Breaking the Glass Ceiling

An explorative study to analyse if "Unconscious Bias" is slowing down the career advancement of women in the Irish corporate sector.

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List of Abbreviations used

EI---------- Emotional Intelligence
CSO------- Central Statistics Office
IoD-------- Institute of Directors
APS-------Australian Public Service
NWCI----- National Women's Council of Ireland
IAT ------- Implicit-Association Test

Abstract

According to the Central Statistics Office's (CSO) survey conducted in May 2019, only one in nine CEOs in large organizations in Ireland were women. Women occupied just one third of the positions in the roles of senior executives, 10% in the roles of chairpersons. More than 80% in the board of directors were ruled by men. Although in the last decade, more women are taking up equally challenging jobs as men, the career progression of a woman is very less as compared to men in their counterpart roles. With more initiatives to bring women into tech roles, more emphasis on girl education, why do we see such dwindling numbers in women participation in the senior roles in the corporates in Ireland? What is slowing down women from progressing in their career ladder? Although there are various measures being put in place to bring gender equality in workplaces there are still some subtle and implicit biases that are prevalent yet invisible to the general public.

1.0 Chapter 1- Introduction

1.1 Introduction

In a modern era like today, it is surprising to know that gender bias is playing an active role. In Ireland, from the various survey figures, it is evident that larger no of women are acquiring higher educational qualifications compared to men. But still, there is a gender gap with women not being given equal opportunities and are paid much less than their male counterparts

Table 3.5 Ireland: Persons aged 25-34 with a third level qualification, 2008-2018

Year	Men	Women %
2008	35.0	50.1
2009 [1]	38.5	51.0
2010	38.9	52.3
2011	39.3	53.2
2012	41.4	54.2
2013	42.7	55.3
2014 [2]	45.2	59.9
2015	47.8	60.1
2016	46.5	60.5
2017	49.1	61.9
2018	52.5	59.9

Source: CSO LFS

Figure 1 : CSO 2019 Gender Balance Survey

Picture Courtesy: Central Statistics Office (2019) *Gender Balance in Business Survey 2019 - CSO - Central Statistics Office*. Available at: https://www.cso.ie/en/releasesandpublications/er/gbb/genderbalanceinbusinesssurvey2019/ (Accessed: 19 July 2020).

In general, the responsibility of taking care of a family falls on a woman as childcare responsibilities are usually female-oriented in a family set up. The parental leaves are also women-centric, and this prevents men from taking up family responsibilities.Such career breaks set them a little slower is making progress in their career when compared to men.

In recent times there is an ongoing focus on under-representation of women on boards. Most of the board room decisions are the fundamental driving forces for the major organizations that run the economy, (NWCI, 2015). The gender parity in board rooms hence have a direct impact on society. A biased board will not be able to make balanced decisions like the financial, management decisions, which has an impact on the financial results of the company and the overall organizational management. As more women continue to participate in board decisions, it will drive them to deliver better financial results and unbiased board decisions, which in turn will have a positive impact on the economy, (NWCI, 2015).

There has been much research done by many European and American countries in this front, which suggests that increasing women on boards has had a positive impact on the financial performance of the companies, (Binder, 2018). Another research by McKinsey, (2017) presents insights based on facts in their research on the importance of having more women participate in the board rooms. The research also suggests that companies with more women representation in their board room decisions tend to perform better than the rest, (Georges Desvaux, Sandrine Devillard, Alix de Zelicourt, Cecile Kossoff, Eric Labaye, 2017). They present ten attributes of an inclusive organization where unorthodox policies, empowered workforce having fair procedures, respectful, caring, and safe workplace were some of the prominent ones. Many European and American countries started way early in this front of addressing gender parity and taking appropriate measures ahead of Ireland, thus indicating that the under-representation of women is a universal phenomenon, and Ireland is no different. Instead of bringing in a mere quota allotment for women, it would be great if companies start to realize the real picture behind this and understand the importance of an unbiased workforce.

This research is going to be an honest attempt to delve more into the potential barriers affecting the advancement of women into senior positions within the Irish workforce. Most of the research done previously focuses on different barriers affecting the career advancement of women. However, this research is going to focus primarily on "Unconscious Bias," which has remained one of the top barriers even today.

In the recent past, there has been a lot of focus on the lack of gender equality at workplaces, which is having an impact on the hiring process, career development, and available opportunities for women within organizations. These hidden prejudices are slowing down the career progression of women in many ways. Recently there was a research conducted in Australian Public Service(APS) to find out why there is an under-representation of women in senior levels within APS but over-represented in lower levels. The Australian government has identified the prevalence of these implicit biases and have published strategies to address the same, (Williamson and Foley, 2018). They have provided measures to improve gender equality among various sections of their department, such as reviewing job descriptions, career progression initiatives, flexible work options, etc. Acknowledging the presence of such a bias is the first step to address the issue. There were so many initiatives drawn to control this bias, and one among them is training the people in the organizations. Is training effective in bringing gender equality in place? We will see further down in our literature review section as to what big organizations around the world are doing in this space.

This barrier also brings into focus some of the other interrelated barriers, which will also be dealt with in the literature review section further down below.

1.2   Research Path

Before we dive deeper, let us take a look at how this research is going to be structured.

This research is structured as follows:

Chapter 1: Introduction: This provides a background for the research, outlines its purpose, research structure, and design.

Chapter 2: Literature Review: The objective of this section is to portray the relevant research being done, synthesizing, and assess the findings. They are also essential to understand gaps in the existing research, if any, around this topic. This section deep dives into the literature relevant to the glass ceiling effect and how it affects women's career development. This is aimed at understanding the significance of leadership. Furthermore, this will also help in understanding the differences in the leadership styles of men and women. This will help us in understanding the primary reasons for the under-representation of women in leadership roles. This is to lead the path to find out how the so-called "Glass-Ceiling" effect is contributing to unconscious bias and how it is reflected in the Irish workplaces.

Chapter 3: Research Aim & Objectives: This section talks about the primary aim of the research and its objectives and briefly touches upon the branches that come out of this question.

Chapter 4: Methodology: This portrays how the research has been carried out, the methods used to compile and analyse the data.

Chapter 5: Research Findings & Analysis: This section analyses the findings, analyses the data using analytical and statistical procedures to understand their significance.

Chapter 6: Discussion: This section tries to compare the research findings with the literature collected and tries to solve the research question and also outlines the limitations of this research

Chapter 7: Conclusion: Provides an outline of the journey through the research starting from the research topic until the findings part of it. It also outlines the future recommendations of the study

2.0   Chapter 2- Literature Review

2.1   What is Leadership

"True leaders understand that leadership is not about them but about those they serve. It is not about exalting themselves but about lifting others up." Sheri L. Dew

What does one mean by leadership? Why leadership matter? What do the leaders do differently from others? These are the many questions that one may ask as we start to explore the leadership capabilities. Leaders are those who drive organizations through change and help them cope through change. Sometimes it is misunderstood with management. However, they both are entirely different. According to (Kotter, 1990) management is a way of organizations to cope through sophisticated practices and procedures. In contrast, leadership is about coping through change. Leadership has gained much attention in the last few decades. The world market is very volatile and continuously goes through change. We need a

stable leader to help cope with the organization through these volatile times. These changing times are so momentary as every day, and every hour brings in many such unexpected series of events.

2.2   What makes a better leader?

There are organizations run by very talented, highly intelligent leaders, but still, the companies fail. Naturally, most intelligent people are usually promoted to senior leadership roles, but still, organizations do not perform as expected. So what makes a good leader? What does it take to be a leader? In one of the Harvard business review articles, Leaders, Do and Should, (2010) and Goleman, (2004), most effective leaders are often characterized by one trait, the one with a high degree of Emotional Intelligence. Emotional Intelligence is defined as the ability to constructively utilize one's emotions in order to communicate, empathize, face challenges, and avoid conflict. There are five components to Emotional Intelligence,
- Self-awareness
- Self-regulation
- Motivation
- Empathy
- Social skills

Although most of the above-mentioned traits are genetic in nature, raising and nurturing these qualities are also possible. According to Mayer, Caruso and Salovey, (1999), Emotional Intelligence (EI) is the ability of a person to understand emotions and feelings of self and others and also has the ability to discriminate between the two in order to make decisions. Although they refined the explanation over the years, they did not provide a means to measure the Emotional Intelligence. This was made possible later by Mayer, John Jack; Salovey, P and Caruso, (2002), who published the four-branch model to form what is called the Emotional Intelligence test(Mayer-Salovey-Caruso Emotional Intelligence Test - MSCEIT). This is an ability test for anyone over 17 years and older and has four branches namely, Perceiving emotions, facilitating thought, understanding emotions and managing emotions

Emotional Intelligence was also popularized by Daniel Goleman. According to (Goleman, 1996) human Intelligence is too narrow to make any informed decisions which can deliver success. EI, which is characterized by self-awareness, self-regulation, empathy, motivation, are the qualities needed that make a person excel in relationships, decision making, and, in turn, drives success in the workplace.

While some researchers like (Goleman, 1996; Petrides and Furnham, 2001; Alumran and Punamäki, 2008) tried to establish that there is no relationship between gender and EI quotients, some researches proposed that EI quotient varies between men and women. They indicated that as women have the natural ability to be more emotional and empathetic when it comes to self and others EI quotient of women also seems higher than men.

2.3   Are women better leaders than men?

Leadership has evolved over the decades, and it has taken the transformational style recently along with emotional Intelligence. Transformational style is a style of leadership where the leader motivates their followers by working along with them to create a vision, be their inspiration, drive them through change, and help the organization attain success. This is a way of motivating the followers by being that inspiration throughout. According to Ballaro and Blanchard, (2018), studies conducted to determine the leadership styles between men and

women showed slightly higher scales for women. Women scale slightly higher than men when compared against the leader-follower relationship.

Women are naturally characterized by their trust-building mechanism and their empowering nature. According to Goleman, (2004), women tend to be better than men to a certain degree in empathy, dealing with people, social skills. They tend to have skills naturally on a higher quotient than men. Women are better when dealing with team management, as they are naturally more empathetic. According to De Mascia, (2015), various studies performed in the Cartwright and Gales' (1995) studies in the UK show that the natural tendency of women to have a higher regard for people and the work they do make them better in leadership qualities than men. They are naturally inclined towards how the other person feels and have a natural instinct of how people behave. They are also better visionaries than men. There was a recent study that was carried out to determine the relationship between the firm's performance and women's leadership. Data was collected from the credit unions in the Grand Duchy of Luxembourg from 1999 to 2013. This data showed that there was a positive outcome on the firm's performance under female leadership (Reinert, Weigert, and Winnefeld, 2016). The study also concluded, saying that, "The economic effect is substantial: a 10 % increase in women in top management positions improves the bank's future return on equity by more than 3 % p.a. Moreover, we show that this positive relationship is (i) almost twice as large during the global financial crisis than in stable market conditions and (ii) non-linear, with banks having 20-40 % female management being the most successful."

2.4 Women Under-representation in boardrooms

There has been prior research to study the reasons behind the under-representation of women in corporate board rooms from different perspectives of the organizations, socio-cultural, and personal front, (Ouedraogo, 2018). Let us see a few down below.

2.4.1 Organizational Perspective

Many organizations have formulated dividing their functions among its members on the basis of social division, (Bluedorn and Kanter, 1980). This provides different members of the organization with varied levels of power, prestige, and pride. This unequal distribution creates a disparity between the different groups where the majority dominate the minority groups.

2.4.2 Personal Perspective

This is another perspective where some of the researchers indicate that the barriers created for women are often due to their individual personalities and lack of skills. There are still some studies that claim that women lack assertive decision-making skills and political skills that cause this while still some researches prove that some of the top-ranking Fortune 500 organizations that are run by influential leaders yield a higher return on investment too, (Ouedraogo, 2018). They also emphasize that boards with women operating them yielded a higher return on investment rather than those with fewer women in them. This researches hence suggest that underrepresentation might be because of the individual talents and skills of the women involved.

2.4.3 Socio-Cultural Perspective

This is an interesting perspective that drives our attention to the socio-cultural and traditional aspects that cause the under-representation of women. For example, in countries like Africa because of the social constraints have a higher impact causing lesser women from entering the board rooms, (Letza, 2017). Lesser women participate in boards due to the sexual division of labour and constraints induced by society.

There was research conducted to examine which of the three perspectives was the primary reason behind the under-representation of the women, (Ouedraogo, 2018). The research was conducted with women from both the public and private sectors. One of the key findings of the research indicated that the most prominent factor that caused the under-representation was the socio-cultural perspective than the other two organizational and personal perspectives. However, this research also had its own limitation of the sample size and limited scope.

2.4.4   Trickle-Down Effect

Most Organizations struggle to establish gender equality, especially at senior levels. Governments impose legislative quotas on organizations to balance this gender inequality. Such allocation of quotas has worked in a few countries. For example, Norway has achieved approximately 42% in female representation on the boards of listed organizations, (Terjesen, Aguilera and Lorenz, 2015). Some other countries that have followed establishing the legislative quotas are Iceland, Kenya, Finland, Israel, Italy, Spain, and many more. While quotas seem to work in most of these countries, controversies continue to remain as well. Another study that was conducted to study the phenomenon called "Trickle Down Effect." According to this effect, it was indicated that there was a direct relationship between the female representation in the boards to the female representation in the levels directly below, (Gould, Kulik and Sardeshmukh, 2018). The Australian researcher proposed that there are two mechanisms that are expected to happen in order to explain the trickle-down effect. One is, Women in top executive positions might promote more women to rise up the level, and second, seeing other women at top positions might motivate other women to reach such levels too. This refers to the "similarity attraction" mechanism, (Gould *et al.*, 2018). There is also another research that proposes that women who reach a higher position in organizations may not support other women owing to the higher pressure due to high gender salience at this position, (Metz and Kulik, 2014).

2.5   Glass Ceiling Effect

Most often, leadership is associated with men. There is so much research going on about the under-representation of women in board rooms and corporate management positions. These gender-based obstacles which pose a barrier to the career progression of women are called the "Glass Ceiling Effect." This is a universally common occurrence (Ouedraogo, 2018)and not specific to any particular industry or culture. This effect is called a "Glass Ceiling" because these barriers are apparent and prevent women from progressing up their careers, (Kee, 2006). Again this has been widely studied by various researchers across the globe.

The research proposes that the barriers are classified into two types – natural and artificial, (Morgan, 2015). Natural are those pertaining to career breaks, educational qualifications, whereas artificial ones are those put forward by the societal and organizational restrictions. On the other hand, the researcher also proposes that the barriers to some extent might also be the result of the difference in career choices and decisions made by men and women

One other research also puts forward a thought where, individual family choices and requirements also pose as a barrier as women are biologically involved in family planning and hence give more preference to family compared to men, (Cooper Jackson, 2001).

According to Cotter *et al.*, (2001), "A glass Ceiling represents a gender or racial difference that is not explained by other job-relevant characteristics of the employee."

i) A glass ceiling basically refers to an artificial barrier to women's advancement in their careers. The discriminations are based on gender and race rather than the job defining characteristics.

ii) A glass ceiling is usually more visible in more senior positions rather than the lower levels of employment. As the grade of an employee goes up, the glass ceiling becomes more prevalent. Female employees are not treated equally to their male counterparts position-wise, pay wise, and also in decision making.

iii) A glass ceiling relates to the inequalities in the advancements of careers for each gender rather than the proportion of each gender in those higher levels. This causes a lesser number of women to move up the ladder

iv) The last one is closely related to the previous one. The gender inequality increases over the course of the career.

Cotter's research found that the glass ceiling effect does exist as a form of gender inequality, and this needs close attention. However, owing to the smaller sample size, it did not bring out various other radical factors/experiences.

Although there are many factors for the "Glass-Ceiling effect" to result, one of the primary focus of this research is on "Unconscious Bias." The next section is going to elaborate on this bias, types of existence, and how to manage them at workplaces.

2.6   Unconscious Bias

What is an "unconscious bias"? Google defines this as the stereotypes that are implicit, automatic, and unintentional behaviour. This mostly occurs beyond our control, something that is ingrained in our attitude with or without our knowledge. This could arise from our own individual experiences or influence by the surrounding environment. Everyone possesses unconscious bias; it influences one's attitude and probably influences one's behaviour, too, (Noon, 2018).

The existence of such biases may impact the functioning at workplaces, and a conscious effort has to be made to put measures in place to curb it at the very origin, (Lattal, 2016). The best way of achieving it is first to accept the fact that such a bias exists. This acknowledgment will help us in creating a way to keep that under control. Training is yet another effective way of reducing such biases. There are different types of such biases that are discussed below. Training also enables the individuals to learn the methods of reducing bias but will also enable them to understand the ill effects of such biases at the workplace.

2.7   Types of Unconscious Bias

It is often difficult to find the root from where this bias emerges. Unless we know this, it is difficult to control them. This is where the article by Oberai and Anand (2018) brings out the various classification of unconscious bias based on their point of emergence. The author claims that these are the ones that influence our workplace behaviour.

Types of Unconscious Bias	Description
Halo Effect	Assuming a person with one positive attitude will be a great leader and good at managing others
Affinity Bias	This occurs when we meet a person we feel we have an affinity towards them, e.g. A person from our same college
Conformity Bias	This is purely from peer pressure when most of them incline towards one person
Cloven Hoof Effect	Based on one negative attribute of a person.
Attribution Bias	This is the blaming the others for our mistakes and owing to the success of others to our self
Beauty Bias	This is a pervasive bias based on one's appearance or beauty
Confirmation Bias	This is being judgemental about a person and looking for pieces of evidence to support our judgment. This is considered as one of the dangerous ones out of all.

The author clearly analyses how these kinds of biases affect the workplace. Such biases creep in from the recruitment process and through the development of the individual within the organization. This may also cripple innovation, creativity, and affect the inclusivity within the organization. The author further delves into the further analysis where he talks about the various methods in which such identified biases can be controlled, like awareness training, confronting, recognizing patterns of preferences, developing best practices, and many more.

2.8   Managing Unconscious Bias at Workplace

Unconscious bias is something that happens without one's knowledge. It is embedded in one's brain. That is why managing unconscious bias needs a lot of conscious efforts. They can easily influence anyone. It is an integral part of our everyday life, starting from as big as buying a house to as simple as joining a gym. These biases are prominent in workplaces too. When this goes unnoticed or unhandled, it could affect people and impact their careers as well. Preferences are based on a variety of conditions like skin colour, family backgrounds, nationality, gender, culture, and many such. Companies like Google have openly called out that they have hidden biases in their company, that men make 83% of its engineering employees, and 79% are managers, (Manjoo, 2014). A recent study by McKinsey, on the topic "Women in the Workplace" also shows that although there are more women trying to get into the senior roles within organizations, they are still under-represented in numbers (Huang *et al.*, 2019). The study also indicates that the glass ceiling is not affecting women from attaining the top positions; instead, there are barriers at the early stages of one's career, that slows down the progression to the managerial level.

Representation of women in senior leadership has increased, but women continue to be underrepresented at every level.

Representation of women by level, % of employees

A = Entry-level B = Manager C = Senior Manager/Director D = Vice President E = Senior Vice President F = C-suite

Women in 2015

A	B	C	D	E	F
45	37	32	27	23	17	100%

Entry level ──────► C-suite

Women in 2019

A	B	C	D	E	F
48	38	34	30	26	21	100%

Entry level ──────► C-suite
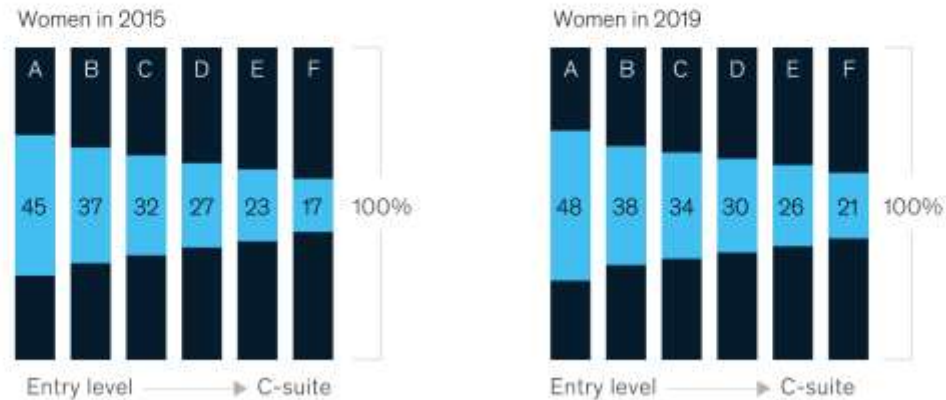
Source: 2019 McKinsey & Company and LeanIn.Org Women in the Workplace study

Figure 2 : Women in the Workplace 2019 | McKinsey

Picture Courtesy: Huang, J. *et al.* (2019) *Women in the Workplace 2019 | McKinsey*. Available at: https://www.mckinsey.com/featured-insights/gender-equality/women-in-the-workplace-2019 (Accessed: 21 July 2020).

Above represented is a graph by a study to highlight the growing entry barriers at the starting levels that lead to slowing down numbers. According to the study, within organizations, gender disparity is still prevalent, starting from recruitment stage through growth opportunities, promotion, and many other career advancements. As we start to attempt to address the disparities at the entry levels, we might start to see a change in the senior levels as well.

Managing unconscious bias at a workplace should be a dedicated effort and should not be done as a checklist item. Many corporations like google and PriceWaterHouse Cooper take efforts on an ongoing basis to address this issue, (Oberai and Anand, 2018). Some of the best practices which can be followed to manage unconscious bias within organizations are as below,

1. Awareness Training on unconscious bias – Employees of an organization should be given dedicated training on how to identify them to develop some awareness on what sort of an impact they can have on their organization. Even today, companies like Google have started conducting "Unconscious Bias" workshop for their employees to make them aware of it so they can be prepared to avoid it when it happens, (STEPHENS, 2015).
2. Such biases, when identified, should be labelled and marked as "Not to do" list in an organization. Identifying, labelling and marking such biases will help employees take a conscious effort
3. Share the best practices within the different parts of the organization so everyone is aware of this and can identify them reasonably quicker.

4. Deploy policies and procedures in place to make an inclusive system for hiring and promoting employees within the organization. This will help the recruiters to be more mindful of their decision while making them and limit discretion (STEPHENS, 2015)

2.9 Why does "Unconscious Bias" matter at the Workplace?

The origin of unconscious bias can be routed back to the early evolution of mankind during the cavemen period. We have come a long way and evolved to greater heights and the way we perceive things today is far from the age old traditions. We are now in an Era where performance should speak more than the person who is performing the task. Any kind of such bias is going to underplay the strengths of a person, undermine their capabilities and impact the interpersonal relationships and trust within people in organizations, (Yacovelli, 2019). According to the research conducted by Zauderer, (2002), 71% of the workforce has experiences some form of bias in their past. The study also mentions that, 28% of work is lost in avoiding the bias, 53% lost time in worrying about the incident, 37% exhibited declined commitment, 22% faced loss of effort at work . Such loss of time spent in worrying about the bias, tackling them at work could be well spent in the actual work which will increase the overall performance of the company.

The first step towards managing unconscious bias at workplace is to acknowledge their presence. Yacovelli, (2019) recommends using Implicit-Association Test(IAT) is one of the best ways to explore unconscious biases in your organization. IAT is an online assessment that is free of cost, in order to measure the impact of implicit biases within various groups. He also suggests sharing the learnings with others in the organization. Once people are aware of such implicit biases, then they could be encouraged to hold them accountable against such biases. In bigger picture it also will also help in addressing the challenges against controlling such biases.

As mentioned earlier, such biases are also causing some of them to leave the organizations. The next section is going to dive in to analyse the prominent reasons for people quitting such workplaces and how it impacts the overall growth of the organizations..

2.10 Opt-Out Revolution

In the early 2000s, there was a new term called "opt-out" revolution that was gaining more attention. This term was coined by Belkin, (2003) which referred to women voluntarily opting out from their careers or signing up for lower positions within organizations in order to take care of their families. This caused a massive drain of talented women from the workforce. Researchers were trying to find out the reason behind this. There was an article published in "The New York Times" in 2003 by the author Lisa Belkin, (2003) stating that, between the early 1960s and 2000s, where women's perspective has changed with time to take care of their families than being successful in their work. The author also indicates that in spite of more women graduating out of higher qualifications prefer to focus on their families. The article gained attention as it was analysing the reasons behind women's decisions based on phycological, societal, and individual attributes. There was also a biological reason indicated in the article, which says how the brain of a man and woman gets triggered differently for the same reasons. The article portrays how a higher percentage of women graduates from leading business and law schools, but still, most of them give their careers a second place when they start a family.

While the most popular reason quoted for women leaving the corporates is due to family reasons, it is not entirely a true fact, (Mainiero and Sullivan, 2005). There are also other prominent reasons for women leaving their jobs, like job dissatisfaction, lower promotional

rates, work-life balance. A survey was conducted by choosing men and women professionals to compare their career motivations, (Mainiero and Sullivan, 2005). It was found from the survey that women often do not choose the traditional developmental plan in one career rather, they choose to make their own path, which will satisfy their professional growth as well fit in their personal lives. On the other hand, the survey also indicated that men prefer the traditional career growth plan. It was also found that women's career motivations are based on three main pillars,

Authenticity – The ability to maintain their authentic self in the midst of their career
Balance – Ability to balance both their work and life
Challenge – sufficiently challenged by the chosen path of career.
Ireland has also recently made a great focus on flexible work options, where many companies have started implementing it in their workplaces.

Having understood the literature so far it becomes important for us to pay attention to the current Irish scenario as this research is specifically focussing on that.

2.11   Irish Scenario

There was once a time when Ireland had something called "The Marriage Bar," a legal ban on employing married women. It was lifted off in 1957 for primary teachers, but for others, it was in existence in the 1970s. Even today, we can find women who have faced the bar during their times. However, in the past few decades, the Irish economy has grown beyond imagination, and there has been a splendid boom in the country's overall economic growth. This higher percentage of women into the labour market is attributed to several reasons like the higher focus of the women education, withdrawal of marriage bar, increased earning capacity of women and of course the evolving cultural mindset of people, (Coughlan, 2009)
National Women's Council of Ireland (NWCI) is an NGO formed in 1973 for the empowerment of women and an attempt to achieve gender equality in Ireland. Although women empowerment has been gaining attention in Ireland, NWCI indicates that women comprise just 13.2% of the board member in the listed companies within Ireland which is much below than the EU average of 21.2%, (NWCI, 2020)
Although there has been a spike in the number of educated women entering the market, there is still a lower percentage of women in the boardrooms. Ireland remains one of the countries with lesser women in board rooms in the overall European market. Please see some of the surveys taken from CSO below. The government has stepped in to take initiatives like "Women in Tech" to promote women in technology fields. In addition to that, several government-initiated avenues that promote female entrepreneurship has become increasingly visible, (Mcclelland *et al.*, 2005)
Increased visibility on entrepreneurship enables in the overall development of an economy. Therefore, the government bodies are paying more attention to developing entrepreneurship on a global scale.
Even though entrepreneurship is becoming more popular in Ireland with the government providing so much support for the same, female entrepreneurship is still one of the lowest in European countries. This limited presence of women is also an indicating factor of the declining career progression of women.
In an attempt to understand this, we need to identify barriers that limit women against their male counterparts, how they impact them, and how it is possible to weed them out early.
Below are some snippets of gender balance surveys carried out by CSO. Overall it shows % of women in senior executive boards, level of education attained are less than the male counterparts in spite of the increasing percentage of the student population for women.

Table 4.2 Ireland: Gender balance of senior roles in business, 2019[1]

		%
Age	Male	Female
Chairpersons	92.6	7.4
Boards of Directors	80.4	19.6
Chief Executive Officers (CEOs)	88.5	11.5
Senior Executives	71.7	28.3
Chief Fiancial Officers (CFOs)	70.3	29.7
Total senior roles	74.0	26.0

Source: Gender Balance in Business, CSO

[1] The total senior roles percentages are calculated by combining all Senior Executives and Boards of Directors.

Figure 3 : CSO - Gender Balance of Senior Roles, 2019

Ireland: Persons aged 35-64 by highest level of education attained, 2018

Table 3.6 Ireland: Persons aged 35-64 by highest level of education attained, 2018

	'000s		% of category	
Level of education attained [1]	Men	Women	Men	Women
Primary or no formal education	64.8	55.2	6.8	5.6
Lower secondary	156.0	99.9	16.3	10.2
Higher secondary	192.3	208.0	20.0	21.2
Post leaving certificate	145.9	136.9	15.2	13.9
Third level	375.7	458.4	39.2	46.6
Not stated	24.8	24.6	2.6	2.5
Total	959.6	983.0	100.0	100.0

Source: CSO LFS

[1] ISCED 2011 classification.

Figure 4 : CSO - Gender Balance in Educational Level Attained, 2018

Ireland: Students as proportion of population aged 18-24, 2013 and 2018

Table 3.4 Ireland: Students as proportion of population aged 18-24, 2013 and 2018

				%
	2013		2018	
Age	Men	Women	Men	Women
18 years	76.5	84.6	75.6	83.6
19 years	61.0	68.6	59.1	62.4
20 years	49.6	64.4	58.8	61.5
21 years	40.2	50.9	47.7	48.3
22 years	37.0	30.0	38.0	35.0
23 years	18.1	20.8	20.0	18.7
24 years	13.2	12.9	12.3	12.8
Total 18-24 year olds	42.5	47.2	46.2	47.1

Source: CSO LFS

Figure 5 : CSO - Gender Balance in Student Proportion, 2018

Another interesting representation of the gender imbalance is highlighted by the survey taken by the Institute of Directors (2017, 2019). This survey was taken in the year 2017, out of the twelve barriers presented to the respondents to choose from, the most prominent one that was chosen was "Unconscious Bias" by 63% of the women respondents and 32% of them of the overall respondents. The next few in line were male-dominated board rooms(52% of women and 36% overall voted for this) and women not having access to the same networks as men,

(Institute of Directors, 2017). The same survey was again carried over in 2019 as well. The irony here is the survey represented that the barrier of unconscious bias has risen from overall 32% in 2017 by 11%, making it an overall 43%, (Institute of Directors, 2019). This shows that in spite of continued efforts to remove the barriers, unconscious bias remains to be the most prominent one, which is still impacting women's career progression.

The survey also highlights that individually women do not consider unconscious bias as the primary one, but they now say that not having access to the same networks as men are the primary barrier, whereas men propose that not having enough talented pool is the primary barrier.

Another metric of comparison from the same surveys depicts that only 12% (19% in 2017) of the respondents were appointed through the normal recruitment process. Also, 34% (42% in 2017) were directly approached for recruitment to the board. Also, 47% of the respondents say that they do not have a rotation system for the board tenure, (Institute of Directors, 2019). The percentages seem to be on the decreasing trend since 2017.

Although there has been an increase in the number of women entering the corporate workforce, it is a very slow push into the senior roles within the organizations. Men and women are perceived differently, and these gender inequalities present challenges for women to push against the "glass ceiling", (Wirth, 2001). In another context, the opt-out revolution proposed by Belkin, (2003) has also indicated that women leave or take a break in their careers owing to the family requirements. There are still women who voluntarily take a career break in raising families, (Ely, Stone and Ammerman, 2014). However, this cannot be called out as the primary reason behind the under-representation of women in the workforce. Below is the "Women in Business 2020" report by (Thornton International Ltd, 2020)

Proportion of women in senior management globally over the last 16 years
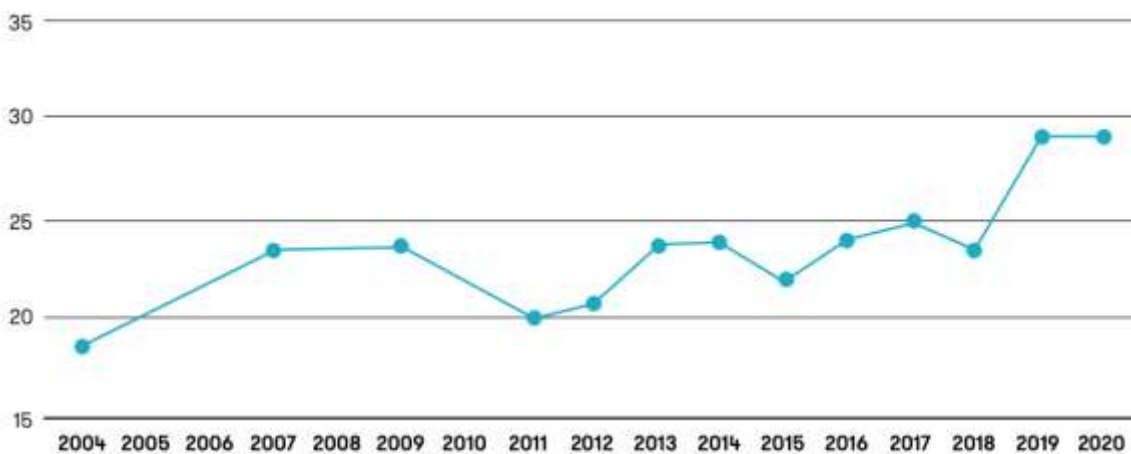
Figure 6 : Global Proportion of Women in Senior Management for the last 16 years

Picture Courtesy: Thornton International Ltd, G. (2020) *Women in Business 2020: Putting the Blueprint into action*. Available at: https://www.grantthornton.global/globalassets/1.-member-firms/global/insights/women-in-business/2020/women-in-business-2020_report.pdf (Accessed: 25 July 2020).

The report indicates that the percentage of women in leadership has only increased by 10% in their 15 plus years of reporting. Globally there is a blueprint in action developed to get more

women into the senior leadership roles. As for Ireland, there are many programs devised to bring in more gender equality within the workforce like the "30% club", "Professional Women's Network" and many such. working towards bringing in gender equality through the professional development, (Thornton International Ltd, 2020)

Overall, barriers for women progressing in their careers continue to exists in Ireland, and efforts are also being made to address the same. However, the effectiveness of such efforts is still taking shape, and researchers continue to dig in to understand this further.

2.12   Summary

In the literature review that we have seen so far, it has been demonstrated that there is a "Glass-Ceiling" that prevails in corporate organizations. It appears that there is a gender gap that is existent, especially in the top-level positions in the organizations. Despite so many government and non-government initiatives that are taken to close the gap, there is still the issue of women being under-represented within the companies. For example, "Even though more women graduate from universities, they earn on average 16% less than men do and only 8% of CEO's of the EU's largest companies are women.", (European Commission, 2020). Following this statement issued by the EU commission, they have set up a 5-year strategy to incorporate gender equality measures across all their policies.
On the brighter side, literature also indicates that there has been a small hike in recent years with more women climbing the corporate ladders even though the numbers are relatively lower than men. Also, it was evident that corporate organizations are voluntarily signing up for such initiatives to blur the gender gap, which is quite encouraging. The literature also points us towards many driving reasons for such stereotypes, such as work-life balance, women being responsible for raising families, fewer opportunities for career growth and many more. While there can be many reasons that contribute to this, one of the primary reasons that stood out in the literature review was the presence of unconscious bias. The interesting thing to note about this kind of bias is that none of them realize that it exists, neither men nor women as these are something ingrained in our brains, lifestyles, and the way humans have evolved. It is very important first to recognize their existence and acknowledge them if we have to manage them. We have seen some literature evidence on how big corporates like "Google" have started acknowledging such biases and deploying measures in place to recognize and control them. Even within Ireland, there has been many initiatives taken to conduct training to employees of a company to recognize and manage unconscious bias at the workplace. Organizations like NWCI are conducting such pieces of training to organizations to identify and measures to adapt their organizational culture to promote gender equality, (NWCI, 2016)

Chapter 3 - Research Objectives & Aims

3.1   Overview

This study aims at focussing on the primary barriers in women's career advancement in the corporate workforce focusing on the Irish scenario. Although multiple barriers are being widely talked about and discussed, there is one thing that triggered the author, i.e., "Unconscious Bias." The need for having specific focus on unconscious bias while there are other reasons like male-dominated workplaces, women not having access to networks that men have, family commitments, work-life balance, queen bee syndrome, and many such. The reason behind this is such bias is ingrained in all of us to some extent, even within women.

This is a mindset that triggers instant, unintentional behaviour in people. A lot of previously done research and surveys seem to indicate such bias to be present commonly in workplaces starting from recruitment to promotions and through the entire career of women.

This particular study is, therefore focussed on understanding the perception of men and women working in Irish corporates.

3.2   Research Definition

In this section, the author sets the primary aims and objectives of this particular research. Based on the above literary knowledge and the gaps identified, the research question would be defined in this section.

Recently, there has been much focus among Irish businesses to implement gender diversity. The gender balance survey taken in 2019 by CSO shows that women form only 7.4% of the chairpersons against the 92.6% men, 19.6% of the board of directors, 11.5% of chief executives and only 28.3% of the senior executives in the Irish businesses, (Central Statistics Office, 2019). Even in the past surveys taken in 2018 and 2017, the numbers are much lesser than this. These trigger a question to dive into what are the contributing factors for such a scenario.

From the literary review section, there were many studies carried out on gender diversity, and most of them talked about multiple contributing factors out of which "Unconscious Bias" was one among them. It was evident from the surveys and research conducted by IoD that "unconscious bias" was called out as one of the primary barriers for women on boards. With more and more government and non-government organizations paying attention to gender diversity, there is still some uncertainty prevailing around the topic as to what could be the primary contributors to this issue. Such uncertainty could be a good foundation to make a research question, (Hulley *et al.*, 2007). According to Hulley *et al.*, (2007) a good research question is characterized by defining what is called the "FINER" approach. This approach explains that good research should be,

1. Feasible – This research can be tested against the available pool of corporate women from the author's known circles of men & women working in the Irish corporate sector. With the author's background area of qualification, this study can be completed in adequate time and affordable expenses with a manageable scope
2. Interesting – This study is a good way to intrigue the thought process of women and a great way for men to reflect and analyse what is happening in their current workplace circle.
3. Novel – this study could bring in fresh ideas out and may give a totally new perspective to the author
4. Ethical – This study has been verified for ethical reasons and found suitable in the early stages of conception
5. Relevant – This research while bringing in fresh perspectives of its own can add to the existing knowledge base on the topic of gender diversity

3.3   Research Question

Breaking the "Glass-Ceiling" - Is Unconscious bias slowing down the career advancement of women in the corporate workforce - An Irish Perspective

3.4 Research Aims & Objective

The purpose of this research is to analyse the factors contributing to women's career advancement in the corporate world. It is also aimed to understand if unconscious bias is slowing down women from advancing in their career ladder in the Irish corporate workforce. Are the organizational culture favouring such a bias

The research question was based upon the following hypotheses relating to the challenges faced by women.

Hypothesis 1: Men and women are not treated equally within the organizations; in the way, they are perceived in their job. Unconscious bias makes it comparatively difficult for women than men to showcase their potential strengths and capabilities

Hypothesis 2: Men and women do not get equal growth opportunities within the organization

Hypothesis 3: Women carry more family responsibilities than men.

The objective of this research question is to examine critically:

> **Objective 1:** Does unconscious bias pose a barrier to Irish women from advancing in their careers in the corporate sector in Ireland?
> **Objective 2:** Is the organizational culture providing equal opportunities and support for women?
> **Objective 3:** Do women have a balance between work and family? Does family needs affect the work-life of women comparatively more than men?

Chapter 4 - Methodology

4.1 Introduction

Research is an attempt to find casual relationships between everyday occurrences (Matthews and Ross, 2010). Research helps to find solutions to various organizational problems in a structured way. This research is aimed at performing a conscious effort to find the affecting variables for one of the most talked-about issues at workplaces, "unconscious bias." Could gender play a role in creating inequalities within an organization? Are men and women perceived differently because of conventionally deep-rooted perceptions? To understand this, relevant data were collected in the form of a survey from men and women who work across the Irish corporate workforce to understand the ground reality. A quantitative approach is used to analyse and interpret this data. The data collected were based on five elements like

  (i)   Experiences
  (ii)   Availability of opportunities
  (iii) Organizational Culture & Support
  (iv)   Support from family
  (v)   Sustainability at the workplace

The data collected was based on a questionnaire containing 22 questions, which involved a "Likert" type scale. There were also a few questions that were aimed to collect qualitative data from the participants in order to allow them to explain their voices in detail.

4.2   Philosophy

It is important to understand the research philosophy behind the research approach as it will support the approach and design methods used during the research process, (Saunders, Lewis and Thornhill, 2008)
Considering the

4.3   Approach and Design

This research was primarily aimed at understanding how the primary barriers like unconscious bias have been affecting the women's career advancement in the corporate workplace. This was based on the hypotheses developed for this research based on the literature review presented earlier. Along with the literary findings based across Europe and the US, similar data was collected from the working women force in Ireland. Comparing these responses will give a picture of the kind of stereotypes present at the moment. This will be an attempt to see if the findings of the literature match with the findings of this research and analyse the impact of barriers in the career advancement of women from an Irish perspective. A survey was designed for this purpose containing questions that were circulated among men and women working in the Irish corporates in order to gain the ground reality of the gender bias at workplaces. The sample consists of men as well to give a balance of thought here, so the results are not from only women's perspective. This will help us in portraying balanced responses.

4.4   Research Methodology

Research methodology is a tool which is used to gather data from the chosen sample in order to understand and analyse the research question that is being put forward. An appropriate strategy is needed in order to gather the data having shreds of evidence for supporting the research. Hence choosing a methodology to attain the answer to the research topic is key, (Saunders, Lewis and Thornhill, 2008)
While pondering over this research topic the first methodology option that I chose was qualitative approach. The author initially planned to interview employees from senior management cadres and interview them to understand their point of view. However, with this approach the author may get only very few to participate in the interview session because of the time and other constraints that prevail. It will also not be possible to produce a substantial output from that. One more constraint was that the qualitative analysis by interviewing the senior management employees might not be able to reflect the actual barriers of women's career advancement as they have already in very senior positions themselves. The next method chosen was a quantitative one where a survey circulated among people working across the board to see if they have encountered unconscious bias at work might produce actual data. This survey was based on a pre validated survey found in the APA PsycTests database in the college library(Referenced in the **Appendix** section). This was chosen as APA PsycTests contained the structured source of surveys which are pre-validates and hence, is of utmost important for an academic research.

4.5   Data Collection
An online questionnaire was created in Google Forms platform containing 22 different questions. This was circulated among friends and family that are working in Irish corporate organizations. This group was chosen based on the friends and contacts that the author has

built-in their professional network over the tenure of their career. The questionnaire contained questions based on available opportunities, perceptions at the workplace, and the work-life balance at workplaces. The questionnaire covered a wide range of questions with varying degrees of response choices. The survey also included a few qualitative responses to capture individual opinions as well. The survey was answered by men and women working at various levels, starting from beginners to senior management levels. The survey was created from past validated surveys which is included in the appendix.

4.6　　Ethical Considerations

As the online questionnaire touches upon some of the personal perspectives, experiences and exposures of a small sample of people there could arise a conflict to the ethical considerations of this research. A prior approval was sought to conduct this research from the college. In addition, all the participants were made aware of the primary objective of research, its background and purpose. There was an initial consent that was sought from the participants in the start of the survey as well.

In addition to the consent, anonymity of the participant details were also maintained and the data was collected in a secured manner. There was no mention of the company name or any other detail confidential to the organization in which they are working. There was also an option to decline for the participants before submitting the survey. This ensured that none of their inputs are collected forcefully.

All the data collected is only available with the researcher and not made available to any other source.

Chapter 5 - Research Findings & Analysis

5.1　　Participant Characteristics

The proposed sample of people was chosen from those working in Irish corporate sectors. The sample consists of 93 women and 37 men working across different levels of management within Irish corporate organizations. As the primary objective of the research was to understand if there was unconscious bias within the workspaces that are slowing down the career advancement of women, no particular sample was chosen. This survey was targeted to understand how the men and women perceive the concept of unconscious bias and do they feel the impact of it in their career progression.

The participants were chosen based on the working professional contacts of the author from various companies. The survey was then circulated through emails, and the responses were received through the "Google Forms" platform. Out of 200 surveys that were distributed, 130 responses were received and analysed. The survey was mostly based on multiple-choice questions. However, a couple of them was also based on individualistic answers to record individual perceptions.

5.2　　Findings

The data collected from the responses to the survey was imported into an excel. The results were then analysed using a statistical software, IBM SPSS version 26. The data collected through the survey was prepped and formatted to a version that could be imported into the SPSS tool. The main categories of findings will be analysed using the various tests like

Mann-Whitney test, histograms and descriptive analysis. The set up and procedure of performing these tests were taken from the Leard Statistics web page, (*SPSS Statistics Tutorials and Statistical Guides | Laerd Statistics*, 2018). Mann-Whitney test is used to understand how much the various attributes that were measured on an ordinal scale contribute towards each gender, (*Mann-Whitney U Test in SPSS Statistics | Laerd Statistics*, 2018). Histograms were also used in SPSS to graphically represent the distribution of each of the parameters across the genders. SPSS helps in interpreting the various parameters and display them visually. Some of the basic statistics were also analysed using Excel bar charts to analyse the sample characteristics.

5.3 Analysis

The purpose of this research is to find out if unconscious bias is slowing down the career advancement of women in the Irish corporate sector. Some of the literature, as mentioned earlier, indicates that unconscious bias is posing as a significant threat in women's career growth. The previous research is also suggesting that the unconscious bias at workplaces is slowing down the advancement of women in their early career that it delays most of the women from reaching the top senior levels within the organization. This is indicated as one of the primary factors for having lesser women representatives in boardrooms of most of the organizations globally. In order to understand this, limited research was conducted across men and women working across the different corporate organizations to see if unconscious bias is playing a vital role in their career.

The approach of this research was to collect data from the chosen group of people by circulating a questionnaire that was aimed at the opportunity levels, career growth, family support, work-life balance, and, of course, their personal experiences of individuals working in Irish corporates. The survey questionnaire was mostly based on quantitative using a "Likert" scale type of multiple responses. The questionnaire also consisted of a few qualitative questions containing responses that were free text. SPSS statistical tool was used to analyse the quantitative responses. For statistical analysis of data and determine the normality of the data, Shapiro-Wilk test was performed. A null hypotheses often denoted as H_0 in a statistical test which indicates that there is no significant difference between the chosen groups in the sample, (Sheskin, 2003). When performing the statistical test whenever the p-value is less than the value 0.05 then null hypothesis can be rejected. On the other hand, if the p-value is greater than 0.05 then it indicates weaker evidence against the null hypothesis from the data analysed, (Sheskin, 2003). To further validate the statistical significance of the data non parametric tests like Mann-Whitney U tests was also performed. The results of these tests provided the valid significance of data among the chosen groups of males and females. Let us take a look at the test results in each category of tests.

5.3.1 Participant Analysis

(i) Gender Sample

   The following were the sample of participant statistics. The following chart was populated using Excel Pivot Chart to see the gender distribution
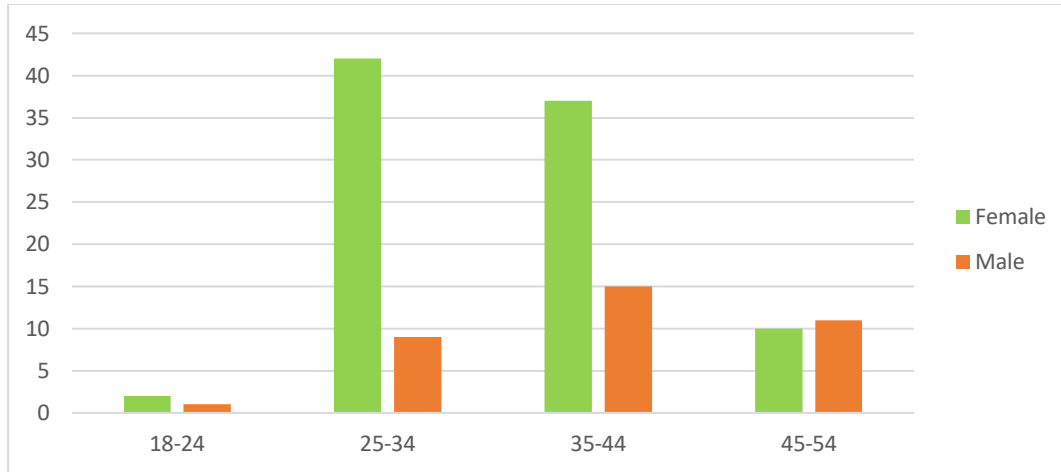
Figure 7 : Gender Distribution

(ii) Age profile of the sample

The participants of this survey were mostly females aged between 25-44.
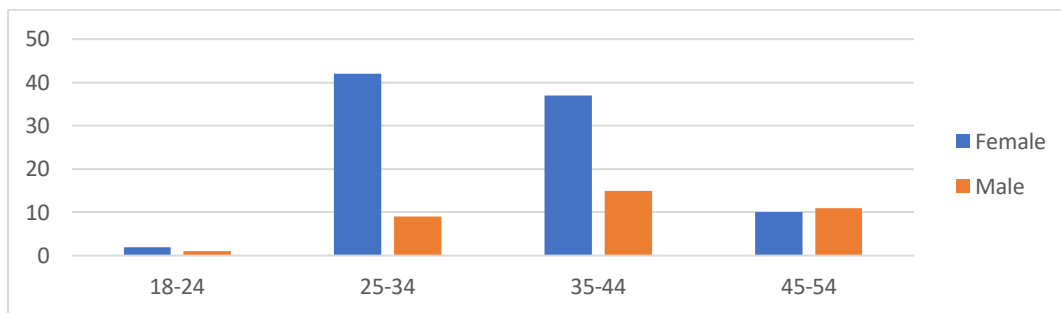
Figure 8: Age Profile

(iii) Educational Profile of the sample

The sample of data shows that most of the females pursued higher education when compared to men but this again could differ with a different sample size.
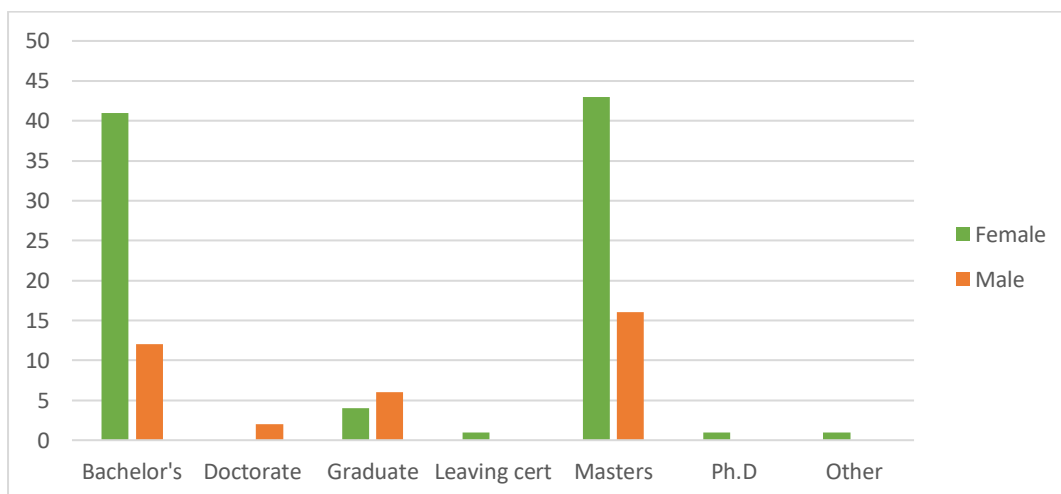
Figure 9: Educational Profile

(iv) Gender split across different management levels

The following is the gender representation across the various management levels within the organization. This shows an interesting plot of less or no females present in the C-Levels or the senior management positions. This is interesting because the sample had almost twice as much women as men. This also indicates that number of women shows a considerable decline after crossing the middle management positions.
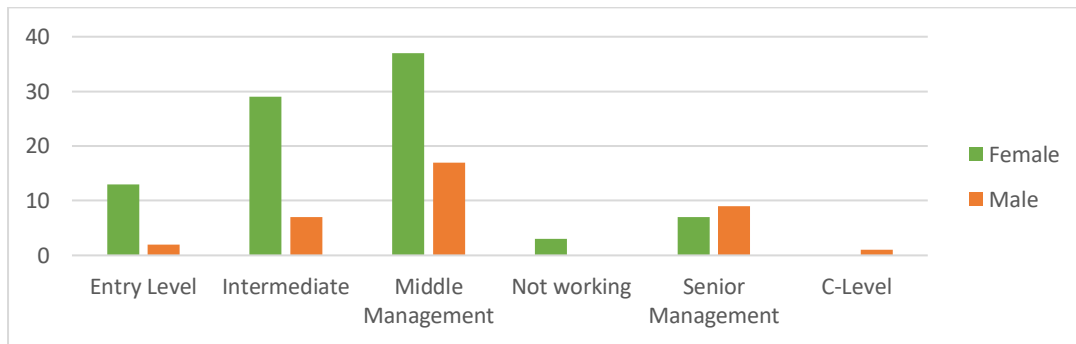
Figure 10: Gender Split across Management Levels

(v) Educational Qualification Vs Management position across genders

The following is the gender representation across the various management levels within the organization versus their educational qualification. This is another plot which shows that men reach higher levels within organizations even with a bachelor's degree whereas women who have attained master's and even Ph.D do not travel high up in the organizational levels as men. The category of "currently not working" group is also represented by women which could vary if the sample size increases.
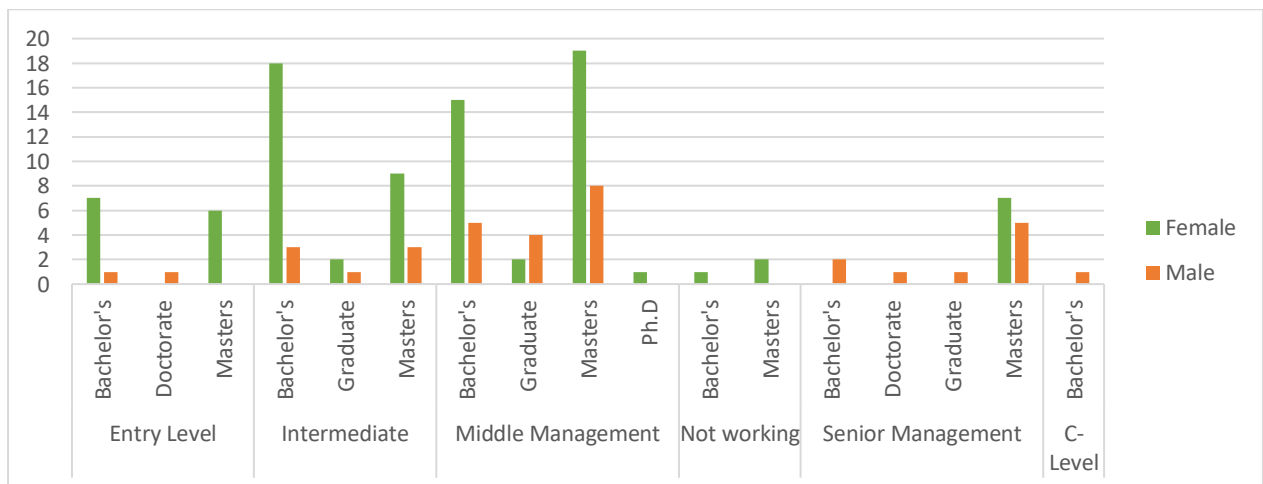
Figure 11: Educational Qualification Vs Management position across genders

The next set of analysis is based on the "5-point Likert Scale" where each of the categories are the influential factors contributing to the unconscious bias at workplaces. The categories are as follows,

1. Growth opportunities – This is to analyse how much of opportunities are available within organizations for men and women.
2. Organizational support received – This analyses the support received at workplace in the everyday work
3. Promotion rates – The rate with which men and women scale up the organizational levels
4. Perception of contribution levels – This is the way in which the contribution rates of men and women are perceived within the workspaces. Are women needing to contribute more to get the same growth opportunities as men.
5. Assertiveness to obtain fair compensations, promotion and other opportunities – Are women under evaluate themselves and hesitate to ask for the same opportunities as men.
6. Success rate – Are women pressurized at workplaces to mark their presence and highlight their contribution in order to succeed.

5.3.2 Findings - Growth Opportunities

Histograms

Let us analyse each category to understand the survey responses better. The scale used in all these questions are based on the following "Likert Scale"

1: Completely Disagree

2: Somewhat agree

3: Neither agree nor disagree

4: Somewhat agree

5: Completely agree

To understand the growth opportunities the following question was asked:

Do you think that women have fewer opportunities than men for professional development in the workplace?

The case summary shown below (Table 1) where 'N' represents the numerical value linked to each variable.

Case Processing Summary							
		Cases					
		Valid		Missing		Total	
	Gender	N	Percent	N	Percent	N	Percent

Do you think that women have fewer opportunities than men for professional development in the workplace?	Female	91	100.0%	0	0.0%	91	100.0%
	Male	36	100.0%	0	0.0%	36	100.0%

Table 1 : Case Processing Summary - Growth Opportunities

The histograms that are shown in below charts shows how men and women think if there is a gender disparity in the opportunities available within the organization.
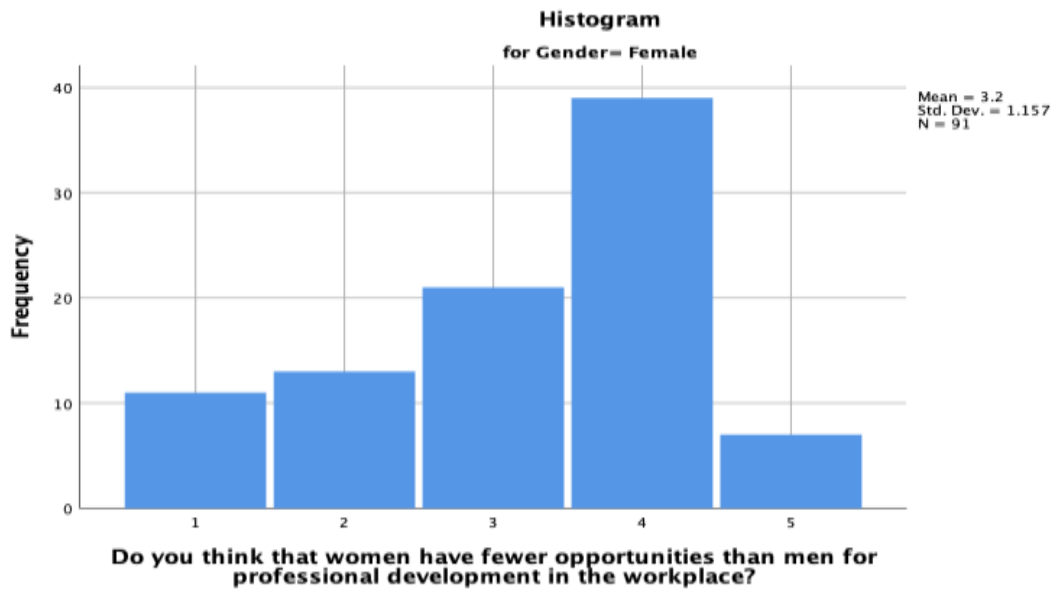
Figure 12 : Growth Opportunities for Females
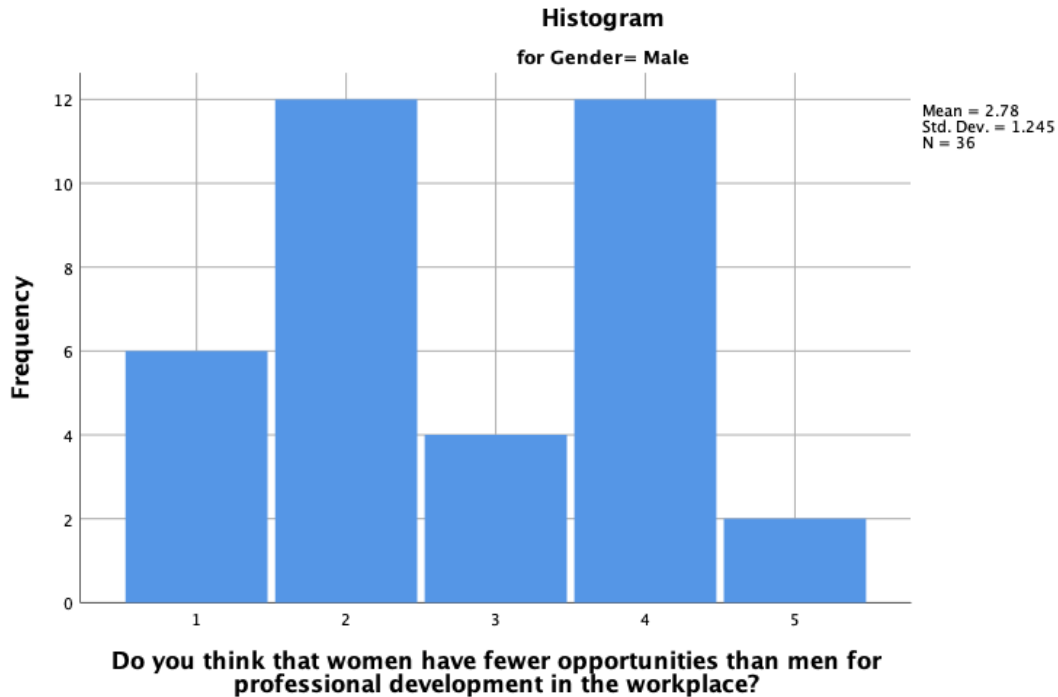
Figure 13 : Growth Opportunities for Males

The mean values derived from the above histogram charts show that the mean values for women is slightly higher than men. This suggests that the women do have fewer opportunities at workplace compared to men. However mean value cannot predict the act of outliers. For catching an outlier in the responses median values are more trust worthy. To further establish the inference let us perform descriptive statistics on the data to understand the distribution rate of the sample and find the median values.

Descriptive Statistics – Growth Opportunities

The table (Table 2) below shows the descriptive statistics of the growth opportunities

between men and women.

Descriptives				Statistic	Std. Error
	Gender			**Statistic**	**Std. Error**
Do you think that women have fewer opportunities than men for professional development in the workplace?	Female	Mean		3.20	.121
		95% Confidence Interval for Mean	Lower Bound	2.96	
			Upper Bound	3.44	
		5% Trimmed Mean		3.22	
		Median		4.00	
		Variance		1.338	
		Std. Deviation		1.157	
		Minimum		1	
		Maximum		5	

		Range	4	
		Interquartile Range	2	
		Skewness	-.574	.253
		Kurtosis	-.626	.500
	Male	Mean	2.78	.207
		95% Confidence Interval for Mean	Lower Bound	2.36	
			Upper Bound	3.20	
		5% Trimmed Mean	2.75	
		Median	2.50	
		Variance	1.549	
		Std. Deviation	1.245	
		Minimum	1	
		Maximum	5	
		Range	4	
		Interquartile Range	2	
		Skewness	.071	.393
		Kurtosis	-1.298	.768

Table 2 : Descriptive Statistics – Growth Opportunities

Some of the key values to note here are,

Mean value is pointing towards 3.20 and median towards 4 which means females "somewhat agree" (According to the Likert scale above) that women have fewer opportunities than men. Another value of significance is the skewness factor. Skewness is the measure of degree and direction of symmetry in a data set. The skewness range is between -1 and 1 the distribution is moderately skewed. Again, the kurtosis level is between -1 and +1 range indicating that the kurtosis range is also in the acceptable range. Both the skewness and kurtosis levels indicate that our data sample is in the acceptable range meaning it is very close to the normal distribution curve and do not have many outliers.

Females					
Mean	**Median**	**Variance**	**Std. Deviation**	**Skewness**	**Kurtosis**
3.20	4.00	1.338	1.157	-.574	-.626

Whereas, the median for men s 2.50 which is somewhat in between "somewhat disagree" and "Neither agree nor disagree" state. Hence men do not agree that there is a bias regarding the growth opportunities.

Males					
Mean	**Median**	**Variance**	**Std. Deviation**	**Skewness**	**Kurtosis**
2.78	2.50	1.549	1.245	.071	-1.298

Tests of Normality

The tests of normality results indicate that there are significant deviations from normality for both the genders.

W_{FEMALE} = .261 ; df = 91 and p< .000

W_{MALE} = .234 ; df = 36 and p< .001

This shows that the null hypothesis is rejected in this case(as p-value is less than 0.05), (35406 - How do I interpret the Shapiro-Wilk test for normality in JMP®?, 2019)
The Shapiro-Wilk test (as shown in Table 3) show that the p value is less than 0.05 (p=.000 for females and p= .001 for males) which means they are not normally distributed. This deviation from normality in turn directs us to perform the Mann-Whitney tests.

Tests of Normality							
	Gender	**Kolmogorov-Smirnov[a]**			**Shapiro-Wilk**		
		Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Do you think that women have fewer opportunities than men for professional development in the workplace?	Female	.261	91	.000	.867	91	.000
	Male	.234	36	.000	.873	36	.001
a. Lilliefors Significance Correction							

Table 3: Tests of Normality - Growth Opportunities

Mann-Whitney Tests

Since the distributions of both the groups are quite similar to each other our inferences are going to based off the medians of the 2 groups. Refer Table 4 for the "Descriptives". The "Descriptives" gives us the results for the overall sample. There were an overall 127

respondents to this survey. The overall median for the two groups is at "3.00" as in the table 4 below.

Descriptive Statistics								
						Percentiles		
			Std. Deviation	Minim um	Maxim um	25th	50th (Median)	75th
	N	Mean						
Do you think that women have fewer opportunities than men for professional development in the workplace?	127	3.08	1.193	1	5	2.00	3.00	4.00
Gender	127	1.28	.452	1	2	1.00	1.00	2.00

Table 4 : Descriptives - Growth Opportunities

To find if there are significant differences in responses regarding growth opportunities Mann-Whitney tests was performed (as shown in Table 5). This is a test used to test the null hypothesis that if both the groups of the sample tend to have the same median. The null hypotheses here is that men and women have equal growth opportunities in the workplace. The test indicated that opportunity levels as perceived by women (Mean rank = 67.38, n = 91) exceeded those perceived by men (Mean rank = 55.44, n = 36).

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
Do you think that women have fewer opportunities than men for professional development in the workplace?	Female	91	67.38	6132.00
	Male	36	55.44	1996.00
	Total	127		

Table 5: Mann-Whitney Tests - Growth Opportunities

To see if the differences in the mean ranks are statistically significant a Mann-Whitney U test (as shown in Table 6) was performed. Mann-Whitney U test is a non-parametric test which tests for the null hypothesis. This will help us if the two chosen groups within the sample are derived from the same population or not. This test is performed to compare chosen groups when their dependent variable is measured as an ordinal and when the data is not normally distributed. The p-value derived from the Mann-Whitney U test is .085 which is greater than 0.05 indicates weak evidence against the null hypothesis.

Findings 1: This indicates that there is less evidence that women have fewer opportunities than men for professional development in the workplace.

Test Statistics[a]	
	Do you think that women have fewer opportunities than men for professional development in the workplace?
Mann-Whitney U	1330.000
Wilcoxon W	1996.000
Z	-1.720
Asymp. Sig. (2-tailed)	.085
a. Grouping Variable: Gender	

Table 6: Table 6 Mann-Whitney 'U' Test - Growth Opportunities

To further compare the "Mean" value for both the groups a comparison was (as shown in Table 7) also done. The test indicated the median for Females was 4.00 whereas for males it was 2.50 a little lower than that of females.

These results however cannot be taken as is because the 'n' value of men is less than half of no of women. This henceforth is not a significant difference.

Compare Means Report	
Median	
Gender	Do you think that women have fewer opportunities than men for professional development in the workplace?
Female	4.00
Male	2.50
Total	3.00

Table 7: Compare Means Table - Growth Opportunities

5.3.3 Findings - Organizational Support

Histograms

The next question in the survey was to understand the differences in opportunities received by men and women.

Do you think that women have fewer opportunities than men for professional development in the workplace?

The case summary shown below where 'N' represents the numerical value linked to each variable.

Case Processing Summary							
		Cases					
		Valid		Missing		Total	
	Gender	N	Percent	N	Percent	N	Percent
Do you think that men receive more organizational support and trust than women?	Female	91	100.0%	0	0.0%	91	100.0%
	Male	36	100.0%	0	0.0%	36	100.0%

Table 8: Case Processing Summary - Organizational Support

The histograms represented below (Figure 3 and Figure 4) shows the mean and standard deviation for men and women when asked for the organizational support within the workplaces.
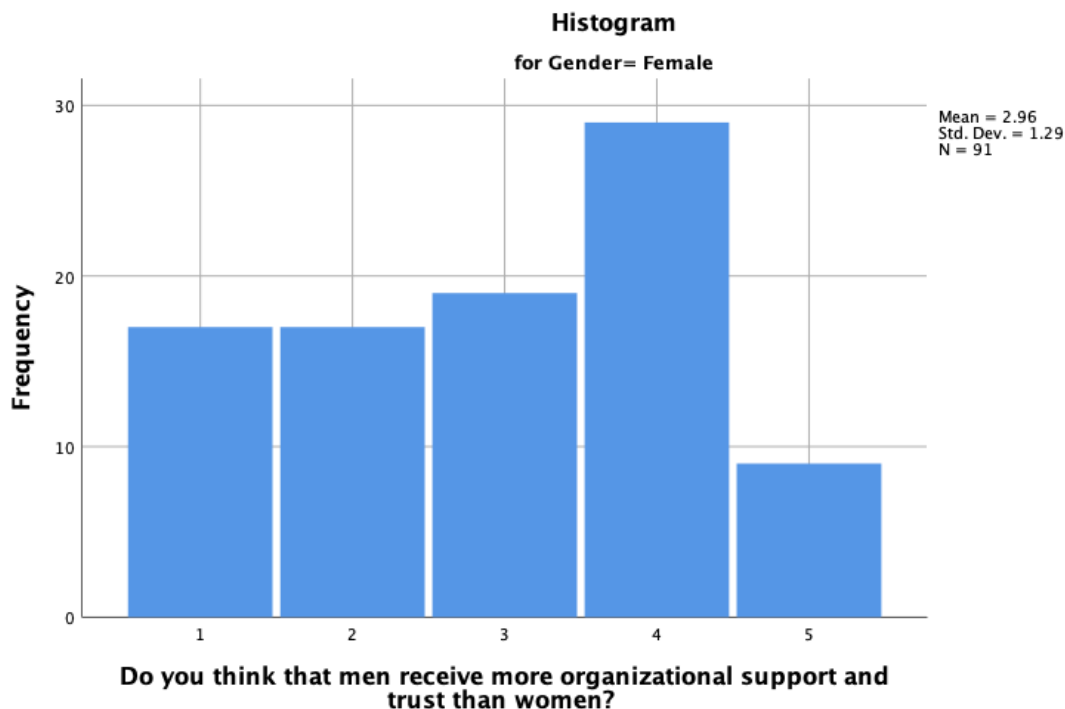
Figure 14 : Histogram: Organization Support - Females

Figure 3 Histogram Female

Histogram
for Gender= Male

Mean = 2.42
Std. Dev. = 1.296
N = 36

Do you think that men receive more organizational support and trust than women?
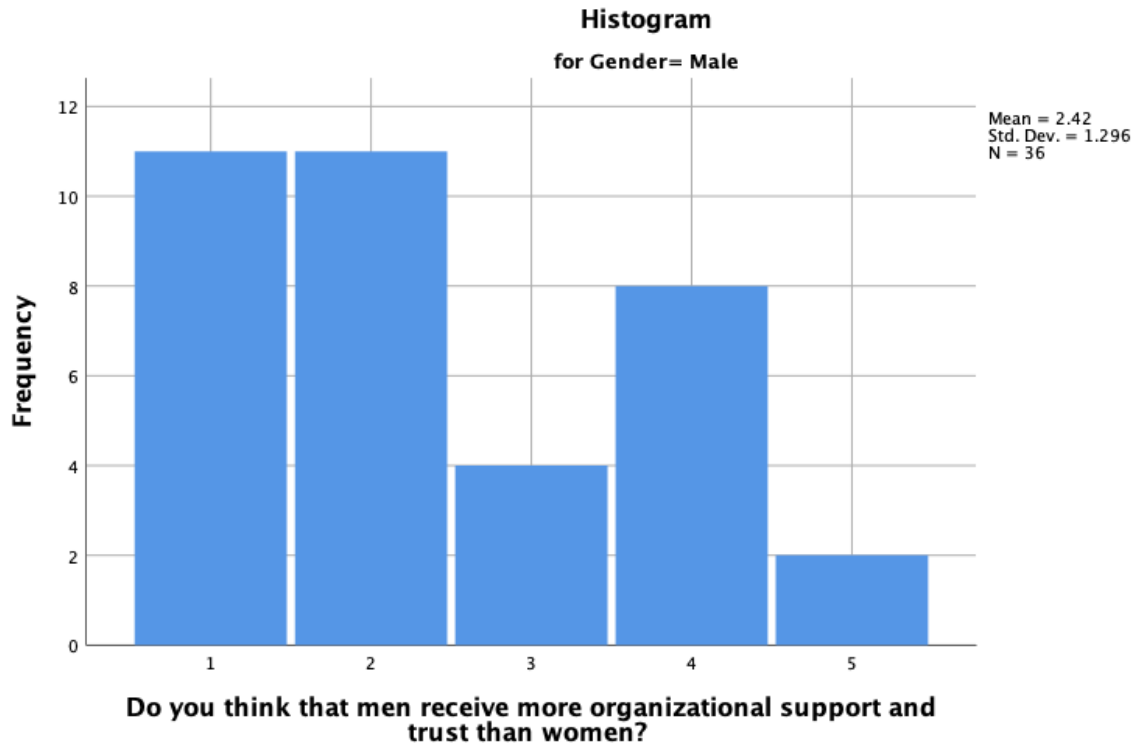
Figure 15 : Histogram: Organization Support - Males

The mean values of men and women is not widely different in this scenario. The median of females is slightly higher than that of the males.

Let's have a look at the descriptive statistics of the data sample. Here again the median of women is slightly greater (Median $_{FEMALES}$ = 3 and Median $_{MALES}$ = 2) This shows further validates the hypothesis that organizational support received by women is less compared to men. The skewness for women is within the acceptable range of -1 to +1 however kurtosis values of both the groups shows values above -1.

Female					
Mean	**Median**	**Variance**	**Std. Deviation**	**Skewness**	**Kurtosis**
2.96	3.00	1.665	1.290	-.171	-1.154
Male					
Mean	**Median**	**Variance**	**Std. Deviation**	**Skewness**	**Kurtosis**
2.42	2.00	1.679	1.296	.486	-1.055

Descriptives				Statistic	Std. Error
	Gender			Statistic	Std. Error
Do you think that men receive more organizational support and trust than women?	Female	Mean		2.96	.135
		95% Confidence Interval for Mean	Lower Bound	2.69	
			Upper Bound	3.22	
		5% Trimmed Mean		2.95	
		Median		3.00	
		Variance		1.665	
		Std. Deviation		1.290	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		2	
		Skewness		-.171	.253
		Kurtosis		-1.154	.500
	Male	Mean		2.42	.216
		95% Confidence Interval for Mean	Lower Bound	1.98	
			Upper Bound	2.86	
		5% Trimmed Mean		2.35	
		Median		2.00	
		Variance		1.679	
		Std. Deviation		1.296	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		3	
		Skewness		.486	.393
		Kurtosis		-1.055	.768

Table 9: Descriptive Statistics - Organizational Support

The tests of normality (Refer to Table 10 below) results indicate that there are significant deviations from normality for both the genders.

W_{FEMALE} = .208 ; df = 91 and p< .000

W_{MALE} = .237 ; df = 36 and p< .000

The Shapiro-Wilk test (as shown in Table 10) show that the p value is less than 0.05 (p=.000 for females and p= .000 for males) which suggests that there is a significant deviation from normality for both the groups. This deviation from normality in turn directs us to perform the Mann-Whitney tests.

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender	Statistic	df	Sig.	Statistic	df	Sig.
Do you think that men receive more organizational support and trust than women?	Female	.208	91	.000	.892	91	.000
	Male	.237	36	.000	.859	36	.000
a. Lilliefors Significance Correction							

Table 10: Organizational Support - Tests of Normality

Below is the Mann-Whitney "Descriptives" (Table 11) for the entire data sample.

Descriptive Statistics								
							Percentiles	
	N	Mean	Std. Deviation	Minimum	Maximum	25th	50th (Median)	75th
Do you think that men receive more organizational support and trust than women?	127	2.80	1.310	1	5	2.00	3.00	4.00
Gender	127	1.28	.452	1	2	1.00	1.00	2.00

Table 11: Mann-Whitney Descriptives - Organizational Support

The Mann-Whitney tests as in table 12 below sows that the "Mean Rank" of females is slightly higher than that of males

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
Do you think that men receive more organizational support and trust than women?	Female	91	68.14	6201.00
	Male	36	53.53	1927.00
	Total	127		

Table 12: Mann-Whitney Test - Organizational Support

To see if the differences in the mean ranks are statistically significant a Mann-Whitney U test (as shown in Table 6) was performed. The p-value derived from the Mann-Whitney U test is .038 which is lesser than 0.05 and hence rejects the null hypothesis.

Findings 2: This indicates that men and women do not receive the same kind of organizational support.

Test Statistics[a]	
	Do you think that men receive more organizational support and trust than women?
Mann-Whitney U	1261.000
Wilcoxon W	1927.000
Z	-2.072
Asymp. Sig. (2-tailed)	.038
a. Grouping Variable: Gender	

Table 13: Mann-Whitney U Test - Organizational Support

Also, a "Mean comparison report" shows the median of females is slightly higher than the males. This however is insignificant as the p value is lesser than 0.05

Compare Means report also shows that the median value for females are higher than the males

Report	
Median	
Gender	Do you think that men receive more organizational support and trust than women?
Female	3.00
Male	2.00
Total	3.00

Table 14: Compare Means Report - Organizational Support

5.3.4   Findings - Rate of promotion

The next question in the survey was to understand the differences in the rate of promotion within organizational levels available for men and women.

Do men and women receive promotions at an equal rate??
There were 91 females and 36 males that responded to this question in the survey. The overall case processing summary is given below in Table 15.

Case Processing Summary							
		Cases					
		Valid		Missing		Total	
	Gender	N	Percent	N	Percent	N	Percent
Do men and women receive promotions at an equal rate?	Female	91	100.0%	0	0.0%	91	100.0%
	Male	36	100.0%	0	0.0%	36	100.0%

Table 15: Case Processing Summary - Rate of promotion

The histogram charts of both the groups are not widely different
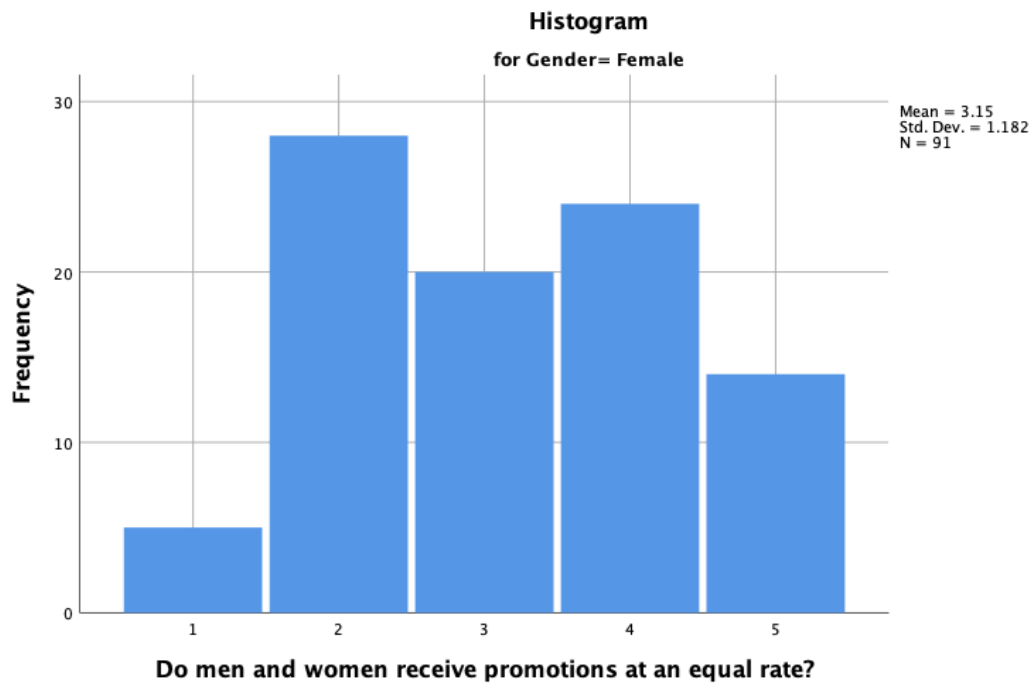
Figure 16 : Histogram: Promotion Rates - Females
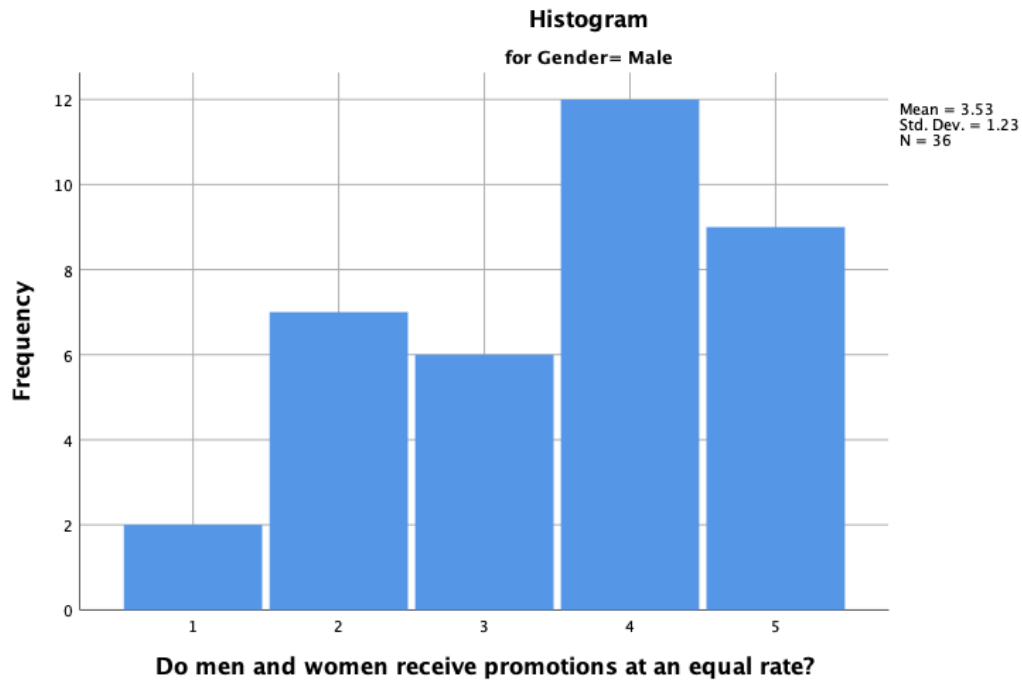
Figure 17 : Histogram: Promotion Rates - Males

A further study of descriptive statistics reveals the following. The median values of males are slightly higher than females. The skewness factor is between -1 to +1 for both the groups. However, the kurtosis range is higher for females than males.

Female					
Mean	**Median**	**Variance**	**Std. Deviation**	**Skewness**	**Kurtosis**
3.15	3.00	1.398	1.182	.066	-1.085
Male					
Mean	**Median**	**Variance**	**Std. Deviation**	**Skewness**	**Kurtosis**
3.53	4.00	1.513	1.230	-0.458	-.860

Descriptives					
		Gender		**Statistic**	**Std. Error**
Do men and women receive promotions at an equal rate?	Female	Mean		3.15	.124
		95% Confidence Interval for Mean	Lower Bound	2.91	
			Upper Bound	3.40	
		5% Trimmed Mean		3.17	

		Median		3.00	
		Variance		1.398	
		Std. Deviation		1.182	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		2	
		Skewness		.066	.253
		Kurtosis		-1.085	.500
	Male	Mean		3.53	.205
		95% Confidence Interval for Mean	Lower Bound	3.11	
			Upper Bound	3.94	
		5% Trimmed Mean		3.59	
		Median		4.00	
		Variance		1.513	
		Std. Deviation		1.230	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		3	
		Skewness		-.458	.393
		Kurtosis		-.860	.768

Table 16: Descriptive Statistics - Rate of promotion

To derive further inference tests of normality was performed to analyse the sig value which will determine if there is a significant deviation from the normality. The p-value for males was found to be 0.001 and for females was .000 both of which are lesser than 0.05 indicating that they are not normally distributed.

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender	Statistic	df	Sig.	Statistic	df	Sig.
Do men and women receive promotions at an equal rate?	Female	.198	91	.000	.897	91	.000
	Male	.233	36	.000	.884	36	.001
a. Lilliefors Significance Correction							

Table 17: Tests of Normality - Rate of promotion

To further gather evidence of how significant is the deviation from normal distribution, Mann-Whitney tests were performed and the results are shared as below. The below Table 18

shows the descriptive statistics of the entire sample and Table 19 shows the Mann-Whitney test results.

Descriptive Statistics								
							Percentiles	
			Std.	Minim	Maxim		50th	
	N	Mean	Deviation	um	um	25th	(Median)	75th
Do men and women receive promotions at an equal rate?	127	3.26	1.203	1	5	2.00	3.00	4.00
Gender	127	1.28	.452	1	2	1.00	1.00	2.00

Table 18: Mann-Whitney Descriptives - Rate of promotion

The Mann-Whitney tests shows that the mean ranks of females are lesser than those of men. Furthermore, the Mann-Whitney U test results also confirm that the p-value = .105 is greater than 0.05 which is an indication of weak evidence against the null hypotheses.

Findings 3: In this case it is inferred that there is very weak evidence for the question of women having lesser promotion rates than men.

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
Do men and women receive promotions at an equal rate?	Female	91	60.77	5530.00
	Male	36	72.17	2598.00
	Total	127		

Table 19: Table 19 Mann-Whitney Descriptives - Rate of promotion

Test Statistics[a]	
	Do men and women receive promotions at an equal rate?
Mann-Whitney U	1344.000
Wilcoxon W	5530.000
Z	-1.621

Asymp. Sig. (2-tailed)	.105

a. Grouping Variable: Gender

Table 20: Mann-Whitney U Test - Rate of promotion

Report	
Median	
Gender	**Do men and women receive promotions at an equal rate?**
Female	3.00
Male	4.00
Total	3.00

Table 21: Table 21 Compare Means Report - Rate of promotion

5.3.5 Findings – Perception of Contribution

The next question in the survey was to understand the differences in organizational support received by men and women

Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?
This question was asked to again understand the presence of gender bias in the workplace. The author is trying to find if a woman has to go the extra mile to prove her capabilities compared to men. All the participants responded to this question. Below is the overall summary given in Table 22 below

Case Processing Summary							
		Cases					
		Valid		**Missing**		**Total**	
	Gender	**N**	**Percent**	**N**	**Percent**	**N**	**Percent**
Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?	Female	91	100.0%	0	0.0%	91	100.0%
	Male	36	100.0%	0	0.0%	36	100.0%

Table 22: Case Processing Summary - Perception of Contribution
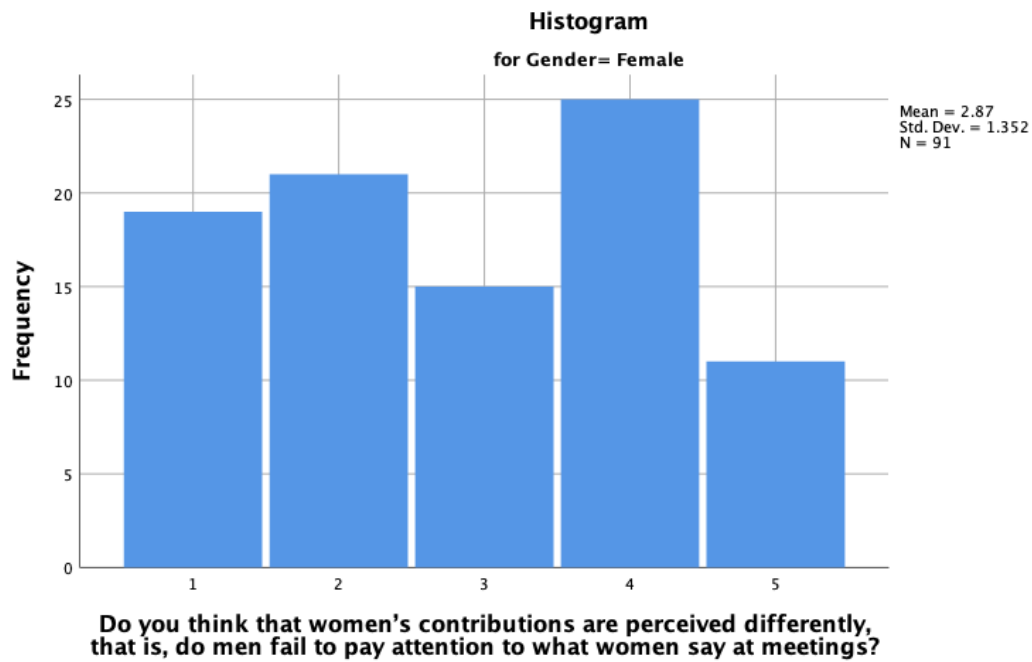
Figure 18 : Histogram: Perception of Contribution - Females

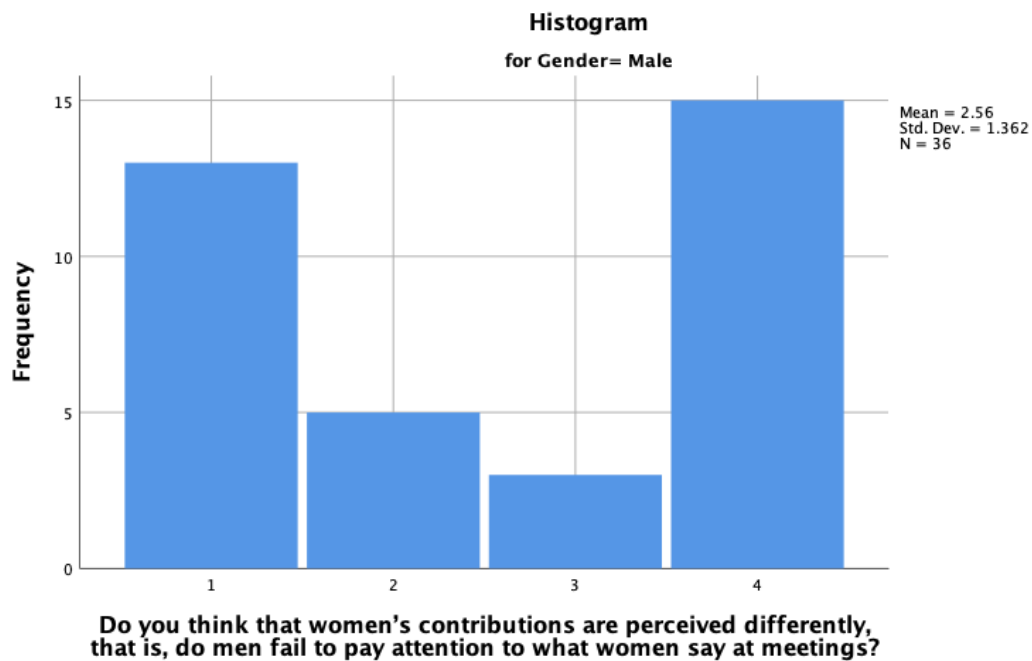**Figure 19 : Histogram: Perception of Contribution - Males**

Deriving the descriptive statistics as in the table 23 below, the median value of males and females are not widely different. However, the Kurtosis values seem to be negative values suggesting that the distribution has light tails than the normal distribution. The skewness factor is within the acceptable range of -1to +1 for both the groups.

Descriptives					
	Gender			**Statistic**	**Std. Error**
Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?	Female	Mean		2.87	.142
		95% Confidence Interval for Mean	Lower Bound	2.59	
			Upper Bound	3.15	
		5% Trimmed Mean		2.85	
		Median		3.00	
		Variance		1.827	
		Std. Deviation		1.352	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		2	
		Skewness		.024	.253
		Kurtosis		-1.282	.500
	Male	Mean		2.56	.227
		95% Confidence Interval for Mean	Lower Bound	2.09	
			Upper Bound	3.02	
		5% Trimmed Mean		2.56	
		Median		2.50	
		Variance		1.854	
		Std. Deviation		1.362	
		Minimum		1	
		Maximum		4	
		Range		3	
		Interquartile Range		3	
		Skewness		-.052	.393
		Kurtosis		-1.874	.768

Table 23: Descriptive Statistics - Perception of Contribution

To see if the distribution levels have a significant deviation from normal let's have a look at the "Normality Tests".

The Shapiro-Wilk test (as shown in Table 24) show that the p value is less than 0.05 (p=.000 for females and p= .000 for males) which suggests that there is a significant deviation from normality for both the groups. This deviation from normality in turn directs us to perform the Mann-Whitney tests.

Tests of Normality							
		Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Gender	**Statistic**	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?	Female	.194	91	.000	.889	91	.000
	Male	.272	36	.000	.752	36	.000
a. Lilliefors Significance Correction							

Table 24: Tests of Normality - Perception of Contribution

Descriptive Statistics								
							Percentiles	
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**25th**	**50th (Median)**	**75th**
Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?	127	2.78	1.356	1	5	1.00	3.00	4.00
Gender	127	1.28	.452	1	2	1.00	1.00	2.00

The Mann-Whitney tests also suggest that the mean ranks of females are comparatively higher than those of males.

Ranks				
	Gender	**N**	**Mean Rank**	**Sum of Ranks**
Do you think that women's contributions are perceived	Female	91	66.33	6036.00
	Male	36	58.11	2092.00

differently, that is, do men fail to pay attention to what women say at meetings?	Total	127			

Table 25: Mann-Whitney Tests - Perception of Contribution

The p-value derived from the Mann-Whitney U test is .242 which is lesser than 0.05 and hence rejects the null hypothesis.

Findings 4: This means that contributions of men and women are not perceived the same way and women need to go that extra mile to prove her capabilities.

Test Statistics[a]	
	Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?
Mann-Whitney U	1426.000
Wilcoxon W	2092.000
Z	-1.169
Asymp. Sig. (2-tailed)	.242
a. Grouping Variable: Gender	

Table 26 : Mann-Whitney U Tests - Perception of Contribution

Report	
Median	
Gender	Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?
Female	3.00
Male	2.50
Total	3.00

Table 27: Compare Means - Perception of Contribution

5.3.6 Findings – Assertiveness at Workplace

The next question in the survey was to understand the How assertive women are in asking what they deserve at workplace when competing against their equal counterparts.

Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?
Both men and women reacted neutrally to this question as inferred from the mean values almost being in the middle of the curve.

Case Processing Summary							
		Cases					
		Valid		Missing		Total	
	Gender	N	Percent	N	Percent	N	Percent
Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?	Female	91	100.0%	0	0.0%	91	100.0%
	Male	36	100.0%	0	0.0%	36	100.0%

Table 28 : Case Processing Summary - Assertiveness at Workplace
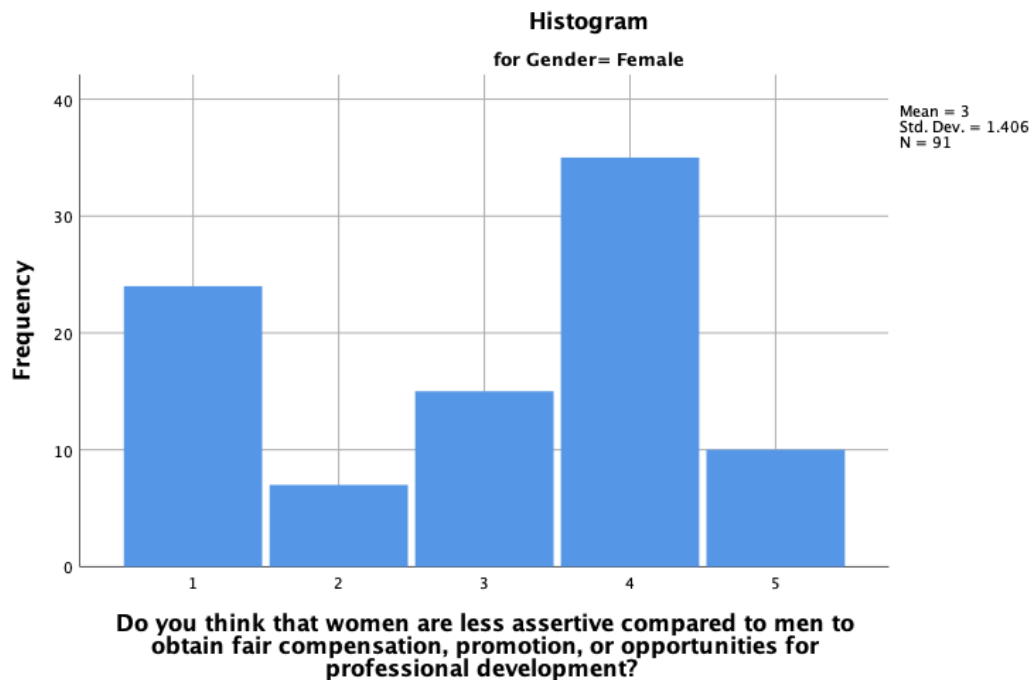

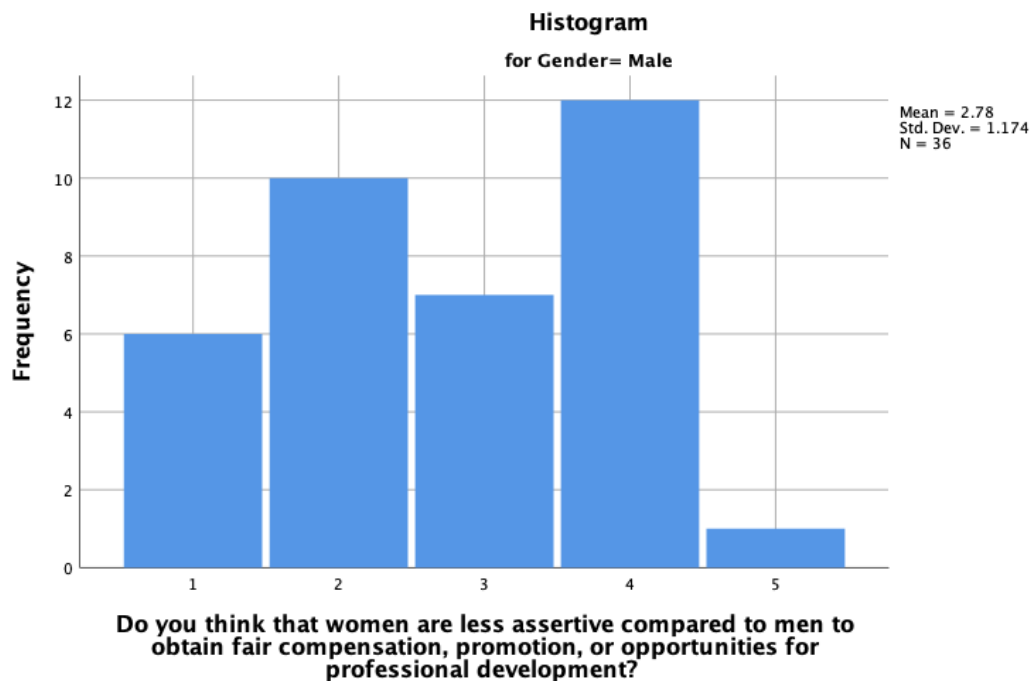**Figure 20 : Histogram: Assertiveness at Workplace - Females**

Figure 21 : Histogram: Assertiveness at Workplace - Males

From the descriptive statistics below, it is understood that the skewness factor for both females and males are negatively skewed which means, most values are concentrated on the right of the mean, with extreme values to the left. This negative skewness scenario is often termed as the "black swan event", (Chappelow, 2020). However in this scenario, the skewness value is not huge and indicate a moderately skewed sample.

Again, the Kurtosis value is also negative suggesting that the distribution is flat than a normally distributed curve. For both females and males the values of Kurtosis is greater than -1 indicating that the data is substantially skewed.

Descriptives					**Statistic**	**Std. Error**
	Gender					
Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?	Female	Mean			3.00	.147
		95% Confidence Interval for Mean	Lower Bound		2.71	
			Upper Bound		3.29	
		5% Trimmed Mean			3.00	
		Median			3.00	
		Variance			1.978	
		Std. Deviation			1.406	
		Minimum			1	
		Maximum			5	
		Range			4	

		Interquartile Range		3	
		Skewness		-.343	.253
		Kurtosis		-1.323	.500
	Male	Mean		2.78	.196
		95% Confidence Interval for Mean	Lower Bound	2.38	
			Upper Bound	3.17	
		5% Trimmed Mean		2.78	
		Median		3.00	
		Variance		1.378	
		Std. Deviation		1.174	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		2	
		Skewness		-.102	.393
		Kurtosis		-1.225	.768

Table 29: Descriptive Statistics - Assertiveness at Workplace

The Shapiro-Wilk test (as shown in Table 10) show that the p value is less than 0.05 (p=.000 for females and p= .001 for males) which suggests that there is a significant deviation from normality for both the groups. This deviation from normality in turn directs us to perform the Mann-Whitney tests.

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender	Statistic	df	Sig.	Statistic	df	Sig.
Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?	Female	.256	91	.000	.838	91	.000
	Male	.212	36	.000	.880	36	.001
a. Lilliefors Significance Correction							

Table 30: Tests of Normality - Assertiveness at Workplace

Descriptive Statistics								
							Percentiles	
	N	Mean	Std. Deviation	Minim um	Maxim um	25th	50th (Median)	75th
Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?	127	2.94	1.344	1	5	2.00	3.00	4.00
Gender	127	1.28	.452	1	2	1.00	1.00	2.00

The mean ranks of women seems to be higher than those of men. To further validate the significance of this lets perform a Mann-Whitney U test.

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?	Female	91	65.91	5997.50
	Male	36	59.18	2130.50
	Total	127		

Table 31: Mann-Whitney Tests - Assertiveness at Workplace

The p-value derived from the Mann-Whitney U test is .335 which is greater than 0.05 indicates weak evidence against the null hypothesis.

Findings 5: This indicates that there is less evidence that women are less assertive when compared to men to obtain a fair treatment for professional development.

Test Statistics[a]	
	Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?
Mann-Whitney U	1464.500
Wilcoxon W	2130.500
Z	-.964
Asymp. Sig. (2-tailed)	.335

Table 32: Mann-Whitney U Tests - Assertiveness at Workplace

Report	
Median	
Gender	Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?
Female	3.00
Male	3.00
Total	3.00

Table 33: Compare Means Report - Assertiveness at Workplace

5.3.7 Findings – Pressure to Succeed

The next question in the survey was to understand if women feel the pressure among their male counterparts in order to succeed in the workplace.

Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?
Both men and women reacted similarly to this question. Let's take a look at the stats to present our inference.

Case Processing Summary								
		Cases						
		Valid		Missing		Total		
	Gender	N	Percent	N	Percent	N	Percent	
Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?	Female	91	100.0%	0	0.0%	91	100.0%	
	Male	36	100.0%	0	0.0%	36	100.0%	

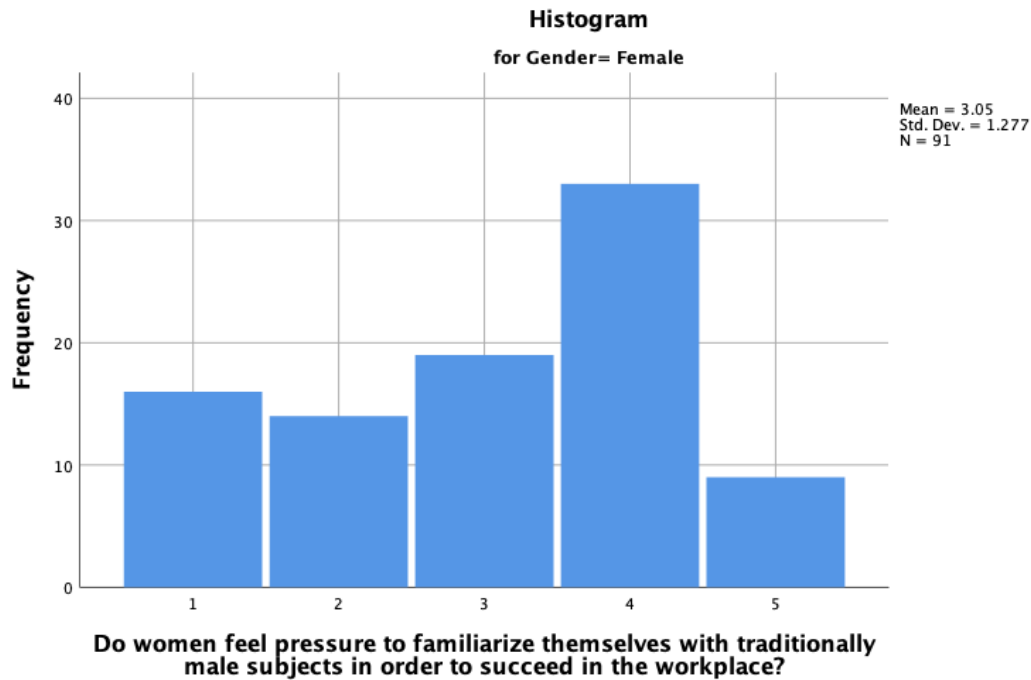**Table 34: Case Processing Summary - Pressure to Succeed**

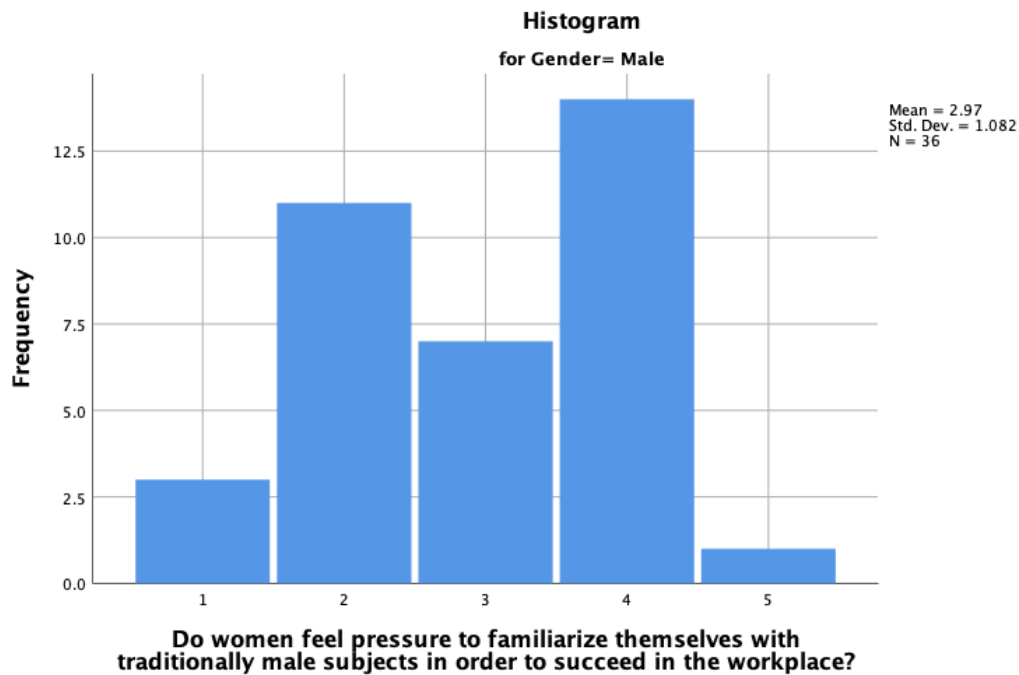**Figure 22 : Histogram: Pressure to Succeed - Females**

Figure 23 : Histogram: Pressure to Succeed - Males

Table 35 below shows the descriptive statistics of the sample. The median values of both men and women are equal with a value of 3.00 giving a neutral response to this question. The skewness and the kurtosis values are also negative. The negative skewness value suggests a moderately skewed sample whereas, the negative kurtosis value indicates that the distribution

is flatter than a normally distributed curve. For both females and males, the values of Kurtosis are greater than -1 indicating that the data is substantially skewed.

Descriptives				Statistic	Std. Error
	Gender			**Statistic**	**Std. Error**
Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?	Female	Mean		3.05	.134
		95% Confidence Interval for Mean	Lower Bound	2.79	
			Upper Bound	3.32	
		5% Trimmed Mean		3.06	
		Median		3.00	
		Variance		1.630	
		Std. Deviation		1.277	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		2	
		Skewness		-.334	.253
		Kurtosis		-1.057	.500
	Male	Mean		2.97	.180
		95% Confidence Interval for Mean	Lower Bound	2.61	
			Upper Bound	3.34	
		5% Trimmed Mean		2.99	
		Median		3.00	
		Variance		1.171	
		Std. Deviation		1.082	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		2	
		Skewness		-.229	.393
		Kurtosis		-1.104	.768

Table 35: Descriptive Statistics - Pressure to Succeed

To further validate the significant of normality, normality tests were performed.
 The Shapiro-Wilk test (as shown in Table 36) show that the p value is less than 0.05 (p=.000 for females and p= .001 for males) which suggests that there is a significant deviation from normality for both the groups. This deviation from normality in turn directs us to perform the Mann-Whitney tests.

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender	Statistic	df	Sig.	Statistic	df	Sig.
Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?	Female	.232	91	.000	.881	91	.000
	Male	.246	36	.000	.868	36	.001
a. Lilliefors Significance Correction							

Table 36: Tests of Normality - Pressure to Succeed

Descriptive Statistics								
							Percentiles	
	N	Mean	Std. Deviation	Minimum	Maximum	25th	50th (Median)	75th
Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?	127	3.03	1.221	1	5	2.00	3.00	4.00
Gender	127	1.28	.452	1	2	1.00	1.00	2.00

The Mann-Whitney tests shows a relatively higher mean rank for females than males. Further U tests will give us the significance much more.

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?	Female	91	64.89	5905.00
	Male	36	61.75	2223.00
	Total	127		

Table 37: Mann-Whitney Tests - Pressure to Succeed

The p-value derived from the Mann-Whitney U test is .653 which is greater than 0.05 indicates weak evidence against the null hypothesis.

Findings 6: which means that there is less evidence that women have the pressure to succeed at their workplace compared to their male counterparts.

Test Statistics[a]	
	Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?
Mann-Whitney U	1557.000
Wilcoxon W	2223.000
Z	-.449
Asymp. Sig. (2-tailed)	.653
a. Grouping Variable: Gender	

Table 38: Tests of Normality - Pressure to Succeed

Report	
Median	
Gender	Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?
Female	3.00
Male	3.00
Total	3.00

Table 39: Compare Means Report - Pressure to Succeed

5.3.8   Findings – Qualitative analysis on career barriers

An individual opinion based question was also asked in the survey to know what is the greatest barrier in women's career advancement.

Question - **In your personal opinion, what do you think is the greatest barrier in career development for women?**

There was a wide variety of individualistic answers given. The following were the categories of answers grouped based on the responses. There were 14 groups of responses received. Most of them were surrounded around family requirements, gender bias, assertiveness etc. Given below is the list of 14 groups of responses.

Assertiveness
Career Break
Childcare
Family Requirements
Family Requirements & Career Break
Family Requirements & Gender Bias
Family Requirements & Lack of Upskilling
Family Support
Gender Disparity
Lack of Upskilling
No Barriers
Organizational Culture
Other Biases
Work-Life Balance

A pivot chart was made from this data as below with the responses against each gender. If you see from the responses below some of them are mixed responses as in "Family Requirements & Career Break", "Family Requirements & Gender Bias" etc. The graph suggests that overall the primary barrier felt by women was concerning family requirements and the second barrier was only gender barrier. Even before the gender barrier women feel that the family requirements are setting them a little slower in career progression.
The chart also indicated that for men, in their opinion the biggest barrier they perceive for women is the gender disparity.
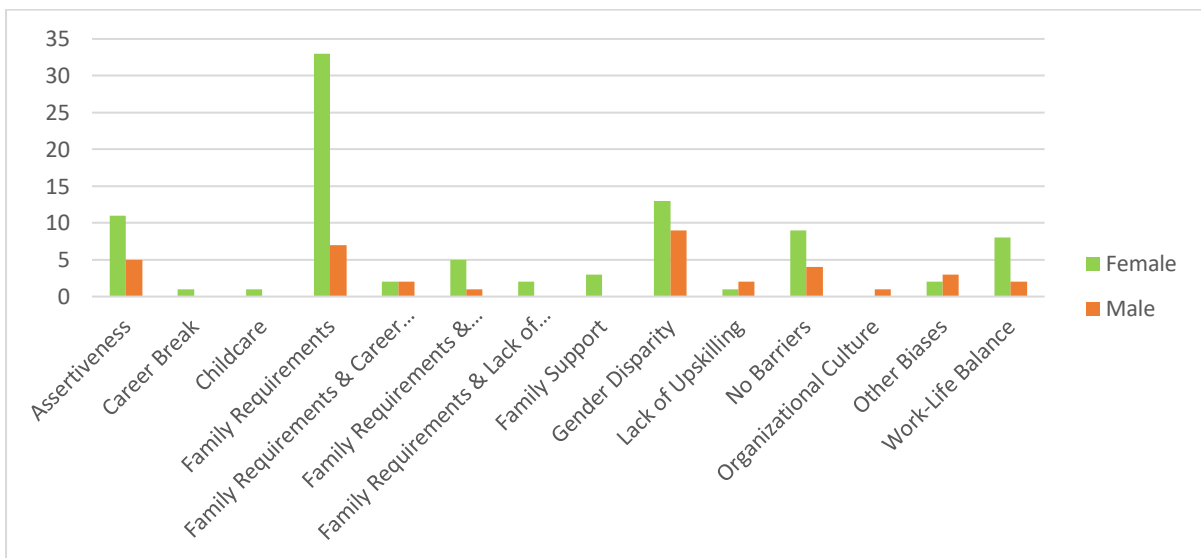

Figure 24 : Barriers for women's career progression

Another representation of the data above in a pie chart format for better visualization. The below pie chart(Figure 20) was formed with the frequency and frequency distribution of each of the category in the entire responses sample. The frequency was calculated based on the number of occurrences of each category in the entire sample against their percentage of frequency distribution.

Findings 7: This pie chart also suggests that family requirements is the most prominent barrier that is perceived as the greatest barrier in the career advancement of women. Gender Bias is considered the 2nd prominent barrier.
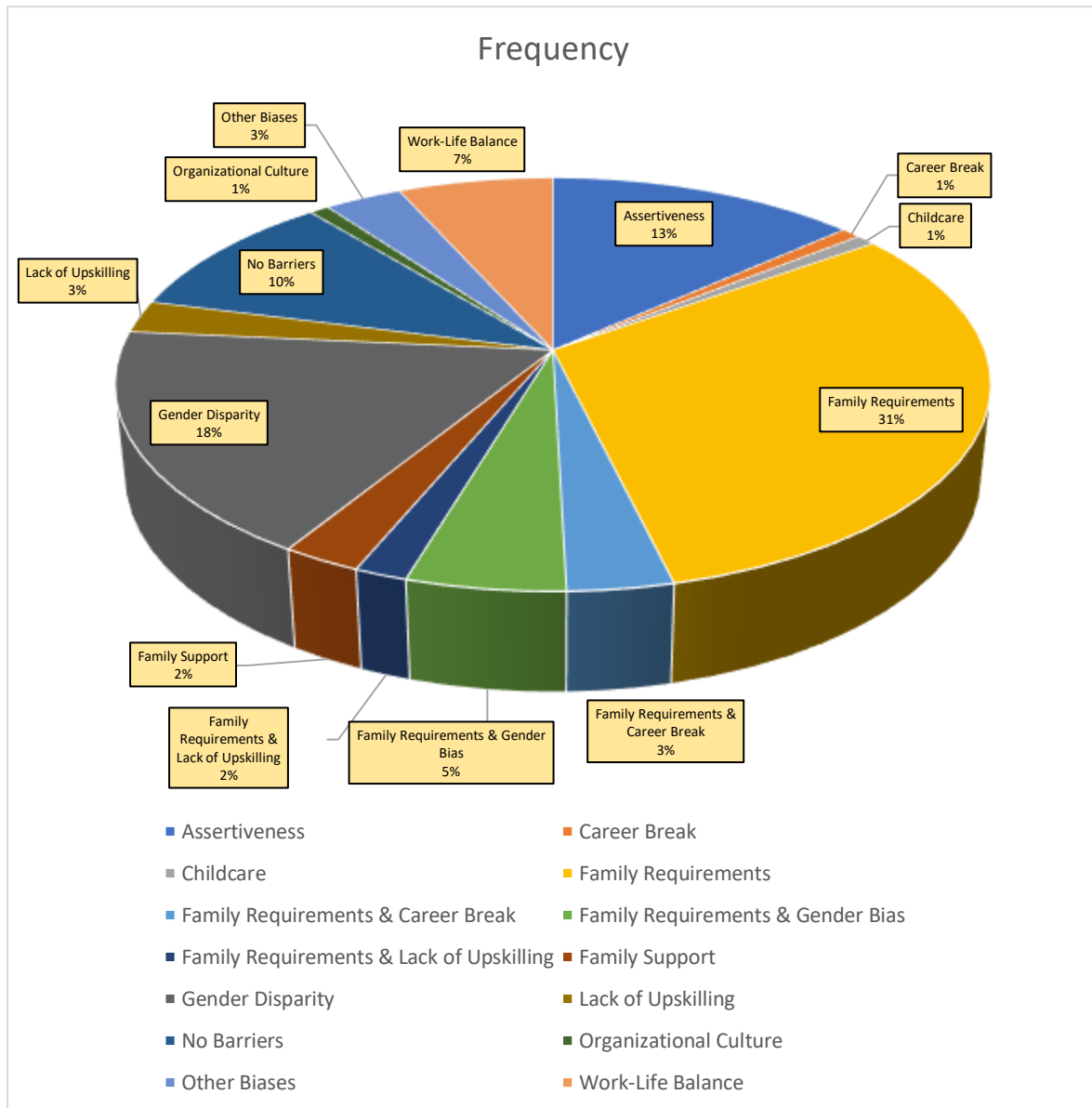

Figure 25 : Pie Chart for Frequency Distribution of Carrier Barriers

The below pie chart(as shown in figure 21) is a representation of what is the most prominent career barrier of people across different management levels.
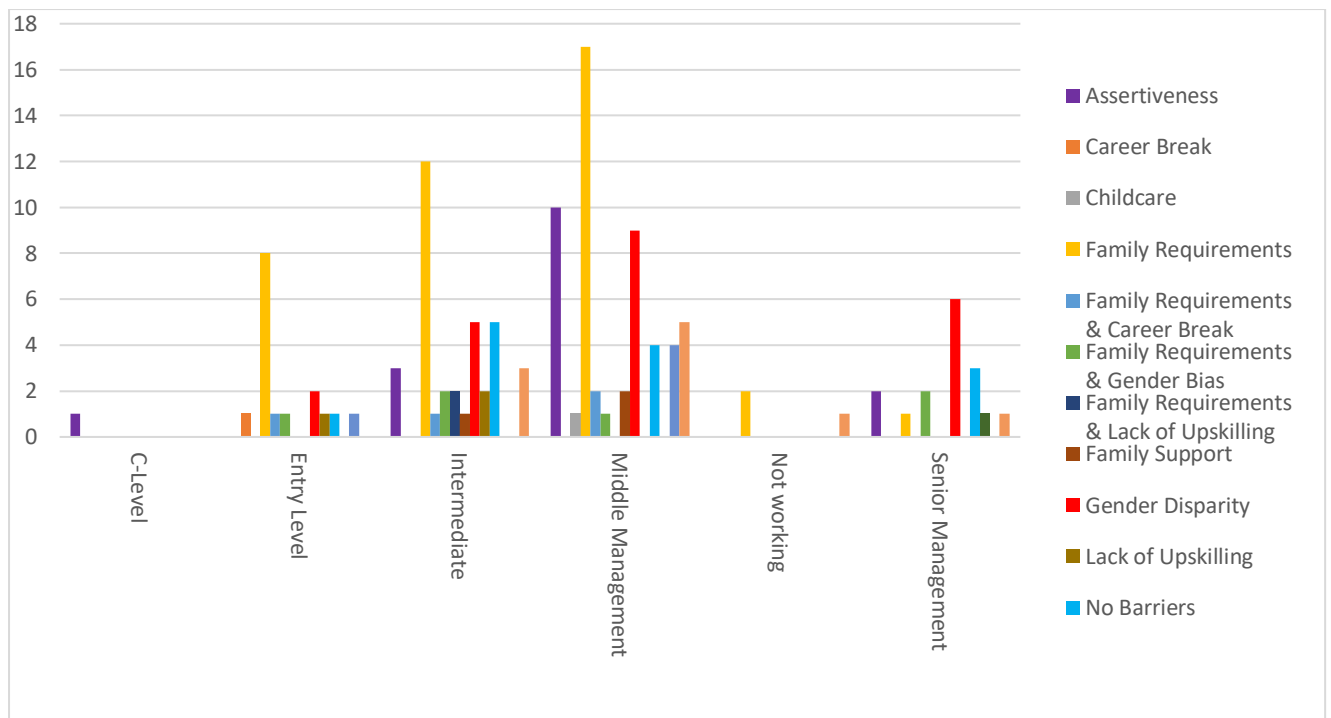
Figure 26 : Career Barriers Vs Org Level

Findings 8: One more interesting representation of career barriers perceived across different age groups. The survey responses suggest that family requirements is again the most prominent one among the people aged between 25 and 44. Most commonly people start their families in this age group and hence there seems to be a perception of family requirements being the primary barrier in one's career. Next to family the next prominent barrier is pointing towards gender disparity.

However, Gender disparity seems like most prominent in the people aged above 45 according to the survey responses. This is again the common time frame during which people look to climb up the career ladder.
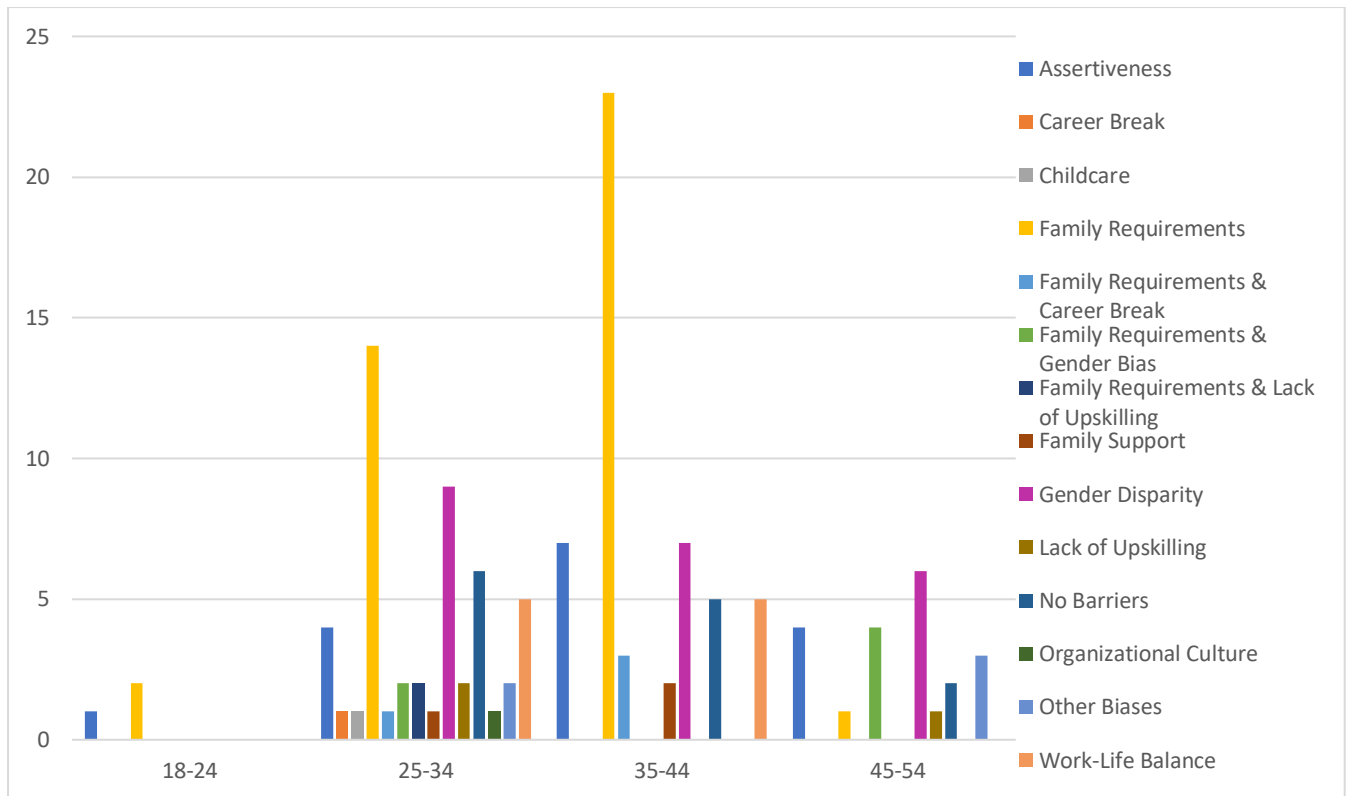
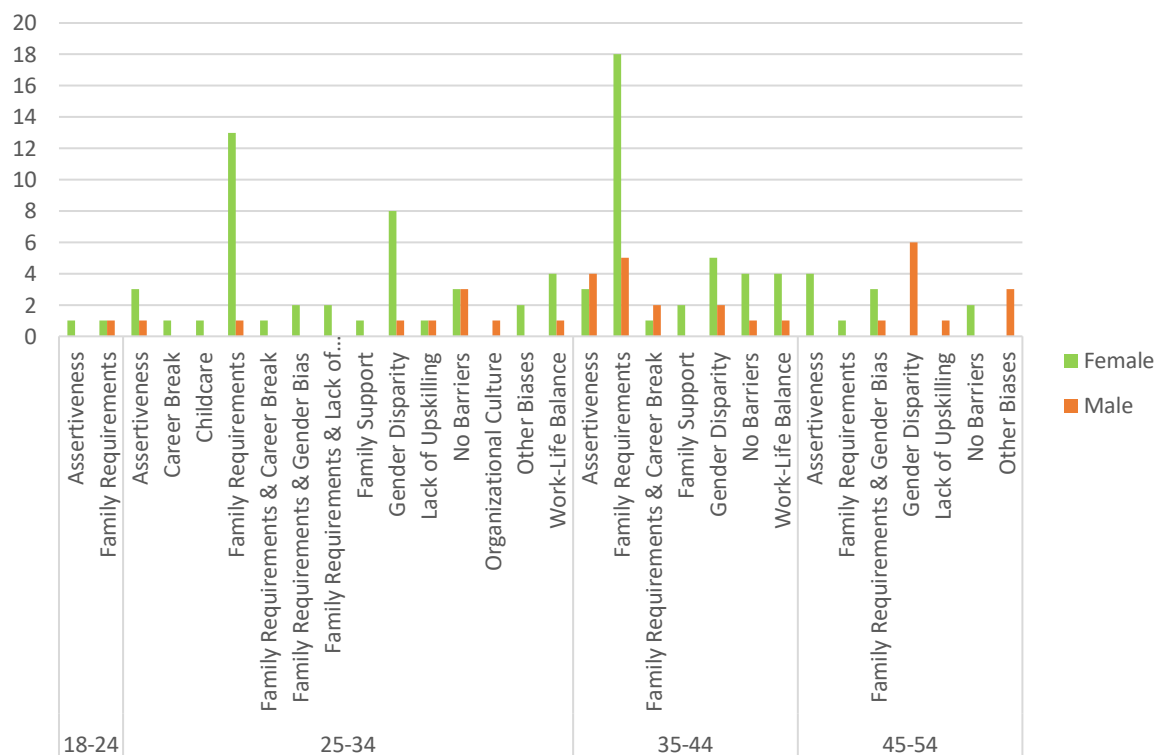**Figure 27 : Career Barriers across Age Demographics**

Figure 28 : Career Barriers Vs Gender across Age Groups

Career Break Charts

Question : **The respondents were asked if they have taken breaks during their career breaks because of family requirements?**

Findings 9: The responses indicate that career breaks were playing a major role in the women's career than the men's owing to family and child care requirements
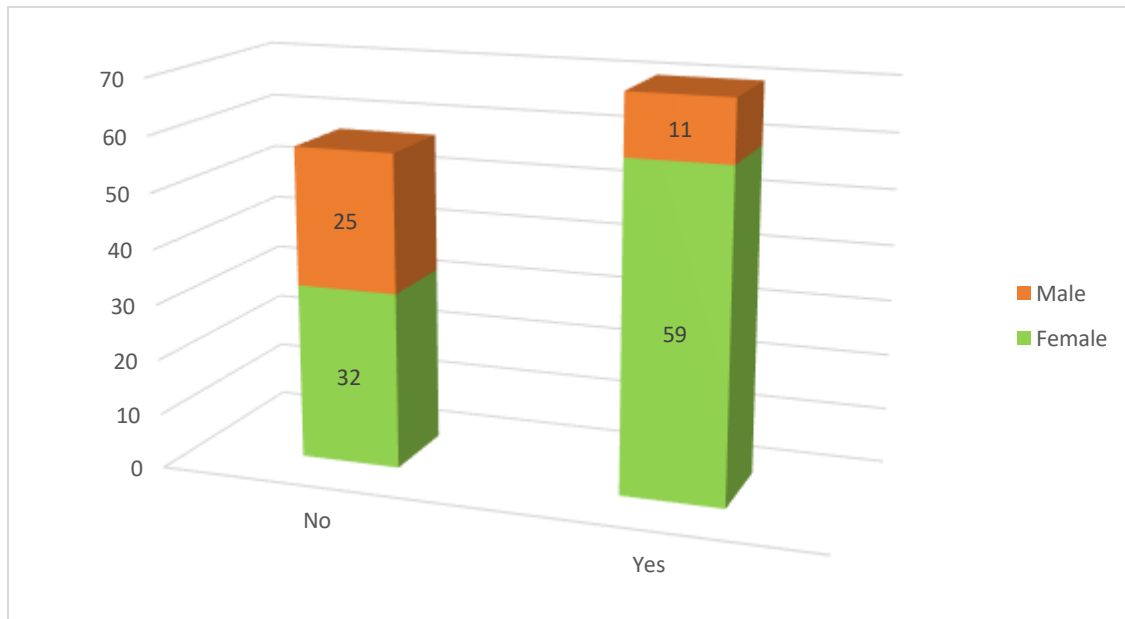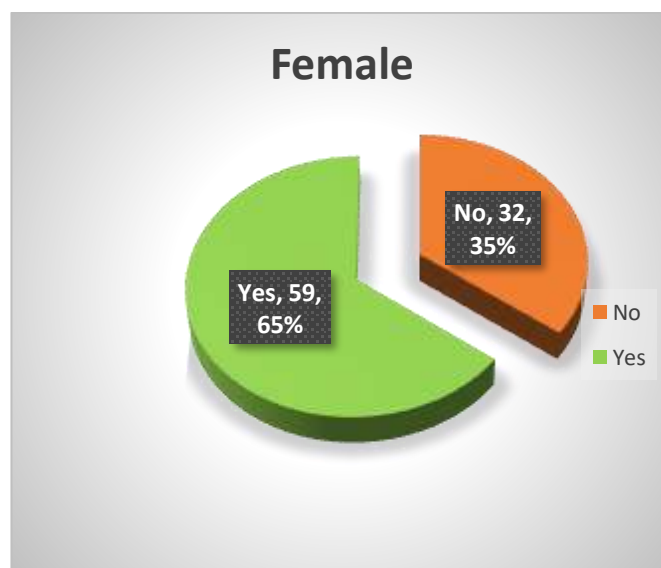

Figure 29 : Career Break Charts

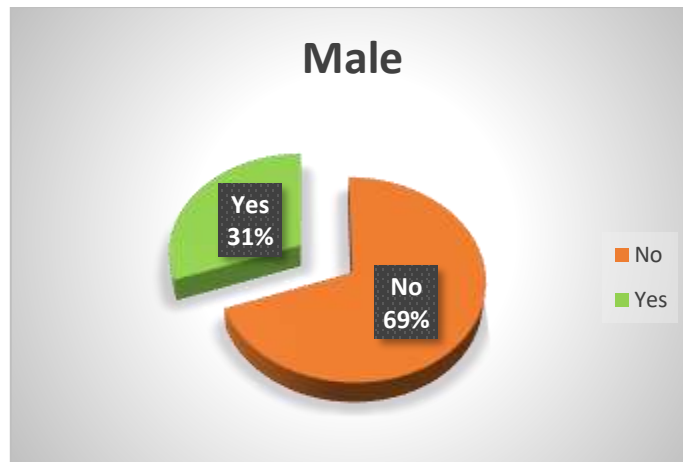**Figure 30: Career Break – Females**

Figure 31: Career Breaks - Males

 Another interesting chart is presented below regarding the work life balance. The responses for this question is interesting because when asked if there is work-life balance at workplace, interestingly more men have responded saying that they have less work-life balance than women. This prompts the author to think although women tend to take breaks in the career they do establish a balanced work-life when compared to men. Women tend to prioritize family over work when the needs arise. Men instead are subjected to the constant work pressure.
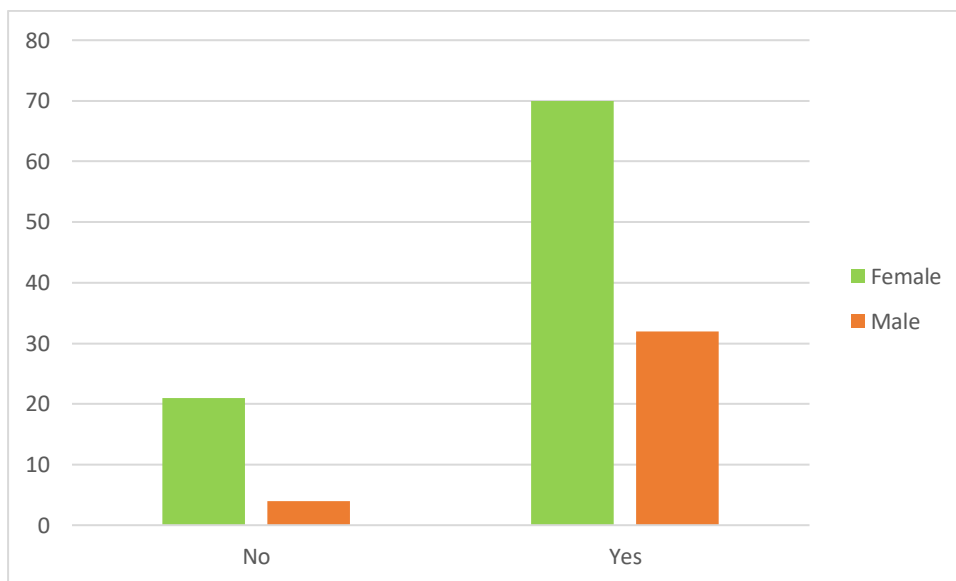

Figure 32: Work-Life Balance

Chapter 6 - Discussion & Recommendations

Chapter 5 uncovered the quantitative analysis of the survey responses and established their statistical significance. This chapter will discuss and critically evaluate these findings in relation to the research objective and existing literature that was reviewed in the earlier chapters. The primary objectives of this research was to find out,

1. Is unconscious bias making it difficult for women climb up the career ladder?
2. Are men and women treated the same within organizations and given equal opportunities? Do women have to go that extra mile to make their contribution to make their presence felt?
3. The tradition family care requirements making it difficult for women to rise to senior position as compared to their male counterparts?

The section further will be critically evaluating the above mentioned objectives with respect to the findings revealed in the previous chapter.

The case study approached this question by attempting to prompt both men and women working in Irish corporate workplaces to gain insight into the current working environments. The experiences of these men and women would help us gain insight if unconscious bias is prevalent in the Irish organizations.
From the knowledge gained from the literature review and tying them back to the findings from the research the research question will then be analysed across different genres as below,

1. Growth opportunities
2. Organizational support
3. Promotion rates of men and women
4. Perception of contribution
5. Assertiveness at workplace
6. Pressure to succeed
7. Work-life balance
8. Impact of career breaks and reasons for the same

6.1   Discussion – a comparative study

In the previous section, SPSS tool was used to perform the statistical significance of the responses received. There were mixed responses received and let us discuss them to see if they were aligned with what was dealt in the literary section.

When growth opportunities were analysed statistically, there was no significant evidence found that women tend to have fewer opportunities than men. Out of the sample 42% of women were employed in middle management levels. But owing to family requirements after not many are able to progress to senior management levels. But, the study conducted by McKinsey proposed that the barriers for women occur mainly during their early stages of career compared to their male counterparts, (Huang *et al.*, 2019). However, this research was not able to support that from the statistical evidence.
The finding related to growth opportunities could not derive any solid evidence against the availability of equal opportunities for women as compared to their male counterparts. However, in light of the literature review we found that unconscious bias undermines the

efforts of people thereby narrowing the path of development in an organization, (Oberai and Anand, 2018). Also the study by McKinsey highlighted the slow progression of women in the organizations because of lesser opportunities available to them, (Huang *et al.*, 2019)

The next interesting finding revealed was about the perception of contribution. The statistical evidence establishes the fact that women are required to go that extra mile to prove their capabilities. This is in line with the study carried out by Wirth, (2001) which states that gender plays a influencing role in the way a person is perceived within an organization. Also the survey conducted by IoD in 2017 and 2019 also reveals that board room recruitments are mostly populated with small group of people and it is male dominated. These studies adds more weight to the statistical evidence as well. These results prove the glass ceiling does prevail and it does make a difference in the way people are being perceived within organizations.

Some of the other findings related to rate of promotion and assertiveness at workplace also yielded weak evidences from the statistical inferences. This is also in line with the study conducted by IoD 2019 as women no longer feel that unconscious bias is lowing them down from reaching higher positions as compared to the same survey conducted in 2017 where unconscious bias was the leading barrier. The statistical evidence therefore, indicates a promising inference that, women are capable in establishing themselves at work in spite of having to slow down in between their career owing to various reasons.

Earlier in the literary section it was indicated that the previous research proposes that women "opt-out from their chosen career path owing to family requirements and commitments, (Ely et al. (2014). Literature also indicates that women prioritize family over career hence achieving their career goals later than their male counterparts.

The career break charts from the findings section depict in numbers how many women take career breaks from work compared to women. The percentage of women on career breaks was relatively higher than men. Most prominently, family requirements seems to be the prominent factor behind the career breaks. It is interesting to know that an article published in New York times in 2003 17 years ago by (L Belkin, 2003) still holds good. According to the survey women are still finding their primary reason behind slowing down of their career growth is having to take care of their families. The term highlighted in the article "opt-out" revolution is still in action. This does emphasize on the fact that there is a huge talent drain that is left untapped in the society. On the other hand, the sample size of men and women respondents are also not equal. So these figures might vary with a different sample size. As the family responsibilities mostly rely upon women due to biological dependencies these findings seem appropriate enough to support the previous research as stated by Cooper Jackson, (2001)

Also when analysed for the educational level of people in senior management levels in section 5.3.1 the charts indicated that there were more women who pursued higher educational levels than men. This is in accordance with the surveys conducted by CSO. Also, number of women who reach up to the middle management levels rise and then there is a decline in numbers in the higher management levels. This is in conjunction with what was researched by Ely et al. (2014). However there are also possibilities that this may vary with a bigger sample size and region. On the other hand, this could also be because of women opting out for making alternate career choices which can allow them to have flexible work options as proposed by Morgan, (2015)

The survey was purposefully designed to prompt people to start thinking about unconscious bias at their workplaces. Although gender disparity was the 2nd highest barrier highlighted from the survey responses it was quite evident as some of the individualistic responses that unconscious bias were prevalent in some of the organizations. The individualistic responses to the question,

"In your personal opinion, what do you think is the greatest barrier in career development for women?"

were as below,

"In Ireland specifically, I feel women currently face a lot of unconscious bias in the workplace. Traditional, patriarchal roles and 'boys club' behaviour unfortunately permeates many organisations in obvious and sometimes subtle ways that affect how women are treated."

"I feel that Men receive more organization support than women interns of promotion and hikes."

"Lack of peer group support. Even if the organization recognises there's a gender gap and try to fix it, women being benefited by those policies/programs are most of the times scorned and made to feel like they aren't pulling their weight. "

"The ability to be taken seriously for decision making and opinion collecting."

"The Old Boys network "

"The lack of support and understanding for women with children. Which is really sad. It honestly took 10 years after the birth of my first child before I felt valued and respected in the workplace again."

"Having children is seen as a negative and that a mother is less focused on work than a father"

These responses were 18% of the total responses. Although less in number they were pretty on point to provide evidence of how unconscious bias slows down the career progression of women.

6.2   Research Limitations

Owing to the differences in experiences, generational perception, culture, and exposure, the responses of the group was quite narrow. However, this sample was enough to take the first step towards understanding unconscious bias. One other limitation that was felt, was time. Due to time restrictions, a qualitative analysis could not be done. A qualitative survey on a particular set of senior management men and women would have been more effective in understanding this better. Even though the number of responses was good, the number of senior management perspectives would have added more weight. A mixed-method of both

qualitative and quantitative would have been best suited for gaining more understanding of this.

6.3   Recommendation for future research

Although this research has made some progress towards understanding of unconscious bias at workplace and the effects it has on the career development of women, there is still more to be unwrapped. It is recommended to do a mixed approach of qualitative and quantitative approach for this kind of a research which is a very emotionally sensitive topic. Also it would be great to understand measures taken by Irish companies to control unconscious bias. It would also be interesting to analyse if such measures are helping in minimising the gender disparity within organizations. The future research could also be focussed on studying the career progression of few men and women over few years so we can track their growth pattern and their influential factors.

Chapter 7 – Conclusion

This chapter aims to understand the overall objective of the research and some of the reflective learnings of the author
Carli and Eagly, (2016) take a psychological approach to the research on the glass ceiling and state that there are barriers for women from reaching the higher positions of power as women continue to face a labyrinth of complexities in their path. This includes gender bias, family responsibilities, and women self-belief in them which is portrayed by most of the women who took part in the survey. Most of them shared the same thought as family responsibilities are mostly women centric even today.
This research was the first step to understand the unconscious bias at workplace. The experience gained out of this will surely help the author think more deeply into this topic. This will also help in spreading awareness about such implicit types of biases and trying to help organizations to pave way for more females into the senior leadership roles. This could be a guiding force behind the future initiatives for creating gender equal workplaces in the future. This study also helped in understanding the perceptions of men and women in the real world around growth opportunities and other stereotype issues prevalent in the workplaces. Also another interesting find of the research was how the traditional thinking of women taking care of the families is posing as a barrier in their career advancement. Times have changed but the family care is being perceived as the primary objective more for women than men. Although we see more men opting for taking care of families these days there is still miles to go before the responsibilities are shared mutually between both the genders. It was indicated in the literary research that having a gender balanced workspace has a positive impact on the organization and in turn the economy, (Reinert, Weigert and Winnefeld, 2016). The same holds good for the families as well. Gender balanced family responsibilities builds better families and raises better generation as no one compromises on anything to build them. Let us enable more women into the workplaces and may the future bring in gender equal economy and bring in a greater change in the society we live in. According to the famous quote by Margaret Thatcher, " You May have to fight a battle more than once to win it". It could seem like an endless list of barrier for women to climb up the ladder but is never impossible. Let us lead the change in the world by being the change ourselves.

Be the **CHANGE** you wish to see in the **WORLD.**

Mahatma Gandhi

Appendix

Survey Questionnaire

Q1)   Gender
Male
Female

Q2)   Age Group?
18-24
25-34
35-44
45-54
Over 55

Q3)   Highest level of education acquired
Graduate
Bachelor's
Master's
Other

Q4)   Years of work experience
0-5 years
5-15 years
15-25 years
Over 25 years

Q5) Role/ Designation in the your company

-------<Free text>------------

Q6)   Family status
Married
Single
Divorced
Other
Q7)   Do you have any children?
Yes, all 18 or over
Yes, one or more under 18
No

Q8)   Which of the following best describes your current job level?
Owner/Executive/C-Level
Senior Management
Middle Management
Intermediate
Entry Level
Other

Q9)   Do you think that women have fewer opportunities than men for professional development in the workplace?
Completely agree
Completely disagree
Neither agree nor disagree
Somewhat agree
Somewhat disagree

Q10)   Do you think that men receive more organizational support and trust than women?
Completely agree
Completely disagree
Neither agree nor disagree
Somewhat agree
Somewhat disagree

Q11)   Do men and women receive promotions at an equal rate?
Completely agree
Completely disagree
Neither agree nor disagree
Somewhat agree
Somewhat disagree

Q12)   Do you think that women's contributions are perceived differently, that is, do men fail to pay attention to what women say at meetings?
Completely agree
Completely disagree
Neither agree nor disagree
Somewhat agree
Somewhat disagree

Q13)   Do you think that women are less assertive compared to men to obtain fair compensation, promotion, or opportunities for professional development?
Completely agree
Completely disagree
Neither agree nor disagree
Somewhat agree
Somewhat disagree
Q14)   Do women feel pressure to familiarize themselves with traditionally male subjects in order to succeed in the workplace?
Completely agree
Completely disagree
Neither agree nor disagree
Somewhat agree
Somewhat disagree

Q15)   How secure do you feel in your professional position?
Highly secured
Somewhat secure
Somewhat insecure
Completely insecure

Other

Q16)   Does gender have no influence on the results of workplace evaluations?
Yes
No
To some extent

Q17)   If you have a partner, do you receive sufficient support from your partner?
Yes
No
Other

Q18)   Have you taken career breaks in your career because of family requirements before?
Yes
No
Other

Q19)   Do you have work-life balance in your workplace?
Yes
No

Q20)   Do you think that women receive enough organizational support in order to manage
their professional work and their domestic responsibilities?
Yes
No
Other

Q21)   In your personal opinion, what do you think is the greatest barrier in career
development for women?
-------<Free text>------------

Q22)   Finally, we would like to ask if you have ever thought about leaving your job because
of gender-related problems?
Yes
No

Past Validated Survey : 1

http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=5&sid=01728cf4-864c-4cb9-84f9-af3d92709f92%40pdc-v-sessmgr02

Past Validated Survey : 2

http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=1&sid=b6afd53a-7ade-4d04-b807-708ced61a18f%40sessionmgr4008

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