not recognise their potential. If you are not effectively utilised in an organisation, performance and morale will obviously decrese, hence growth will inherently be stunted as you will not be learning anything worthwhile.”

Fem 4 – “People will feel disempowered to work which will substantially deflate their performance. Disempowerment is birthed by not being fully utilised which essentially suggests that training opportunities will be limited. That being said, performance and career growth will be ultimately sluggish.”

Fem 6 – “It deflates performance because it is not easy to work in an environment where you are discriminated against. It completely shuts down self-esteem and confidence and once those are gone, it will be hard to perform. And also, if you are not being included in key projects and are not mentored, your career growth will definitely be sluggish. Utilisation is

very key in this industry for one to earn their stripes. Lack of inclusion ultimately suggests that there will be pay disparities, low job performance which essentially translates to a slow career growth."

Fem 8 – ***"Gender inequality and lack of inclusivity such that, people will feel idle and unwanted which affect them psychologically, in turn compromising their ability to perform. Gender inequality suggests bias, discrimination, lack of mentorship and unequal pay. Consequently, lack of inclusion suggests that one is not being fully utilised to their full capacity which translates to less recognition in the organisations and ultimately little to no promotions. Considering all the aforementioned factors, career growth is bound to be."***

Fem 10 - "It deflates performance because it kills an individual's drive to do the work. Gender inequality further slows career progression as most females in the industry are not offered same opportunities as their male counterparts that include, mentoring and training which fuels continuous development, women experience rife pay disparities, women are hardly considered for promotions or senior leadership. Considering all these, performance is bound to be deflated due to prevalent discrimination. "

According to the aforementioned responses, respondents show a unanimous understanding underlying the impact gender inequality and lack of inclusion has on job performance and career growth. The respondents allude that gender inequality is linked to discrimination, which in turn suggest that they are less likely to be offered mentorship and training that fuel continuous development. As a result, this means that there will be obvious pay disparities, little consideration for promotions and disempowerment which ideally hinders growth. The respondents portray that gender inequality and lack of inclusion fiddles with an individual's self-esteem and confidence, which will result in their disempowerment hence low performance due to the lack of drive to the job.

Moreover, women are not only discriminated against in terms of utilisation, but they are discriminated against in terms of attaining lack of career advancement and training opportunities in the predominant male industries (Fouad & Singh, 2011).

In light of this, in terms of internships and apprenticeships, there has been a demonstrated culture of assigning males thought-provoking problem-solving responsibilities (Long, 2020). Fundamentally, male engineers get to cultivate analytical and technical skills, while women often are assigned administrative tasks such as copying and printing, taking minutes et cetera,

which inhibits growth and renounces value due to the lack of nurturing their technical knowledge (Long, 2020; Moraba & Babatunde, 2019).

4.2.3 What motivates you as an individual to perform at an optimum in your work environment?

Fem 1-"*A motivating an uplifting employer that pays well. I want my efforts recognised. Safety and job security. Some of us are faced with harassment from time to time."*

Fem 3- ***"I perform at my best when I feel empowered, recognised, paid fairly and my job is secure."***

Fem 4- ***"An inclusive work environment that utilises me, great leadership, job security and of course, incentives and fair pay. Feeling empowered fuels hard work for me."***

Fem 8- ***"Resources, being valued and empowered. A good fair salary."***

Fem 9- ***"Resources, a healthy work environment, equal pay, utilisation, mentorship, continuous career development that fuels growth."***

According to the above responses, the participants indicate that high performance is fuelled by being availed adequate resources, being afforded training and mentorship, equal pay, utilisation, recognition and empowerment, a healthy inclusive work atmosphere as well as job security. The previously mentioned responses echo the argument by Fouad & Singh, (2011) that women are not only discriminated against in terms of utilisation, but they are discriminated against in terms of attaining lack of career advancement and training opportunities in the predominant male industries. Males are assigned complex and fundamental assignments that ideally upskill and develop them professionally (Long, 2020).

4.3 Conclusion

The section aimed to present the research findings conducted through semi-structured interviews of participants in Johannesburg, Gauteng South Africa. The next chapter will thoroughly interpret and discuss the research findings in accordance with the literature reviewed in chapter 2.

5 DISCUSSION OF RESEARCH FINDINGS

5.1 Introduction

The purpose of this chapter is to provide a synopsis of an interpretation and analysis of the research findings that were presented in the previous chapter. The researcher will do an analysis by comparing the findings in the literature review on the topic on diversity and inclusion in the workplace of civil engineering firms in South Africa. The key theoretical concepts, trends, as well as frameworks identified in Chapter 2 as per the literature review will be compared to the actual findings of the research from the evidence gathered in the interviews.

5.2 Brief contextual background

Diversity and inclusion are the fundamental elements to having a workforce that is productive, highly engaged, creative and innovative. Progressive organisations distinguish diversity and inclusion are interdependent hence, one cannot exist without the other. Effective employers work conscientiously to develop and implement people management strategies that focus on not only recruiting and hiring a diverse workforce, but retaining and developing employees in a creative, diverse and inclusive work environment. However, the diversity of an organisation does not necessarily ensure that the organisation's culture and work environment are diversity and inclusivity complacent.

5.3 Impact of diversity and inclusion in the workplace

As mentioned earlier, diversity and inclusion operate interchangeably as one cannot exist without the other. This section sets outs to unpack and discuss the research findings as per chapter four and link them to the Maslow's Hierarchy of needs. It is imperative that organisations foster a culture that enables diverse teams to feel included in meaningful projects in order to fully unleash their potential. A diverse, motivated, engaged workforce is imperative to a healthy bottom-line as well as a strong competitive advantage in the market place(Shoura & Singh, 1999). The Maslow's Hierarchy of Needs connotes that employees need to feel included, engaged and contributing their best at work and in society in order to perform at an optimum at work (Kaur, 2013; Shoura & Singh, 1999).

In the interviews, participants were asked what triggers them to perform at an optimum at work as part of the main research questions to gain further understanding on the attributes and causes of lack of diversity and inclusion in the workplace of engineering firms. The

participants were all in a consensus that respect, being acknowledged and valued, resources, fair pay, a healthy inclusive work environment, being included in key projects, safety and security at work, being empowered and recognised as well as training and mentorship are some of the factors that contribute towards high performance at work. The aforementioned factors are all aligned with the Maslow's Hierarchy of needs (Fig. 1), which will be discussed subsequently.

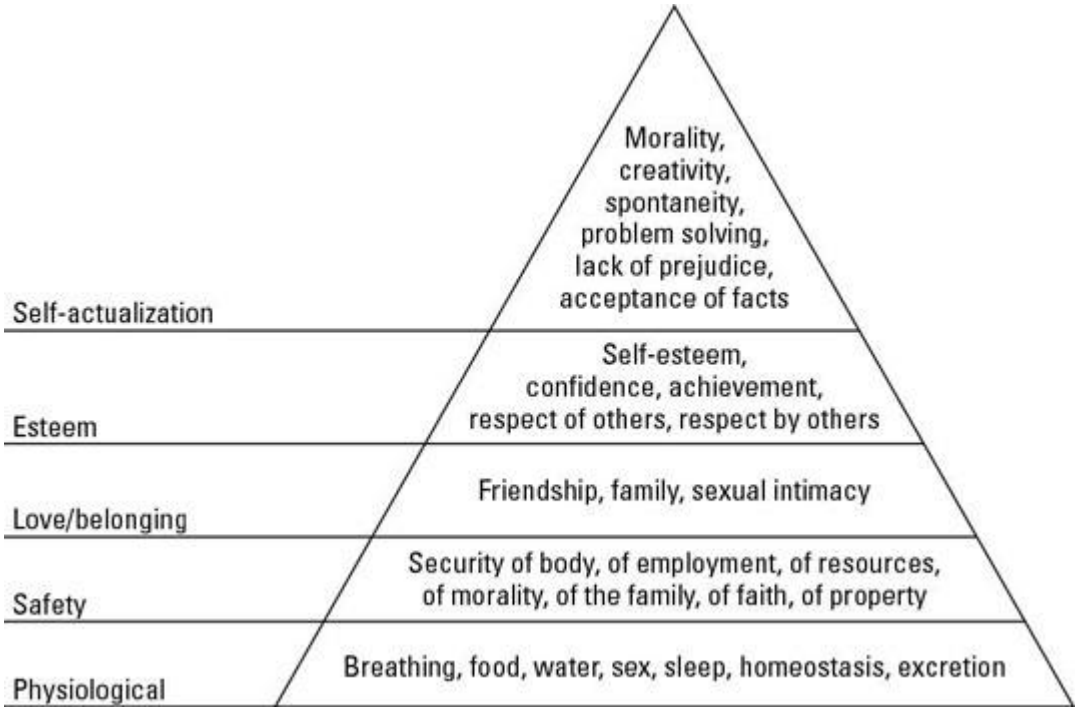


Fig. 1 Maslow's Hierarchy of Needs

Physiological – Essentials like food, water, shelter as well as clothing are imperative to human beings. Fair pay for all employees results in employees' self-sufficiency and their ability to provide these essentials for their families(Shoura & Singh, 1999). Ideally, women and under-represented groups should be paid in accordance with their work as well as equal salaries in line with what their male counter-parts are getting. Inherently, a culture of equality with equal value and pay for all employees enables all stakeholders to progress to higher positions, to be more likely to achieve, propagate as well as innovate (Tiedeu, Para-Mallam

& Nyambi, 2019). As a result, this will not only fuel employee engagement but will also inspire all employees to adapt to a high performance culture.

Safety – Some participants in the study portrayed how imperative it is for them to perform better if they know that their work environment is safe from harassment, bullying as well as situations that threaten their safety. It is imperative that employers implement policies, procedures as well as practices that protect and ensure that safety in the workplace is guaranteed (Shoura & Singh, 1999). Some participants in the study, did state that they are constantly being bullied by their male counter-parts as they are deemed to not belong in the male predominant sector. Employers need to ensure that employees that breach the organisation's code of conduct are held accountable, thus corrective action proceedings should take place.

Belongingness – Participants were asked how diversity and inclusivity affect an organisation and they all mentioned that a diverse workplace offers a sense of belonging as there is no homogenous dominant culture. They further explained that diverse and inclusive organisations support a culture of inclusivity that enables all stakeholders to grow and develop themselves. The participants mentioned that diversity supports collectiveness of employees which will result in knowledge transfer and appreciation of ideas and a variety of skills. As a subset of the aforementioned question, the researcher asked participants if the organisational culture for the organisation they work for is inclusive towards all stakeholders, majority of the participants had a unanimous response that it is in fact the opposite. Most participants stated that they usually feel that they do not belong in the work place as they are constantly confronted with issues such as hostile working conditions that are disempowering and degrading to females. Some participants actually stated that top management exacerbates such behaviour due to their unwillingness to amend policies and procedures to accommodate all stakeholders.

The participants also stated that opportunities are tailor made to favour men as they are always offered to go on mentorship programmes and training to upskill themselves. Evidently, this puts them in a better position hence they usually get assigned to big meaningful projects while their female counterparts get assigned to clerical administrative duties. Tiedeu, Para-mallam, & Nyambi, (2019) state women are often delegated projects that are less challenging and technical but expected to perform project administration work that requires less analytical capabilities. On the contrary, Azhar & Griffin (2014), argue that

assigning lesser tasks to women is not an implication of discrimination, but rather an allowance that enables them to carry out tasks that will not occupy them, as they still need to maintain a work/life balance in order to take care of their families.
Concisely, a workplace environment should convey, radiate and encourage sense of connectedness and inclusivity.

Esteem – As mentioned in the chapter 4, most participants have divulged that, to perform at an optimum, aspects such as respect, acknowledgement as well as being empowered are pivotal. Participants were asked how lack of inclusion affects their performance and fifty-percent (50%) stated that it actually affects their self-esteem and confidence, which ideally dampens their ability to perform at an optimum. Fundamentally, women engineers assume a lot of self-doubt in the industry as they are perpetually undervalued and belittled based on a perception that they cannot perform tasks to the quality that their male counterparts would (Fernando, Cohen & Duberley, 2018). Consequently, based on the aforementioned elements, a large number of women end up leaving the profession completely, without a consideration of registering professionally which would actually amp their careers (Fouad & Singh, 2011).
Self-Actualization – As mentioned previously, participants have noted that they perform at an optimum when they are afforded necessary resources to do their tasks, they are recognised for their contributions, included in meaningful projects, continuous development, fair pay, considered for promotions, empowerment as well as a healthy work environment. Employees that feel empowered and trusted with big projects are likely to be more effective and conduct work in the most efficient manner (Shoura & Singh, 1999). Inherently, an organisation that embraces diversity directly endorses empowerment which translates to improved performance and continuous development (Suyono & Mudjanarko, 2017).

In chapter 2, Azhar & Griffin, (2014) allude that despite being promoted to managerial positions, women report that there is an expectation for them to put in thrice the effort their male counterparts would in order to fit in the industry and be taken seriously. Thompson (2015) further expounds that women are constantly expected to prove their capabilities behind desks and in the field, as they cannot ask numerous questions, as it may be perceived as being weak.

5.4 The impact gender inequality and lack of inclusion have on job performance and career growth of female engineers in the industry

In this section, the researcher will interpret and analyse the impact gender inequality and lack of inclusion have on job performance and career growth of female engineers by use of the Radical feminist and Marxist theories. Radical Feminist Theory suggests that gender seclusion and sexism are the main basis of domination in employment (Ali, 2015). Radical feminist theorists regard gender division of labour as the foundation of prejudicial social relations, which enable men certain advantages over women in employment (Heilman, 2001; Dickens 2007). Some participants in the study (Fem 2 and 8) confirmed that clerical administration work has been assigned to them based on their gender while their male counter-parts dived straight into technical duties. Evidently, this scenario reiterates what the radical feminist theories allude by prejudicial social relations that enable men certain advantages over women in employment. For the mere fact that women are being assigned clerical duties, it is an indication that their male counterparts will be a step ahead of them, as the same opportunities are not being offered.

Moreover, some participants divulged how unequal and unfair the system is considering that they are mauled and sanctioned for taking maternity leave. One participant explained how she had to forfeit a promotion, as she had to take leave in order to take care of her family. However, the opposite prevails for male counter-parts they are applauded for being present fathers if the take family responsibility leave. The participants revealed how unfavourable their working conditions in the industry are due to the unswerving discrimination and absurdly high standards they face on a daily basis. On that note, radical feminists argue that men benefit from domestic labour as a dominant task completed by women in their families, which breeds and entrenches the lower status of women economically and socially (Dickens, 2007).

In chapter 4, majority of the participants stated that that gender inequality is linked to discrimination, which in turn suggest that they are less likely to be offered mentorship and training that fuel continuous development. As a result, this means that there will be obvious pay disparities, little consideration for promotions and disempowerment which ideally hinders growth. The respondents portray that gender inequality and lack of inclusion fiddles with an individual's self-esteem and confidence, which will result in their disempowerment hence low performance due to the lack of drive to the job. On the other hand, Marxist theorists suggest that the conflict between labour and capital is the primary cause of

inequality encountered by employees in organisations as they regard gender inequality to be result of class conflict (Ali, 2015; Hartman, 1979; Eisentein, 1983). Integrally, Marxist theorists deem the exclusion of women in employment as a result of capitalist desires to employ cheap labour not patriarchy (Lewis, 2020; Eisentein, 1983).

5.5 Conclusion

The research findings of the conducted research supports the literature review of this topic. Only one outlier was identified, as the participant had not directly been affected lack of inclusivity in the workplace as the participant works for an all-female organisation. The initial research question interrogated the reasons for lack of diversity and inclusion in the workplace of civil engineering firms in South Africa. Evidence garnered form the respondents matches completely with the literature review which further supports that there is indeed a gap in the industry. Although there has been progress towards achieving gender diversity in the civil engineering firms, women still remain significantly under-represented which indicates a gap that is unlikely to be remedied unless all relevant stakeholders like schools, organisations as well as universities work together to confront and alleviate the entrenched perceptions of the industry (Makarova & Herzog, 2019).

The respondents alluded that the industry comprises traditional males who are reluctant to change and transformation as the current system favours them over women. The research findings also echoed the literature such that, the reluctance to lack of diversity and inclusivity is to maintain the exclusive 'boys club' concept that blocks women entry based on the preposterous expectations and standard set for them.

The second research question evaluated how lack of diversity and inclusion affects an organisation. A bulk of the responses from the participants matches with the literature review as it reiterarted the adversities that face a company that is not diverse and inclusive. Participants mentioned that in such organisations, there will be a high staff turnover due to employees constantly exiting the organisation as a result of discrimination, favouritism, lack of utilisation, no equal opportunities, homogenous stagnant work environments which ultimately implies that there will be no room for growth and innovation. The participants also mentioned that a diverse and inclusive workplace supports continuous development for all stakeholders and there is an obvious transfer of knowledge based on the nature of diverse companies as they harness an array of skills, ideas and cultures which will eventually result in

a cultivation of high profits. In light of the aforementioned, an organisation that lacks diversity and inclusivity deprives its employees, specifically women which ideally depletes morale hence they exit the sector.

The third research question examined how gender inequality and lack of inclusion affects job performance and career growth. The research findings matched the literature review as a majority of respondents reiterated that continuous development opportunities are availed to their male colleagues as opposed to them. Majority of the respondents alluded that the work under stringent, unfavourable work conditions with expectations that they have to work thrice as hard as males to earn their stripes and receive recognition. The respondents were also asked what they require to perform at an optimum and a large majority of them mentioned aspects such as recognition and acknowledgement, empowerment, equal fair pay, training and mentorship, resources, healthy work environment, utilisation and being valued. The aforementioned echoes the literature review, which expounded that women are not utilised enough as they are perceived to be unskilled despite being professional engineers as their male counter-parts. Fundamentally, lack of utilisation, mentoring and training is a result of sluggish career growth and development, which breeds low performance at work due to low employee morale.

Briefly, this section has presented the research analysis of the research findings in comparison with other theoretical frameworks and models. The researcher identified many consistencies concerning the research questions.

6 SUMMARY, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

6.1 Summary

A study by Boykin (2017), further alludes to the engineering sector being a boys club. In the study, most women attest that some of the challenges they face in the industry is dealing with a boys' club culture, which ultimately inhibits them from excelling at their jobs as they are not so inclusive towards them being that they are predominantly male. Inherently, most of these women portrayed that they face social isolation at work if they try challenge the system. Boykin (2017), further explains that this boys culture is filled with gender bias as well as discrimination that fuels women to compete against each other. However, such standards do not hold for male employees, which consequently forces a majority of women to either exit the industry or distance themselves from other women for fear of being sanctioned. A study by Smith & Gayles, (2018) expounds that women enter the engineering industry at low rates compared to men, but leave the industry at much higher rates after a considerable time of being in the industry. This is resultant of prominent gender inequality and lack of inclusion in the male dominated sectors (Martin & Barnard, 2013).

A study by Kaur & Arora (2020) acknowledges that diversity and inclusion are the primary principles to help in acknowledging and accepting dissimilarities among people and leveraging stimuluses for the profitability of the organisation as diverse and inclusive teams take improved and more effective decisions.

Table 1 below sets out to make comparisons of existing literature, similar to this research as well as the findings thereof to divulge the importance of diversity and inclusion in an organisation;

Table 1: Significant and positive influences of gender diversity and inclusion upon several aspects of organizational growth

Source	Units/Companies under study	Reasons behind adoption of gender diversity by the units/companies under study	Results
Grafstein (2019)	Study based on secondary data/previous research studies	For reducing turnover and achieving the targets of world-class performance	It has been concluded that gender diversity and inclusion significantly improve the overall performance of the organizations including cost reduction, talent management, products and services, company's reputation, innovation and creativity, productivity, decision-making, problem-solving, financial performance, relationships with stakeholders, satisfaction, commitment and empowerment of the workforce, increased feeling of psychological security.
Greesonbach (2019)	Study based on secondary data/previous research studies	For better and higher returns on income and equity.	
Rohwerder (2017)	European Listed companies	To improve the overall performance of the firm.	
McKinsey (2018)	346 companies (mostly based in the USA and UK)	For strengthening employee empowerment, organizational performance, cordial relationships, decision-making, company image, innovation, talented workforce management.	Gender diversity and inclusion are positively interrelated with employee empowerment, organizational performance, cordial relationships, decision-making, company image, innovation, talented workforce management.
Boston Consulting Group (2017)	171 German, Swiss and Australian Countries	Increase in revenues from innovative products and services using gender diversity.	Currently, for high level of innovation and profits, gender based diversified and inclusive manpower has become the necessarily of organizations.
Larson (2017)	Approximately 600 business decisions made by 200 different teams in a wide variety of companies	For better and faster decision making.	The combination of gender diversity and inclusion results in better decision making which ultimately influence the organizational growth.
PwC & NASSCOM (2016)	Indian IT-BPM industry	For building current women middle managers as they are responsible for delivering organizational results and will strengthen future executive-level pipelines.	
Crouch (2015)	Hospital Health System located in the southeastern part of the US.	To raise and improve productivity levels.	For achieving the targets of high productivity, gender diversity and inclusion have become urgency of present business practices.

From the above table, it is evident that various scholars acknowledge the significance of gender diversity and the impact it has on the overall organisational performance.

6.2 Conclusions

Based on the research findings, the researcher can thus conclude that a wide gap in terms of diversity specifically with a focus on gender inequality and inclusion exists. The participants of the research findings alluded that a lot of work still needs to be done in order to bridge this gap. Therefore, it is the onus of every employer in the industry to adapt to change and transformation as it yields better results as well as profitability and efficiency. Evidently, a vast majority of engineering firms lack a significant number of females, which explains why transformation and inclusivity are somewhat sporadic. The study also established that to date, numerous engineering firms still perceive women employees as less skilled as opposed to their male counter-parts which is resultant to females exiting the industry as they deem it to not be supportive, empowering, fair but exploitative, and bias. Management should try to adequately employ the Maslow's Hierarchy of needs as it accentuates morale and performance in the wokplace. Failure to address diversity and inclusivity implies that these

companies will continually lack innovation, sesnse of belonging for minority employees, lack of employee engagement which will essentially result in poor productivity and profitability as well high employee turnover.

6.3 Limitations

The major limitation that was faced was some respondents' reluctance to participate in the interviews. The researcher came to a realisation that two participants specifically were not engaged during the interviews but just gave out answers for the sake of responding. The research also focused on female participants that work in civil engineering firms in Johannesburg, Gauteng South Africa, which basically gives only a snapshot not the views from a broad spectrum. Therefore, generalisations cannot be made to other provinces and cultural settings such as the Asian and European context. Essentially, this research will only give a summation of participants within a few industries.

6.4 Recommendations

This section sets out to make recommendations on how lack of diversity and inclusion can be alleviated in the workplace of civil engineering firms in South Africa. Although the under-representation of females in Science, Technology, Engineering as well as Mathematics has continued for decades, reversing it may be a long process but it is possible. Engineers who feel included are more likely to report increased motivation, which will in turn result in increased job performance. Happy, motivated and supported workers produce the highest quality products and remain loyal to their employers, meaning engineering businesses retain and develop skilled workers who drive business growth and success A culture of diversity also fosters innovation, high profitability, increased employee morale as well as ethical behaviour that will essentially breed fair treatment.

On that note, it is imperative that the Engineering Council of South Africa in partnership with the Department of Labour, enforce regulations that will ensure that civil engineering firms not only recruit females actively, but they upskill and continuously develop them to alleviate the rife discrimination in the industry. The Engineering Council of South Africa should implement policies that obligate engineering firms to foster diversity either through sponsoring events that raise awareness semi-annually or by permanently recruiting a diversity

champion in organisations to facilitate such. Significantly, it is important that executives of engineering firms represent a diverse team as top management of any team speaks volumes about its culture. With that said, endorsement of liberal feminism would prove effective as no one will benefit from existing inequalities but rather, any initiated changes will occur within the existing.

Additionally, it is imperative that engineering firms foster diverse thinking in terms of recruiting multigenerational workforce as well as strengthening anti-discriminatory policies. Essentially, this will help in the elimination of any bias in the evaluation process and promotion opportunities.

The results of the study can be utilised in further development of strategies and interventions to increase diversty and alleviate gender inequality and discrimination in the civil engineering sector, by encouraging diversity and more inclusive workplaces for the betterment of the sector and economy of the country. For further research, extensive studies that focus on the importance of gender neutral workplaces and alleviation of bigotry in engineering from an African context should be considered. The studies will embrace broader views from a wide spectrum which will essentially provide solutions of how the unswerving problem can be resolved.

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APPENDICES

Appendix 1.1: Data collection instrument(s)

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol Number:
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant:
Participant's involvement:

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.

Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian:

Signature of person who sought consent: 
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 31 October 2020

INTERVIEW QUESTIONS

1. What is your understanding of diversity in a workplace?
2. What is your understanding on an inclusive work environment?
3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?
4. In your opinion, how does lack of diversity and inclusion affect an organisation?
5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?
6. What is your understanding on gender inequality? Please expand.
7. What motivates you as an individual to perform at an optimum in your work environment?
8. Would you consider the organization you work for to be gender neutral?
9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?
10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?
11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?
12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?
13. How does gender inequality and lack of inclusion deflate performance and career growth?
14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.
15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

Appendix 2.1: One-page bio of the researcher including declaration of interest in the research and funders, if any

Ntsitile Sylvia Ramone is an MBA candidate at Wits Business School in Parktown, Johannesburg. She holds a B.Com. Hons degree in Business Sciences from the University of the Witwatersrand obtained in 2016. She also holds a B. Com Financial Management degree from the University of the Free State, obtained in 2014. Ntsitile is a meticulous creative who is passionate about gender and equality studies hence the persuasion of the research topic (Diversity and Inclusion in the workplace of engineering firms in South Africa).

Ntsitile is the founder and CEO of a Management Counsultancy firm, (NSR Management Consultants) based in Johannesburg, Gauteng. She has solid experience in finance, compliance, strategy as well as governance. Currently, she is collaborating with various institutions to help girl children and women to engage and participate in entrepreneurial activities, which will not only help them make an income and alleviate poverty, but will also have a social impact in broader perspective in their respective communities.

Ntsitile aspires to one day join the United Nations as an ambassador of equality and human rights in the African region. She is an advocate against gender based violence and an activist of gender based equality. She also has a passion for learning and continuous development hence she will pursue of a post-doctoral degree soon after completion of the MBA.

Appendix 2.2: Ethic documentation

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/BA1518187/498
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	Diversity and inclusion in the workplace of civil engineering firms in South Africa
Investigator / Researcher	Miss Ntsitile Ramone
Nature of Project	MBA (Research Article)
Decision of the Committee	Approved unconditionally
Issue Date of Certificate	2021-02-25
Expiry date	Date of submission of the project report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 +27 82 880 4531 Anthony.Stacey@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

26/02/21
Date:

UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG

Private Bag 3 Wits, 2050
Fax: 0270865535224
Tel: 02711 7173582

Reference: Ms Jennifer Mgolodela
E-mail: jennifer.mgolodela@wits.ac.za

10 February 2021
Person No: 1518187
PAG

Miss NS Ramone
35 Midview Gardens Carlswald , Midrand, 1685
P.o. Box 11724, Maseru 100, Lesotho
1687
South Africa

Dear Miss Ntsitile Ramone

Master of Business Administration: Approval of Title

We have pleasure in advising that your proposal entitled *Diversity and Inclusion in the workplace of Civil Engineering firms in South Africa* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Marike Bosman
Faculty Registrar
Faculty of Commerce, Law and Management

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Graduate School of Business Administration
Private Bag 3,

University of the Witwatersrand, Johannesburg
2050

31 October 2020

Dear Sir/Madam,

Re: Permission to conduct research

My name is Ntsitile Sylvia Ramone. I am studying for a Master of Business Administration in the Wits Business School at the University of the Witwatersrand. I am seeking permission to do research at by form of interviews at a place of your convenience.

I am conducting research on diversity and inclusion in the workplace of civil engineering firms in South Africa. The researcher has chosen the topic from experience of working in the engineering sector and therefore realizing how little diversity there is as well as the wide gap between genders is. Basically, women are subtly discriminated against solely based on their gender, as engineering is perceived to be a predominant male profession. Inherently, are not discriminated due to incapability and incompetence, however, they are excluded on a perception that males are better suited for technical and analytical jobs. On that note, this research aims to investigate the relationship between gender inequality and inclusion by focusing on aspects such as educational background and skills, unfavourable working conditions as well as pay disparities.

The researcher has identified you as you are an employee of a civil engineering firm with a supposed balance between males and females. The researcher will focus solely on gender inequality as an aspect of diversity and inclusion by conduction semi-structured interviews with participants, mostly female, to get their insights on the study. The research will entail collecting data from staff members at senior and junior levels of management.

Participants will be asked to give their written or verbal consent before the research begins. Their responses will be treated confidentially, and identities (their names and the name of the organisation) will be anonymous unless otherwise expressly indicated. Individual privacy will be maintained in all published and written data resulting from the study.

The results will be communicated in the MBA research project as part of the findings from the interview.

The research participants will not be advantaged or disadvantaged in any way. They will be reassured that they can withdraw their permission at any time during this project without any

penalty. There are no foreseeable risks in participating in this study. The participants will not be paid for this study.

All research data will be destroyed after three years if the researcher has no use for it.

I therefore request permission in writing or completion of the consent form to conduct my research.

Please let me know if you require any further information. I look forward to your response as soon as is convenient.

Yours sincerely,

Ntsitile Ramone

071 876 9702
1518187@students.wits.ac.za

Supervisor's name: Decent Mutanho
Wits contact number: 071 368 3345
Wits email address: 1802421@students.wits.ac.za

Appendix 2.2: Ethic documentation

Date: 31 October 2020

Good Day

My name is Ntsitile Sylvia Ramone and I am a Master of Business Administration (MBA) student at Wits Business School, in the Faculty of Commerce, Law and Management at the University of the Witwatersrand, Johannesburg. I am conducting research on diversity and inclusion in the workplace of civil engineering firms in South Africa with a focus on gender inequality. Gender inequality refers to the perception influenced by social constructs that men and women are not equal which inherently affects ways of living. Diversity denotes the inclusion of an array of people from different ethnic and social backgrounds including gender, religion, sexual orientations, as well as demographics.

As employees within the engineering sector, you are **invited** to take part in a semi-structured interview. The purpose of this interview is to find out in-depth knowledge, the extent to which diversity influences inclusion with a focus on aspects such as gender inequality, pay disparities, educational background and skills as well as unfavourable work conditions and their impact on job performance. With your permission, I would like to record the interview using a digital recording device

Your response is important and there are no right or wrong answers. This interview will be completely confidential and anonymous. Anonymity and confidentiality are guaranteed by not needing to enter your name on the consent form. Your participation is completely voluntary and involves no risk, penalty, or loss of benefits whether or not you participate. You may withdraw from the survey at any stage.

The interview schedule consists of 15 questions. The entire interview should take between 20 to 30 minutes to complete. The interview schedule was approved unconditionally by the Wits University Research Ethics Committee (Non-Medical).

Should you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. Should you wish to receive a summary of this report, I will gladly send it to you. If you have any concerns or complaints

regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrec-medical.researchoffice@wits.ac.za

Yours sincerely,



Ntsitile Sylvia Ramone
1518187@students.wits.ac.za / 071 876 9702
MBA Student: Division of Business Administration
Wits Business School
University of the Witwatersrand, Johannesburg

Supervisor: Decent Mutanho
1802421@students.wits.ac.za
+27 71 368 3345

Appendix 3.1: Dully filled in data collection instrument(s)

CONSENT FORMS

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Erin Da Santos
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Erin Da Santos



Signature of person who sought consent:
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 10 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Tshepo Moleleki
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Tshepo Moleleki



Signature of person who sought consent:
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 10 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Nonjabulo Yeni

Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Nonjabulo Yeni

Signature of person who sought consent: 
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 10 March 2021

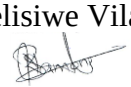
Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Samukelisiwe Vilakazi
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Samukelisiwe Vilakazi



Signature of person who sought consent:
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 12 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Phakamile Mazibuko
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Phakamile Mazibuko



Signature of person who sought consent:
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 12 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Belinda van Wyk
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Belinda van Wyk

Signature of person who sought consent: 
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 12 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Siphokazi Lebata
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Siphokazi Lebata

Signature of person who sought consent: 
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 14 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Thakane Monaheng

Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Thakane Monaheng

Signature of person who sought consent: 
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 14 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Lehlohonolo Thamae
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Lehlohonolo Thamae

Signature of person who sought consent: 
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 14 March 2021

Title of research project: Diversity and inclusion in the workplace of civil engineering firms in South Africa
Name of researcher: Ntsitile Sylvia Ramone
Department/research group address: Faculty of commerce, Law and Management
Wits Business School
University of the Witwatersrand, Johannesburg
Ethics Clearance Protocol number: WBS/BA1518187/498
Telephone: 071 876 9702
Email: 1518187@students.wits.ac.za
Name of participant: Livhuwani Brown
Participant's involvement: To participant in a semi-structured interview to give insights on the topic

What's involved?
Risks: There are minimal risks involved
Benefits: Thorough knowledge and understanding of the topic
I acknowledge the following:

I acknowledge that, participating in a research project serves as an agreement that the interview shall be recorded and I therefore permit the researcher to do so. I guarantee the researcher that I have thoroughly read through the consent form and asked questions where applicable. I permit the researcher to use my responses for research and educatin on condition that confidentiality will be upheld; such that I will not personally be discernable as my personal details will be used in aggregate form only. I am fully aware that I am under no coercion to partake in the research and I am at liberty to withdraw any time.



Signature of Participant / Guardian (if under 18):
Name of Participant / Guardian: Livhuwani Brown

Signature of person who sought consent: 
Name of person who sought consent: Ntsitile Sylvia Ramone
Date: 21 March 2021

INTERVIEW TRANSCRIPTS

FEM 1- Age 30, Junior Design Engineer

1. What is your understanding of diversity in a workplace?

   "Diversity in the workplace entails an array of all sorts of people that is women, men, people from the LGBTQI group, disabled people and everyone else that I may not have mentioned. Diversity encompasses all sorts of people from different occupations and employers hire these people according to merit and skills not according to where the come from".

2. What is your understanding on an inclusive work environment?

   "An inclusive work environment is a workplace that caters for every employee and their needs despite their age, educational background, gender as well as skills".

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

   "It is a male dominated industry that has been that way for years. In ancient times, women were seen as family caretakers not in the professional world, especially engineering. I think it is hard for most of the employers to shift their mind-sets and acknowledge that women are capable as much as men are."

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

   "Lack of diversity and inclusivity drive away employees due to lack of skills transfer as well as utilisation that impacts career growth negatively . Basically, if a large number of employess leave an organisation, this will have anegative impact on it as lt will suffer endless recruitment costs as well as loss of skills and talent. It will be faced will continuously spending money an training new employees which can be quite expensive. Employees are driven away based on lack of utilisation and development, workplace inferiority, knowledge transfer and as well as little opportunities for growth.Diverse work environments offer a variety of skills which basically suggests knowledge transfer amongst employees and teams. Lack of it obviously means that all the above mentioned will be deprived from employees, especially women as civil engineering is dominated by males."

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

   "***They could start by taking the minority groups seriously. Most of these organisations are run by men and men are very bias towards women. The minute***

they star taking us seriously, the moment we shall see organisations transforming to environments that are more diverse. The sad part is this behaviour starts from home as they do not take even their spouses seriously".

6. What is your understanding on gender inequality? Please expand.
"Gender inequality details preference of one gender over the other".

7. What motivates you as an individual to perform at an optimum in your work environment?
"*A motivating an uplifting employer that pays well. I want my efforts recognised. Safety and job security. Some of us are faced with harassment from time to time."*

8. Would you consider the organization you work for to be gender neutral?
"No, it is not gender neutral as males dominate it. There are only 10 females and 30 males".

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?
"No it is not. From my experience, it only accommodates male employees as even the uniform we wear to site is strictly designed for men. There are no female designs".

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?
"***Yes they do. For instance, the labs and designs rooms I work in are designed for males, even the bathrooms are not conducive for females. I feel that I always have to act like one of the boys in order to be accommodated and catered for at my workplace".***

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?
"***I think it encourages productivity as all employees will feel equal without fear of being excluded from work activities and also fear of asking when they are not familiar with work tasks".***

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?
"***Definitely not. To be honest, I think the idea of men performing better is just a cultural stigma that has been there for years as women were not allowed to work especially in the more technical fields. I am not being bias but I think women are***

better workers than men as the ability to multi-task is something most of us are born with unlike men who have to be trained for such"

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"***I would say it deflates performance since opportunities will only be availed so a certain club which honestly is demotivating. What is the point of always striving for excellence and working hard if you will not be recognised for it?"***

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"Yes there is, as it will enable all stakeholders to participate fully at work and whilst learning from each other."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"*By affording all stakeholders same opportunities that include but training, travel, promotions etc."*

INTERVIEW TRANSCRIPTS

FEM 2- Age 35, Senior Project Manager, Water and Sanitization Division, Pr. Eng.

1. What is your understanding of diversity in a workplace?

"Diversity in a workplace entails an organisation that strikes a balance between males and females from different cultures and ethnicities."

2. What is your understanding on an inclusive work environment?

"An inclusive work environment is a workplace that caters for all sorts of people including minority groups (LGBTQI, disabled people, and women) as well as males. Basically, it is an environment that caters for and supports all its employees despite their backgrounds."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

"Fear of change and transformation. It is a male dominated industry that is reluctant to accept women, especially those in leadership."

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

"Lack of diversity and inclusion result in unhappy employees which implies that the

organisation is susceptible to losing a lot of the employees to a more diverse organisation. This is driven by the unwillingness of management to embrace variety. Marginilised employees usually leave such companies as they feel they do not belong, hence growth opportunities will be limited."

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

"***By enabling same and equal opportunities for all employees"***

6. What is your understanding on gender inequality? Please expand.

"Gender inequality means that genders are not equal. There is a perceived superior one according to societies and this is something that is prevalent in the workplaces, especially STEM ones."

7. What motivates you as an individual to perform at an optimum in your work environment?

"Good leadership, appreciation, great fair salary and acknowledgement".

8. Would you consider the organization you work for to be gender neutral?

"***If I was to look at it holistically I would say yes as there are many females although a majority of them are in the Finance and HR departments which fall under support. However, in the operations, we only have a handful, about 10 women and 55 males which I find quite daunting."***

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"No it is not. Most opportunities are tailored for our male counterparts. Can you believe that when I first was employed there, I was asked to first do clerical work for managers while my male counterparts dived straight into the technical work. This obviously means that they are now perceived to be far ahead than me although have done my ultimate best to earn the stripes. I have even registered professionally while most of them still have not but I am still getting paid lower than all of them."

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"Of course it does. I know for a fact that I have considered leaving this industry altogether due to the unfavourable work conditions. I have worked for four different engineering companies but the treatment is the same. Women will always be viewed as a minority group is it is just disheartening."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"I think it encourages productivity and job performance and no race or gender will be preferred than the other. Therefore, all employees or stakeholders will all have to meet the same requirements before getting a promotion or being availed mentorship and training opportunities."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"It would be absolutely preposterous to believe that notion. Men are not more skilled than women. Men have always being enabled better opportunities especially in this industry. If women were availed the same and they still failed, then we could be talking something different. However, women still manage to even bypass males with the little resources and harsh work conditions that they are faced with."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"The two deflate performance as no individual in their right mind would want to work hard for an organisation that constantly discriminates against them and does not recognise their potential. If you are not effectively utilised in an organisation, performance and morale will obviously decrese, hence growth will inherently be stunted as you will not be learning anything worthwhile."

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"Yes there is as males will start to respect females. Females will also be considered for better pays that are equal to their male counterparts."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"Mentoring, coaching, equal pay and equal promotion opportunities."

INTERVIEW TRANSCRIPTS

FEM 3- Age 29, Junior Design Engineer

1. What is your understanding of diversity in a workplace?

   "Diversity in a workplace means variety. A variety of all sorts of people from all walks of life."

2. What is your understanding on an inclusive work environment?

   "An inclusive workplace is a workplace that basically accommodates everyone despite their origins."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

   "It is just the inability to accept change, especially gender related change. Most engineering firms are a boys club that accommodates men more than anything. Slotting diversity in would kill the narrative."

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

   "Lack of diversity and inclusivity results in high staff turnover due to the inability to adapt to change and hostility in the workplace. The organisation I am currently working for is not diverse at all. Women are constantly sanctioned as they are not offered equal opportunities as their male counter-parts. There is no skills development programmes for women as well as knowledge transfer as my organisation is owned by a traditional male who believe women are meant to be taking care of their homes not performing teachinal masculine duties at work. Most women in my organisation leave because they feel that they do not belong as they are constantly excluded from the 'boys club' that is more engaging and offers development. The culture of my organisation encourages women to work in silos and be competitive towards one another which bascally alienates them. However, men are made to feel that they belong despite their backgrounds or skills.

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

   "Fair recruitment, pay and opportunities for all employees in a company."

6. What is your understanding on gender inequality? Please expand.

   "Gender inequality is means that males and females are perceived to not be equal. It could be at work, at home or in social spaces."

7. What motivates you as an individual to perform at an optimum in your work environment?

"I perform at my best when I feel empowered, recognised, paid fairly and my job is secure."

8. Would you consider the organization you work for to be gender neutral?

"Not at all. There are only 3 females in a team of 20."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"***I do not deem it as inclusive towards all stakeholders as most opportunities and projects are always allocated to my male counterparts even those who hold a lower rank than me."***

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"Yes they do. Because I am the youngest in the team, I am always subjected to clerical duties that have nothing to do with my job. I have often been asked to make coffee in meetings or get water, which is something that males are never exposed to. This is so demotivating and is slowly affecting my performance as I know the organisation does not value me"

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"Knowing that you are valued and recognised boosts ones' confidence and actually triggers their eagerness to do more and be better at it."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"I do not think that there is a gender that is more equipped or skilled than the other. People are people and I believe hard work and determination always prevail good results despite ones' gender, race or ethnicity."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"***If you know that your employer has little regard for you and does not consider you, then your performance will just go down as you know that you are just a static to them. It is disempowering."***

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.
"I believe it is very necessary as it will not only encourage respect from all stakeholders but women will start to be valued and recognised for their technical skills not the more administrative ones."
15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?
"***Fair pay, equal opportunities."***

INTERVIEW TRANSCRIPTS

FEM 4- Age 38, Technical Manager, Roads and Storm-water Division, Pr. Eng.

1. What is your understanding of diversity in a workplace?
"***Accepting that people are different, and embracing different talents they offer and leveraging on them for the benefit of the company."***
2. What is your understanding on an inclusive work environment?
"Not working in silos, working interdependently for the greater good of the company."
3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

***"Because they are managed and owned by old school traditionalists (men) who are reluctant and resist change*.**"

4. In your opinion, how does lack of diversity and inclusion affect an organisation?
"Lack of diversity and inclusion fuels dictatorship in a workplace as top management are the only ones realised as decision makers. Consequently, a lot of employees are bound to leave such an organisation for a diverse one. Lack of diversity decreases morale as employees usually feel inferior and isolated."

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?
"They should be more accepting and learn to embrace differences that come with different people."

6. What is your understanding on gender inequality? Please expand.

"Gender inequality is discriminating against an individual based on their gender"

7. What motivates you as an individual to perform at an optimum in your work environment?

"An inclusive work environment that utilises me, great leadership, job security and of course, incentives and fair pay. Feeling empowered fuels hard work for me."

8. Would you consider the organization you work for to be gender neutral?

"Yes, it is gender neutral as there is a significant balance between males and females."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"I think it is, as I have never personally experienced any discrimination against me based on my gender. I work in an all-female team with only one male so I cannot really say I have experienced the discrimination."

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"Yes they do, working in a hostile environment affects one's ability to perform and excel at work. At my previous workplace, I was constantly harassed and ridiculed which affect my psychological being so much my work became affected."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"An inclusive work environment encourages productivity such that, an individual does not feel judged but rather feels empowered which will in turn motivate them to work harder as they will feel needed."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"In terms of both genders yielding operational efficiencies, I think they are both capable as long as they work hard. In terms of skill, I do not think there is a gender that is more skilled. Men and women can equally perform at work as long as they possess the necessary qualifications, drive and enthusiasm towards their work which will then breed skill as they constantly work on whatever they are trying to achieve."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"People will feel disempowered to work which will substantially deflate their performance. Disempowerment is birthed by not being fully utilised which essentially suggests that training opportunities will be limited. That being said, performance and career growth will be ultimately sluggish."

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"Yes. In most engineering firms, including the one I previously worked for, men were considered to be important than females. Females, regardless of the roles they held, were constantly discriminated against and the work culture and norms actually suited males more than females, which I found to be very unfair. Women would be mauled for just taking maternity leave or fetching their children from school whereas if the reverse happened, men were applauded for being good, present fathers.

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"By adapting to an inclusive culture and holding awareness seminars that will teach employees about such issues."

INTERVIEW TRANSCRIPTS

FEM 5 – Age 42, Senior Project Manager, Structural Engineering Department, Pr. Eng.

1. What is your understanding of diversity in a workplace?

"Embracing different cultures and ethnicities that employees possess."

2. What is your understanding on an inclusive work environment?

"A workplace that enables its employees to fully reach their potential by including them in all necessary projects that match their experience and skills."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

"Most engineering firms are owned by old traditionalists that resist to anything that has to do with change and embraces diversity."

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

"Lack of diversity and inclusion affect an organisation in a negative way as employees are prone to moving to companies that appreciate diversity and encourage inclusivity and connectedness which fuels belonging. Lack of diversity breeds enmity. Therefore, when a work environment is hostile, knowledge transfer

and opportunities fro growth will be limited. I work in an environment whereby I am sanctioned based on my gender not my capabilities as management belive that my male colleagues are better equipped than I am. It is shocking that I have worked for my employer for sometime now but I have never been offered any continuous development opportunities as my manager always jokes about me ultimately resigning or taking family responsibility leave to take care of my family. "

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

"By cultivating a culture of acceptance and teaching its employees about is importance."

6. What is your understanding on gender inequality? Please expand.

"Gender inequality is an assumption that there is a better gender. In my culture, men are perceived to be better than women as they are seen as bread winners and have the ability to make money while women are perceived to be child carers."

7. What motivates you as an individual to perform at an optimum in your work environment?

"Being seen, job security and acknowledged for me does the trick."

8. Would you consider the organization you work for to be gender neutral?

"I think it is gender neutral. However, most women still hold junior positions despite their skill sets and experience in the industry. For employment equity purposes, I would say that the numbers of males and females in the company are quite balanced, just not the pay and promotions."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"No it is not as the culture is disempowering on females but more empowering on males."

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"Definitely. For any human being, I believe it would be hard to perform under negative and disempowering leadership. It is just demotivating."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"Like I said previously, I believe being seen and empowered at work is everything. If

you are being included in tasks that build and empower, that will automatically encourage productivity and performance."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"Definitely not. There is no gender that is more equipped or skilled than the other. If you do not work hard to upskill yourself as an individual, that has nothing to do with your specific gender. I could say that women are more skilled as they are better at multitasking."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"Because they are disempowering to an individual which in turn breeds low productivity and performance."

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"I believe there is as that will not only encourage respect amongst genders, but it will also enable employees to work interdependently and leverage on each other's strengths."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"Employing more females in the industry, and upskilling then from the onset."

INTERVIEW TRANSCRIPTS

FEM 6 – Age 28, Graduate Engineer, Mechatronics

1. What is your understanding of diversity in a workplace?

"It is a workplace that embraces all sorts of people from various backgrounds and cultures."

2. What is your understanding on an inclusive work environment?

"It is a work environment whereby every employee is allowed to have a piece of the pie. What I mean is that employees will be enabled to be part of projects and add value."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

"Most of these firms are owned by typical men who believe their way of operating in the industry is the only way. They hate anything that has to do with change and transformation."

4. In your opinion, how does lack of diversity and inclusion affect an organisation?
"Lack of diversity results in hostile environments which translates to a high turnover. Employees usually exit such organisations as they feel they do not belong due to a culture that is exclusive to a certain gender. This basically means that more employees are likely to leave the company due to a lack of fit."

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?
"I think by raising awareness campaigns and actually being on the fore front of implementation to make sure that it is done. I would also suggest they hire a diversity champion who will constantly facilitate to ensure that proper practices are being administered."

6. What is your understanding on gender inequality? Please expand.
"The idea that a certain gender is better than the other. This is more prevalent in male-dominated industries."

7. What motivates you as an individual to perform at an optimum in your work environment?
"*Knowing that I am trusted to be a part of projects and included in solving complex problems. Being valued by my employer as well as job security."*

8. Would you consider the organization you work for to be gender neutral?
"I think it is gender neutral but most female hold administrative roles and junior engineering roles. There is no female in top and senior management."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?
"*To be honest, I do not think it is for the reasons mentioned in my previous comment."*

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?
"Of course. If your life at work is constantly being made difficult, how could one

possibly out do themselves. Hostile work conditions derail an individual's performance a lot."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"The thought of knowing that your input is valued goes a long way. Therefore, being included in crucial projects and discussions actually encourages an individual to work even harder at their craft."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"I think women are more skilled, they are just not being offered the same opportunities as men because of traditional stereotypes."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"It deflates performance because it is not easy to work in an environment where you are discriminated against. It completely shuts down self-esteem and confidence and once those are gone, it will be hard to perform. And also, if you are not being included in key projects and are not mentored, your career growth will definitely be sluggish. Utilisation is very key in this industry for one to earn their stripes. Lack of inclusion ultimately suggests that there will be pay disparities, low job performance which essentially translates to a slow career growth. "

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"Yes, that way they will leverage from optimum performance from stakeholders and yield operational efficiencies."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"Raising awareness of such issues and ensuring that all stakeholders adhere to the rules."

INTERVIEW TRANSCRIPTS

FEM 7- Age 50, Chief Operations Officer, Chemical Engineering, Pr. Eng.

1. What is your understanding of diversity in a workplace?

   "Diversity in a workplace is the variety of people based on social backgrounds, ethnic groups as well as sexual orientation."

2. What is your understanding on an inclusive work environment?

   "An inclusive workplace embraces that people are different but leverages on every stakeholder's abilities without judgement. Basically, everyone will be included somehow in projects or tasks that complement their skill sets."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

   "The unwillingness to adapt to change. The notion that diversity brings variety which is something most of these firms are reluctant to adapt."

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

   "Lack of diversity affects an organisation as it hampers with its potential to grow and do things differently. Diversity appreciates a variety of people, which suggests a variety of ideas, which is quite essential in these times. Lack of it basically means the organisation's inability to adapt to change and connectedness in the workplace. I work for an organstion with a discriminatory work environment as there are no female engineers encouraged to be in management. Lack of diversity suggests a homogenous stagnant work environment that is unwilling to transform and adapt to change. Basically this just implies that there will be no growth or innovation as well as opportunities for continuos development which will essentially result in a certain group being marginilised. Such an environment encourages people working in silos instead of collectivity. Females are usually made to feel like they do not belong. "

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

   "Having campaigns that raise awareness in the work environment. And also, management are very key in these type of projects as they should be in the forefront and lead by example. My experience is, if a leader takes responsibility and champions such, it is easy for his subordinates to follow suit."

6. What is your understanding on gender inequality? Please expand.

   "Gender inequality is the perception that a certain gender is better than the other.

For example, in the olden days (still prevalent in most cultures), women are seem as minors and men as superiors. This suggests that men would make all vital decisions in the household, as they are the better gender than women are. Unfortunately this is the reality of most women, even in the workplace as they are constantly bullied by males with egotistic traits."

7. What motivates you as an individual to perform at an optimum in your work environment?

"Being valued, respected, listened to and being empowered."

8. Would you consider the organization you work for to be gender neutral?

"Not by a long shot. I work in a company that is pro men."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"I could say we are getting there as I recently started as COO and one of my initiatives is to work with HR to ensure that certain policies change as a majority of them were in favour of males and quite discriminatory to women."

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"Definitely. However, I think with experience you learn to just brush it off and move on. I remember when I was in my 20s I would say something different but now, I am aware that bullies are everywhere. One just needs to develop a skill of addressing such issues and dealing with them."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"In an inclusive work environment, people feel needed and valued. Therefore, people will perform better if they believe they are contributing significantly and are needed by their organisation."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"Not necessarily. People acquire skill through hard work, experience and qualifications. Therefore, we can all be skilled if we meet the above."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"It taints your credibility and tampers with your confidence which will directly affect the ability to do your job, and in turn result in low performance."

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"I believe it is vital. That way, men specifically will start to appreciate that women are as equally qualified and play a pivotal role in the STEM industries."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"Constantly raising awareness and top management championing it."

INTERVIEW TRANSCRIPTS

FEM 8 – Age 48, Regional Manager, Traffic Engineering, Pr. Eng.

1. What is your understanding of diversity in a workplace?

"A variety of people from different backgrounds and cultures."

2. What is your understanding on an inclusive work environment?

"A workplace that caters for all employees and enables them to reach their full capacity."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

"*Most engineering firm lack diversity due to the inability to adapt to change and transaformation. Inclusivity comes in as a form of utilisation for certain stakeholders. Lack of inclusivity means that some employees are not being fully utilised to their full capacity which inhibits their career growth. A lot of civil engineering companies are guilty of this as they continuously discriminate females as they aren't seen as capable compared to their male counter parts.*

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

"Lack of inclusivity and diversity coupled with discrimination is very detrimental towards the organisation's image as much as it is harmful on the individual. Lack of diversity and inclusion only suggests stagnancy and unwillingness to adapt to change and new learnings. Different people from different ethnic groups, backgrounds, gender, cultures etc, offer an array of skillsets and experiences, which I believe most organisations should actually leverage on instead of opposing them. Therefore, it is the onus of every company to adapt to such in order to

leverage on the talent and encourage collectivenes."

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

"By having campaigns to raise awareness of such. Secondly, employing an in house diversity and inclusion champion would be ideal"

6. What is your understanding on gender inequality? Please expand.

"The notion that genders are not equal."

7. What motivates you as an individual to perform at an optimum in your work environment?

"Resources, being valued and empowered. A good fair salary."

8. Would you consider the organization you work for to be gender neutral?

"It is not but I am hopeful that the norm will change as I see a lot of young female graduates entering the industry which is quite positive."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"It is not. Just two days ago, I found a male senior manager assigning clerical tasks to a female junior engineer which is evidence that there is still a gender stereotype that attaches women to admin jobs instead of the more technical ones."

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"They do. I am positive a large majority of women can tell you tales of the hostile environments they have had to endure in this industry. At times I even felt like giving up but I knew if I did, it would substantiate the notion that women are weak."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"It encourages productivity and improves performance such that, everyone is assigned a role to do and fully equipped with resources that enable them to achieve their targets. Leadership or managers also take part in encouraging inclusivity and assisting where necessary. This essentially will fuel productivity as all employees will be assigned tasks that develop them and are in line with their skills."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is

more skilled than the other?

"No, I believe all individuals are capable of achieving the most if they have the right skills, passion for what they are doing, resources, as well as drive.

13. How does gender inequality and lack of inclusion deflate performance and career growth? ***"Gender inequality and lack of inclusivity such that, people will feel idle and unwanted which affect them psychologically, in turn compromising their ability to perform. Gender inequality suggests bias, discrimination, lack of mentorship and unequal pay. Consequently, lack of inclusion suggests that one is not being fully utilised to their full capacity which translates to less recognition in the organisations and ultimately little to no promotions. Considering all the aforementioned factors, career growth is bound to be."***

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"Yes, a gender-neutral workplace will eliminate discrimination across genders significantly, as all stakeholders will be deemed as equal. Pay policies, working conditions that favour men over women will actually be revised which is essential."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"By raising awareness and putting in place sanctions that will be employed should anyone breach such an initiative."

INTERVIEW TRANSCRIPTS

FEM 9 – Age 33, Engineering Business Analyst

1. What is your understanding of diversity in a workplace?

"Diversity in a workplace means having people from different cultures, ethnicities, religions, geographical locations etc."

2. What is your understanding on an inclusive work environment?

"An inclusive work environment appreciates different skills that employees have and leverages on them to complete tasks. For instance, in a team, people with different skill sets and strengths can be put together in order to achieve operational synergies."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?

   "The resistance to adapt to change and transformation. They are male dominated which basically means that they have a certain culture that owners are not willing to sacrifice on the basis of diversity."

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

"An organisation that lacks diversity and inclusion is definitely stuck in its ways. Being diverse and inclusive reflects an appreciation of variety and collectiveness.In such companies, people usually feel isolated which triggers demotivation hence they eventually exit the organisation."

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

"Raising awareness in the workplace and training and coaching employees about it."

6. What is your understanding on gender inequality? Please expand.

"Gender inequality suggests that there is a gender that is perceived to be more equal than the other."

7. What motivates you as an individual to perform at an optimum in your work environment?

"Resources, a healthy work environment, equal pay, utilisation, mentorship, continuous career development that fuels growth."

8. Would you consider the organization you work for to be gender neutral?

"No it is not. There are more males than females."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"No, the culture is somewhat degrading to women as top management also perpetuates it. The working conditions are actually more favourable to males than they are to females."

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"Yes they do. I sometimes find it hard to navigate certain projects because the working conditions are more suitable to men and derogatory to women. Even on site, a majority of males that report to me blatantly disrespect me and none of the

seniors act on it. We are always told to "man up" which I find to be ridiculous. This has had a negative impact on my performance as it has affected me mentally."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"An inclusive work environment encourages productivity and improves performance such that, employees will be aware that employers embrace the differences that individuals possess but are able to merge them to yied better synergies."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"No, all genders are equal and I do not think there is a gender that is more skilled. If you have the right qualifications, experience and the will to learn and develop, this will fuel skill and great results."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"Being discriminated and not included in job tasks kills' motivation and drive which will in turn affect confidence. This will then result in low performance."

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"Yes there is. This way, employers will be forced to relook our salaries, as the pay gap is quite vast."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"Creating sanctions for people performing such acts and also raising awareness."

INTERVIEW TRANSCRIPTS

FEM 10- Age 34, Project Manager

1. What is your understanding of diversity in a workplace?

"Diversity entails an array of employees from various cultures, ethnic groups, religion, geographical areas as well as educational backgrounds."

2. What is your understanding on an inclusive work environment?

"An inclusive work environment is a workplace that fully includes all employees in work tasks relevant to their skills. No one is excluded from work."

3. In your opinion, what do you think are the reasons most civil engineering firms lack diversity and inclusivity in their workplaces?
"Most civil engineering firms are still somewhat oblivious to the idea of women being equivalent to males and executing the exact same tasks as them. Being diverse suggests that an organisation has a variety of employees while being inclusive means that an organisation utilises all its employees effectively. Lack of both the concepts translates to the organisations inability to change and transform to he new era.

4. In your opinion, how does lack of diversity and inclusion affect an organisation?

"A company that lacks diversity and inclusion exemplifies the unwillingness to adapt to change and learn different ways of doing things. Therefore, such a company is highly unlikely to make it in the global market and it prefers its own traditional ways of operating. This basically means that it is prone to losing a lot of employees due to stagnant operational behaviour as well as employees feeling like they do not belong. Diverse organisations embrace variety which creates a sense of belonging, lack of diversity breeds the opposite.This may result in financial losses as well as sluggish growth in the long run."

5. In your opinion, how can employers adapt to get their organisations to be more diverse and inclusive?

"By management raising awareness in the workplace and ensuring that it is duly implemented and executed."

6. What is your understanding on gender inequality? Please expand.

"Gender inequality alludes that there is a gender that is better than the other according to societal norms. This implies that the less preferred gender might be sanctioned in terms of pay, promotions etc."

7. What motivates you as an individual to perform at an optimum in your work environment?

"Resources, respect, good salary, great leadership and a healthy work environment."

8. Would you consider the organization you work for to be gender neutral?

"No it is not. There are more males than females. Bear in mind that I have considered admin support staff."

9. Is the organizational culture in your specific organisation inclusive towards all stakeholders?

"No it is not. It is more pro men as they get to attend all the developmental courses that allow them to explore new developments in the industry. I have worked for this company for four years but I only attend one course per year while my male colleagues attend three to four times a year."

10. In your opinion, do unfavourable work conditions affect an individual's ability to perform?

"Definitely. I am currently so unhappy with my organisation as they have a trend of promoting men, which subsequently relates to their high salaries. I was penalised because I went on maternity leave, which is unfair as I am still a professional engineer with the right skills and drive to work. However, most women in my organisation are not getting promotions because management says they are worried we will leave to go give birth in the middle of a project. The conditions we work under are not conducive for single women with children like myself."

11. In your opinion, how does an inclusive environment encourage productivity and improve job performance in an organisation?

"It is motivating and drive continuous improvement of employees which essentially attracts productivity and high job performance."

12. In your opinion, all things equal, what are your thoughts on men and women's ability to perform and yield operational efficiencies? Would you say there is a gender that is more skilled than the other?

"Absolutely not especially because all we do is use our brains not man power. If I was in an industry that requires heavy lifting of merchandise I would probably agree to the notion."

13. How does gender inequality and lack of inclusion deflate performance and career growth?

"It deflates performance because it kills an individual's drive to do the work. Gender inequality further slows career progression as most females in the industry are not offered same opportunities as their male counterparts that include, mentoring and training which fuels continuous development, women experience rife pay disparities, women are hardly considered for promotions or senior leadership. Taking all these into account, performance is bound to get deflated due to prevalent discrimination. "

14. Is there a significance for organisation to adapt to more gender neutral environments that encourage participation from all stakeholders? Please expand.

"Yes there is. This will encourage management to be inclusive while making promotions and increments that have historically been availed to males."

15. In your opinion, how can organisations alleviate gender related discrimination, which will in turn help seize operational efficiencies?

"Raising awareness in workplaces as most people are still not aware that they act in a discriminatory manner. Secondly putting sanctions in place for anyone who does not comply."