

The experience of imposter phenomenon
throughout the career progression of
women manufacturing leaders
in South Africa and the United Kingdom

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A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

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Abstract

Purpose: To obtain a rich understanding of the experiences of the imposter phenomenon (IP) by examining, the effects of relevant intrapersonal (internal), systemic (external) factors and how IP manifests, throughout the career progression of women leaders in manufacturing within South Africa, a developing country, and the United Kingdom, a developed country.

Design, Methodology and Approach: Data was collected through 20 semi-structured interviews conducted with 10 women leaders in South Africa and 10 in the United Kingdom, who had more than 10 years of work experience and who are currently working within the manufacturing industry. An inductive qualitative methodology using narrative inquiry was used to deeply understand the lived experiences of the imposter phenomenon, the factors that impacted it, and its manifestations, throughout the participants' career progression.

Findings: Intrapersonal and systemic factors were found to contribute towards feelings associated with IP throughout the career progression of women manufacturing leaders. These factors were interrelated to each other, and to the experiences and manifestations of IP. The feelings of IP increased throughout the participants' career progression with the majority (80%) of participants expecting to continue to experience IP in their future careers. Motherhood, a non-inclusive environment and the lack of experience and qualification amongst young female South African STEM employees may contribute to experiences of IP in the workplace.

Keywords: Women leaders, imposter phenomenon, manufacturing, career progression.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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1. Chapter 1: Introduction to the Research Problem

Women continue to be under-represented in leadership positions in the workplace particularly in leadership positions within the manufacturing sector. One of the reasons often cited for this is the effect of the imposter phenomenon (IP), which, although commonly referred to in the workplace as a women's issue, has not been fully explored and understood empirically through qualitative research (Bravata et al., 2020).

The manufacturing sector is not effectively attracting and retaining women in South Africa or in the United Kingdom (Office for National Statistics, 2023; South African Government News Agency, 2022; World Economic Forum, 2023). The purpose of this study is to obtain a deep, rich understanding of the experiences of the imposter phenomenon, by examining the effects of relevant intrapersonal (internal) and systemic (external) factors which contribute to the imposter phenomenon, throughout the career progression of women leaders in manufacturing within South Africa and the United Kingdom (UK).

This research study begins by understanding the issue of the lack of women's career progression within the manufacturing sector within the UK and South Africa in more detail as well as the business and theoretical needs for the study. Chapter 2 explores the extant literature available on IP and the career progression of women to understand what is known and what still needs to be investigated empirically. In Chapter 3 the research questions are developed based on the business and theoretical needs identified in Chapter 1 and the findings from the literature review as set out in Chapter 2. Chapter 4 describes the research methodology that has been applied in this study. In Chapter 5 the findings, gained through qualitative narrative inquiry, in relation to each research question from Chapter 3, are quoted and summarised with reference to the participants' career progression. In Chapter 6 the findings as set out in Chapter 5 are compared with, and contrasted to, the existing literature discussed within Chapter 2. The answers to the research objectives as set out in this Chapter, and the research questions from Chapter 3 are then concluded within Chapter 7, along with a discussion on the contributions of the study, research limitations, and recommendations for future research.

1.1. The Status of Women in Manufacturing Leadership

Despite some progress, leadership positions globally continue to be under-represented by women (Kossek & Buzzanell, 2018; Madsen & Andrade, 2018;

Tabassum & Nayak, 2021). The Grant Thornton 2022 Women in Business Report confirms that the number of women holding top leadership positions globally (c-suite roles) rose from 21% in 2012 to 32% in 2022 (Grant Thornton, 2022). Despite the improvement, women's representation remains lower than the global female population of approximately 50% (The World Bank, 2022). South Africa falls short of the global statistics, with only 15% women representation in executive roles within all companies listed on the Johannesburg Stock Exchange (JSE) with only nine women holding the position of Chief Executive Officer (CEO) amongst the top 100 companies listed on the JSE (PWC, 2022). Although the statistics of women in senior leadership positions in the United Kingdom (UK) also fall short of the global statistics, they exceed South Africa's statistics having 25% women representation at executive director level, with 21 women holding the position of CEO within the Financial Times Stock Exchange (FTSE) 100 and FTSE250 companies (Clark, 2023).

Globally, women representation within the manufacturing industry at 32% is the fifth lowest above the infrastructure; oil, gas and mining; supply chain and transportation; and agriculture sectors (World Economic Forum, 2023) with women only holding 25% of leadership positions within the manufacturing sector globally (World Economic Forum, 2023). The manufacturing sectors in South Africa and the United Kingdom continue to be male-dominated, with women representation within the manufacturing sector being approximately 33% (Cowling, 2023b; Cowling, 2023c) in South Africa and interestingly, even lower at 26% (Clark, 2024) in the United Kingdom. The low representation of women in both countries could be due to the perception that the manufacturing industry is more suited to males, resulting in lower numbers of women being recruited into the sector (Spencer et al., 2019). Although 43% of Science, Technology, Engineering and Mathematics (STEM) graduates in South Africa are women (World Economic Forum, 2023), the number of employed women STEM graduates is significantly lower, with only 13% of employed STEM graduates in South Africa being women (South African Government News Agency, 2022). Interestingly, only 13% of production manager and director roles in manufacturing within the UK are held by women (Office for National Statistics, 2023), despite 38% of STEM graduates in the UK being women (World Economic Forum, 2023). In both countries the employment and retention of female STEM graduate talent within the industry appears to be of concern, where the number of women graduating within STEM fields is not being reflected within the gender statistics in the workplace. Smith and White (2018) set out, specifically with reference to the UK, that the "problems with the 'supply' of

STEM workers are more likely to be explained by the willingness of graduates to pursue careers in STEM fields and/or the recruitment practices of employers” (Smith & White, 2019, pg. 37). In addition, STEM workers that hold highly skilled positions are likely to move out of these positions as their careers progress and it was found that graduates are unlikely to enter STEM occupations if they do not do so soon after their graduation (Smith & White, 2019). It was also found that 32% of UK female STEM graduates, as opposed to 55% of UK male STEM graduates, were likely to be appointed in a highly skilled STEM position from the point of graduation, and further into their careers (Smith & White, 2018). This highlights a concern with respect to the career progression of women within STEM and is particularly relevant to this study in the manufacturing sector which draws largely from the talent pool of STEM graduates.

1.2. Women’s Career Progression in Manufacturing

Although significant advancements have been made in terms of equal education opportunities, and a more inclusive job market, women managers’ career progression remains negatively impacted by gender stereotyping and gender bias (Tabassum & Nayak, 2021). In addition, the workplace continues to marginalise women in that strong, confident leaders are perceived to be masculine in nature (Tabassum & Nayak, 2021; Tulshyan & Burey, 2021). Further, according to a recent systematic review on the career experiences of women in STEM, organisational cultures are still based largely on traditional patriarchal styles, and women lack access to organisational resources, such as mentoring and training and career development opportunities, that are afforded to men (Makarem & Wang, 2020).

The extent of challenges and stereotyping experienced by working women is evident through the many phenomena, syndromes or metaphors associated with women in business. These include the ‘Labyrinth of Women Leadership’ which refers to the complex route women have to travel to succeed as a business leader (Eagly & Carli, 2018); the ‘Queen Bee’ syndrome which negatively describes women leaders portraying masculine behaviours, isolating themselves from other women and judging women co-workers more harshly (Elsesser, 2020); the ‘Glass Ceiling’ effect which refers to an invisible barrier that prevents women in business progressing to senior positions (Taparia & Lenka, 2022); ‘Sticky Floor’ and ‘Frozen Middle’ both referring to women being less likely to want to progress in their careers at lower and managerial levels, and the ‘Glass Escalator’ which refers to men overtaking women’s progression in jobs traditionally performed by women (Tursunovich, 2022). Interestingly, very few

syndromes, phenomena or metaphors exist to explain issues with reference to the progression of men in business, which may contribute to feelings of inadequacy in women, being the ones that need to be 'fixed' in order to conform within patriarchal, male-dominated environments (O'Connell & McKinnon, 2021).

Some women can overcome these known and conceptual barriers, and achieve progress in their careers, however, despite their success may experience what has become yet another metaphor, the imposter phenomenon (IP). This phenomenon is typically characterised by women feeling that they are intellectual frauds, inadequate, and are not deserving of their success (Clance & Imes, 1978; Tulshyan & Burey, 2021). Although IP is commonly associated with women it has also been reported to occur in men (Bravata et al., 2020) and often presents within ethnic and other minority groups (Bravata et al., 2020; Mullangi & Jagsi, 2019; Nadal et al., 2021). The reason it tends to be regarded as prevalent in more marginalised groups is due to the "historical and cultural contexts" (Tulshyan & Burey, 2021, p. 3) which perpetuate microaggressions, bias, stereotype threat (Nadal et al., 2021) and the lack of role models (Edwards, 2019; Tulshyan & Burey, 2021). In women specifically, stereotyped gender roles (Tulshyan & Burey, 2021) contribute to the experience of not feeling adequate enough in environments from which they have typically been excluded. In addition to many external factors contributing to women's inability to advance in these environments, the internalised effects of IP can lead to burnout, inferior work performance, reduced job satisfaction and hindrance of career advancement (Bravata et al., 2020; Hutchins et al., 2018), further contributing to the lack of gender diversity within the workplace.

This study aims to explore the impact of IP on women leaders within the South African and British context, within the manufacturing sector, in contrast to most studies which have been conducted within developed countries within academia and the health care industry (Bravata et al., 2020). As there is a lack of career progression of women within the manufacturing sector both within the United Kingdom and South Africa and a need to attract and retain female talent into the sector, this study aims to understand the specific nuances in women's experience of the imposter phenomenon throughout their career progression, both in a developed and developing country context. The selection of women from these two economically distinct countries with different cultures and social norms, from the same occupational environment, will allow a deep understanding into which factors, intrapersonal or systemic, influence feelings of IP

within these two contexts, and will assist to understand if IP is in fact a “women’s issue” or if it is impacted more by environmental factors in the workplace. In addition, by contrasting the findings of these two contexts, the transferability of findings will be enhanced (Koch, 1994). Although past studies have not focused on feelings of IP throughout the career progression of women participants (Bravata et al., 2020), it is anticipated that women learn to cope with feelings of IP throughout their career progression. Further, it is anticipated that at the height of their achievements, feelings of IP would have reduced in women manufacturing leaders when compared to feelings of IP in their past careers.

1.3. Business Need for the Study

Manufacturing is an important sector for the South African economy contributing approximately 13% to the country’s Gross Domestic Product and 11% to employment (Department of Trade and Industry, 2019), of which women hold only one third of jobs within the manufacturing sector (Cowling, 2023b; Cowling, 2023c). The under-representation of women in the workplace in South Africa is due to the societal and cultural roles of caregiver being assigned to women, and the after-effects of Apartheid, where the majority of jobs were held by men, and girls and women of colour were not provided with or able to afford quality education. After close to 30 years of democracy and despite the Employment Equity Act 55 of 1998, the Commission for Gender Equality Act 39 of 1996 and the JSE listing requirements, women are still not equitably represented within the workplace, particularly within leadership positions (Statistics South Africa, 2018). The JSE listing requirements do not enforce any specific gender targets to which listed entities should adhere, however all listed entities are required to have a committee nominated by the board that oversees the adherence to a gender diversity policy in which targets for diversity at a board level are set. This committee has to report to the shareholders on progress made towards meeting the targets within the annual report (JSE, 2017). The lack of mandatory gender targets for executives of JSE listed entities could be the reason that only 15% of executive roles within all companies listed on the JSE are held by women (PWC, 2022).

In the United Kingdom manufacturing is also an important industry accounting for 9.4% of the total UK economic output (House of Commons Library, 2023), and similarly is an industry that is not fairly represented by women in that only 26% of manufacturing jobs are held by women (Clark, 2024). In the UK, less women study towards STEM

degrees than men do, and, of those who graduate in STEM, less women progress to work within the STEM sector than men do (Smith & White, 2019). It has also been found that “inequalities in career trajectories [are] greatest for female graduates from male-dominated subject disciplines, particularly engineering and computer science” (Smith & White, 2019, pg. 6). Women’s career progression in the UK is also impacted by societal norms and preconceptions. In a study on parental burnout and career ambition which consisted mainly of UK women participants (88.2%) it was found that women experience societal pressure to be perfect mothers which may not impact career ambition negatively but leads to lower work-family balance (Meeussen & Van Laar, 2018). Furthermore, due to the fact that the cost of early childcare in the UK is expensive, with limited hours of childcare being subsidized by the government for children from three to four years of age, many women do not return to work whilst their children are young due to financial reasons (De Henau, 2022), and due to the societal role of women as the primary caregiver to children (Jayachandran, 2021).

All organisations within the UK must comply with the Equality Act 2010 which aims to promote inclusion and diversity within the workplace in the UK. In addition to this, listed entities must comply with the Financial Conduct Authority rules where companies are expected to comply with set equity targets and if these are not met companies need to explain why. The current targets are (1) at least 40% women representation on the board; (2) at least one senior board position is held by a woman; and (3) at least one board member is from a minority ethnic background (Deloitte, 2022). In 2022 the UK reported that women held 39.1% seats of the boards of the FTSE 100, placing the UK in the second place world-wide at the FTSE 100 level (UK Government, 2022). However, women only held approximately 25% of executive committee roles, and very few CEO positions were filled by women (UK Government, 2022).

Workplace diversity results in a number of positive business outcomes (Ely & Thomas, 2020) and companies with diverse leadership teams are likely to financially outperform those that do not have diverse leadership (Hunt et al., 2020). However, increasing diversity alone cannot guarantee inclusion or increased profitability (Ely & Thomas, 2020). Globally, minority groups have experienced, and continue to experience, bias in the workplace and as such, diversity should be viewed by companies as a strategic moral initiative to sustainably improve equality, through creating organisational cultures that support diversity, inclusivity and learning (Ely & Thomas, 2020). If IP is

contributing to the lack of gender diversity, or the lack of diversity is contributing towards IP within the manufacturing sector in South Africa and the United Kingdom, it needs to be further understood so that solutions can be found.

1.4. Theoretical Need for the Study

The aim of this empirical study is to gain a deep understanding, using qualitative research methods, of the existence of IP and how it manifests itself throughout the career progression of women, with both an internal and external lens. Many popularist articles on IP have created the widely accepted view that IP is a women's issue. Within these forums, much advice has been provided to women who suffer from IP to 'fix' themselves, however little mention is given to the environment in which they work and the impact that this may have on feelings of IP (Feenstra et al., 2020; O'Connell & McKinnon, 2021). In addition limited practical proven solutions are provided to women that will help to change the status quo within organisations to make them more inclusive (Bravata et al., 2020). By gaining a deeper understanding of how IP is experienced throughout the career progression of women leaders in manufacturing, along with the internal and external factors that have contributed to these feelings, solutions could be suggested to organisations based on the findings, to attract and retain more women in the manufacturing sector. In addition, this study may identify further areas where future research could be carried out to add to the current body of knowledge on the imposter phenomenon within the manufacturing environment.

A systematic review, entitled "Prevalence, Predictors, and Treatment of Imposter Syndrome," of 62 studies conducted between 1990 and 2018, incorporating 14,161 participants was performed by Bravata et al. (2020). Of the 62 studies included, only 2 made use of semi-structured interviews with the participants being employed within the academic and medical fields (Bravata et al., 2020). As most previous studies have been based on quantitative research there is a lack of deep understanding of the experiences of women who report feelings associated with the imposter phenomenon. In addition, of the 62 studies, 43 included non-working participants, 19 included working participants, of which only 14 studies (23%) related to employed populations outside of the medical field, (Bravata et al., 2020) reflecting the need for additional studies to be conducted with specific reference to working environments, including the manufacturing sector. Six studies compared the prevalence of IP with the age of participants; however, results were inconclusive in that half reported a negative

relationship between age and IP, and half reported that IP still occurred regardless of age (Bravata et al., 2020). No qualitative studies could be found where IP is explored throughout the career progression of the participants themselves within a manufacturing context.

The majority of the systematic research was conducted within Canada and America (66%), with only two studies conducted in the UK, both including student populations within the medical field and no studies from South Africa were included (Bravata et al., 2020), although it has been reported that IP is “indeed prevalent among professionals in South Africa” (Nakazwe-Masiya et al., 2017, p. 49) and IP was found to be experienced by black women within the information technology sector in a study conducted in South Africa (Molatseli, 2022). No studies have focused primarily on the imposter phenomenon in women leaders in the manufacturing sector in South Africa or the United Kingdom.

This research aims to deeply understand the experiences of the imposter phenomenon in women manufacturing leaders in South Africa and the United Kingdom throughout their career progression. The attraction of women to the manufacturing sector in the UK and South Africa, and their retention therein, is a concern with women being under-represented in this sector. As imposter phenomenon has been cited to impact women’s career progression and is commonly referred to as an internal issue impacting women in business, this study aims to understand the intrapersonal and systemic factors that contribute to feelings of IP. In addition, the study aims to understand how IP manifests itself throughout the career progression of women in manufacturing within these two contexts. The study aims to therefore add to the body of research already conducted on the imposter phenomenon by answering the following research questions:

Research question one: How do South African and British women leaders in manufacturing experience imposter phenomenon throughout their career progression?

Research question two: What intrapersonal (internal) and systemic (external) factors have contributed to the experiences of IP throughout the career progression of South African and British women leaders in manufacturing?

Research question three: How does IP manifest throughout the career progression of women manufacturing leaders in South Africa and the United Kingdom?

In order to gain an in-depth understanding of the imposter phenomenon in relation to the research objectives set out in this Chapter, Chapter 2 reviews recent academic literature on IP as well as unique challenges impacting women in the workplace.

2. Chapter 2: Literature Review

2.1. Introduction

The need to further understand the experiences of the imposter phenomenon in women leaders in manufacturing in South Africa and the UK, the internal and external factors that contribute to these feelings and how IP manifests itself throughout the career progression of women leaders was discussed in Chapter 1. The lack of representation of women within the male-dominated manufacturing sector in both countries was highlighted. This may be as a result of the imposter phenomenon which has been identified to exist within minority groups and to impact career progression (Mullangi & Jagsi, 2019; Nadal et al., 2021).

The aim of this Chapter is to gain an in-depth understanding of the imposter phenomenon in relation to the research objectives set out within Section 1.4, through the review of existing literature. The Chapter begins with a definition of terms used throughout this paper, followed by a discussion, based on extant literature on whether the imposter phenomenon is an intrapersonal or systemic issue, a detailed review of both intrapersonal (internal) and systemic (external) factors that have been found to contribute to feelings of IP, how IP impacts career progression, and how it manifests. Lastly, specific factors impacting women in business and their career progression are discussed with reference to the current body of research. The Chapter is concluded with a summary of what is already known, what is not known and the opportunities for future research on the imposter phenomenon, within the context of this study. The figure below provides a view of the structure of the literature review.

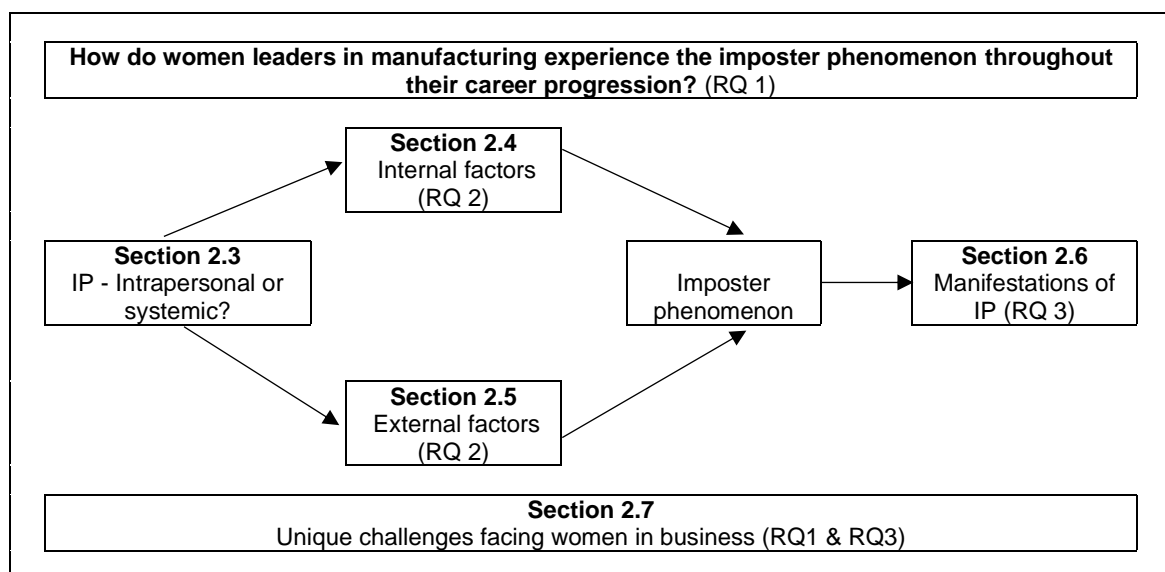


Figure 1 – Literature review conceptual framework (Author's own)

2.2. Definition of Terms and Abbreviations

The definition of terms and abbreviations frequently used throughout this paper have been set out below.

Developed country	“A highly industrialised country that has high per capita incomes, low birth rates and death rates, low population growth rates, and high levels of industrialisation and urbanisation” (Oxford University Press, n.d.a).
Developing country	“A low-income country with an economy that is largely based on agriculture, which may be going through the demographic transition, is often in the process of industrialization, and usually has few resources to spare to solve its own socio-economic and environmental problems” (Oxford University Press, n.d.b).
Career progression	the process of moving forward in work life. It may be moving into more senior positions, or to different roles within either the employee’s current organisation or within a new organisation. The movements may be as a result of experience, expertise, training, qualifications or the need or desire for varied work experiences.
Intrapersonal factors	Factors that are internal to the individual, such as personal feelings, background, upbringing, personal experiences etc.
IP	The imposter phenomenon.
IS	The imposter syndrome.
Manifestation	How IP “shows up” – for example, the impact of IP on working styles, behaviours, feelings, and the impact that it has on career progression.
RQ	Research question.
SA	South Africa / South African.

Self-efficacy	“Ability to achieve desired results. Perceived self-efficacy includes beliefs about one's ability or competence to bring about intended results” (Colman, 2015).
Systemic factors	Factors external to the individual themselves. For example, the environment, culture, people etc.
STEM	Science, technology, engineering, and mathematics.
STEMM	Science, technology, engineering, mathematics, and medicine.
UK	United Kingdom / British.

2.3. The Imposter Phenomenon – Intrapersonal or Systemic?

The imposter phenomenon was first named in a study conducted by Clance and Imes in 1978 involving 150 women who, although they had been successful within their areas of expertise, did not attribute their success to their own abilities and felt like intellectual frauds (Clance & Imes, 1978). Common symptoms included depression, anxiety, the lack of self-assurance and discontentment for not achieving the high expectations set by themselves (Clance & Imes, 1978). It was concluded that “certain early family dynamics and later introjection of societal sex-role stereotyping appear[ed] to contribute significantly to the development of the imposter phenomenon” (Clance & Imes, 1978, p. 241).

Since the initial study, the imposter phenomenon has also become synonymous with imposter syndrome, which, due to the reference to a medical abnormality, has created a further negative connotation (Tulshyan & Burey, 2021) which Mullangi and Jagasi (2019, p. 404) have contested in their argument that the “imposter syndrome is but a symptom; inequality is the disease”.

There are conflicting views on whether IP is an internal mental health issue, requiring the need for it to be addressed through career development programs, training and therapy. In addition there are debates as to whether it should be included within the Diagnostic and Statistical Manual of Mental Disorders, as suggested by Bravata et al. (2020), or whether this phenomenon is as a result of the wider, significant systemic issue impacting women in business (Andrews, 2020; Mullangi & Jagasi, 2019; Tulshyan & Burey, 2021). Tulshyan and Burey (2021, p. 3) state that “imposter syndrome directs

our view toward fixing women at work instead of fixing the places where women work” and suggest that workplaces need to create an inclusive, diverse work environment that embraces different leadership styles, and a supportive organisational culture that addresses issues of systemic bias (Tulshyan & Burey, 2021). This view is supported by Mullangi and Jagsi (2019), who further suggest that organisations recognise learnt-appropriate gendered behaviours displayed by women that could exacerbate feelings of IP and be detrimental to their career progression. A recent research project by Molatseli (2022) concluded that the existence of IP in black South African women working within the information and communications technology (ICT) sector was due to both the internal factors of feelings of inadequacy; the non-acceptance of praise and the fear of failure; and the external factors of the under-representation of black women leaders in the ICT sector as well as comments which discredited their abilities. The findings also demonstrated that certain internal factors were influenced by external factors, such as organisational culture, and it was found that the lack of role models at a leadership level impacted ambition and career progression (Molatseli, 2022). Meadhbh Murray et al. (2023) in their study on IP in marginalised STEM undergraduates in the United Kingdom also support the view that IP is not an individual issue, but that “imposter feelings occur in situated and relational ways in response to people, spaces and moments” (Meadhbh Murray et al., 2023, p. 761). Given the male-dominated nature of the manufacturing environment it is possible that women, as part of a minority group, will be more susceptible to experiencing feelings of IP.

In assessing the cause of the phenomenon, Nadal et al. (2021) have categorised IP as a form of internal oppression, where unfavourable societal biases are internalised from childhood and lead to feelings of incompetence and inadequacy. Using the theories of intersectionality, social identity and ecological systems, Nadal et al. have proposed a model to explain the existence of IP and stereotype threat, which incorporates the constructs of microaggression and internalised oppression (Nadal et al., 2021). Microaggression refers to subtle forms of bias against marginalised groups, which usually are not carried out with the intent to cause harm or offense, including microassaults such as teasing or name-calling; microinsults where discriminatory thoughts are subtly verbalised; and microvalidations where events impacting marginalised groups are downplayed by other groups (Nadal et al., 2021). Stereotype threat (ST) refers to the damaging impact that a negative stereotype regarding a particular group has on the performance of a member of said group (Nadal et al., 2021). The Nadal et al. model as set out in Figure 2, depicts how (1) negative messages about

identity (gender, race, sexual orientation etc.) are learnt as a child from both family and peers and from society; (2) these negative messages are internalised, and may be further reinforced through additional unfavourable messages that are received through microaggressions as well as through blatant discrimination and; (3) in early adulthood, ST and IP, or both, may present as a form of internalised oppression which could continue into other life phases. Nadal et al.'s model was corroborated by O'Connell and McKinnon's (2021) study that showed that participants who received negative biased comments, both implicit and explicit, about the ability of women in STEM from a young age and throughout their career, resulted in them questioning their ability and feeling a need to prove themselves as competent within the work environment. Given South Africa's history, where apartheid created a deep divide between society, race and gender, unfavourable messages about identity groups from society, relatives, as well as the prevalence of microaggressions and discrimination would be expected to exist. Therefore, in applying the Nadal et al. (2021) model, it is predicted that IP would exist within women leaders in South Africa. Furthermore, considering that the manufacturing sector within both countries is male-dominated and patriarchal in nature, it is also predicted that microaggressions and overt bias against women exist within both contexts and that this may result in feelings of the imposter phenomenon throughout women's career progression.

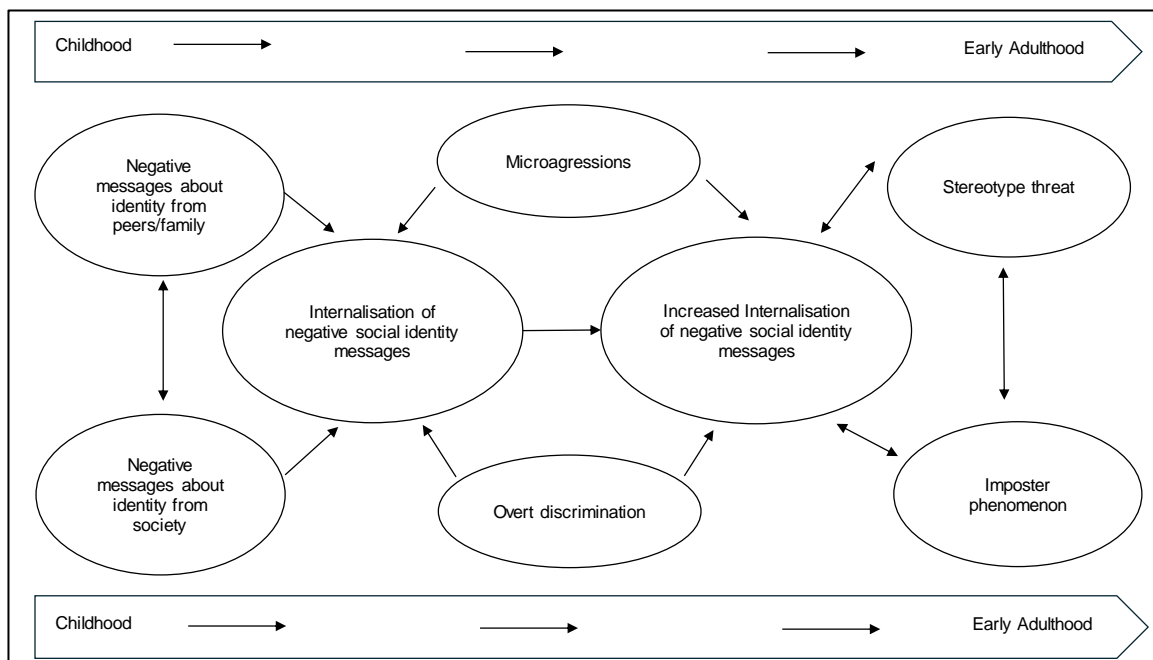


Figure 2 – Proposed model of relationships between microaggressions, internalised oppression, imposter phenomenon and stereotype threat (Nadal et al., 2021)

Although the Nadal et al. (2021) model only recognises that negative messages provided by family and peers during childhood would impact the prevalence of IP, family's praise and high levels of confidence in the child's abilities can lead to self-doubt when coupled with systemic issues, leading to incidences of IP particularly within marginalised groups. This effect is described in the ethnographic paper by Edwards (2019). Having experienced IP, Edwards suggests that the key to overcoming it is through reconceptualising one's occupation through one's own lens, supported by current facts, as opposed to the learnt societal view, including who should occupy such a position (Edwards, 2019). During the redefining process diversity aspects, such as gender, should be considered as well as an acceptance that failure is a normal part of life that should not be feared (Edwards, 2019). This process results in a new, more inclusive, and relevant perspective of who belongs within a profession and decreases the feeling of fraudulence and inadequacy (Edwards, 2019). These suggestions support the IP originating constructs within the Nadal et al. (2021) model (Figure 2). While the Nadal et al. model is helpful in highlighting the development of IP through formative years into adulthood, the current study focused on IP development post early adulthood. In understanding how women leaders in manufacturing experience IP throughout their careers, the intrapersonal experiences inherent from their early years are recognised as being influenced by the systemic factors in the environments in which they work. In the next two sections, the specific internal and external factors that have been found to impact the feelings associated with IP will be discussed.

2.4. Internal Factors

This section will discuss the internal factors that have been identified within existing literature that could have an impact on IP. Many of these factors are also influenced by other factors such as social and environmental factors which are difficult to isolate.

2.4.1. Personal Background

In the initial IP study by Clance and Imes (1978), two early family dynamic scenarios were found to be relevant amongst participants, (1) the girl child was earmarked as the more emotional and social member of the family as opposed to another close family member who was perceived to be the intelligent one. The girl child attempted to impress her family and achieved academically, however the perception of intelligence within the family was still linked to the other family member, introducing the feelings of self-doubt and IP or, (2) the girl child was overly praised by her family, was led to believe that she was intellectually superior to other children and that she was capable

of achieving anything. When the girl child experienced challenges, she distrusted her parents, lost self-confidence, and experienced the feelings of an imposter (Clance & Imes, 1978). In her autoethnography, Edwards (2019) relayed how her feelings of self-doubt began in her childhood where she dismissed praise for success from her family as being as a result of hard work as opposed to accepting her intellectual ability. She argues that this self-doubt was not an internal issue but was as a result of systemic factors relating to her being part of a marginalised group with few role models to emulate (Edwards, 2019). In addition, findings from eleven articles that focused on students within minority groups demonstrated that IP is prevalent within African American, Asian American and Latino/a American college students (Bravata et al., 2020). Three of these studies found that “imposter feelings are significantly negatively correlated with psychological well-being and positively correlated with depression and anxiety” (Bravata et al., 2020. p. 1254), with two studies citing the lack of financial support, having to work part-time, being the first family member to attend a higher education facility and experiencing racial bias as factors that may increase the stress experienced by minority students (Bravata et al., 2020). Highly competitive environments exacerbate feelings of IP, which can be up to three times more for first generation graduates (Canning et al., 2020). This could be impacted by historical institutional and societal factors that create feelings of not belonging within members of minority groups (Collins, 2018; Edwards, 2019; Feenstra et al., 2020).

2.4.2. Self-doubt, lack of Self-esteem and Self-confidence

Those who experience IP often feel incompetent and unworthy of their achievements, despite proven success (Clance & Imes, 1978), where “fear and fraudulence block out lived experiences of pride and competence in favour of a narrative that perpetuates failure and disgrace” (DeCandia Vitoria, 2021, p. 207). Schubert and Bowker (2019) investigated the relationship between imposter phenomenon, self-esteem level (high or low) and self-esteem instability, which refers to the level of consistency of feelings of self-esteem over time or within different scenarios, within a population of 304 students. It was found that participants with low self-esteem displayed high IP scores, and that those with high self-esteem did not, however, they concluded that “people with low self-esteem and unstable high self-esteem are more predisposed toward having impostor feelings than people with stable high self-esteem” (Schubert & Bowker, 2019, p. 752). In addition, Cokley et al. (2018) concluded that “the mediating influence of low self-esteem explains the potential for individuals to experience

imposterism when they perceive wide disparities between their achievements and their perfectionistic standards” (Cokley et al., 2018, p. 295).

In a study conducted with physicians it was found that feelings of self-doubt impacted them in different ways throughout their career progression, in that in their early career stages self-doubt stemmed from a lack of confidence in their own knowledge, whereas in later years, it resulted from a feeling that they were not as good as others perceived them to be (LaDonna et al., 2018). In addition, self-doubt can be pervasive and can impact career progression (Edwards, 2019). Feelings of self-doubt can occur in both good and poor performers and certain circumstances, such as being promoted, been given additional responsibilities and role change may result in feelings of self-doubt re-occurring (LaDonna et al., 2018). Furthermore, it was noted that “perceived competence may not rebound once they have achieved actual competence in their new roles” (LaDonna et al., 2018, p. 766) which aligns with the initial study on IP where it was noted that successes were not effective to halt feelings of self-doubt (Clance & Imes, 1978) which may be due to those who suffer from IP evaluating their performance more negatively compared to those who do not suffer from IP (Gadsby & Hohwy, 2023a; Gadsby & Hohwy, 2023b). Over and above this, those with IP discount their own abilities yet overestimate the potential of others (Chakraverty, 2019; Levant et al., 2020) leading to enhanced feelings of inadequacy. Lack of acknowledgement, and disregard for one’s opinions, can also result in feelings of isolation and self-doubt (Arleo et al., 2021) and “ will erode confidence and fuel a self-fulfilling cycle that is well suited to generate and deepen Imposter Syndrome” (Arleo et al., 2021, p. 172) whereas in instances of high social support and self-worth, feelings of IP reduce (Bravata et al., 2020).

2.4.3. Self-efficacy

Self-efficacy refers to the belief a person has in themselves to be successful when carrying out a task. A recent study found significant differences in levels of self-efficacy between male and female STEM students where females who received A symbols had the same level of self-efficacy as males who had obtained C symbols (Marshman et al., 2018). The disparity in the perception of competence within the female participants may be as a result of gendered stereotypes and societal views regarding women in STEM, which may result in women feeling that they need to work harder to prove themselves and may impact women’s career progression within STEM (Marshman et

al., 2018). Self-efficacy has also been negatively correlated with the fear of failure (Nelson et al., 2019) and shown to predict imposter fears (Kumar et al., 2022; Tao & Gloria, 2019). Coaching has been shown to increase self-efficacy and reduce the fear of failure and negative feedback within young employees (Zanchetta et al., 2020), and shown to assist more senior employees in addressing feelings of IP (Kuna, 2019; Magro, 2022).

As the manufacturing sector consists largely of employees with STEM backgrounds, it is opined that women manufacturing leaders may display low levels of self-efficacy and may experience feelings of IP. These feelings may reduce through coaching. This study aims to understand internal and external factors, such as self-efficacy and coaching, respectively, in more detail throughout the career progression of the participants.

2.4.4. Perfectionism

Perfectionism is described by Hewitt and Flett, the developers of the Multidimensional Perfection Scale, in Thomas and Bigatti (2020, p. 202) as “a set of characteristics whereby the perfectionist sets and attempts to achieve unrealistic standards, focuses on and over-generalises failures, carries out stringent self-evaluation, and engages in an all-or-nothing mentality that classifies each outcome as either a complete success or complete failure”. A student population study with over 600 participants in the United States of America found imposter phenomenon to be positively correlated with perfectionism and ethical climate (Grubb III & Grubb, 2021). Their findings included both adaptive and maladaptive types of perfectionism, with those displaying maladaptive tendencies, along with IP, allowing their fears of mistakes to impact their perceptions of how others see them as well as how they perceive themselves (Grubb III & Grubb, 2021). These findings were corroborated by a study conducted by Pannhausen et al. (2020) that found that high instances of maladaptive perfectionistic qualities such as the self-doubting of abilities and performance, the fear of making mistakes, and the assumed high standards imposed by others, existed within participants who also displayed characteristics of IP. The relationship between IP, self-efficacy, perfectionism and happiness was assessed in a study by Pákozdy et al. (2023) who concurred that IP is positively associated with perfectionism and also found that IP is negatively correlated with both happiness and self-efficacy in both sexes. However, women scored higher on both perfectionism and IP, raising the question as

to whether gender stereotypes play a role in the prevalence of IP within student populations (Pákozdy et al., 2023). Another study conducted on 169 Russian college students to understand the relationship between IP, perfectionism and psychological distress concluded that in the absence of IP, the positive relationship between perfectionist discrepancy and depression, did not exist. This supports the assertion that by addressing IP, psychological distress caused by perfectionism could be curbed (Wang et al., 2019). The Thomas and Bigatti (2020) literature review of perfectionism, imposter phenomenon and mental health amongst medical students, revealed that (1) perfectionism exists within medical students at similar levels to other student groups; (2) the existence of maladaptive perfectionism was found to be lower than other student groups; (3) the prevalence of IP was between 22.5% and 46.6%, with a higher prevalence being reported within female populations at between 41% to 52% as opposed to 23.7% to 48% in males. Perfectionism and IP were found to negatively impact mental health with the medical environment being highlighted as a factor that could cause or reduce these impacts. The Shanafelt et al. (2022) study with 3116 participants within the medical industry (physicians) found that 23% of participants experienced frequent or intense feelings of IP with 36% experiencing moderate feelings of IP. It was reported that IP was more prevalent in women, junior employees and within Veterans Health Administration and academic settings (Shanafelt et al., 2022). The findings also reported that feelings of IP were “associated with increased rates of burnout, lower levels of professional fulfilment, and a higher prevalence of suicidal ideation” (Shanafelt et al., 2022, p. 1991). They concluded that there is a need to address systemic factors within the medical environment to reduce the occurrence of IP and related internal manifestations (Shanafelt et al., 2022).

Given the higher prevalence of perfectionism in women and IP being common in women, women leaders within the manufacturing sector may also display maladaptive perfectionist tendencies that would increase the occurrence of IP, especially in light of the highly pressurised and competitive nature of the STEM environment. In addition, as IP has an inverse correlation with happiness, self-efficacy and job satisfaction, the career progression of women in manufacturing could also be impacted negatively by IP if not addressed.

Grubb III and Grubb (2021) suggest that tertiary education environments should place more emphasis on students' progress as opposed to their mistakes in order to reduce their need to strive for perfectionism which would increase the feelings of IP. In support

of this, Pákozdy et al. (2023) suggest the need for a review of both structural and cultural barriers within institutions which may be fuelling feelings of IP amongst students. With respect to internal factors, DeCandia Vitoria's (2021) case study found that narrative therapy was effective in supporting neuroplasticity to reduce feelings of IP. Another recent preliminary study with a small sample has shown positive results in reducing symptoms of IP through cognitive therapy in a workshop setting (Hutchins & Flores, 2021). These studies support the use of "work-based intervention[s] to help employees disrupt distorted thinking patterns associated with experiencing imposter tendencies" (Hutchins & Flores, 2021, p. 33).

2.4.5. Hard Work and High Standards

Hutchins et al. (2018) identified that imposters "will often engage in maladaptive behaviours (e.g., overworking) in an attempt to compensate for any personally perceived weakness, often resulting in negative psychological and work outcomes" (Hutchins et al., 2018, p. 33). It has also been noted that those with IP are driven to achieve due to a "strong desire to look smart and be the very best among their peers" (Schubert & Bowker, 2019, p. 749).

Contrary to most studies that view IP as a negative issue, Gadsby (2022) purports that it could support the "motivational utility provided by negative self-appraisal" (Gadsby, 2022, p. 258). Gadsby further explains that feelings of inadequacy with respect to ability experienced by those with IP may motivate them to achieve where (1) there is a strong will to succeed; (2) there is the belief that the task requires significant effort and; (3) there is a belief that ability can be replaced with effort. This self-deceptive IP would, unconsciously, present itself within demanding environments that lack predictable and known steps to succeed (Gadsby, 2022). Gadsby's view is corroborated by findings within academia where it was found that "individuals with high research self-efficacy and moderate to frequent levels of IP were the most productive scholars" (Wester et al., 2020).

In contrast to many studies calling for the treatment of IP, Gadsby views treatment as unnecessary due to the motivational benefit that it provides, and supports a change in dialogue about IP to a more positive one as "being a hard worker who does not rely on natural ability to succeed is an identity that one ought to embrace, rather than one of which to be ashamed" (Gadsby, 2022, p. 259). In understanding IP in the South African and British manufacturing context, we aim to understand how IP manifests itself

throughout career progression. There could be times where IP positively contributes to career progression.

2.4.6. Attribution and Celebration of Success

In the initial study on IP, societal sex-role stereotyping was opined to have developed within female participants who attributed their success to temporary factors such as luck or effort as opposed to their own ability, as well as the societal gender biases, that supported women not being as intelligent or as capable as men (Clance & Imes, 1978). Later studies have also found that those who experience IP attribute their achievements to others and not to their own abilities (Chakraverty, 2019) and that locus of control, being the feeling that successes are as a consequence of external factors such as luck or the actions of others, is a predictor of feelings of IP (Kumar et al., 2022). Gender and ethnicity have also been shown to increase feelings of IP in STEM graduates who questioned whether their achievements were deserved and linked to their capabilities, or, whether they were due to gender or race quotas, or the need for institutions to be seen as equitable and inclusive (Chakraverty, 2019).

In addition, those with IP often discount compliments about their achievements, do not celebrate successes, focus on their improvement areas (Edwards, 2019), fear failure as well as success, and remember failures over successes (Levant et al., 2020). Edwards (2019) explained that she “regularly felt burnt out because [she] did not find, or rather make, the time to commend [her]self for a job well done. Taking a moment to recess and celebrate allows you to silence self-doubt, appreciate your talents and infuse joy in your journey” (Edwards, 2019, p. 33).

2.4.7. Remedies for IP

A number of comorbid conditions associated with IP such as anxiety, depression and low self-esteem were noted within the Bravata et al. (2020) systematic review. However, no articles within the review provided any solutions or treatments to address these or the feelings of IP, although much advice exists in lay literature on IP (Bravata et al., 2020). Bravata et al. (2020) suggest that (1) an evaluation of the use of cognitive behavioural therapy to address IP should be carried out amongst various professions; (2) IP should be considered for inclusion in the Manual of Mental Disorders so that patients can seek help from behavioural health providers; (3) employers and health care providers must be made aware that IP impacts both men and women so that it can be addressed appropriately; (4) IP tests should be reviewed for relevance to

minority groups; (5) further studies should be done to assess whether age does impact the existence of feelings of IP within employed populations; (6) those who experience IP should be screened and treated for comorbidities and should attend group therapy sessions which may assist to lessen the feelings of IP; and lastly that (7) employers and faculty members understand the prevalence of IP and actively address it through learning and development sessions, resilience training and fostering an environment and culture where “mistakes are not interpreted as failures” (Bravata et al., 2020, p. 1272) and where employee successes are celebrated.

The majority of these suggestions indicate the need to change or treat the person experiencing IP, as it is seen primarily as an internal or psychological issue. The impact of external factors, such as the organisational culture, work environment and leaders within the organisation have not been taken into account in assessing where feelings of IP stem from, and therefore no suggestions to significantly address these external factors are included within the review. Arleo et al. (2021) supports this view in that “while much attention has been directed towards the personal coping and adjustment strategies of those who suffer from Imposter Syndrome, there has been much less focus on the systemic external drivers of Imposter Syndrome in the work environment” (Arleo et al., 2021, p. 172). This study aims to understand the causes of imposter phenomenon through an analysis of both internal and external factors that have contributed to feelings of IP throughout the career progression of women manufacturing leaders so that solutions can be sought to reduce IP in future. External factors are discussed in the next section.

2.5. External Factors

Only in recent years have studies been carried out to understand the systemic factors, as opposed to the psychological factors, which could have a bearing on feelings of IP within the workplace. This section will discuss the external issues that have been found to influence IP within existing literature. These external factors contributing to IP are influenced by intrapersonal factors and are intricately linked to each other.

2.5.1. Organisational Culture and Environment

In order to understand the root cause of IP, Feenstra et al. (2020) in their perspectives piece, suggest over and above individual internal factors, examining the three constructs of (1) societal factors, as the societal group to which an individual belongs and how these groups are perceived by others in society will contribute to feelings of

IP; (2) institutional factors, such as organisational structures or historic gendered roles, which may make minority groups feel that they do not belong; and (3) interpersonal factors where the treatment by others, particularly in the workplace, may result in feelings of exclusion, self-doubt and not being valued by others. These constructs are particularly relevant to women leaders in STEM fields, where organisational structures are largely still patriarchal (Makarem & Wang, 2020) in nature, with most STEM roles historically having been performed by men, resulting in few women role models, and women being a minority in the workplace (Makarem & Wang, 2020). The lack of role models in terms of gender and ethnicity within the medical industry was highlighted by Arleo et al. (2021) as impacting an individual's sense of belonging and belief that they can progress in their careers, and suggested that "diversity in leadership roles is critical for us to tackle IS at a systemic level" (Arleo et al., 2021, p. 171). Feelings of IP, common amongst minority groups and junior employees, can be further exacerbated by the lack of acknowledgement of their opinions by others (interpersonal factors) which leads to a reduction in self-confidence and perpetuates feelings of IP (Arleo et al., 2021).

Slank (2019) further suggests that environments which perpetuate the occurrence of IP should be assessed and understood, as opposed to previous studies which focused primarily on understanding the internal factors that enhance the feelings of IP. Certain business environments and organisational cultures, such as those with 'genius cultures,' where intelligence is seen as being fixed, could result in employees concealing their hard work and effort in order to prove their intelligence, which could exacerbate feelings of fraudulence and IP (Slank, 2019). Furthermore, it was found that within environments with a high perceived level of competition, STEM graduates demonstrated higher levels of IP, with first generation students being impacted two to three times more than those students who were not first generation students (Canning et al., 2020) highlighting that both environmental and internal factors contribute to feelings of IP (Feenstra et al., 2020; Kumar et al., 2022). This was further corroborated through a study by Cohen and McConnell (2019) who found that having high quality mentors and feeling less isolated decreased feelings of IP, and that increased competition within the environment increased IP. It was concluded that "rather stemming from psychological and personality factors alone, IP is also sensitive to students' proximate social relationships with mentors and peers" (Cohen & McConnell, 2019, p. 469).

A recent large quantitative study in New Zealand, with 1,042 participants, that focused on the impact that varied organisations have on the mental health of employees and the prevalence of IP, found that almost 50% of participants reported frequent or intense feelings of IP (Haar & de Jong, 2024). The findings concluded that perceived organisational support reduced the mental health issues of job anxiety and job depression, and also significantly interacted with feelings of IP, supporting the view that the environment or context does have a role to play in feelings of IP (Haar & de Jong, 2024). Furthermore, where organisations are perceived to support employees, the intensity of the proportional relationship between IP and self-reported conflict in managing work/life balance experienced by the employees was reduced (Bravata et al., 2020). Haar and de Jong (2024) suggest that due to IP being common in the workplace, employees and companies must not view it as a negative issue, but should ensure that it is given sufficient attention and that organisations should assist in negating the negative effects of IP on their employees through improving perceived organisational support by creating supportive work environments, cultures and leadership styles.

2.5.2. Gender and age

When reflecting on the predictors of IP, Bravata et al. (2020) reported that out of the 33 studies that reviewed the prevalence of IP from a gender perspective, 16 studies (48%) concluded that women experienced statistically significantly higher incidences of feelings of IP than men, as opposed to the 17 remaining studies (52%) which reported no difference in IP prevalence due to gender. In addition, Kumar et al. (2022) found that the prevalence of IP was not impacted by gender, although more recent studies showed that IP is more prominent in women (Kogan et al., 2020; Medline et al., 2022; Shanafelt et al., 2022). Taking into consideration the results of previous studies, IP is common in women and therefore it is anticipated that the participants in this study will display characteristics synonymous with IP.

When assessing prevalence of IP with respect to age, Bravata et al. (2020) found that there were also inconsistent findings, in that of the six studies that reviewed this construct, two studies (33%) found that feelings of IP decreased with age, three (50%) found that age had no bearing on feelings of IP and one study (17%) concluded that although age had a negative relationship with feelings of IP in working professionals, this was not the case within the population of undergraduate participants (Bravata et al., 2020). More recent studies also found that IP decreased with age (Haar & de Jong,

2024; Kogan et al., 2020; Medline et al., 2022). Overall, it appears that in most cases, previous studies have concluded that IP decreases with age, or tends to remain constant, however, previous studies have not assessed whether IP symptoms decrease with age or experience within the same employed population (Bravata et al., 2020).

2.6. Manifestations of IP

Feelings associated with the imposter phenomenon, for example, self-doubt, inadequacy and fraudulence (Bravata et al., 2020; Clance & Imes, 1978), can result in unique behaviours emerging or manifesting. Those who suffer from IP may change their working styles, behaviours and personalities to disguise their feelings of fraudulence. In addition, IP may manifest within the careers of women through a lack of, or a slower, career progression than those who do not suffer from IP, as a result of feelings or behaviours that emerge such as low self-confidence and burnout. Extant literature on the manifestations of IP will be discussed within this section.

2.6.1. IP and Career Progression

Within employed populations, it was found that IP may result in “increased levels of stress, burnout, and decreased job performance and satisfaction over time” (Bravata et al., 2020, p. 1270). In addition, career progression can be impacted by avoidant coping strategies used by those who display high levels of IP, which tend to increase emotional exhaustion and lead to low job satisfaction (Hutchins et al., 2018) and these, “persistent imposter concerns not only harm their well-being but also limit their professional contributions” (Hutchins et al., 2018, p. 45). Furthermore, the relationship between assertiveness, seen as a necessary characteristic amongst business leaders, and IP was assessed in a South African study by Nakazwe-Masiya et al. (2017). The study found that IP did exist amongst South African professionals with no significant findings in prevalence of IP according to gender or race. However, the negative relationship between assertiveness and IP was found to be significant only within female professionals (Nakazwe-Masiya et al., 2017).

Aparna and Menon (2022), who set out that “leaders are one of the most vulnerable groups for falling prey to imposter syndrome” (Aparna & Menon, 2022, p. 855), have developed a conceptual model that links the antecedents of IP, the consequences thereof, and the moderating factors to sustainable leader behaviours. The three key leader behaviours included in the model were, managerial decision making, innovative

work behaviour and organisational citizenship behaviour. These were linked to the negative IP traits of low self-efficacy, fear of failure and perceived fraudulence, respectively (Aparna & Menon, 2022). Without intervention, it is possible that these traits associated with IP could negatively impact the achievement of the leader behaviours and impact the leader’s success and career progression. Although Aparna and Menon (2022) accept that more research is required on understanding the organisational factors that could impact the occurrence of IP in leaders, they suggest that interventions such as enhanced leader-member exchange and mindfulness training could reduce the impact of IP on a leader’s role from an intrapersonal perspective.

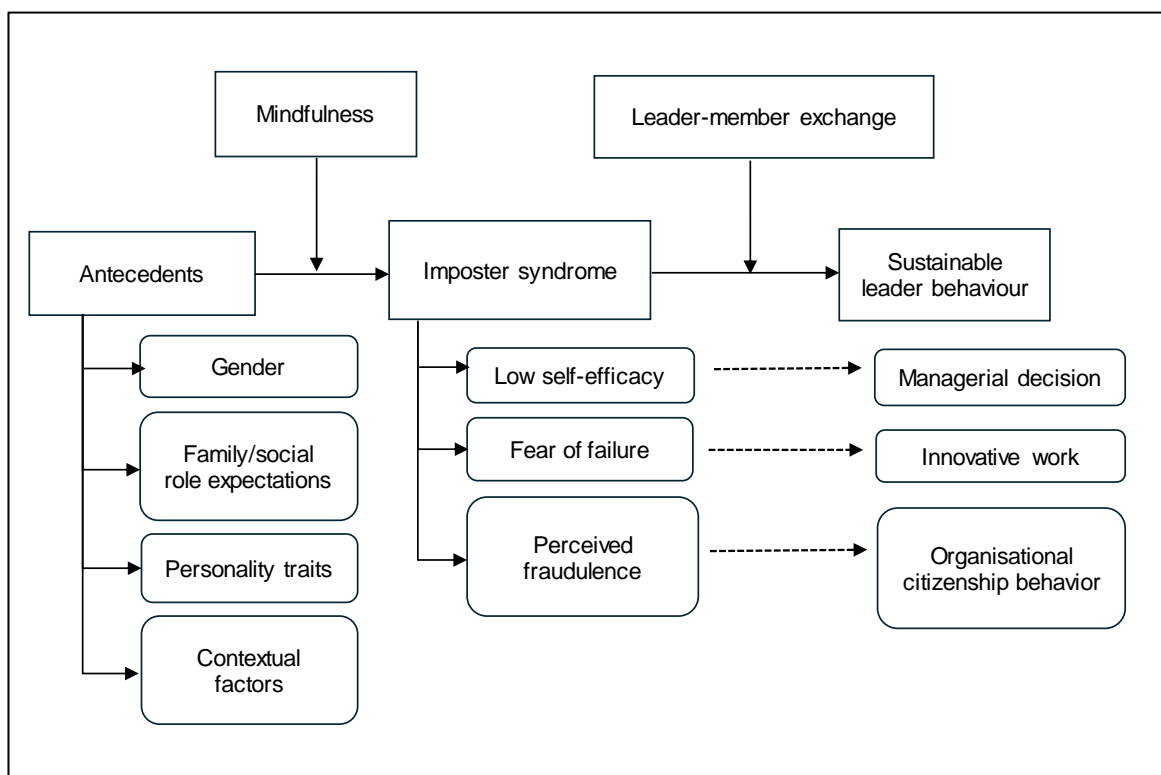


Figure 3 - Conceptual model of antecedents, consequences and moderating factors on sustainable leader behaviours (Aparna & Menon, 2022)

Studies performed in a developing country context, namely Sri Lanka, found that being in a role for a short period of time (early career stage) and being new to the company (low tenure) induced feelings of IP in employees (Kumar et al., 2022). This was supported by the findings of Kogan et al. (2020), who found that new practitioners within the veterinary field were impacted more in the workplace by feelings of IP than those with a longer tenure. In addition, being promoted into a role where, although there is proven occupational success, not having formally studied or received a

qualification linked to the seniority of the role can result in self-doubt and feelings of IP (Kuna, 2019). Kuna (2019) found that the reasons executives sought executive coaching through management consultants was to provide emotional support to deal with their experiences of executive loneliness and IP. Executive coaching was found to be effective in reducing emotional distress associated with these two interrelated constructs (Kuna, 2019). The effectiveness of seeking external support was corroborated by Gardner et al. (2019) who found that “social support from outside their peer group had a negative relationship with perceived imposterism, while social support from inside their peer group has a positive relationship with perceived imposterism” (Gardner et al., 2019, p. 15).

A study by Hudson and González-Gómez (2021) using working participants from developed countries, namely, the UK, the United States of America and Germany performed four different studies to test their 7 hypotheses linked to IP, work outcomes and careers. IP resulted in feelings of shame when participants attributed failure to themselves, however this was not the case when the failure was attributed to external factors (Hudson & González-Gómez, 2021). An interesting finding was that the exposure of failure to others did not increase the feelings of IP, however there was a positive correlation between shame and IP (Hudson & González-Gómez, 2021). Creativity, which was found to have a negative indirect relationship with IP, was further impacted by work environments that were very rigid and structured (Hudson & González-Gómez, 2021). It was also found that IP resulted in the participants feeling that they were less likely to obtain a job in another organisation, but it did not impact their perceived employability in their current role, which may be as a result of proved abilities and performance within the comfort of their current roles. IP was also found to have had a negative impact on career success in terms of performance reviews and promotions throughout the careers of participants (Hudson & González-Gómez, 2021). Overall, the study concluded that “IP and its expression of shame deplete the personal resources necessary to perform effectively at work, and to achieve career success” (Hudson & González-Gómez, 2021, p. 13).

As IP can affect career progression (Aparna & Menon, 2022; Bravata et al., 2020; Molatseli, 2022) and career success (Hudson & González-Gómez, 2021) in leaders (Aparna & Menon, 2022), women and minority groups (Molatseli, 2022) and impacts these groups’ assertiveness (Nakazwe-Masiya et al., 2017), IP could be impacting the progression of women leaders in manufacturing.

2.6.2. Manifested Behaviours

It is difficult to assess whether the behaviours of those with IP existed before as an internal factor which manifested into IP, or if IP has brought about certain feelings which manifest into behaviours. However, the initial Clance and Imes (1978) study identified four behaviours that perpetuated IP amongst women “imposters” being, (1) hard work and conscientiousness, to disguise their self-perceived unintelligence; (2) restraining from voicing their own opinions and rather supporting the opinions of others even when in contradiction to their own; (3) using their intuition and personable nature to gain the support and approval of others and; (4) avoiding success and the acceptance of their intelligence in order to align with societal norms for women. In order to address these behaviours, the study suggested an integrated or multimodal therapy approach including group therapy and the reframing of self-belief through role-play, maintaining a record of positive feedback received, and encouraging authenticity and relationships that support it.

Recent studies have revealed that medical students with IP amended their working styles to appear confident and more competent when being observed by a senior (LaDonna et al., 2018). This finding is supported by Edwards (2019) who asserts that IP and stereotype threat which result in feelings of not belonging and the need to prove oneself, respectively, can lead to changes in behaviours where those affected “mask, camouflage, or alter their being to be accepted by the majoritarian group” (Edwards, 2019, p. 20). It is anticipated that, due to women being a minority group within the manufacturing sector, and being exposed to gender bias and stereotyping, both IP and stereotype threat may occur which could result in them changing their working styles and personalities within the workplace. The unique challenges impacting women throughout their career progression, which could further exacerbate the manifestation of the behaviours mentioned within this section, are discussed below in section 2.7.

2.7. Unique Challenges within the Career Progression of Women

Social identity theory recognises that identity is linked to being a member of a social group, over and above personal identities which are focused on the individuals themselves (Kim et al., 2018). The concept of a STEM identity refers to individuals who feel that they belong within the STEM community and that others within this group accept them as being part of the group (Kim et al., 2018). As STEM fields have been historically white male-dominated and stereotypes and bias with respect to women in STEM have discouraged young girls and women from developing a STEM identity, it

follows that a lower number of women become STEM graduates and pursue STEM careers (Collins, 2018; Kim et al., 2018). Kim et al. (2018) suggests that to curb the marginalisation of women in STEM, girls must be supported during school to pursue STEM subjects and that the perceptions of those who belong within the STEM environment must be changed to be more inclusive of women.

Although gender diversity in the workplace has improved, women's representation declines as the seniority of roles increases, referred to as the glass ceiling effect (Spencer et al., 2019; Taparia & Lenka, 2022). Women face distinct challenges to progress in the workplace in that effective leadership styles are still considered to be those that display masculine traits and organisational cultures are still based on leadership styles rooted in patriarchy (Madsen & Andrade, 2018; Spencer et al., 2019; Tulshyan & Burey, 2021). Tabassum and Nyak (2021) conclude that "individual factors, family factors, socio-cultural factors and organisational factors shape stereotyped thinking in human beings thereby perpetuating gender discrimination and obstructing the career progressions of women in organisations" (Tabassum & Nyak, 2021, p. 203). This is further supported by Kossek and Buzzanell (2018) who opine that "to enhance women's career equality, such implicit stereotypes that shape women's own beliefs of role expectations and how others value and perceive these roles as gender role congruent or not is critical to countervail stereotyping that is impeding women's advancement" (Kozzek & Buzzanell, 2018, p. 819). These stereotyped views of male roles and patriarchal work environments can lead to women adapting their working styles to be more masculine in nature or becoming less sensitive to criticism in the workplace in order to be included within the organisation and to progress in their careers (O'Connell & McKinnon, 2021). Edwards (2019) explains that the root cause of this behaviour is due to women comparing themselves to those who they deem fit to hold certain roles, and since they are inherently different as minorities they then feel "like counterfeits" (Edwards, 2019, p. 19), prompting the development of behaviours to meet the expectations of others.

A systematic literature review of 28 articles by Makarem and Wang (2020) on the career experiences of women within STEM fields identified the most prevalent challenges faced by women within these historically male-dominated environments being (1) gendered organisational cultures where women are discriminated against in terms of career progression, particularly in technical roles, (2) gender-role stereotyping

where women are perceived to be less technically competent, are disadvantaged due to the assumption that personal commitments would be prioritised over work commitments, accepted ways of working in certain fields are more suited to a male lifestyle and the language used in these environments can be masculine and exclusionary in nature, (3) struggle with work-life balance and (4) the lack of mentors or role models. Challenges with respect to work-life balance in STEM are further highlighted by an eight-year longitudinal study conducted in the United States on the impact on the career journeys amongst STEM professionals after having children. This study found that new parents working in STEM environments are more likely to exit a STEM career than their peers who were not parents, with 43% of women and 23% of male STEM professional participants having left STEM environments after the birth of their first child (Cech & Blair-Loy, 2019), contributing further to the disparity between female and male representation within STEM. It has also been shown that where women work in a highly male-dominated technical environment, they experience high levels of gender identity threat, which leads to a lack of work engagement and career confidence (Van Veelen et al., 2019).

The Makarem and Wang (2020) review identified three common coping strategies employed by women in STEM being (1) conforming, where women accept the existing organisational structures, (2) impression management, where women deliberately avoid behaving or appearing feminine at work, may portray a more masculine working style, may avoid other women in the workplace and focus on being known for their technical ability and high standard of work in order to align with the patriarchal culture and, (3) proactive strategies which include either pursuing an entrepreneurial venture to remove themselves from male-dominated environments, or pushing back in instances of discrimination or bias in the workplace (Makarem & Wang, 2020).

The Hing et al. (2023) Model of Cumulative Gender Inequities in the Workplace (Figure 4), created through the review of subject literature, describes four levels that impact gender inequities during the employee life cycle, being (1) the individual level, where gender inequities accumulate during the employee life cycle from the selection process through to exit; (2) the interpersonal level which refers to the way in which people interact with each other based on gender bias; (3) the organisational level, which refers to organisational policies and structures put in place in order to reduce gender inequity in the workplace and; (4) at the societal level which refers to cultural and

macroeconomic factors. The blocks moving from left to right in the middle of the circle depict the employee life cycle – all of which are impacted by gender bias and inequities (Hing et al., 2023). For example, (1) at the recruitment stage, women may be excluded during the screening process due to stereotyped views about job-fit, and during evaluation, women who display more feminine characteristics will be viewed as less competent than men when applying for a job requiring high skills within a masculine environment; (2) performance appraisals are impacted by discrimination against women; (3) promotions and leadership are impacted by women not being exposed to the same opportunities as men, and being assessed against higher standards than men (Hing et al., 2023). The O’Connell and McKinnon (2021) study also highlighted contradictions between the assessment criteria between men and women and opined that if “women are not getting judged on the same equal playing field, and inherent bias is not taken into account in promotion decisions, then they are at an automatic disadvantage to advancement in their career” (O’Connell & McKinnon, 2021, p. 16). Over and above this, women’s careers are more significantly impacted by sexual harassment within the workplace, and the demands placed on women in terms of family responsibilities, than men’s careers are (Hing et al., 2023). In addition, after becoming mothers, women in STEM feel that they need to “work harder than their male colleagues to gain the same recognition” (O’Connell & McKinnon, 2021).

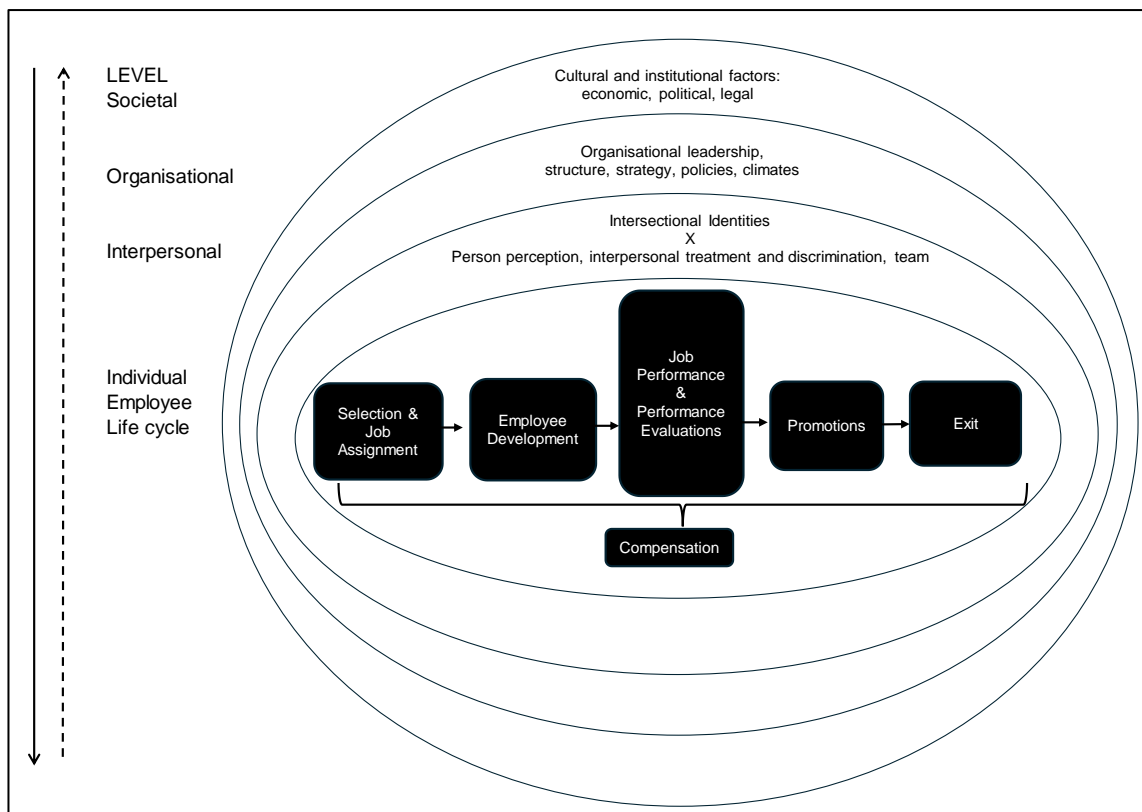


Figure 4 - Model of cumulative gender inequities in the workplace (Hing et al., 2023)

The Hing et al. (2023) model is also supported by Ammerman and Groysberg (2021), who identified seven inequities requiring attention in order to ‘close the gender gap’ being, “attracting candidates; hiring employees; integrating them into the organisation; developing them; assessing performance; managing compensation and promotion and retaining good performers” (Ammerman & Groysberg, 2021, p. 126).

In South Africa specifically, women leaders may also experience an inequity of “empowered powerlessness” as described by April and Singh (2018). This term was first used to describe how African Black executives were placed in senior positions and on boards without the corresponding authority which was retained by predominantly White boards of directors (April & Singh, 2018). Empowered powerlessness was explored through a qualitative study by April and Singh (2018), that included women leaders in manufacturing in South Africa. The participants reported feelings of inferiority, isolation, disrespect and a lack of support by their organisations to overcome these feelings (April & Singh, 2018).

Women experience a number of unique challenges throughout their careers, especially within highly technical and competitive environments such as STEM, which are also highly male-dominated and patriarchal in nature. Gender stereotypes and bias continue to exist in the workplace and within HR practices which further perpetuate the lack of progression of women in business. As women are exposed to different biases and external factors within different work environments which shape their experiences, the impact of IP on their career progression will be analysed through their stories of their past and present careers and their feelings regarding their future career progression.

2.8. Conclusion

It is considered, given the number of societal challenges to be overcome by women, relating to gender bias and stereotyping displayed through microaggressions and blatant discrimination, that internal oppression (Nadal et al., 2021) levels would exist in women even as they begin their careers. It is further speculated that in applying the Hing et al. (2023) model (Figure 4), in addition to broad societal issues impacting women, women are continuously exposed to inequities throughout their career progression, including systemic discrimination from workplace peers, patriarchal organisational structures, cultures and leadership styles, that continue to add to women's internal oppression and enhance the feelings of IP. Should these aforementioned issues not be addressed through the creation of an organisational culture of inclusivity, diversity, acceptance, fairness and learning, IP will continue to impact women throughout their careers, may hamper their career progression, and perpetuate the lack of gender diversity in the workplace, in both the British and South African contexts. The lack of gender diversity in manufacturing in both South Africa and the UK is due to women STEM graduates not being converted into STEM employees. Furthermore, those women who do work within STEM, are not being retained or are not equitably progressing into leadership positions, which may be as a result of IP. This study aims to understand a popularised phenomenon using a qualitative research method in order to gain a rich and deep understanding of the phenomenon through the context of the personal career stories of the participants themselves. Understanding the experiences of IP from two distinct countries with contrasting socio-economic environments, yet the same occupational environment, will enhance the ability to assess whether IP is an issue relating to the individual or if it is impacted by the manufacturing environment. By comparing the results of the two

different research groups, the transferability of findings to other regions will be increased (Koch, 1994).

3. Chapter 3: Research Questions

The literature on the imposter phenomenon, its antecedents, prevalence as well as how it manifests in the workplace, particularly with respect to the unique challenges identified in the career progression of women was set out in Chapter 2. This body of research aims to deeply understand the experience of IP in women leaders in manufacturing in South Africa and the United Kingdom throughout their career progression, in order to add to the body of knowledge on IP in both developing and developed countries. The research questions were developed based on the research objectives and the findings from the literature review.

Research question one: How do South African and British women leaders in manufacturing experience imposter phenomenon throughout their career progression?

This question aimed to understand in which circumstances feelings of IP are experienced by women leaders in manufacturing, and whether these change throughout their career progression, which is nuanced by unique gender issues (Chakraverty, 2019; Hing et al., 2023; Kumar et al., 2022; Kuna, 2019; Makarem & Wang, 2020; Mullangi & Jagsi, 2019; Nadal et al., 2021; Van Veelan et al., 2019). This study aims to add to the current body of research on IP, as no qualitative studies could be found where IP is explored throughout the career progression of the participants themselves (Bravata et al., 2020).

Research question two: What intrapersonal (internal) and systemic (external) factors have contributed to symptoms of IP throughout the career progression of South African and British women leaders in manufacturing?

The aim of this research question was to gain an understanding of whether any specific internal factors, such as self-doubt or feelings of inadequacy (Clance & Imes, 1978; Gadsby, 2022; Grubb III & Grubb, 2021; Nadal et al., 2021; Pákozdy et al., 2023; Pannhausen et al., 2020; Schubert & Bowker, 2019) or external factors such as organisational culture or the lack of role models (Arleo et al., 2021; Edwards, 2019; Feenstra et al., 2020; Makarem & Wang, 2020; Slank, 2019; Tabassum & Nayak,

2021) contributed to feelings of the imposter phenomenon throughout women's careers and whether these changed over time.

Research question three: How does IP manifest throughout the career progression of women manufacturing leaders in South Africa and the United Kingdom?

This research question sought to explore how the existence of IP impacts women's working styles and personalities (Clance & Imes, 1978; Edwards, 2019; Makarem & Wang, 2020; Marshman et al., 2018; O'Connell & McKinnon, 2021; Shanafelt et al., 2022) at work throughout their careers, and whether they felt that IP had had an impact on career progression (Bravata et al., 2020; Hudson & González-Gómez, 2021; LaDonna et al., 2018) or will continue to impact their career progression.

As the study aims to gain a deep rich understanding of the lived experiences of women leaders in manufacturing, throughout their career progression, an inductive narrative inquiry methodology, as set out in the following Chapter, was used. The research questions were broken down into sub-questions which were posed to the participants to cover their career progression within the categories of the past, the present and the future as illustrated in Figure 5 below. The measurement instrument being the interview guide has been included with Appendix A.

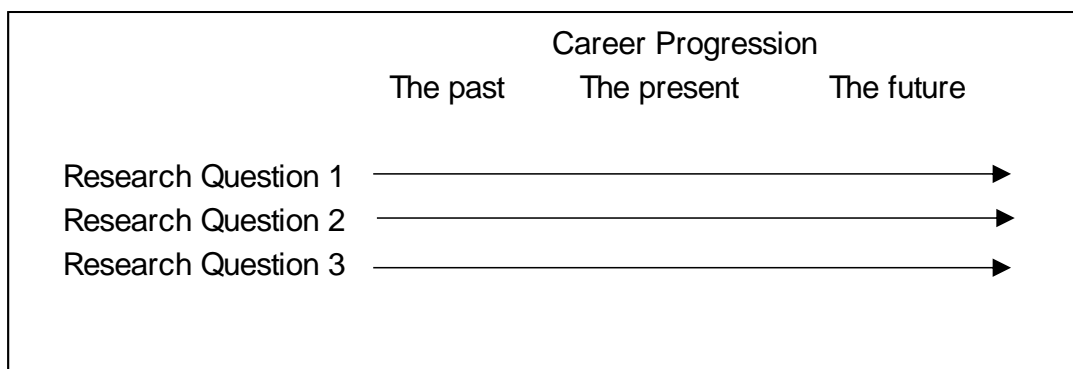


Figure 5 – Interview guide structure (Author's own)

Chapter 4 sets out the research design and methodology applied to answer the research questions as described above.

4. Chapter 4: Research Methodology

4.1. Introduction

This Chapter describes the research philosophy, design and methodology applied to answer the research questions which were set out in Chapter 3. As the aim of the research was to gain an in-depth understanding of the imposter phenomenon throughout women's career progression, the study was exploratory and qualitative in nature. This approach allowed the researcher to gain new understandings, to pose new questions (Saunders & Lewis, 2018) and to reflect on the IP, and the internal and external factors that contribute to the phenomenon in a unique way (Saunders & Lewis, 2018). In addition, it provided data that is rich and descriptive in nature (Khan, 2014) as qualitative research involves assessing subjects within their natural settings and interpreting the issues or phenomena experienced by people through analysing common themes within the data collected (Creswell & Poth, 2016). Seeing that there are limited qualitative studies on IP (Bravata et al., 2020) and none that specifically assess whether the prevalence of the phenomenon is impacted by age or experience within the same employed population (Bravata et al., 2020) or within women leaders in manufacturing, this study sought to explore this phenomenon by gaining a deep understanding using a qualitative, narrative inquiry approach. This approach allowed participants, through storytelling, to reflect on their career journeys and their experiences of IP within the three phases of those journeys: the past, the present and the future.

4.2. Choice of Research Methodology and Design

The research philosophy used was one of interpretivism in order to understand the lived experience of the imposter phenomenon from the participants themselves (Schwandt, 1998). The study aimed to gain a deep understanding of the different experiences of the imposter phenomenon in women leaders in manufacturing throughout their career progression using narrative analysis of their work-life stories as opposed to the use of predefined constructs. As the phenomenon under study is not fully understood, the data collected from the women's narratives allowed themes to emerge as a bottom-up theory building approach (Saunders & Lewis, 2018; McAdams, 2008a). This mono methodological approach is appropriate due to the exploratory and in-depth nature of the study.

The narrative inquiry approach was used to understand the lived experiences of participants (Merriam, 2009; Plummer, 2011). The sharing of their personal stories of the imposter phenomenon throughout their career progression was based on The McAdams, Life Story Interview II (McAdams, 2008b) guide. This was used to develop the structure of the interview process and the guiding questions. The Life Story Interview II is based on McAdam's definition of an emerging narrative identity being, "an individual's internalised, evolving, and integrative story of the self" (McAdams, 2008a, p. 242) which attempts to reconcile the individual's own view of who they were in the past; are in the present; and will be in future (McAdams, 2008a). The narrative inquiry approach allowed the participants to explain in their own words how their experiences of the imposter phenomenon unfolded over time with reference to specific intrapersonal, systemic and contextual factors that existed at points in time (past, present and future) throughout their careers. This methodology approach aligned with the objectives of the study as set out in Chapter 3.

4.3. Population and Sampling Strategy

Within this study, the population consisted of women leaders, with the sample, being a subset of the population, referring to women leaders in the manufacturing sector in South Africa and the United Kingdom. The unit of analysis consisted of the work-life stories of the participants, the women leaders in manufacturing.

4.4. Sampling Method and Size

Given the exploratory and narrative inquiry approach for this study, a purposive sampling method was applied to ensure that the participants would be able to contribute to the study (Kumar, 2011). In selecting the participants, the following criteria were applied: (1) participants to be women; (2) with more than 10 years of work experience; (3) who are currently in a leadership or managerial role; (4) within a manufacturing business; (5) within South Africa or the United Kingdom. These criteria were important to fulfil the objective of the study which was to understand the experience of imposter phenomenon throughout the career progression of South African and British women leaders in manufacturing. The participants were sourced through the researcher's personal network, within South Africa and the United Kingdom, using a snowball approach.

When using non-probability sampling methods for a qualitative study, data should be collected until such time as saturation is reached (Guest et al., 2006). Saturation refers

to the point where data collected does not significantly add to the findings already gathered with respect to the research question or objective (Guest et al., 2006). The findings of the study by Guest et al. (2006, p. 79) found that where “the aim is to understand common perceptions and experiences among a group of relatively homogeneous individuals, twelve interviews should suffice” in order to reach saturation. Although this study includes participants who share similar characteristics in terms of work tenure in excess of 10 years, as well as the sector in which they currently work, they are located within different countries, and have varied life experiences. Saunders and Lewis (2017) suggest sample sizes of between 12 and 30 participants when using non-probability sampling within a varied population. Hence a population size of 20 participants, split equally between South African and British participants, was considered sufficient for this study.

The adequacy of the sample size to reach thematic saturation was retrospectively assessed. Thematic saturation was asserted to be most appropriate considering the high degree of granulation within the codes identified (Guest et al., 2020) which are set out in appendices C - F. Overall, no new themes were identified after the tenth interview. However, as this study consisted of two different participant groups, where nine South African participants were included within the first ten interviews, thematic saturation was assessed again at a participant group level. Based on this, thematic saturation was reached after nine interviews within the South African participant group (refer to Figure 6) and after eight interviews (refer to Figure 7) within the British participant group, confirming that the sample size of 10 participants per group was appropriate.

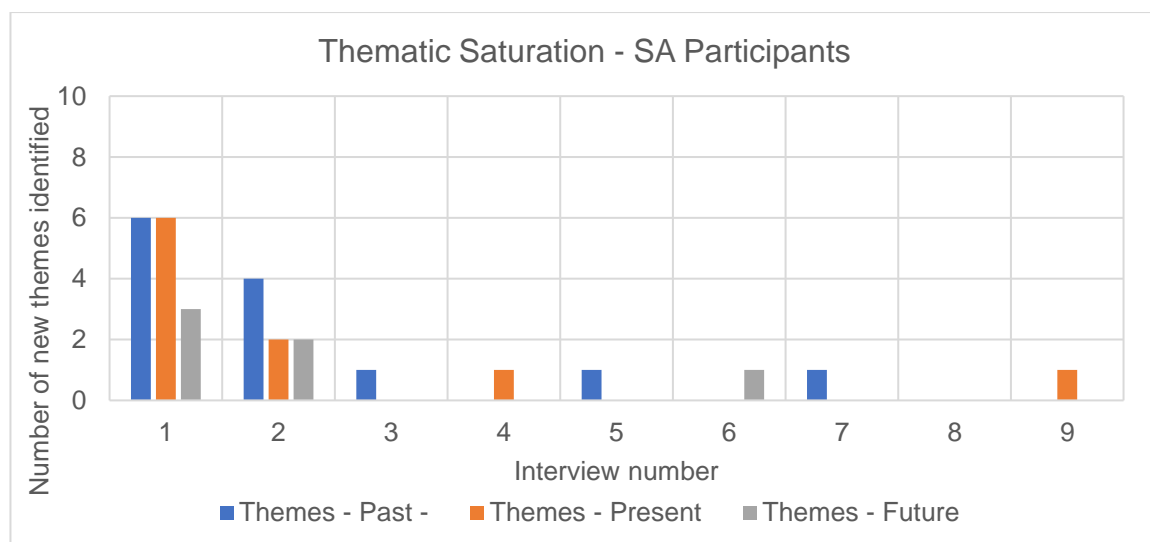


Figure 6 – Thematic Saturation – South African Participants (Author’s own)

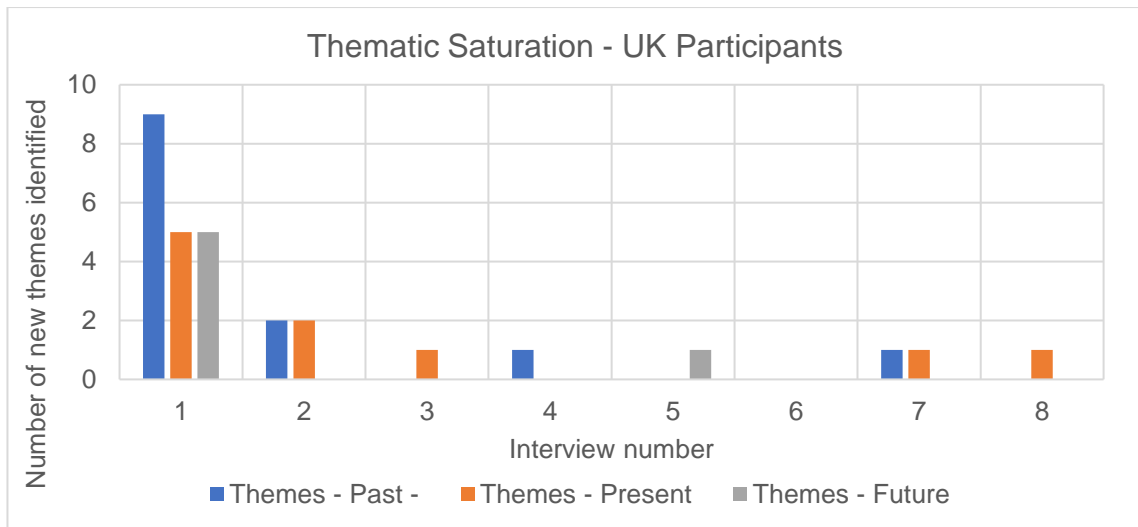


Figure 7 – Thematic Saturation – British Participants (Author’s own)

4.5. Measurement Instrument

Being an exploratory qualitative study, using narrative inquiry, semi-structured interviews were conducted using an interview guide, which is set out in Appendix A, as the measurement instrument. The interview guide was developed using principles set out in the McAdams Life Story – II (McAdams, 2008b), such as the inclusion of positive or “high points”, negative situations or “low points” and turning points within the life story and discussing these within the timeframes of the past, present and future. This interview method followed a structure in relation to the timeline of experiences and recounting of examples, but the questions themselves were open-ended, exploratory and flexible in nature, allowing for the researcher to probe to deepen understanding (Humphrey, 2013).

4.6. Data Gathering Process

The interview guide (Appendix A) was designed around the key themes (Saunders & Lewis, 2018) identified in the literature review that were associated with the research questions as set out in Chapter 3 (refer to Appendix B). Certain questions were informed by the Clance IP Scale (Clance, 1985). The questions as per the interview guide have been cross-referenced to the research questions on Appendix A to facilitate the data gathering and analysis process.

As set out in Section 4.5, the structure of the interview guide was based on principles set out in McAdams (2008b) in order to follow a narrative inquiry approach. This approach allowed participants to tell their stories of the experiences of the imposter

phenomenon throughout their career journeys and to explain their outlook on their future careers. The interview guide (Appendix A) was structured to include demographic questions first, then an introductory question around the participants' understanding of IP, followed by sections dealing with past careers, present careers and ending with questions relating to the future, in order facilitate the flow of the interview.

A pilot test interview was conducted to ensure that the interview guide was structured effectively and understood by the participant and to allow the researcher the opportunity to practise an exploratory interview technique (Saunders & Lewis, 2018). The researcher gained experience from this in using open-ended questions to ensure that the interview process was effective, data collection bias was reduced, and the information gathered through the interview process was rich, deep and reliable. The interview guide was amended where necessary based on the findings of the pilot interview.

The 20 semi-structured interviews were conducted via Microsoft Teams. The average time per interview was 53 minutes, with the shortest being 36 minutes and the longest being 77 minutes. All interview questions were asked in the same order to facilitate the comparability of findings (Kumar, 2011). All participants provided their consent for the interviews to be recorded (audio or video). The interviews were later transcribed using a transcription software (Happy Scribe) and checked thoroughly by the researcher for accuracy (Sutton & Austin, 2015). This approach allowed for data to be accurately gathered and recorded and supported a conversational flow within the interviews (Adeoye-Olatunde & Olenik, 2021). As suggested by Sutton and Austin (2015) field notes were taken during all interviews to document behaviours that were not evident from the recordings.

4.7. Analysis Approach

Due to the research strategy being that of narrative inquiry, using an inductive research approach to answer the research questions, interpretive analysis was performed to analyse the documented data.

According to Smith et al. (1999, p. 219), an interpretive approach "is concerned with cognitions, that is, with understanding what the particular respondent thinks or believes about the topic under discussion". In this instance, the topics explored were the

participants' experiences of IP (including the impact of both intrapersonal and systemic factors) throughout their career progression within the South African and British manufacturing context.

The interpretivist approach used was thematic in nature. The results of the interviews were coded into themes to assess whether there were any common themes experienced by the participants that could be used to better understand the phenomenon being studied. Pringle et al. (2011) state that qualitative approaches “do not seek to find one single answer or truth, but rather a coherent and legitimate account that is attentive to the words of the participants”. This approach was taken into consideration within this study. In order to carry out the thematic analysis on the data, the following process was followed:

1. Transcriptions (once verified as being accurate) and video recordings were uploaded into the Atlas Ti software.
2. Two document groups were created – one for South African participants and one for UK participants. This allowed for analysis of results by group.
3. Each transcription was coded manually on Atlas Ti (the AI coding function was not used).
4. The codes were created according to time frame, using a prefix of A for “the past”, B for “the present” and C for “the future or overall finding on IP”.
5. As the codes were created different colours were assigned to the code based on the research question to which that code related and whether it was a positive or negative factor (participants were asked to describe both positive and negative aspects of their experiences). An example of the colour coding system is set out below:
 - Blue - Research Question 3 - Internal factors (negative)
 - Purple – Research Question 3 – Internal factors (positive)
 - Pink – Research Question 1 – Experiences (negative)
6. The colour-coded themes were then reviewed within Atlas Ti to identify any key themes and any relationships between the themes.
7. In certain instances, videos and manuscripts had to be re-visited to ensure that the meaning was correctly interpreted (Connelly, 2016) and to ensure that the coding was consistent.
8. Certain codes were renamed or recoloured based on this review.

9. Once the themes had been identified, code groups per theme (and named as such) were then created within Atlas Ti, taking into account the time frame to which they related (i.e. past, present and future) and all relevant codes were allocated to each code group.
10. Using the Code-Document Analysis screen in Atlas Ti, themes, codes and quotes per code group (UK and South African participants) were analysed again for patterns, relationships and inconsistencies.
11. A summary of participant data and key findings were collated on Excel in order to enable the calculation of percentages of the prevalence of IP within the different career stages, and to assess at a high level. Table 2 summarising this is included within this report in Chapter 5.
12. Diagrams of the themes identified per time frame were drawn up to summarise and contextualise the findings as reflected in Table 3 in Chapter 5.
13. The results of the findings were written up and included within Chapter 5 using direct quotations from the interviews with the participants to highlight themes and include participant voices in the study.

The process as set out above aligns with the phases described by Braun and Clarke (2006) for carrying out thematic analysis. Five hundred and forty four codes, grouped into 29 themes were identified. These have been categorised per research question and career time frame in Table 1 below.

Table 1 – Number of codes and themes per research question and timeframe

		Number of codes			
Question	Description	Past	Present	Future	Total
Q1	Experience	43	36	24	103
Q2	Internal factors	68	24	33	125
Q2	External factors	98	42	16	156
Q3	Manifests	54	97	9	160
Total		263	199	82	544
		Number of themes			
Question	Description	Past	Present	Future	Total
Q1	Experience	3	2	1	6
Q2	Internal factors	4	1	2	7
Q2	External factors	3	3	2	8
Q3	Manifests	3	4	1	8
Total		13	10	6	29

Author's own

4.8. Quality Controls

Evaluating the rigour and credibility of research is essential if findings are to be carried over in practice (Noble & Smith, 2015). This can be achieved through addressing the validity, reliability, and possible bias of the research (Noble & Smith, 2015; Smith & Noble, 2014). This may be more directly evaluated in quantitative method studies, when compared to qualitative method studies (Rolfe, 2006; Sandelowski, 1993). Due to the nature of an exploratory qualitative study, where findings cannot be measured against predetermined standards, and where information obtained is not uniform and consistent, other considerations are applied. These include considering whether the research is credible, transferable, dependable, and confirmable (Connelly, 2016).

These aspects were addressed through the following established protocols for quality research.

A reflective journal as suggested by Long and Johnson (2000) was kept to document the researcher's thoughts and decisions made daily. Reflexivity was applied by the researcher (Long & Johnson, 2000). Interviews were video or audio recorded wherever possible and were transcribed verbatim using a transcription software and checked for accuracy by the researcher as documentary evidence of the interview. The videos and audio records were revisited where necessary to reconfirm the themes identified (Connelly, 2016; Noble & Smith, 2015). These methods ensured creditability and dependability in the data gathering process. Interview findings were collected in a standardised manner – to increase reliability and to improve the analysis and coding process (Kumar, 2011). Findings and conclusions were documented in rich detail to ensure transferability to other studies (Noble & Smith, 2015) of a similar nature and to ensure that there is a good audit trail. Peer debriefing (Long & Johnson, 2000) and supervisor debriefing was conducted where the rationale for interpreting results in a particular way, and the quality of coding used, was discussed, questioned, and, where necessary amended to ensure credibility and confirmability.

Bias can exist within all types of research and research design methodologies as well as within each different phase of the research process and can influence the validity and reliability of the results of the research findings (Smith & Noble, 2014). According to Smith and Noble (2014), there are five different research biases, namely, design bias; selection or participant bias; data collection and measurement bias; analysis bias

and publication bias. The researcher has remained aware of the risk of bias at each stage of the research process.

The research question selection process was subjectively chosen in that, as a leader in the manufacturing sector both in SA and the UK, the researcher has experienced imposter phenomenon herself and had an interest in understanding the phenomenon in detail. However, the thorough literature review, rigorous data gathering protocols, reflexive note taking, and peer confirmability helped to mitigate bias in relation to drawing from the researcher's own experience of IP (Johnson et al., 2020; Smith & Noble, 2014). As participants were selected using a snowball approach using the researcher's own professional network, the population is subject to selection bias. However, purposive sampling is designed to ensure that participants are able to richly contribute to the phenomenon under study and so the value of using referrals from participants is deemed important for a qualitative study such as this (Smith & Noble, 2014).

In terms of data collection bias, interview questions were structured to be open-ended and probing as opposed to leading questions which could infer bias (Humphrey, 2013; Smith & Noble, 2014). This process assisted in gathering accurate findings. The researcher bias was acknowledged in disclosure of the researcher's identity and relationship to the study. To avoid analysis bias, the researcher used rigorous methods, such as following established methods and using Atlas Ti for analysis. The researcher ensured peer review by her supervisor throughout the process of analysis.

4.9. Limitations

This study was limited by a small sample size being selected consisting of only South African and British women leaders within the manufacturing sector.

The scope of the study was limited to women, whereas studies have shown that IP also exists in men (Bravata et al., 2020). Further research into IP in both men and women is warranted.

Women's willingness to share their experiences openly and the effects of the construction of narratives for the purpose of an interview is a limitation of the research (Wange & Geale, 2015). The interpretive narrative methodology accounts for this in

recognising that the data is analysed in terms of how the participants and the researcher make sense of the experience (Riley & Hawe, 2005) rather than an objective set of 'truths'.

Researcher bias remains a limitation in studies although steps to mitigate the effects of this is highlighted in Section 4.8.

5. Chapter 5: Results

5.1. Introduction

This Chapter sets out the findings obtained from conducting 20 semi-structured interviews in order to address the three research questions described in Chapter 3. The Chapter begins by describing the sample of participants included in the study, followed by a qualitative analysis of the findings related to each research question, through the identification of codes and overarching themes throughout the career progression of women leaders in manufacturing. The purpose of this research is to understand the experiences of imposter phenomenon, the internal and external factors that contributed to these feelings, as well as how IP manifested throughout the career progression of women leaders in manufacturing. Therefore, the results have been structured to describe the findings related to the three research questions, in the past, the present and the future in order to understand how the different contexts and constructs (intrapersonal; systemic; experiences and manifestations) change over time and are influenced by each other in order to gain a deep understanding of the experiences of IP in women manufacturing leaders. The findings are supported by quotes from the research participants.

5.2. Description of the Sample

The sample for this study consisted of 10 South African women and 10 British women who have 10 or more years of work experience in total and who are currently working broadly within the manufacturing sector, at various managerial levels. The average number of years of work experience was 26.7 years with the shortest and longest careers spanning 10 and 47 years, respectively. The participants ranged from junior management to executive management which enabled comparisons of the experiences of IP to be made between varying career stages. It was noted that those British women who were more senior and closer to retirement did not display a determination to progress further in their careers and were satisfied to continue in their current roles or within their current companies until retirement, either due to a feeling of comfort or a lack of energy to keep pushing their careers forward. The most common industries in which the participants worked were the chemical/ petrochemical industry (seven participants) and the food and related industries (eight participants) and the majority of participants (80%) held STEM related qualifications. The South African participants were represented by a number of different race groups, consisting of four Black women, three White women, two Indian women and one Coloured woman. The

British participants consisted of nine White women and one Black woman. The difference in the race diversity between the two participant groups is due to the country-specific race demographics and is also impacted by a snowballing approach being used to select participants. In England and Wales, 81.7% of the population is White, nine percent of the population is Asian and four percent of the population is Black with the remaining four percent falling within the mixed, multiple or other ethnic groups (Office for National Statistics, 2022). In South Africa, 81% of the population is Black, nine percent is Coloured, eight percent is White and three percent of the population is Indian (Cowling, 2023a).

Of the 20 participants, 19 (95%) experienced the imposter phenomenon at some point in their career. The outlying participant who never experienced feelings associated with IP, stated that “the external environment tried their very best. I mean, you can imagine I was in these roles when there were no females around. So I had the stock standard, ‘what are you doing here’ conversations which you've had in an edited format many, many years later. But I never had that self-doubt. I just actually couldn't care a hoot what they thought” (Participant 4).

Participant details and high-level results are reflected in Table 2.

Table 2 – Summary of research participants and high-level results

Participant details								Experience of IP (Yes = 1, No = 0, Increased = 1, Decreased 0)			
Number	Region	Managerial level	Highest level of education	Race	Sector	Work experience (years)	Interview length (min)	Past	Present	Future	Increased/decreased
1	SA	Middle	National diploma	White	Food	27	55	1	1	1	1
2	SA	Middle	Master's degree	White	Chemical	37	53	1	1	1	1
3	SA	Junior	National diploma	Black	Chemical	18	56	1	0	0	0
4	SA	Executive	Chartered Accountant	White	Petro-chemical	47	61	0	0	0	0
5	SA	Senior	Chartered Accountant	Indian	Petro-chemical	29	49	1	1	1	0
6	SA	Middle	Post Graduate diploma	Coloured	Automotive	28	69	1	1	0	1
7	SA	Executive	Post Graduate diploma	Indian	Protective equipment	25	63	1	1	1	1
8	SA	Junior	Master's degree	Black	Food	10	77	1	1	1	1
9	SA	Senior	Degree	Black	Food	26	55	1	1	1	0
10	SA	Middle	Post Graduate diploma	Black	Coin production	21	44	1	1	1	0
11	UK	Middle	Degree	White	Food	15	38	1	1	1	0
12	UK	Middle	Degree	White	Food	13	73	1	1	1	1
13	UK	Senior	Master's degree	Black	Food	34	38	1	1	1	1
14	UK	Senior	Master's degree	White	Chemical	29	36	1	1	1	0
15	UK	Senior	Diploma	White	Food	28	45	1	1	1	1
16	UK	Junior	Higher National Certificate	White	Food	27	44	1	1	1	1
17	UK	Senior	Degree	White	Hydraulics	30	69	1	1	1	1
18	UK	Executive	Doctorate	White	Education	40	52	1	1	0	1
19	UK	Senior	Master's degree	White	Chemical	18	46	1	1	1	0
20	UK	Senior	Degree	White	Chemical	32	36	1	0	1	0
					Total	534	1,059	19	17	16	11
					Average	26.7 yrs	53 min	95 %	85 %	80 %	55%

Author's own

5.3. Results

A summary of the themes identified per research question and per time period, referenced to the subsections that follow in this Chapter are set out in Table 3 and are discussed in more detail in this Chapter.

Table 3 – Summary of themes identified per research question, by time frame

	Themes identified			Suggested improvements to reduce IP in the future
	Past	Present	Future	
RQ1 - Experiences (Section 5.3.1)	A new role, project, task or change increases feelings of IP	A new role, project, task or change increases feelings of IP	Reflecting on future career prospects - feelings of fear, anxiousness and self-doubt exist	
	Qualification level, experience & age impact feelings of IP	Dealing with feelings of inadequacy / IP		
	Challenges in terms of working styles as a woman			
RQ2 - Internal factors (Section 5.3.2)	Negative internal feelings and inner voice	Negative internal feelings and inner voice		Having more self-belief, self-awareness and confidence
	Personal background and relationships			Not taking comments of others personally, not internalising
	Becoming a mother			
	High personal standards			
RQ2 - External factors (Section 5.3.3)	Impact of organisational culture and environment	Impact of organisational culture and environment		Inclusive organisational culture
	Comments and actions of others	Comments and actions of others		Supportive leadership
	Gender bias and stereotypes	Gender bias and stereotypes		
RQ3 - Manifestations (Section 5.3.4)	Change in presentation after promotion	Presentation of self at work more closely aligned with authentic self		
	Demonstration of ability and validation of position	Difficulty in accepting, recognising and celebrating success		
	Feelings of IP have impacted career progression	Feelings of IP continue to exist in current career		
		Increase in IP as careers have progressed	Feelings of IP will continue in the future	

Author's own

5.3.1. Research Question 1 – IP Experiences

Research question one: How do South African and British women leaders in manufacturing experience imposter phenomenon throughout their career progression?
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The aim of Research Question 1 was to understand the circumstances in which feelings of IP are experienced by women leaders in manufacturing, whether these changed throughout their career progression and what coping mechanisms were put in place to address the feelings of IP. The participants were asked to describe instances throughout their career where they felt inadequate, questioned their abilities and/or lacked self-confidence, and how they currently deal with feelings of IP. They were also asked to explain how IP may have impacted their career progression and how they feel when they consider their future career prospects. The experiences of the imposter phenomenon were impacted by both internal and external factors which are discussed separately under section 5.3.2 and 5.3.3 - Research Question 2.

Research Question 1 – IP Experiences: The past

Nineteen of out the 20 participants (95%) described experiencing feelings associated with the imposter phenomenon in the past.

Theme 1 – New role, project, task or change increases feelings of IP

Sixteen women (80%) described that in the past, a new role, project or task that initially resulted in excitement, pride and affirmation, then brought elements of self-doubt, the questioning of their abilities or whether they were deserving, or resulted in a feeling of fear.

“... with every move up I felt, am I really deserving of this and can I do it and do I have that, that wow factor and the capability to take it on” (Participant 1).

“I must admit, initially, very excited, extremely excited. But then the self-doubt kicked in is that, can I really do this? Can I take this on? And I think what I tend to do is I tend to doubt myself and my abilities” (Participant 2).

"I was very nervous. I was absolutely nervous. It felt too big for me. I felt like, am I going to do this?" (Participant 3).

"...when you're starting a project, there's that inadequacy that creeps in, that it's impossible to do..." (Participant 8).

"And it was one definitely where, that sense of, oh, shit, this is a lot of responsibility here. And all the self-doubt, as you can imagine, when you're taking on such a big change to what I had been doing" (Participant 12).

"...I could do it. And then I'll go, hah, then think, can I do it? Are you sure you could do it? Oh my God, what have you done? (Participant 15).

At points of change, whether it was a new role, added responsibility or a new task, after initial feelings of excitement, the participants then felt a sinking feeling of self-doubt and questioned whether they were capable to take it on.

Theme 2 – Qualification level, experience and age

Eight participants (40%) reflected that factors such as their age, their formal education level and their experience impacted their feelings of self-doubt within their past career. Seven of these participants were South African women.

"... it was entering the organisation as a learner. And although I knew I was smart and I had gone to university, but I was shackled to the dialogue around being a learner, I think that context did affect me" (Participant 7).

"It was just me and myself feeling I'm not adequate enough because of my studies" (Participant 8).

"It was also the age, as I was a graduate and I'm working with older engineers, older men, and yeah, I felt like they treated me as if, I don't know, I'm just fresh from school, I don't know anything, so I should just sit at the corner and listen" (Participant 10).

"... they've got 30 years experience operating the plant and I've just come in from an R&D [research and development] background, a bit of quality time on the plant, and

then all of a sudden I'm a leader. So that was very second guessing what I was doing. How did I end up in this role?" (Participant 20).

In instances where participants began their careers as graduates, students or learners, which are very junior positions, and are "labelled" as such, they felt that due to their lack of experience and qualifications they were inferior, and at times they felt that others perceived them to lack knowledge or ability. In addition, when being promoted into roles for which participants hadn't formally studied, feelings of inadequacy emerged, especially when they compared their experience and qualification to others within the workplace.

Theme 3 – Challenges in terms of working styles

Six women (30%) explained how they found it difficult to project themselves at work. At times they felt the need to change their natural style, or display male leadership characteristics, however this did not feel comfortable to the women themselves and was not accepted by others. In other instances where women displayed their own more feminine style, they questioned whether this would be viewed by others as weak.

"And I think in many ways, you actually start mimicking male behavior on the way that you think it needs to be done. And so yes I did change" (Participant 2).

"So I led in the same way that my male predecessor and all his peers and everybody, every other man in the company would lead. But it just didn't fit, work well on me. People didn't like it on me" (Participant 6).

"...you have to change the way that you act or you would normally conduct yourself. It's very much the industry I'm in. You have to do that, otherwise you just wouldn't get anywhere" (Participant 16).

"... I've got a different style as well, which I feel sometimes can be misconstrued as being weak. But then I can deliver the same results my way. So that when I was an early career leader, that used to put me off quite a bit because I wasn't doing it the same way as a lot of other people were" (Participant 19).

The findings reflect that the participants' working styles and personalities in the workplace were impacted by the male-dominated, patriarchal environments and masculine leadership styles, as these were seen and understood to be the norm within the industries and were perpetuated by the participants. Where masculine leadership styles were not followed it led to a feeling of inadequacy in that their feminine style was viewed by others as being inferior.

Research Question 1 – IP Experiences: The present

Theme 1 – New role, project, task or change

This theme continued to exist within the present careers of five women (25%), particularly those who have recently moved into new roles. They again described how a new task, change in role or additional responsibilities can bring about feelings of anxiety relating to their ability.

“If somebody came to me with a new project and it was to introduce something new and it was a blank page start from nowhere, that would be the sort of thing that creates some anxiety for me” (Participant 14).

“So then I'm like, oh, my God, what if I can't do that?” (Participant 15).

“...the people that I'm working with on a day to day basis are also on a higher job level than I'm used to being working on. So I do have to give myself a bit of a talking to when I'm walking into these rooms to tell myself I am worthy of being in these rooms” (Participant 19).

The findings reflect that having years of work experience does not negate the feelings of anxiety, self-doubt and feelings of not being as capable as others when exposed to change or something new within the work environment.

Theme 2 – Dealing with feelings of inadequacy / IP

The participants described a number of ways in which they currently deal with feelings of inadequacy. These included, (1) putting things into context; (2) seeking advice from a mentor or someone that they are close to; (3) increasing their knowledge and

expertise; (4) viewing the experience as an opportunity to improve in the future and (5) reassuring themselves that they are worthy of their position.

“... remind yourself of how you got there and that you’re deserved of it” (Participant 7).

“...seeking out mentorship and speaking to people who've done it before and have done it well” (Participant 16).

“...I'll always just take the time and just kind spend time by myself, just working through it so I don't look stupid in front of anybody else or don't feel like I'm looking stupid.” (Participant 11).

“If I find myself judging myself, that's a sort of fixed mindset which I just do not let myself have or harbour in on. I turn it around into questions that promote a growth mindset” (Participant 18).

“I can recognise the triggers, and if it happens by surprise, you can reflect on and go, what was it about that situation that made that happen? So, the next time it doesn't happen, or you can anticipate it and have a strategy for it. So that's kind of how I cope” (Participant 19).

“...I've actually got post-its on my monitor at work saying "I'm knowledgeable and worthy" and things like that (Participant 19).

The findings show that the participants had recognised and accepted that they were impacted by feelings of inadequacy and self-doubt and they developed certain behaviours throughout their careers to enable them to deal with these feelings. These ranged from increasing their knowledge in order to increase confidence, positive self-talk and encouragement, seeking mentorship and seeing each experience as an opportunity to improve in the future.

Research Question 1 – IP Experiences: The future

Theme 1 - Feelings of fear, anxiousness and self- doubt

There were four British participants and one South African participant who were not looking to change careers at this stage, due to being close to retirement or due to lack of drive given the challenges experienced in the workplace to date. Of the remaining 15 participants, ten participants (three British women and seven South African women), described feelings of fear, anxiety and self-doubt when they reflect on how they feel about their future career prospects. At times, these feelings emerged after an initial feeling of excitement.

“It makes me excited. But also, but trepidation. There's a bit of trepidation because I know where I want to go, but I don't know if I've got the goods to get there” (Participant 2).

“But there is a fear of moving to the unknown. Like, where do I start? How do I show people that I know stuff? That impostor syndrome plays a very big role in that..” (Participant 8).

“I realised, honestly, I have a bit of fear, and maybe it's going back to the fact that will I be adequate?” (Participant 10).

“...you have to stretch yourself in order to progress, which then puts you out of your comfort zone and then makes you think, oh, maybe I'm not very good at this, I should just stick at what I know” (Participant 11).

“... the feeling of, am I taking on too much? Have I got enough experience, really, to do the next job? And I don't know if I do. So I don't know, yeah, the future scares me to a degree” (Participant 12).

Despite the majority of the participants being highly qualified and experienced in their fields, feelings of fear, self-doubt, and inadequacy emerge when they reflect on future career prospects. This indicates that proven success does not eliminate feelings associated with IP. In addition, these feelings may hamper women's career progression as they may lack the confidence to take on bigger roles.

Summary of Findings: Research Question 1

The findings for Research Question 1 highlight that the prevalence of the imposter phenomenon in women leaders in manufacturing, within South Africa and the United Kingdom, throughout their career progression is high. Ninety-five percent of participants reflected that they had experienced IP in the past, with 85% of participants experiencing IP in their current roles. One theme that was consistent throughout the career progression of the women participants was that when faced with a new task, project or a new role, including future career prospects, feelings of self-doubt emerged about their ability to successfully perform at the required level.

Other factors such as the level of experience, qualification, age and how to present as a woman in the male-dominated manufacturing environment contributed to feelings of inadequacy in the past careers of participants. Participants explained that they have developed coping mechanisms to deal with IP, including (1) putting things into context; (2) seeking advice from a mentor or someone that they are close to; (3) increasing their knowledge and expertise; (4) viewing the experience as an opportunity to improve in the future and (5) reassuring themselves that they are worthy of their position.

5.3.2. Research Question 2 – Intrapersonal Factors

Research question two:	What intrapersonal (internal) and systemic (external) factors have contributed to the experiences of IP throughout the career progression of South African and British women leaders in manufacturing?
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This research section has been divided into two parts for this Chapter – being intrapersonal and systemic factors. In this section the intrapersonal factors will be discussed. With respect to this, the research question aims to gain an understanding of whether any specific internal factors, such as feelings of self-doubt or inadequacy contributed to feelings of the imposter phenomenon throughout women’s careers and whether these changed over time.

Research Question 2 – Internal Factors: The Past

Theme 1 – Negative internal feelings and inner voice

The majority of participants described experiencing negative beliefs about their abilities, feelings of inadequacy and self-doubt. They also experienced feeling that they were not as good as others, lacked confidence and felt undeserving of their

achievements. A number of participants relayed overthinking situations, internalising feelings and having an inner voice that at times, increased feelings of IP.

“...you almost become your own worst enemy and your own critic, in a way, and your voice, if you don't keep that voice turned down and turn up other people's voices and their genuine feedback from people that you trust, I think it can really affect you and I think it can derail you” (Participant 1).

“It was everything within myself. So it was my own self-limiting view on myself and my actual abilities” (Participant 2).

“There are lots of moments where different things come up and I feel like I lack a lot” (Participant 3).

“I always fall back to convincing myself that I just wasn't enough at the time” (Participant 6).

“I just felt inadequate. And when I reflected after, when I looked back, I realised that I was actually doing my job and I was okay. And I was the only one stressing about the fact that my job is inadequate. My boss was okay and I was doing what was needed, but I was always stressed. I went through depression. I remember at that time, like serious depression, where I considered even suicide. Yeah, it was really that bad “ (Participant 10).

“ ... I would allow like a kind of internal voice to be like, they're going to find it out soon, because they will, you know, you have that kind of thing that people will think, oh, she's crap” (Participant 11).

“...there's sometimes whereby you think, I'm just not going to go for that because I won't get it, I'm not good enough. It's not for me “ (Participant 13).

The presence of an inner voice and the negative feelings described by the participants in their past careers were severe and were limiting factors in terms of their careers and personal lives. One participant explained how she experienced depression to a point of considering suicide.

Theme 2 - Personal background and relationships

A number of women described events in the past that impacted their level of confidence such as undergoing major surgery and being in an unhealthy personal relationship. In addition, five participants described how their feelings associated with the imposter phenomenon were linked to their personal backgrounds and upbringing.

“... a lot of it actually stems from, I suppose from childhood. I think a lot of it stems from how you actually grew up. And especially as a woman, as a woman, it's always seen that men are better. Well, I wouldn't say better, but they are more capable” (Participant 2).

“I was at an all girls school, a highly competitive, scary girls school in Manchester, which is top of the leaderboard, and I was bottom of every class. So the competitive, kind of being surrounded by that type of environment, I think, has always caused this issue of me not quite feeling... And it's a bit deep, really, but, yeah, that's kind of where it all started” (Participant 11).

“I think a lot of it comes from the fact that I was the first person in my family to go to university. So my experience of, I didn't have any experience of careers, I just had experience of people having jobs, right? So I was very, and I still feel unprepared now, for a professional career” (Participant 19).

One South African participant described how at the beginning of her career she was impacted by colleagues seeing where she lived when they insisted on giving her lifts home after working late at night. Although her colleagues felt that they were being kind and supportive, exposing aspects of her private life to them increased her feelings of inadequacy and impacted how she presented herself at work.

“I did feel kind of invaded. That was my space, my past. That is how I felt. I knew that I was inadequate. I knew that I came from a very different background. I knew that everybody here was successful and I was just a student, but it's something that I really just wanted to keep to myself. And it did affect the way I carried myself around and the face that I had to put up to be able to go by day by day” (Participant 3).

This theme identified that experiences in the participants' private lives impacted how they viewed their competence and how they portrayed themselves in the workplace.

Theme 3 – Becoming a mother

Looking to the past, five participants (25%), four of whom were British women, noted that becoming a mother negatively impacted how they felt within the work environment. The feelings described included inadequacy, vulnerability and self-consciousness. Some participants noted difficulties experienced in trying to balance work and private life responsibilities.

“When I fell pregnant in the career”... “So I felt like everyone's feeling sorry and the pity”... “So that really hurt me. It bruised me a lot. And a lot of them were supportive, they were gentlemen, but there were others who kind of, like, whispered in my ear, ‘you see, this job is really not for women - it comes to this at some point’. That was one moment that I can think of where I really felt inadequate” (Participant 3).

“I think one of the main things that always made me feel a bit vulnerable and a bit different was the fact, was when I had my son. So I had my son at 27, which obviously I'm potentially at the peak of a career trajectory and I was self conscious about the ways in which that made me change and adapt my working styles” (Participant 11).

“Yeah, I mean, definitely having children. So I've got two boys and I think especially when they were young, there was always the feeling that I wasn't doing the mom job well, and I wasn't doing the job job well either. I was just trying to make the best of both as much as I could” (Participant 14).

“... I'd had such a big chunk of time off and then came back, and it really did knock my confidence. It was not being able to do everything as easily as I could before. So, yeah, that had a massive impact” (Participant 16).

One participant described how she felt that she needed to strive harder to prove herself at work after having her child as she felt that being a mother was a weakness.

“It made me feel like I had to be more successful. I didn't want to be considered a mother and a housewife. Felt like I had to be more successful and prove everybody

wrong. Because of that I felt like, I can do it all. I can do this, I can do that. It cost me. Not money wise, but actually sort of just energy and just the effort I've had to put in to just balance all of that out” (Participant 17).

“And I felt like it was a weakness that I had a child. I really felt like having a child was a weakness, could be seen as a weakness” (Participant 17).

This theme highlighted that becoming a mother is another aspect within the workplace that differentiates women from men and can lead to feelings associated with IP. Being absent from work during maternity leave, feeling pressure to perform at the same level as before becoming a mother, not being as flexible in terms of working hours, and having the added responsibility and desire to be a good mother, as well as a good employee, are factors that contributed to the feelings of IP.

Theme 4 – High personal standards and perfectionism

It was noted that six research participants (30% of the total sample) reported that they applied very high standards to themselves and their performance. Interestingly, all of these participants were British women, and therefore 60% of UK participants described such feelings.

“...I've always approached things with passion and interest, and I want to do things well and I want to do them right “ (Participant 11).

“...I'm really cranky where everything has to be perfect..” (Participant 12).

“... very high, very high standards on certain things that are sometimes not achievable, but I'm still applying them to myself” (Participant 12).

“... I'm one of those self critical people anyway. If I do something well, I probably will ignore any positive things that come my way as a result of that, and I'll focus on what I might have done better, rather than the positive side of things” (Participant 14).

“I would say I'm probably my own worst critic, really” (Participant 15).

“I find it difficult to take any pride in anything I've done” (Participant 17).

The majority of British participants displayed perfectionistic qualities, including being self-critical where areas of improvement were given more emphasis than positive aspects.

Research Question 2 – Internal Factors: The Present

Theme 1 – Negative internal feelings and inner voice

Within their current careers, the majority of participants described that they continue to experience feelings of inadequacy, self-doubt and lack of confidence. Again, certain participants relayed overthinking situations, internalising feelings and having an inner voice.

“I'm still stuck in that rut of feeling inadequate, self confidence taken a knock to the point where I need to step out and leave where I am. But I'm still not too convinced about my own abilities to actually do that” (Participant 2).

“... that's like an internal thing where you feel, okay, if I'm not making it in the relationship side, let me make it in the work side, then let me grow. So when you're not growing again, then it feels like, oh, no, now I'm failing at my work part. Maybe I'm not even good enough for that” (Participant 8).

“...that is a constant theme throughout my career of feeling like the person sitting next to me or there's another person in the room who is better or more qualified to do the job that I'm doing” (Participant 11).

“I was not a particularly confident person anyway and I have feelings of self-doubt quite frequently. I will dwell on comments and opinions and things that people have said to me for weeks after, which is a shame, but it's not getting any better actually, that side of things I would have thought that would have done, but it hasn't” (Participant 11).

“I definitely feel it everywhere with what I do. I mean, I just trust I'm doing something right. I know I am because the outputs tell you that. But it's still your psychology, I guess, of at some point is it going to fall apart” (Participant 12).

“... we're very analytical, and we overanalyse to the point where it then attaches into a different meaning because now its had growth and more energy, so now it's become something completely different to what it was” (Participant 15).

This theme continued to exist in the majority of participants' present careers, despite their increased work experience and knowledge. These negative internal feelings appeared to be at the same level of intensity as they were described in their past careers.

Research Question 2 – Internal Factors: The Future

Theme 1 – Having more self-belief, self-awareness and confidence

Having more self-belief, self-awareness and confidence in one's ability including the confidence to choose the environment in which one works, were identified by participants as internal factors that would reduce their feelings of IP in the future.

“I've also got to learn to believe in myself because I have got huge abilities, I've got a huge amount of experience, I am capable and that. But I actually just need to start believing in that and maybe sell it more and put that more in my mind and sell it to the company that or whoever I actually want to work for and maybe just believe in myself a lot more” (Participant 2).

“I think I need to be more confident. If I go down the career path or the change that I want to, I need to be able to walk into a room and feel deserved of that place” (Participant 7).

“...I think it's about me learning that as soon as I'm in a place where I don't feel like I'm good enough or I'm not being treated correctly, to remove myself, to have those boundaries and to not be afraid to remove myself and not have the fear of loss. So I think it's more so about internal self-belief, self-worth and self confidence to have those boundaries in place” (Participant 15).

This theme highlighted the need for the participants to have more confidence in themselves and their abilities in order to reduce feelings of IP in the future. In addition, it also recognised that the environment plays a role in their feelings of IP, and that in

future they need to be selective about the environments in which they choose to work to reduce feelings of IP.

Theme 2 – Not taking comments of others personally, not internalising

Five women (25%) discussed the need to not take things that others say personally and to avoid internalising things in order to reduce the feelings of IP in the future.

“I think just not caring what others think. I think that's the one. Definitely personalising everything” (Participant 6).

“...you learn over time to grow a bit of a thick skin” (Participant 7).

“...to not let things affect me and not be concerned about somebody else's opinion” (Participant 15).

Summary of findings: Research Question 2 – Intrapersonal Factors

The theme ***negative internal feelings and having an inner voice*** that was identified by the majority of participants in the past continued to exist in the majority of the participants in the present. Participants noted that they internalise and overanalyse external factors such as comments made by others. The negative feelings included inadequacy, lack of self-confidence, the feeling of not being good enough and being self-critical. When the participants were asked to explain what factors would reduce feelings of IP in the future, they identified the inverse of these negative internal feelings. They suggested having more self-belief, self-confidence, and the need to stop taking the comments of others personally or internalising them were key factors to reduce their feelings of IP in the future.

Other intrapersonal factors grouped into the theme ***personal background and relationships*** encompassed the following key contributors to the participants' feelings of inadequacy and lack self-confidence: attending a highly competitive school; moving countries as a child; being the first person in the family to obtain a degree; being brought up as a girl in a patriarchal society and coming from a different socio-economic background than work colleagues.

Surprisingly, 31% of the participants who were parents, indicated that becoming a mother increased their feelings of inadequacy in the workplace. They explained that

being pregnant highlighted additional work challenges leading them to question whether the environment was suitable for women; their working styles had to be adjusted to allow for caregiving responsibilities where non-parent colleagues appeared more committed to work; challenges were noted in terms of work-life balance with the feeling of failure as a mother and an employee; being away on maternity leave created a feeling of exclusion and inadequacy on return; and there was a feeling that having a child was a weakness from a career perspective and therefore additional effort had to be exerted to ensure that she did not change her performance at work after having her child.

5.3.3. Research Question 2 – Systemic Factors

Research question two: What intrapersonal (internal) and systemic (external) factors have contributed to the experiences of IP throughout the career progression of South African and British women leaders in manufacturing?

This research question has been divided into two parts for this Chapter. In this section the systemic factors will be discussed. With respect to this, the research question aims to gain an understanding of whether any external factors such as the organisational culture, the work environment or the lack of role models played a role in increasing feelings of the imposter phenomenon throughout women’s careers and whether these changed over time.

Research Question 2 - Systemic Factors: The Past

Theme 1 – Impact of organisational culture and environment

This theme had the largest number of codes out of all the external factor themes, with the majority of participants (19) describing factors within the organisational culture and environment. In most instances these factors, such as lack of gender and race diversity, the existence of “boys clubs” and hierarchical cultures, negatively impacted the participants’ feelings of inclusion, belonging and being treated fairly which then impacted their levels of self-confidence at work.

“...even though you see that these guys are not as capable as you are, they cannot do things, they are pulled ahead and they just are put ahead of everybody else. And it is because of the, very much the boys club” (Participant 2).

“...before it was predominantly male. They'll just kind of talk over you, talk over you, and when you have something to show, nobody's listening. Okay, we'll see that later” (Participant 3).

“I'd be very scared to share my opinion because there's still, like, a bit of hierarchy in these industries that we are in, that you don't talk to your boss, you don't question your boss, whatever your boss says, that's it” (Participant 8).

“...I was only the black female of ethnic minority, and they weren't used to that. So I think that definitely knocked me” (Participant 13)

“...it was, like I say, a bit of a boys club. So there was always, women were a bit inferior, there was always that undertone, even down to specifics on what you should wear” (Participant 15).

“...by people not listening to your opinion, especially on areas where you are an expert, people coming along and just not even consulting you for the area that you look after, that kind of enforces your self-belief or your lack of self-belief, I suppose” (Participant 16).

“...you always feel like, is it I'm thinking wrong or is it because they're not listening to me?” (Participant 17)

“You might be the only female person there, right? So none of those people have done anything to make you feel inadequate, but the fact that you are the only one, it just automatically happens to you. That kind of feels like, it puts me on the back foot...” (Participant 19).

The participants noted that being a minority within a male-dominated environment, already felt naturally exclusive. When coupled with further exclusionary behaviours, such as not being acknowledged, women being viewed as inferior and men being provided more opportunities than women, feelings of self-doubt and inadequacy emerged.

Theme 2 – Comments and actions of others

Nine participants recalled incidences where the comments and actions from leaders and others in the workplace had caused them to feel inadequate or question their abilities, in some instances for an extended period of time after the event.

“... a director actually invalidated my appointment and said, I don't think they were meant to appoint you. I think you were just appointed because you were there or because all of us, they won't appoint one and not the other. And for a while after hearing that, I really struggled with believing that I should be there because every time I walked in, I would remember that this is what someone said. And maybe the shareholders didn't want me there. And over time, I had to work through that and lose that” (Participant 7).

“...my boss was brutal. Actually at some point he told me directly that there's no way you are going to make it in this industry. You're not cut out for this industry. And I think throughout that time, and I think I still carried it with me after that because I just felt inadequate throughout. And whatever I did, I felt it wasn't enough, it wasn't right. There was just always that element” (Participant 10).

“...it was a comment made by a director many years ago and he said, '[Participant 15's] amazing. She's so good. She's a diamond in the rough that needs polishing'. And there was a comment about my accent as well. And I thought, oh, it's because I don't speak very posh or I'm not too eloquent. That comment for me was a bit, probably meant as a compliment, but it just seemed like, oh, I'm not good enough” (Participant 15).

“And he actually was crying when I told him I was pregnant. And he said, I'm really looking forward to you coming back besides I know you won't be the same. And that stuck in my head, I think” (Participant 17).

This theme identified that actions and comments of others can bring about feelings of IP, and, due to internalising and overanalysing these comments, the participants reflected that these events were pivotal points in their careers and ones that they still remember clearly.

Theme 3 – Gender bias and stereotypes

A number of women described instances in the beginning of their career where gender bias and stereotypes impacted their feelings of inadequacy and self-doubt or impacted their career progression.

“...it is that limiting environment that girls tend to grow up in that actually makes them see themselves through the eyes of other people that consider women not as capable as men” (Participant 2).

“...they would say, no, we'll do the work. You just sit there, take a nap if you need to. I think as time went by, I started feeling like, no, am I in the right place? Should I be doing this? Shouldn't I look for more of a softer career? Engineering maybe it's really not for females” (Participant 10).

“... in meetings, it was like, oh, who's taking the notes? And that kind of... So I didn't actually feel like I fitted in and I didn't feel like I was welcomed into the fold” (Participant 13).

“...it was more men's prejudice that women shouldn't be doing that, or they'd never seen another woman in that role” (Participant 18).

This theme highlighted how gender bias and stereotypes were prevalent within the participants' past careers which made them question whether they belonged in their fields.

Research Question 2 - Systemic Factors: The Present

The same external factor themes that were identified in the past careers of participants continued to exist within their current careers.

Theme 1 – Impact of organisational culture and environment

The majority of participants described their current organisational culture and environment having a negative impact on their feelings of self-confidence and belief in their abilities. They again described the existence of toxic work environments, “boys clubs” and being part of a minority group as a female.

“So I know deep down that I am capable, I can do these things, I can do whatever. But yet when I walk into this, I think maybe isolated as this particular environment, I feel just so knocked down and deflated and beaten down that I go, I actually don't know if I'm worth anything outside of where I am and what I am doing right now” (Participant 2).

“...it's still very traditionally lead, still very hierarchy lead” (Participant 8).

“...whoa, it's tough. It's tough. Not only am I a woman, I'm a black woman, so that's even tougher. And you can't talk to people with these things. I think that's the main problem as well, because there's no space to talk about these things” (Participant 8).

“...when I see leadership going in the wrong direction or maybe not agreeing with what they are doing and I need to speak my voice, I won't necessarily do that” (Participant 10).

“...you have to fight your own corner to be the voice to be heard or the voice of reason or to earn your place at the table. It's not an equal playing field” (Participant 13).

“He's very much part of the old boys club. And then you start questioning whether actually, did you actually suggest anything worthwhile or is it just because of that? Or is it because of the fact that maybe you don't know what you're talking about as much as you should or as much as you think you do? So you do start questioning yourself quite a lot” (Participant 16).

This theme still existed in the current careers of participants, where the participants continued to be a minority within male-dominated patriarchal environments with exclusionary practices, such as “boys clubs” and the lack of acknowledgment of women's opinions and ideas still being at play. These factors continued to exacerbate feelings of IP in the participants.

Theme 2 – Comments and actions of others

Six women (30%) described various scenarios in which the comments and actions from others in the workplace impacted their feelings of inadequacy and self-confidence within their current positions.

“...a lot of the behavior has also been learned by the MD because he's got no qualms about attacking somebody in a meeting. So because he has set the example..”
(Participant 2).

“They just roll their eyes and they're like, she's probably PMS'ing today. Why is she so angry about this point? So it does kind of shut down your point and it does feel a bit intimidating, not intimidating like you feel a bit inferior towards the situation” (Participant 8).

“...no matter what I suggest, he will always pooh-pooh all my ideas, if you like. He'll look at me and almost be like, scornful if I suggest anything” (Participant 16).

This theme recurred in the present careers of the participants. The organisations in which the women worked did not truly value inclusivity, and therefore negative behaviours towards women were condoned and continued to exist in their current workplaces.

Theme 3 – Gender bias and stereotypes

In their current environments, three women (15%), two of which were in junior management positions, described instances of gender bias and stereotyping in the workplace.

“...They're not used to the woman's perspective. They still see it as being soft”
(Participant 6).

“...they said all the departments that have females in them, they didn't say failing, but are not doing that great. They're not doing the best” (Participant 8).

“... it does make me feel like they're thinking, oh, this person is going to get married. She's going to take leave, she's going to have kids, she's going to take maternity leave,

and then I'll be without a manager for the next four months. All those things come into play as you are thinking, why did I not get this job?" (Participant 8).

"...manager is very much old school, as in, he's very brusque and I think he doesn't think that I should be doing that role because of my gender" (Participant 16).

This theme also recurred in the participants' current careers and indicates that organisations have not yet done enough to eliminate gender bias and stereotypes in the workplace. The participants noted that there are still instances where they feel that females are judged as being inferior in terms of their working styles and work performance, and are not considered adequate for traditionally male gendered-roles.

Research Question 2 – Systemic Factors: The Future

The participants were asked to describe what changes to the external environment would be needed to reduce their feelings of inadequacy in the future. Two themes were identified which have been described below.

Theme 1 – Organisational culture

Having an inclusive organisational culture, especially from a gender perspective, was noted as a key external factor that would support positive feelings with respect to ability and self-confidence and would reduce feelings of IP in women. The participants highlighted that a culture of inclusivity must be driven within organisations from the top down. Leaders should be responsible to set the example, and to address non-inclusive behaviour that contradicts the organisation's values. Being acknowledged and listened to was also highlighted as a factor that would improve confidence and reduce the feelings of IP in the future.

"...the organisations need to be intentional about inclusion. And I will emphasize this. It's not only about a female identifying an issue and the business being willing to solve it. That's only one part of it. It is about the leadership setting culture around what types of behaviours are acceptable and what types of behaviours are not" (Participant 7).

"...if you do have a really great work culture and a really great leader, then it would be minimal I think" (Participant 11).

“...if people were more willing to listen to the ideas that I have and the thoughts that I have, I think that would probably validate my abilities a little bit more” (Participant 16).

Theme 2 – Supportive leadership

Three women mentioned that having a female mentor, or a supportive leader who drives an inclusivity agenda would assist in reducing feelings of IP in women.

“...the leadership in the business, they need to be more attuned to these instances where women in particular are excluded and they should not just wait for me to raise my hand and they should say someone's missing here, or why isn't this person here? It's great to address it when I've raised it, but I think it would be better and more meaningful if other people raised it and said, we don't think that that behaviour is acceptable or aligned with our business values” (Participant 7).

“My personal experience is having a supportive leader, a really supportive one, not one that just says, go and do this, I think you can do it. Somebody like that really helps you. I think that's really really important” (Participant 19).

“I think having other women like me and if I'd had a network to discuss issues like that as I was in my early career, I think it would have helped tremendously. Having a role model, having a female mentor...” (Participant 20).

It has been noted in previous themes that experience and knowledge alone do not prevent the feelings of IP from recurring. Participants who have experienced IP have suggested that an engaged supportive leader, a female mentor and leaders who drive an inclusive organisational culture would assist in reducing feelings of IP in women manufacturing leaders.

Summary of Findings: Research Question 2 – Systemic Factors

The narrations of the women leaders in manufacturing highlighted that the impact of the organisational culture and the environment in which they work has played a significant role in their feelings of inadequacy and self-doubt in their career journeys to date. The overarching reason for this is the lack of inclusivity of women within the manufacturing environment which is evidenced through the existence of “boys clubs” where women are not given the same opportunities as men and are excluded from certain forums; women’s opinions are often not listened to or are disregarded in

meetings where they are a minority; the lack of gender diversity and women role models in the organisation; the hierarchical environment which is premised on males being in positions of seniority. Participants explained that an inclusive organisational culture and a supportive leader would reduce their feelings of IP in the future.

The results also indicated that comments and actions from leaders and colleagues within the work environment (external factors) have also impacted a number of the participants' feelings of inadequacy, self-confidence and self-belief (internal factors) in their past and current careers. This is most likely intensified due to a number of participants internalising and overanalysing comments made by others. In addition, gender bias and stereotypes were also found to play a role in the feelings associated with IP, in both the past and current careers of the women participants who experienced men discounting their abilities and opinions due to their gender, not being afforded the same opportunities as men, gendered work roles and women being viewed as inferior in terms of job performance.

5.3.4. Research Question 3 – Manifestations of IP

Research question three: How does IP manifest throughout the career progression of women manufacturing leaders in South Africa and the United Kingdom?

This research question sought to explore how the existence of IP impacts women's working styles and personalities at work throughout their careers, and whether they felt that IP had had an impact on their career progression and whether it would impact their future career progression.

Research Question 3 – Manifestations of IP: The Past

Theme 1 – Change in presentation after promotion

Thirteen women (65%) explained how they changed how they presented themselves, in terms of working style in the workplace, after their promotions. They became more serious, controlling, stern, focused heavily on work to ensure they achieved, or dialled themselves down or changed their way of dressing in order to fit in.

"... you take yourself extremely serious and you become sort of not who you are, but you become just so serious. You just focus on work. You don't focus on anything else because you believe this is the only way you can actually get it done" (Participant 2).

“So I did become very controlling and I didn't want to listen as well because I wanted to focus on my targets, my goals, getting things right. And when people were hurt by, for instance, my comments, I would say, okay, but do you realise that we need to get this done? I didn't pay much attention to how people felt. I just wanted to be good at my position, and that's how, follow my way or the highway kind of thing” (Participant 3).

“...I felt myself pull away. I've had to pull away from being a nice person and become this more stern person in my role as a leader, because if you're not stern enough, then everybody takes for granted what happens and then the department falls apart” (Participant 8).

“I've had to really kind of suppress myself a little bit” (Participant 16)

“I distanced myself a little bit more away from the team than I had in the past” (Participant 17).

“So I didn't wear skirts or dresses to the office because that made you stand out. At that early career time I didn't want to stand out” (Participant 19).

This theme highlighted that the majority of participants amended their working styles after their promotions to a more masculine leadership style as this was the leadership style that they perceived, based on male role models, was needed to be a good manager and to succeed.

Theme 2 – Demonstration of ability and validation of position

In their past careers, eight women (40%) described that they were hard workers or felt the need to work even harder to demonstrate their ability and validate their positions after promotion.

“So I felt I needed to do extra and go the extra mile to prove my worth and to validate their belief in me so that I proved that they weren't wrong in actually promoting me” (Participant 2).

“...my mindset has always just been just work hard and the rest will follow” (Participant 12).

“I put that pressure on myself that I think I've got to be adding even more value now than I was adding before” (Participant 14).

“...now I've got to perform even higher level because they've given me another pay rise” (Participant 19).

The participants noted that after their promotions that felt the need to work harder to prove that they deserved their position or additional pay. This may have been linked to feelings of inadequacy or self-doubt in their ability to perform at the higher level.

Theme 3 – Feelings of IP have impacted career progression

Twelve women (60%) felt that the feelings of IP have negatively impacted their careers to date, mainly as a result of the lack of confidence in their abilities to drive their own careers forward.

“... I felt that I was put into a position and it was grace given to me by the company, and it wasn't because I deserved it. So as a result, I would never go out and ask for more for a greater position” (Participant 2).

“I think if I had more of that, or less of the impostor syndrome, I guess, really that I would have pushed myself probably further and probably still to this day, if I wanted to” (Participant 12).

“So I feel like I've been lucky, rather than pushing myself forward, I've never really pushed myself forward” (Participant 14).

“Earlier on, it definitely hindered me because I didn't see my own potential. So other people have progressed in their careers faster than I have” (Participant 19).

“It probably has, because I didn't go seeking. I didn't really go seeking roles because I was thinking, oh, I won't be able to do that” (Participant 20).

Due to her feelings of inadequacy, Participant 10 suffered from severe depression where she considered suicide. This led her to take the decision to leave her employer without having another job secured.

“...in a big way, to such a point where I actually resigned” (Participant 10).

The majority of participants lacked the self-confidence to take responsibility for their own career progression and did not actively seek career advancement opportunities. In contrast, they allowed their careers to progress organically through their leaders seeing their potential and putting them forward for promotions. This is supported by the finding that eight participants (40%), equally split between the two countries included in this study, have been employed by the same organisation or Group their entire careers.

Research Question 3 – Manifestations of IP: The Present

Theme 1 – Presentation of self at work aligned with authentic self

In contrast to the past, the majority of participants explained that in their current roles, they are their authentic selves at work, and strive to create an inclusive, empowering, collaborative environment within their teams.

“It's a bit more of an authentic space that I can be in. I can just be myself. And that in itself relieves a lot of your self-doubts and your pressure, I think, that you put yourself in” (Participant 1).

“I try to be as authentic as I can be. And that congruency between what I say and what I do is very important” (Participant 5).

“...how do I empower them to showcase more of that talent? That's the kind of person I want to be” (Participant 6).

“...I am just the same, same me, have not changed who I am, things that I believe in and how I behave around people, though the level may change, the responsibilities I have may be bigger, but still the way that I would interact with people, the way that I would do things, has not changed...” (Participant 9).

"I think I'm very authentic. I think I'm very true to who I am. It's what you see is what you get" (Participant 18).

Throughout the career progression of the participants, the majority have changed their leadership styles, from an unauthentic masculine style in their past careers to a more authentic and inclusive one in their present careers. However, although they believe they are, in their present careers, their authentic selves, they do still experience IP as discussed within this section under Theme 3.

Theme 2 – Difficulty in accepting, recognising and celebrating success

Thirteen participants (65%) explained that they experience difficulty in accepting success or recognition in their current positions. Although a number of participants did confirm that success does validate their abilities, provides a sense of pride, and can be a motivator, many do not externalise their success. Rather, they view success as part of their job function, focus on where they could have done better, direct their focus to the next task, or worry about whether they will be able to succeed again in the future.

"I think more than anything else, success comes at the end of a lot of pain in a lot of instances, right? And so it's just that overwhelming relief..." (Participant 5).

"... I struggle to celebrate maybe deep inside, you know, for myself personally, I'm like, yeah, it worked. And then hope the next one can work as well" (Participant 6).

"... I don't externalise it, so I'm very averse to sharing it. I don't like people talking about it. I downplay it to a large extent..." (Participant 7).

"I don't externalise success. I don't go to graduations. I don't do parties. I don't do celebrations. I have a little internal thing that goes, yay" (Participant 8).

"...personally, I don't celebrate success enough. I just see it as, well, stuff that you should do anyway" (Participant 13).

"I had experience, I still was worried. I was recognised for it and still felt then that I was only doing my job" (Participant 14).

“...I'm always like, don't celebrate it. I don't ever think that it's enough” (Participant 17).

The majority of participants do not celebrate or externalise success. This may be linked to other themes identified within Research Question 1, where those with IP tend to be highly self-critical with perfectionist qualities and high work standards, which may result in them feeling that their successes are not worthy of celebration.

Theme 3 – Feelings of IP continue to exist in current career

Seventeen participants (85%) experience the feelings associated with the imposter phenomenon in their current careers, and, in some instances, in their private lives too.

“It's not only about at work, right? It's about when you look around at your own life and you feel, am I deserving enough of what the universe has given me? I don't think that will ever change about me” (Participant 5).

“I feel it as a mother as well, just in my own personal life, like, I'll have times where I just think, oh, I'm not sure I'm that great at this” (Participant 11).

“...if ever I make a mistake or if I finish something and I look back on it and I think I should have done it differently” (Participant 14).

“It still niggles away. It's still something that sits with me. I don't know if that's common or not, but, yeah, it's still impostor syndrome, still sits with me on like a bi-weekly basis” (Participant 15).

Feelings of IP continue to exist in the participants' current careers. This is not surprising considering that all the external factor themes and the internal factor theme of **negative internal feelings** also continue to exist within the participants' current careers.

Theme 4 – Increase in IP as careers have progressed

In sharing their career journeys, eleven participants (six British women and five South African women) reflected that feelings associated with the imposter phenomenon have increased throughout their careers. Most explained how as their levels of responsibility increased, so did their feelings of inadequacy and self-doubt.

“So I'd say, like, in my earlier career, I didn't feel that as much as I did when I started going up the ladder a bit” (Participant 8).

“... I'd say they've increased because the responsibility has increased and therefore your exposure is constantly increasing” (Participant 12).

“I think they've got worse, whether it's just because I've just started a new job, so then my self confidence has gone right down again...” (Participant 16).

“I would say it's more so in my later career, the further up I've gone, the more impostor syndrome I felt” (Participant 17).

The internal and external factors impacting the participants' feelings of IP as discussed under Research Question 2 have remained constant throughout their career progression. However, the participants' level of responsibility, accountability and exposure at work has increased resulting in them experiencing an increase in feelings of IP throughout their careers. The coping strategies relayed by participants under Research Question 1 appear to be ineffective in mitigating IP. This may indicate that intrapersonal solutions alone are not sufficient to curb feelings of IP in the workplace.

Research Question 3 – Manifestation of IP: The Future

Theme 1 – Feelings of IP will continue in the future

Sixteen women (80%), of which seven were South African and nine were British, feel that they will continue to experience the imposter phenomenon in the future.

“Yeah, most probably. Because if you wake up, it's there present with you every day” (Participant 2).

“I think it's always going to be there more, and it's both internally and externally, but I think it's always going to be there. It's just that we need to take recognition of that and know how to deal with it” (Participant 10).

“...I know they'll extend. And I guess, as I say, because further you go into your career, you're on a pyramid, aren't you? The opportunities are fewer, the jump is going to feel

bigger, and I still have yet to experience that clean jump into a complete unknown” (Participant 12).

“I think there will always be a little bit lingering. And I think that is mainly because of the fact that there is just not really any other women doing my job. So, yeah, it's just the industry I'm in I think, engineering is very much male orientated” (Participant 16).

“... I know that I will continue to have it as I go through my career. And the things I recognise as triggers now might not be the same ones as they will be in the future...” (Participant 19).

The majority of the participants accepted that IP was likely to occur again in the future due to it being an internal issue within them that is triggered by new experiences and change, as well as by external factors such as being part of a minority group.

Summary of Findings – Research Question 3

In their past careers, the majority of the participants were influenced by external factors. They changed their working styles after being promoted in order to conform to the male-dominated environment and took on stern, controlling leadership styles and changed the way they dressed so as to not stand out in the workplace. Certain participants also felt that after their promotion they needed to work harder to prove that they had the ability and were worthy of their new role. In their current positions, most women leader participants explained that they now bring their true, authentic selves to the workplace and aim to create an inclusive, collaborative, people-focused environment within their teams. This could be as a result of them trying to emulate the type of environment that would have been more beneficial to their own career progression.

Although success may bring a sense of pride, may validate their abilities, and may motivate them to achieve, 65% of participants in their current positions do not spend time on reflecting or celebrating their success or achievements. These participants tend to focus on areas of improvement, move their focus quickly onto the next task, view success as being part of their role, or worry whether they will be able to repeat their success again in the future.

The majority of participants felt that IP had impacted their career progression to date, as they did not actively pursue career opportunities in the past due to their lack of self-belief and confidence in their abilities. In addition, the majority of the participants (five South African participants and six British participants) felt that the feelings of IP have increased as they have moved into more senior positions and have been given additional responsibilities, with 80% of participants accepting that the feelings of IP are likely to continue to occur in their future careers.

Interestingly, although IP has been commonly referred to as a workplace issue, the findings indicated that certain participants also experience the feelings associated with IP within their private lives. Some participants explained feelings of inadequacy and self-doubt occurring in their roles as mothers and one participant explained that not being married or having children at her age results in feelings of inadequacy which perpetuates in her focusing more on achieving success in her career. In addition, one participant relayed that she not does feel deserving of what she has been given in life from a personal perspective.

5.4. Conclusion

The findings from the three research questions set out in Chapter 3, using a narrative inquiry method that consisted of 20 semi-structured interviews, where the stories of the participant's career progressions unfolded, have been reported within this Chapter using quotes from the participants themselves. The findings revealed that feelings of IP are common within women manufacturing leaders in the UK and in South Africa throughout their career progression. By understanding the impact of IP on their career progression in terms of past, present and future, it revealed that the experiences of IP, the intrapersonal and systemic factors that contribute to feelings of IP and how these feelings manifest themselves in the workplace are intricately linked and therefore should not be viewed in isolation. For example, not being recognised in a meeting (external factor) may result in feelings of inadequacy (internal factor). These comments may be internalised and overanalysed (internal factor) to a point where she does not recognise her success (manifestation), she continues to internalise and when a new role or task is presented, she is fearful, questions her abilities (experience) and does not have the confidence to take on the new role. This cycle would then perpetuate itself when she attends the next meeting and does not have the confidence to voice her opinion. Over time this would lead to increased feelings of isolation. The following

chapter discusses these findings with reference to the existing literature reviewed within Chapter 2.

6. Chapter 6: Discussion

This Chapter discusses, compares and contrasts in detail the findings as presented in Chapter 5 with previous studies as described in Chapter 2 in order to add to the body of knowledge on the imposter phenomenon. In particular, the study focuses on women leaders in the manufacturing sector and the discussion addresses the research questions set out in Chapter 3.

As the study aims to understand the experiences of the imposter phenomenon throughout the career progression of women manufacturing leaders, the discussion will be set out in terms of the three research questions with specific reference to the context within the career progression of the participants, being the past, present and the future.

6.1. Discussion: Research Question 1

Research question one: How do South African and British women leaders in manufacturing experience imposter phenomenon throughout their career progression?

Research Question 1 aimed to understand in which circumstances the women participants experienced IP and whether these changed throughout their career progression. The themes identified in Chapter 5 relating to the experience of the imposter phenomenon throughout the career progression of women manufacturing leaders has been summarised in an excerpt from Table 3 below.

Table 4 – Excerpt from Table 3 – Research Question 1 themes

	Themes identified		
	Past	Present	Future
RQ1 - Experiences (Section 5.3.1)	A new role, project, task or change increases feelings of IP	A new role, project, task or change increases feelings of IP	Reflecting on future career prospects - feelings of fear, anxiousness and self-doubt exist
	Qualification level, experience & age impact feelings of IP	Dealing with feelings of inadequacy / IP	
	Challenges in terms of working styles as a woman		

Author's own

The findings of this study have revealed that IP is highly prevalent within women manufacturing leaders (Refer to Table 2). Ninety-five percent of participants described that they had experienced IP at some point in their careers. Both participant groups reflected high prevalence rates of 90% (South African women) and 100% (British women). Although more women experienced feelings of IP in their past careers (95%) than their present careers (85%), the prevalence of IP in their current careers is still significant. Interestingly, in both past and present time frames, more UK women experienced IP than South African women.

In their past careers, factors such as the level of experience, qualification, and age in comparison to others, led to feelings of inadequacy and IP, particularly within the South African population (70% of participants versus 10% of British participants). These findings corroborate the findings from the Kumar et al. (2022) study that found that employees who were new to their role and new to an employer, experienced feelings of IP, and align to the findings of the Kogan et al. (2020) study where it was shown that veterinarians with a lower tenure were more impacted by IP than those with a higher tenure. The findings also aligned with the findings of Kuna (2019) who found that where individuals are promoted into a role for which they do not have a formal qualification, despite proven ability, self-doubt and IP occur.

In addition, in their past careers, women leaders within the manufacturing sector found it difficult to present themselves within the patriarchal and male-dominated environment. They questioned their natural leadership styles and at times displayed male leadership styles in order to be accepted, to be seen as a good manager by others (mostly men), to achieve the expected results and to progress in their careers. Not being their true selves increased feelings of inadequacy. The findings concur with those of Van Veelen et al. (2019) who found that women experience identity threat leading to a lack of work engagement and career confidence when they work within highly technical male-dominated environments. The findings also align with the impression management coping strategies as identified by Makarem and Wang (2020) where women may change their behaviour and display a more masculine style at work in order to comply and feel included within the organisational culture, as well as the findings of O'Connell and McKinnon (2021) that also confirmed changes to women's working styles within patriarchal environments. In addition, highly competitive environments, such as manufacturing, can exacerbate feelings of IP (Canning et al., 2020; Slank, 2019).

The results indicated a recurrent theme throughout the participants' career progression relating to the impact of change within their working environment. When the women participants were exposed to a new task or project, or when they were given additional responsibilities, or a new role, feelings of self-doubt and a lack of confidence emerged, both in their past and current careers. This finding corroborated the findings of LaDonna et al. (2018) that indicated that self-doubt in medical professionals increased when they were promoted or given new tasks. In addition, previous studies have shown that those who suffer from IP do not attribute success to themselves but to other external factors such as effort, luck, or being assisted by others (Clance & Imes, 1978; Chakraverty, 2019; Bravata et al., 2020), therefore, when faced with a new challenge those with IP lack confidence and doubt their abilities, as they feel that previous successes were not as a result of their astuteness, which supports the findings in this study.

The participants in this study, despite previous successes in their careers, fear change and question their abilities when taking on new tasks or roles. This is corroborated by previous studies where success does not curb feelings of self-doubt (Clance & Imes, 1978; LaDonna et al., 2018) and that the fear of failure is negatively related to self-efficacy (Nelson et al., 2019).

These feelings of self-doubt were also experienced when the participants reflected on future career prospects. Participants questioned whether their abilities were adequate to enable them to be successful in a bigger role and many did not have the confidence to move from their current positions. This was further corroborated by 40% of the participants being employed by the same company, or Group of companies, since the beginning of their careers. These findings align with those of Hudson and González-Gómez (2021) who identified that IP resulted in feelings of unemployability at new organisations however it did not impact feelings of being unsuitable or not qualified for current roles. In addition, Grubb III and Grubb (2021) found that the fear of failure, in those with maladaptive tendencies and IP, can impact how imposters view themselves, which may contribute to their own perceived ineligibility for roles outside of their current employer. Although studies have identified that IP does affect career progression, little has been done at an organisational level to address it. The findings of the current study indicate that IP has had a significant impact on the women participants throughout their personal and work lives. Not only has it impacted their career progression, but it has

hampered organisations from harnessing the women's true potential and creativity in the workplace.

Conclusion – Research Question 1

In their past careers, the South African and British women participants experienced feelings of inadequacy and self-doubt due to their level of experience, qualifications and age, and as a result of having to adjust their working styles as women within male-dominated environments. Throughout their career progression, they have experienced IP at points of change or the unknown. These included instances where they were given a promotion, additional responsibilities or a new task or assignment. The feelings of self-doubt and fear also emerged when they narrated their feelings about future career prospects - another unknown. Half of the participants, despite their qualifications, knowledge, experience and proven success, questioned whether they would be capable to take on a new role at a different organisation. This fear of failure could result in them not progressing in their careers, and rather staying in their current roles where they feel more confident. The intrapersonal and systemic factors that were found to contribute to the women's experiences of IP will be discussed in the following section.

6.2. Discussion: Research Question 2

Research question two:	What intrapersonal (internal) and systemic (external) factors have contributed to the experiences of IP throughout the career progression of South African and British women leaders in manufacturing?
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The aim of Research Question 2 was to understand which intrapersonal and systemic factors contributed to feelings of IP throughout the career progression of women leaders in manufacturing. The themes identified in Chapter 5 relating to this research question have been summarised in an excerpt from Table 3 below.

Table 5 – Excerpt from Table 3 – Research Question 2 themes

		Themes identified		
		Past	Present	Suggested improvements to reduce IP in future
RQ2 - Internal factors (Section 5.3.2)	Negative internal feelings and inner voice	Negative internal feelings and inner voice	Having more self-belief, self-awareness and confidence	Not taking comments of others personally, not internalising
	Personal background and relationships			
	Becoming a mother			
	High personal standards			
RQ2 - External factors (Section 5.3.3)	Impact of organisational culture and environment	Impact of organisational culture and environment	Inclusive organisational culture	Supportive leadership
	Comments and actions of others	Comments and actions of others		
	Gender bias and stereotypes	Gender bias and stereotypes		

Author's own

Through listening to the stories of the women's career progressions and understanding the intrapersonal and systemic factors that played a role in chronological order, it became evident that the two constructs were intricately linked and influenced by each other, aligning with the findings of Molatseli (2022) who also noted that internal factors were impacted by certain external factors in her study. The findings showed that negative intrapersonal factors may have already existed within the participants due to their personal backgrounds and upbringings. These included societal messaging about their social group or chosen profession, which impacted their confidence at work or resulted in them being more sensitive to the behaviours or comments of others in the workplace. These intrapersonal factors were then fuelled through further feelings of self-doubt, inadequacy and the feeling of non-belonging (lack of inclusion) created by systemic factors to which they were exposed in the workplace, creating an ongoing cycle of imposter feelings and behaviours.

Intrapersonal factors

The findings reflect that factors relating to a participant's personal background, such as being the first person in the family to go to a university and being brought up within

a patriarchal environment, had contributed to her feelings of IP. The findings in this study have empirically affirmed certain aspects of the Nadal et al. (2021) model (Figure 2) that proposes that negative messages about identity from family and peers as well as from society may lead to the internalisation of these feelings, which over time when exposed to other factors will lead to feelings of IP and stereotype threat (Nadal et al., 2021). Where the Nadal et al. (2021) model ceases at the early adulthood stage, it is suggested, based on the findings of this study, that the internalisation of negative social messages as well the impact of systemic issues, such as non-inclusive work environments, continue to impact the feelings of IP throughout career progression.

The findings relating to high personal standards, where participants described the need to work hard, and at times towards their own unattainable standards (perfectionism), support the findings of other studies on IP such as those by Grubb III and Grubb (2021) and Pákozdy et al. (2023) who found a positive relationship between IP and perfectionism, and Clance and Imes (1978) and Hutchins et al. (2018) who found that imposters may overwork to compensate for their feelings of inadequacy and self-doubt. Certain participants were exposed to societal messaging relating to gendered roles and occupations in their childhood, and others were exposed to gender bias and stereotypes in the workplace, which also fuelled the need for them to work hard to prove themselves. This finding aligns with the O'Connell and McKinnon (2021) and Marshman et al. (2018) studies that found that negative biased comments regarding women in the STEM environment resulted in self-doubt and the need to prove competency in the workplace.

An interesting finding was that 31% of the participants who were parents (57% of British participants who were parents) reported that motherhood increased their feelings associated with IP. Although the O'Connell and McKinnon (2021) study found that women in STEM felt that they had to work harder after having children, no previous studies specifically relating to increased feelings of IP could be found that supported this finding. When women become mothers the support from organisations is usually in the form of a contribution towards pay whilst on maternity leave and a guarantee that the work position will not be filled in their absence. The findings in this study indicate that organisations need to support women over and above the current status quo. Companies need to be cognisant of the impact that different life-stages have on women's self-confidence at work and need to design interventions to mitigate women's feelings of self-doubt, inadequacy and the feeling of not belonging. This

finding also highlights the need for additional research to be performed on the relationship between motherhood and IP in the workplace.

The recurring intrapersonal theme identified throughout the career progression of participants was the existence of negative internal feelings, such as self-doubt, lack of self-confidence, low self-esteem, inadequacy, internalisation of issues and the presence of an inner voice. These findings support previous reported findings in Pannhausen et al.'s (2020) study that found that imposters displayed high maladaptive perfectionist qualities including the questioning of their abilities and performance (self-doubt), the fear of making mistakes and the assumption of high standards imposed by others. Similarly, Schubert and Bowker's (2019) study found a negative relationship between self-esteem and IP. The internalisation of factors as discussed within the Nadal et al. (2021) study aligns with the findings of internalising issues and the existence of an inner voice within this study.

One participant described how she suffered from severe depression in her past career due to her intense feelings of inadequacy. Her depression led to her contemplating suicide, which highlights that feelings of IP can be so severe that they can result in significant personal consequences for the sufferer and can impact staff wellbeing in the workplace. This finding aligns with the Shanafelt et al. (2022) study that found that those who suffer from IP experience increased levels of burnout and suicidal thoughts, and with the Thomas and Bigatti review, which found that perfectionism and IP negatively impact mental health. IP also leads to lower professional fulfilment (Shanafelt et al., 2022).

Systemic factors

The same three systemic themes of (1) the impact of organisational culture and environment; (2) comments and actions of others; and (3) gender bias and stereotypes continued to exist throughout the career progression of the participants. The findings included the existence of male-dominated environments, hierarchical structures, "boys clubs," lack of acknowledgement and unfair treatment, resulting in a non-inclusive work environment for women and increased feelings of IP. This study has empirically validated the suggestions made by Feenstra et al. (2020) in their perspectives piece, 'Conceptualising the Imposter "Syndrome"', through understanding the societal factors, institutional factors, and interpersonal factors in the workplace that contribute to feelings of IP over and above internal factors. In addition, the current study

corroborated findings from Mullangi and Jagsi (2019) who found that IP was common in minority groups.

A number of participants relayed that being a minority in a male-dominated environment with few or no role models, did impact their feelings of IP. They also explained that not being heard or acknowledged by others leads them to question whether their contributions are valid, brings about feelings of self-doubt and increases feelings of not belonging within the environment. These findings align with Arleo et al. (2021) who concluded that the lack of role models can increase feelings of not belonging and can impact career progression, and that the lack of acknowledgement by others can reduce confidence and result in feelings of IP. The findings of the current study also reflect that the majority of the participants did not have a STEM identity as set out by Kim et al. (2018), due to them feeling that they did not belong and not being accepted as belonging by others. This sense of not belonging may be impacted by historical institutional and societal factors as described by Collins (2018), Edwards (2019) and Feenstra et al. (2020).

It is alarming to note that these negative external factors continued to perpetuate to the participants' current careers given that the average number of years of working experience of participants was 26.7 years. It reflects that little has been done, or what has been done has not been effective, within the manufacturing sector with respect to enhancing the inclusion of women, which may be contributing to the lack of women's representation in the sector.

The participants explained that having more self-confidence, self-belief and self-awareness, as well as the ability to not internalise and take the comments of others personally would decrease their feelings of IP in the future. They also noted that an inclusive organisational culture and a supportive leader would reduce their feelings of IP in the workplace.

Conclusion – Research Question 2

The intrapersonal factors that impacted the participants' experiences of IP throughout their career progression included negative internal feelings and inner voice. These negative internal feelings included self-doubt, inadequacy, lack of self-esteem and being self-critical. They also internalised and overanalysed things that they or others said or did in the workplace. Certain aspects from their personal backgrounds, having

high standards and becoming a mother (particularly British women), impacted their experiences of IP in their past careers.

The systemic factors that the participants experienced throughout their career progression included the impact of organisational culture and the working environment, comments and actions made by others and gender bias and stereotypes. The findings indicated that intrapersonal and systemic factors contributing to IP are interrelated, and can both fuel feelings of self-doubt, inadequacy and a sense of not belonging. In order to reduce IP, both of these factors must be addressed in a sustainable manner.

6.3. Discussion: Research Question 3

Research question three: How does IP manifest throughout the career progression of women manufacturing leaders in South Africa and the United Kingdom?

This research question aimed to understand how the existence of IP impacts women’s working styles and personalities at work throughout their careers, and to understand whether they felt that IP had had an impact on career progression or whether it will continue to impact their career progression in the future. The themes for this research question as identified in Chapter 5 have been included in an excerpt from Table 3 below:

Table 6 – Excerpt from Table 3 – Research Question 3 themes

		Themes identified		
		Past	Present	Future
RQ3 - Manifestations (Section 5.3.4)	Change in presentation after promotion		Presentation of self at work aligned with authentic self	
	Demonstration of ability and validation of position		Difficulty in accepting, recognising and celebrating success	
	Feelings of IP have impacted career progression		Feelings of IP continue to exist in current career	
			Increase in IP as careers have progressed	Feelings of IP will continue in the future

Author’s own

A significant number of participants (65%) adjusted the way that they presented themselves in the workplace after promotions, in their past careers. This was either in terms of their working styles where they became more serious or controlling, aligning

more with a masculine leadership style or they isolated themselves from their teams or suppressed themselves. Some women also described changing the way that they dressed so as to not stand out. These findings align with the findings of Makarem and Wang (2020) and O'Connell and McKinnon (2021) who noted that women may adjust their working styles within patriarchal environments in order to feel included and to advance in their careers.

The results also showed that in their past careers the women felt the need to work harder to demonstrate their abilities in order to validate their position after their promotions. These findings align with the findings of Marshman et al. (2018) who noted that women in STEM feel the need to work harder to prove themselves given the perception that women are not as competent as men. In addition, O'Connell and McKinnon (2021) found that in order to gain the same recognition as men, women felt the need to work harder.

In contrast to the work styles presented in their past careers, the majority (75%) of the participants narrated that they present themselves as their authentic selves at work in their current roles and endeavour to create an inclusive and collaborative environment with their teams. Some women noted that it is too difficult and tiring trying to be two different people. These findings contradict the findings that women may adjust their working styles within patriarchal environments to feel included and to progress in their careers (Makarem & Wang, 2020; O'Connell & McKinnon, 2021). This may be because many participants are in senior management roles, have had long tenure and feel comfortable in their current positions. It may also indicate that the participants have experienced journeys of personal development throughout their careers which have enabled them to be closer to their true selves at work. This personal development may have been purposeful, or may have happened organically over time. As the scope of the current study did not include reviewing such interventions, this is an opportunity for further research in the future. The current study does highlight however, that IP does co-exist with an authentic working style.

A large number of participants (65%) found it difficult to accept recognition for their success or to celebrate it. Some participants explained that they feel a sense of relief when they succeed, as opposed to happiness. This is due to those who display IP having a fear of failure, which aligns with Molatseli (2022) and Pannhausen et al.'s (2020) studies that found that the fear of failure is associated with IP. Some participants described themselves as being hardworking and perfectionists. Studies by

Chakraverty (2019), Clance and Imes (1978) and Kumar et al. (2022) found that those with IP tend to attribute success to external factors, including effort. The participants may not recognise their success as they may perceive it to be as a result of hard work only.

Other participants did not celebrate success as they felt that it was part of their job or felt that their performance was still not good enough or could have been better. These findings support those of Edwards (2019) where those with IP tend to focus on areas of improvement as opposed to accepting success and those of Levant et al. (2020) who found that those with IP focus on areas of weakness or failure over success. The self-critical nature of some participants aligns with the findings of Gadsby and Hohwy (2023a) that those with IP evaluate themselves more negatively than those who do not have IP.

In contrast to the findings of Chakraverty (2019) who found that gender and ethnicity increased feelings of IP due to imposters questioning whether they had achieved due to their merit, or merely due to inclusivity quotas, none of the women in this study, regardless of their ethnicity, mentioned quotas as a reason for their career progression or having contributed to their feelings of IP.

Sixty percent of participants felt that IP had impacted their career progression up to their current position. The reason for this stemmed mainly from a lack of confidence and self-doubt in their abilities which hindered them from seeking and driving opportunities for growth within their own careers. Rather, they relied on others to see their potential for progression. This finding aligned with the findings of the study by Hudson and González-Gómez (2021) where participants with IP felt that they were less likely to obtain a job in another organisation, but they felt capable to perform their current roles and found that IP had a negative impact on participants' career progression with respect to performance reviews and promotions.

A significant number of participants (85%) described that they still experience feelings associated with IP in their current careers, which aligns with the findings as presented under Research Questions 1 and 2, where both intrapersonal and systemic factors that contribute to the feelings of IP still exist. The majority of participants (55% of which 60% were UK participants and 50% were SA participants) explained that their feelings of IP have increased throughout their career progression as their seniority, responsibilities and the expectations imposed on them increased. This finding is not

supported by previous literature as no previous studies could be found that have assessed feelings of IP throughout the career progression of the participants themselves. Existing studies have shown that the existence of self-doubt does not decrease over the career progression of physicians (LaDonna et al., 2018) and the majority of studies showed that IP was more prevalent in younger participants versus older participants (Bravata et al., 2020; Haar & de Jong, 2024; Kogan et al., 2020; Medline et al., 2022).

An interesting finding was that some participants described experiencing the same IP feelings within their private lives whereas IP is described as a “work issue” in current literature. The participants described feeling undeserving, inadequate and not good enough in their personal lives.

Looking to the future, 80% of participants (90% of British participants and 70% of South African participants) feel that they will experience feelings of imposter phenomenon in their future careers. Some participants mentioned that the internal and external factors that impact them now will continue into the future, others recognised that as they progress, they will be exposed to additional unknown challenges which will impact them. No current studies could be found to support this finding.

Conclusion – Research Question 3

The imposter phenomenon has manifested through the limitation of the career progression of women leaders in manufacturing. IP continues to exist in their current careers and is expected to exist in their future careers. In addition, it has manifested through women leaders adapting their working styles, and feeling the need to demonstrate their abilities to validate their positions at the beginning of their careers. Over and above this, in their current careers they find accepting recognition and celebrating their successes difficult. Throughout their career progression most participants have gained confidence to display their authentic selves at work and promote an inclusive and collaborative environment. This finding is interesting in that it indicates that IP can co-exist with an authentic self-persona.

6.4. Conclusion

This Chapter discussed the findings of this research study by comparing and contrasting them to the extant literature on the imposter phenomenon and women in business, particularly STEM. It was identified that the instances in which the women experienced the imposter phenomenon in this study largely aligned with existing

literature. In addition, the internal factors identified aligned with previous studies. However, the impact of systemic factors, which has not been extensively researched empirically, was noted to play a significant role in the internal feelings associated with IP of women leaders in manufacturing. It is opined that inclusion should be considered when assessing the dynamics associated with IP in further studies. Imposter phenomenon was shown to manifest at significant levels within both participant groups throughout the career progression of the women participants and the majority felt that the feelings of IP had increased as their seniority increased. These findings have added to the body of research on the imposter phenomenon. The following Chapter sets out the conclusions reached for this study and discusses the impact that the findings will have on women in manufacturing and within STEM organisations. Limitations of the study and opportunities for future research in this field are also discussed.

7. Chapter 7: Conclusion

7.1. Introduction

The attraction to and retention of women within STEM fields in South Africa and the United Kingdom is impacting women's representation in the manufacturing sector as set out in Chapter 1. The imposter phenomenon has been identified in previous studies to impact the career progression of women and minority groups as a result of burnout, reduced job satisfaction and poor work performance (Bravata et al., 2020; Hutchins et al., 2018). This study aimed to understand "The experiences of the imposter phenomenon throughout the career progression of women manufacturing leaders in South Africa and the UK" through understanding (1) the situations in which women were more prone to feelings of IP (experiences of IP); (2) the intrapersonal and systemic factors that contributed to these feelings as well as; (3) how IP manifested throughout the career progression of the women participants. By understanding these factors more deeply, remedial actions could be put in place that would increase the representation of women within the manufacturing environment. An equal number of participants from two socio-economically distinct countries were selected in order to contrast findings to ascertain whether IP is an issue relating to the individual, or if it is an environmental or systemic issue in the workplace.

The study was conducted using a narrative inquiry qualitative approach through carrying out semi-structured interviews with the participants to deeply understand IP and its influencers, in the context of the participants' stories of experiences throughout their career journeys.

This Chapter will conclude on the key findings of the research study; discuss the contributions the study has made to the current body of knowledge; the implications for women leaders and organisations; outline the limitations inherent within the study; and will provide recommendations for further research into the imposter phenomenon.

7.2. Conclusion of Findings for Research Questions

Within this section, each research question will be summarised and concluded on through reflecting on the discussions set out in Chapter 6.

7.2.1. Research Question 1

Research question one: How do South African and British women leaders in manufacturing experience imposter phenomenon throughout their career progression?

This question set out to understand in which circumstances feelings of IP are experienced by women leaders in manufacturing, and whether these change throughout their career progression, which is nuanced by unique gender issues (Hing et al., 2023; Mullangi & Jagsi, 2019; Nadal et al., 2021). It aimed to do this through narrative inquiry, by understanding the circumstances in which the participants experienced feelings of inadequacy, self-doubt and lack of confidence in their past and current careers and through understanding how they felt when they reflected on future career prospects.

The study found that experiences of imposter phenomenon occurred throughout the career progression of the women within both participant groups at significant levels. In their past careers, particularly near the beginning of their careers, the South African and British women participants experienced feelings of inadequacy and self-doubt due to their level of experience, qualification and age. Seventy percent of the South African participants were impacted by this theme versus only 10% of British participants. This finding may be as a result of more South African participants having begun their careers as apprentices or learners within a STEM environment than the British participants. This may have been impacted by people of colour and women being marginalised and not provided with a high standard of education, due to the legacy of educational disparities that still exist in post-apartheid South Africa. Although this finding was supported by current literature, it does provide an opportunity for additional research to be done regarding IP in graduate trainees and young employees within the South African context in order to improve career progression within STEM.

The participants also narrated how in the beginning of their careers, due to the highly male-dominated and patriarchal environments in which they worked, they questioned their leadership and working styles which brought on feelings of IP. Some participants took on more masculine styles and behaviours and changed the way that they dressed in order to fit in. These findings were supported by previous literature.

The finding that was consistent throughout the career progression of participants was that of participants experiencing feelings associated with IP in moments of change or the unknown. These related to a new opportunity, a new task or project, or additional responsibility, amongst others.

7.2.2. Research Question 2

Research question two: What intrapersonal (internal) and systemic (external) factors have contributed to symptoms of IP throughout the career progression of South African and British women leaders in manufacturing?

This research question aimed to gain an understanding of whether any specific intrapersonal factors, such as self-doubt or feelings of inadequacy (Clance & Imes, 1978; Gadsby, 2022; Nadal et al., 2021) or systemic factors such as organisational culture, environment or the lack of role models (Edwards, 2019; Makarem & Wang, 2020; Slank, 2019; Tabassum & Nayak, 2021) contributed to feelings of the imposter phenomenon throughout women's careers and whether these changed over time.

The study found that both intrapersonal and systemic factors play significant roles in both participant groups' experience of IP throughout their career progression. It was found that the intrapersonal factors and the systemic factors are intricately linked to each other and both impact on the feelings associated with IP. It is opined that due to the systemic issue of inclusivity being so pervasive to the feelings of IP, this should be included in future studies on IP in the workplace. The findings support that IP is not an individual issue and needs to be acknowledged as a larger systemic issue which workplaces need to tackle if they want their employees to thrive.

The key intrapersonal factors were the existence of a negative inner voice and negative internal beliefs linked to self-doubt and inadequacy. These internal beliefs were found to have been supported by factors from the participants' personal backgrounds and societal input. The external or systemic factors that had a significant impact on the participants' experiences of feelings of IP remained constant through the participants' career progression being (1) organisational culture and environment referring to male-dominated patriarchal environments, the existence of "boys clubs" and the lack of women role models; (2) comments and actions of others where hurtful actions and comments by others enhanced feelings of inadequacy or perpetuated a non-inclusive environment; and (3) gender bias and stereotypes where women were treated differently in the workplace and experienced biased expectations of their role and performance. A conceptual model to depict the interrelationships between internal and external factors on the feelings associated with IP has been set out below in Figure 8.

These three feelings of self-doubt, inadequacy and the lack of inclusion or the feeling of not belonging, result in increased internal negative feelings and thoughts which perpetuate IP.

7.2.3. Research Question 3

Research question three: How does IP manifest throughout the career progression of women manufacturing leaders in South Africa and the United Kingdom?

This research question sought to explore how the existence of IP impacts the working styles and personalities (Clance & Imes, 1978; Shanafelt et al., 2022) of women throughout their careers. It also aimed to understand whether IP had had an impact on the career progression (Bravata et al., 2020) of women in manufacturing, and whether it will continue to impact their career progression in the future.

The findings showed that the majority of women changed their working styles after their promotions to a more masculine and controlling style. However, in their later careers, the majority of women reflected that their leadership styles were more authentic and collaborative. Even though these women leaders feel that they can be their authentic selves at work in their current careers, they do still experience IP evidencing that although being unauthentic can induce feelings of IP (Van Veelen et al., 2019), adopting a more authentic leadership approach does not mitigate it.

Sixty percent of participants felt that IP had had a negative influence on their career progression, with the majority of participants narrating that the feelings of IP had increased throughout their careers as the level of responsibility increased. This finding adds to the body of literature in that previous studies have not reviewed the feelings of IP throughout the career progression of the participants themselves, and other studies reflect that IP decreases with age. Eighty percent of participants feel that they will continue to experience feelings of IP in the future. This is worrying as the existence of IP could further impact the career progression of the participants in the future.

7.2.4. Overall Finding: Interrelated Factors that Impact IP

This research has successfully achieved the objectives as set out in Chapter 1 and 3. Whilst much of the literature on imposter phenomenon has focused on the intrapersonal factors that contribute to it, few empirical studies have been performed

on the extent to which systemic factors play a role in the feelings associated with IP within the workplace. In addition, no empirical qualitative studies could be found that focused on IP throughout the progression of women leaders within the manufacturing sector. This study has gained a rich, deep understanding of the imposter phenomenon through listening to the stories of the participants themselves and understanding the interrelationship between the intrapersonal and systemic factors and their impact on both the experiences of IP and how it manifests.

Figure 8 below depicts the complex relationship that exists between the constructs discussed within the study.

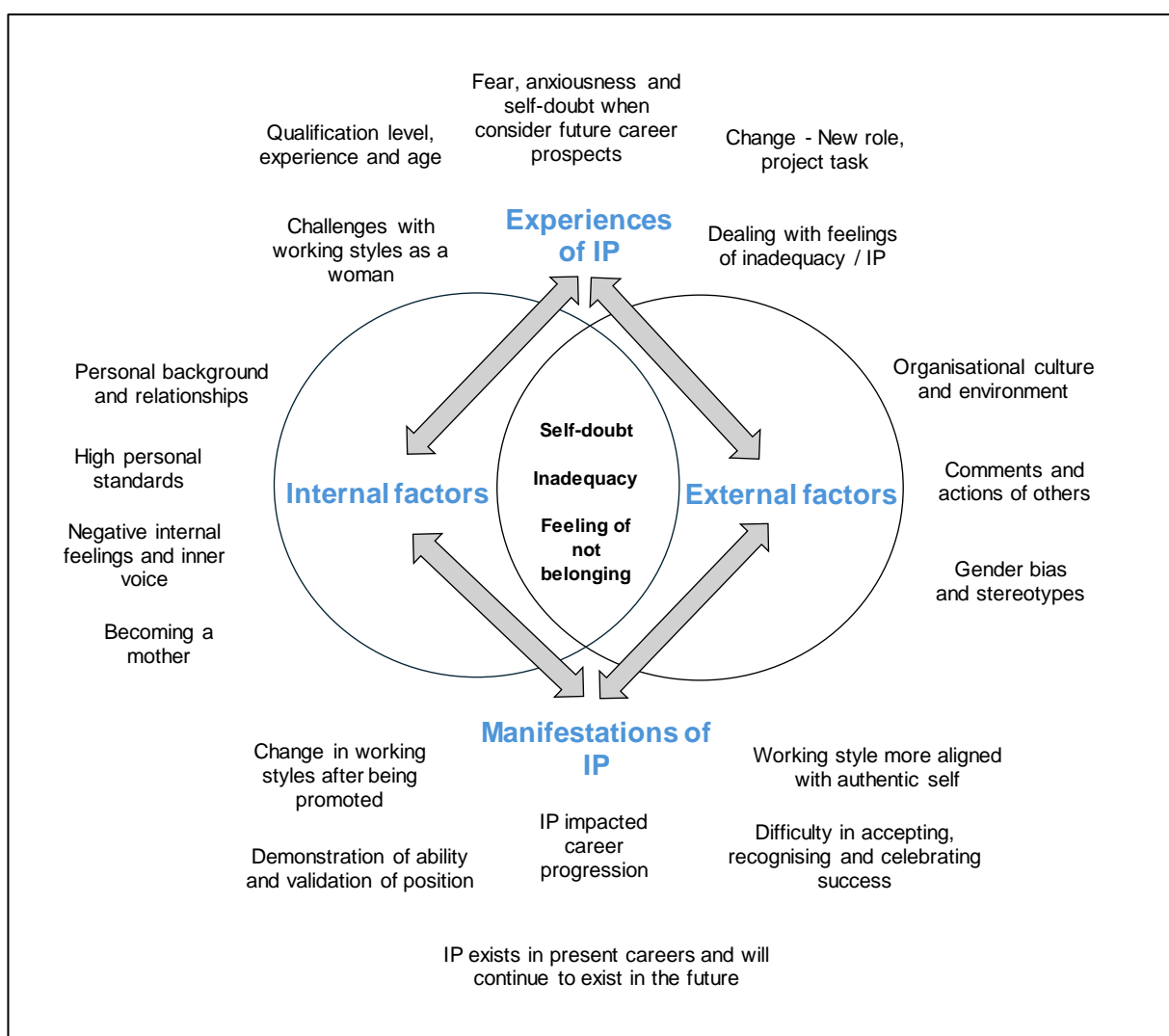


Figure 8 – The Framework of Interrelated factors that impact feelings associated with IP (Author's own)

This framework has been developed based on the findings in the current study. It aims to depict the interrelationship between the internal and external factors that bring about the feelings of self-doubt and inadequacy and the feeling of not belonging which enhance IP. The internal and external factors also impact how IP is experienced and how it manifests. In addition, these experiences and manifestations are also interrelated to the internal and external factors and may result in both negative or positive impacts on these factors. As an example, IP manifested in women in their early careers by their emulation of masculine leadership styles. This was due to the lack of role models and a patriarchal environment (external factor). The women felt inadequate and started self-doubting as they were not being their authentic selves (internal factor) which resulted in them not pushing themselves forward in their careers (experience).

7.3. Contributions of the Study

This research study has contributed to the current body of knowledge that exists on the imposter phenomenon, with particular attention to women manufacturing leaders, as no previous studies could be found that specifically focused on IP within women in the manufacturing sector, using a qualitative research methodology.

The study has found that IP is highly prevalent throughout the career progression of women leaders in the manufacturing sector within both countries included in the study. This study has also found that IP has increased throughout the career progression of women, which is contrary to extant literature, and that both intrapersonal and systemic factors played an interrelated role in inducing the feelings of IP throughout the career progression of women leaders in manufacturing.

A further contribution to current literature was the finding that age, limited experience and level of qualification increase the feelings associated with IP within the early career stages of South African women within the STEM environment.

This study also found that motherhood increases the feelings of IP in women manufacturing leaders. Over and above the other challenges facing women within the competitive STEM environment, becoming a mother creates another difference in the workplace between women and men, and colleagues who are not mothers, that results in women feeling inadequate, or having to work harder to prove themselves. This finding has added to the current body of research and is an area that warrants further research.

It was also found that women's working styles developed to be closer to their authentic selves over their career progression. Despite this, the participants in the study continued to experience feelings associated with IP, and found that the feelings of IP had intensified as they progressed into more senior roles.

7.4. Implications for Stakeholders

7.4.1. Women Manufacturing Leaders

This study will allow women leaders in the manufacturing sector to realise that their feelings of IP are not isolated and that it is a common experience of many women within manufacturing. This may give women manufacturing leaders more confidence in the workplace. By understanding that IP is impacted by both intrapersonal and systemic factors, and that they can be interrelated, the women leaders will be able to recognise the triggers that lead to feelings associated with the imposter phenomenon. This will prevent them from overanalysing and internalising the words and actions of others and will allow them to find ways in each of these situations to deal with the feelings of IP in future.

By understanding the impact of the lack of women role models in the perpetuation of IP, women manufacturing leaders may be more inclined to mentor, coach or support other women in manufacturing either within their organisation or externally.

In addition, having an empirically tested study conducted within the manufacturing environment may provide context for women manufacturing leaders to raise the issue of IP with senior managers within the business to effect change within the organisation.

7.4.2. Young Women Pursuing STEM careers

It would be beneficial for graduates who are studying within STEM fields to be exposed to this study during their tuition or as they enter the working environment. Being aware of what IP is, the internal and external factors that contribute to the feelings associated with it and how it manifests in the workplace, young women in STEM will be more prepared and resilient in the workplace. This could improve the advancement and retention of women in STEM.

7.4.3. Men in STEM

As the majority of popularist literature has earmarked IP as a women's issue, this study would assist men to understand the dynamics at play for women within the manufacturing environment, including the nuances of becoming a working mother. By

understanding the internal and external factors that impact women in manufacturing, men can consciously adapt their working styles to be more inclusive to women in the workplace. This could improve the retention of women in manufacturing.

7.4.4. Manufacturing Organisations

This study will enable manufacturing organisations to recognise that the existence of IP within their sector is impacting the career progression of women due to the number of systemic factors that exist within the workplace. Creating an inclusive organisational culture, where gender bias and sexism is not tolerated at any level of the organisation will reduce the prevalence of IP in the workplace. A number of participants narrated that not being acknowledged or not having their ideas heard by others, can bring about feelings of self-doubt and inadequacy in the workplace. Having supportive leaders that actively encourage inclusive participation in a psychologically safe environment will assist in reducing the feelings of IP in women. Organisations should also ensure that they put policies and processes in place to support women's well-being in the workplace as they progress through different life stages, for example being a mother.

As the study identified that young South African women within the STEM environment had feelings of IP associated with their age, experience and level of qualification, organisations that employ apprentices, learners and graduates should ensure that they address these feelings through training and mentorship programs.

Organisations need to take action to reduce the prevalence of IP in the manufacturing sector.

7.5. Research Limitations

The current study did not assess the impact of race or other marginal identities intersecting with gender and feelings of IP within the workplace. The current study focused on IP within women only. In addition, this study focused on the experiences of IP throughout the career progression of women leaders in manufacturing, but it did not explore interventions that may have assisted participants in their career advancement and whether these interventions influenced their feelings associated with IP.

7.6. Recommendations for Future Research

This study focused on the imposter phenomenon in women manufacturing leaders within the UK and in South Africa. To add to the current findings due to the sample size being small due to the nature and timing of the study, further studies should be carried

out where interviews are conducted across a larger sample of participants, corroborated with quantitative research. In addition, as this study only focused on women, further empirical studies should be carried out on IP in the manufacturing sector that focus on men. This would assist in identifying the significance of IP in the manufacturing sector overall.

Further research into the relationship between motherhood and IP within the manufacturing context is warranted, as this may be another factor impacting the career progression of women in STEM which has not yet been empirically tested.

The interventions applicable in the progression of working styles throughout the career progression of women leaders in manufacturing was not within the scope of the current study and warrants further research.

The findings of this study have indicated that systemic factors do play a significant role in the feelings of IP experienced by women manufacturing leaders. Further research is required to understand what practical organisational interventions would be effective in reducing the impact of IP in women in the workplace.

7.7. Conclusion

The manufacturing sector in South Africa and the UK continues to be male-dominated, with STEM industries failing to attract and retain female talent. Women in business experience a number of challenges such as the lack of role models, gender bias, stereotypes and overt discrimination. A number of women, despite navigating these challenges and being successful in their careers experience the imposter phenomenon which may lead to anxiety, depression and feelings of self-doubt and may impact their career progression. The imposter phenomenon has been popularised in lay literature as a women's issue, with the focus being on fixing the internal problems within women. Many quantitative studies have been performed within the medical and academia fields, however, no qualitative studies could be found that focused on IP throughout the career progression of women, specifically in the manufacturing context and in South Africa or the UK. Although there has recently been a shift to understand what systemic factors could be impacting the prevalence of IP, very few empirical studies exist.

This research project aimed to understand the experiences of the imposter phenomenon throughout the career progression of women leaders in manufacturing in South Africa and the UK through understanding which intrapersonal and systemic

factors contributed to the feelings of IP and how IP manifested itself throughout their careers.

The findings have shown, within both participant groups, that internal and external factors both contribute towards feelings associated with IP and that they are interrelated to each other and to the experiences and manifestations of IP. Based on the findings, the feeling of not belonging is a critical factor contributing to the phenomenon of IP which should be integrated into the field of study. The findings from this study were consolidated into a proposed framework for understanding the relationship between the internal and external factors which influence feelings of IP stemming from a range of experiences and manifesting in adaptive behaviours. This study has contributed to the current literature through identifying new findings and areas for future research.

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9. Appendix A – Interview Guide

Demographic information	
Name	
Region (i.e. South Africa / United Kingdom)	
Race	
Current Position	
Years of work experience	
Years working in manufacturing	
Industries worked in	
Current Industry	
Highest level of education	
Interview Questions	Research Questions
Opening	
1. Please can you explain your understanding of what the imposter phenomenon is	
The past	
2. In reflecting back to the beginning of your career can you describe an occasion where you felt inadequate or undeserving of success and questioned your abilities.	RQ1 – Experience
3. What factors within the organisation (for example, culture, leadership styles, industry etc), if any, do you feel contributed to these feelings? a. Were you part of a minority group?	RQ2 – Internal and external factors
4. Looking back to those early years of your career how do you think these feelings were influenced by your personal beliefs about yourself and your capabilities? a. How did you overcome these feelings (probe) did you feel you had to adjust how you were at work and your working style?	RQ2 – Internal and external factors RQ3 – How IP Manifests
5. Contrastingly, can you please reflect on an occasion early in your career where you were confident in your abilities and proud of your achievements.	RQ1 – Experience
6. In this instance, what factors from the organisation and from your own personal perspective do you feel encouraged these positive feelings? a. Were you part of a minority group?	RQ2 – Internal and external factors
7. Can you please explain how you felt when you received your first promotion.	RQ1 – Experience

a. How did this promotion make you feel about your organisation's affirmation of you	RQ2 – Internal and external factors
b. How did this promotion influence your personal beliefs about your capabilities?	RQ2 – Internal and external factors
c. How did you change how you projected or presented yourself at work after the promotion?	RQ3 – How IP manifests
8. Looking back, in what ways do you think the feelings of imposter phenomenon impacted for career progression	RQ3 – How IP manifests
9. Were there any specific life events that impacted your feelings of inadequacy or levels of confidence	RQ2 – Internal and external factors
The present	
10. In your current position, how do you present yourself at work in terms of your working style and personality?	RQ3 – How IP manifests
11. Can you explain whether the “you at work” aligns to your true personality and inner feelings?	RQ3 – How IP manifests
12. In your current role, can you please describe situations that make you question your abilities and make you feel inadequate.	RQ1 – Experience
13. Which situations in your current role make you feel confident in your abilities.	RQ1 – Experience
14. In reflecting on the two scenarios you have outlined a. are there any specific organisational factors that contributed to these feelings b. what personal beliefs about yourself do you think contribute to these feelings that you experience?	RQ2 – Internal and external factors
15. In the instances where you feel most inadequate how do address these feelings	RQ1 – Experience
16. When you achieve success in your career, how do you feel and how do you externalise this success	RQ3 – How IP manifests
The future	
17. How do you feel when you reflect on your future career prospects a. What personal traits or characteristics do you feel you need to succeed in the future	RQ1 – Experience RQ2 – Internal and external factors
18. Taking into consideration your career journey, what factors do you feel would reduce your feelings of inadequacy in the future	RQ2 – Internal and external factors

<p>19. Do you feel that your feelings related to IP or the instances where you feel inadequate have reduced throughout your career? Do you think that you will still experience these feelings in the future?</p>	<p>RQ3 – How IP manifests</p>
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10. Appendix B – Consistency Matrix

Questions	Literature Review	Data Collection Tool	Analysis
<p>Research Question 1: How do South African women leaders in manufacturing experience imposter phenomenon throughout their career progression?</p>	<p>April and Singh (2018) Bravata et al. (2020) Chakraverty (2019) Clance and Imes (1978) Ely and Thomas (2020) Hing et al. (2023) Hudson and González-Gómez (2021) Kumar et al. (2022) Kuna (2019) LaDonna et al. (2018) Makarem and Wang (2020) Nadal et al. (2021) Mullangi and Jagsi (2019) Tabassum and Nayak (2021) Tulshyan and Burey (2021) Van Veelen et al. (2019)</p>	<p>Interview guide: Questions 2, 5, 7, 12, 13, 15, 17.</p>	<p>Interpretative</p>
<p>Research Question 2: What intrapersonal (internal) and systemic (external) factors have contributed to symptoms of IP throughout the career progression of South African</p>	<p>April and Singh (2018) Arleo et al. (2021) Bravata et al. (2020) Clance (1985) Clance and Imes (1978) Feenstra et al. (2020) Gadsby (2022) Grubb III and Grubb (2021) Hing et al. (2023) Hutchins et al. (2018) Kim et al. (2018) Makarem and Wang (2020)</p>	<p>Interview guide: Questions 3, 4, 6, 7, 9, 14, 17, 18.</p>	<p>Interpretative</p>

women leaders in manufacturing?	<p>Marshman et al. (2018)</p> <p>Meadhbh Murray et al. (2023)</p> <p>Molatseli (2022)</p> <p>Mullangi and Jagsi (2019)</p> <p>O’Connell and McKinnon (2021)</p> <p>Pákozdy et al. (2023)</p> <p>Pannhausen et al. (2020)</p> <p>Nadal et al. (2021)</p> <p>Tabassum and Nayak (2021)</p> <p>Tulshyan and Burey (2021)</p> <p>Schubert and Bowker (2019)</p> <p>Spencer et al. (2019)</p>		
<p>Research Question 3: How does IP manifest throughout the career progression of women manufacturing leaders in South Africa?</p>	<p>Bravata et al. (2020)</p> <p>Edwards (2019)</p> <p>Hing et al. (2023)</p> <p>Gadsby (2022)</p> <p>Hutchins et al. (2018)</p> <p>Kogan et al. (2020)</p> <p>LaDonna et al. (2018)</p> <p>Makarem and Wang (2020)</p> <p>Marshman et al. (2018)</p> <p>Nakazwe-Masiya et al. (2017)</p> <p>Nadal et al. (2021)</p> <p>O’Connell and McKinnon (2021)</p> <p>Pannhausen et al. (2020)</p> <p>Tabassum and Nayak (2021)</p> <p>Tulshyan and Burey (2021)</p>	<p>Interview guide:</p> <p>Questions 4, 7, 8, 10, 11, 16, 19.</p>	<p>Interpretative</p>

11. Appendix C – Research Question 1 – Experience of IP : Codes

The past - experiences of IP		
No.	Code	Theme
1	● A. Anxiety around decision making in new role	New role, project, task or change - increases feelings associated with IP
2	● A. Apprehensive about role change - feeling of not being ready	
3	● A. Change in job role and structure impacts confidence	
4	● A. Change within organisation lead to a feeling of not belonging	
5	● A. Changes in strategy lead to feelings of IP	
6	● A. Didn't feel she deserved to be in meetings with people at higher levels in new role	
7	● A. Experienced anxiety around how to show up after the promotion	
8	● A. Fear of change	
9	● A. Fear of commercial responsibilities that came with promotion	
10	● A. Frameworks and authority diluted IP feelings	
11	● A. Her department lead a project - in the spotlight - impacted confidence	
12	● A. Needing positive affirmation and confirmation of performance and role	
13	● A. Nervous about new role	
14	● A. New project / task / role brings about feelings of inadequacy	
15	● A. New role felt too big for me	
16	● A. New situation brings fear and anxiety	
17	● A. Promotion felt daunting	
18	● A. Promotion felt scary	
19	● A. Promotion resulted in self-doubt	
20	● A. Promotion was terrifying	
21	● A. Promotions can feel intimidating	
22	● A. Questioned whether promotion was supported by others	
23	● A. Questioned whether she was the right person for the role	
24	● A. Took time to feel confident in the role	
25	● A. Wasn't ambitious - didn't want to set herself up for failure	
26	● A. Bursary student - felt like had the job by default	Qualification level, experience and age impacts feelings of IP
27	● A. Felt that due to age people treated her like she didn't know anything and should sit in the corner and listen	
28	● A. Goal posts of what was needed to be promoted kept changing between different universities	
29	● A. Her age (young) also impacted her confidence in her role	

The past - experiences of IP (continued)		
No.	Code	Theme
30	● A. In early career majority of the time felt wasn't qualified to be where she was	Qualification level, experience and age impacts feelings of IP
31	● A. Lack of experience, knowledge and formal education in the field / industry cause doubt in ability	
32	● A. Senior qualification results in lack of relationships and networks which increases IP	
33	● A. Senior qualifications exacerbate feelings of IP	
34	● A. Started as a graduate	
35	● A. Starting as a learner impacted how she accepts success	
36	● A. Has had to change how she acts at work due to male dominated environment	
37	● A. Her collaborative style can be misconstrued as being weak	
38	● A. Need to be softer for acceptance and inclusion	
39	● A. People question your style as a women - which is different to the male style	
40	● A. Questioned her own working style because it was different to everyone else's (female vs male)	
41	● A. Very focused on work - didn't show much of her personal side	
42	● A. Wanting to be liked and included and seen as part of the team	
43	● A. Women displaying male traits	
The present - experiences of IP		
No.	Code	Theme
1	● B. Apprehensive in new environment	A new role, project, task or change increases feelings of IP
2	● B. Being included in meetings with peers at a higher level than she is used to, makes her feel not worthy	
3	● B. Challenge with disciplining subordinates	
4	● B. Feels less confident when does something new	
5	● B. When going into a new role / new organisation shrinks herself	
6	● B. When succeeds / gets a bigger role becomes anxious about whether she can do it	
7	● B. Acceptance of and displaying not perfect	Dealing with feelings of inadequacy / IP
8	● B. Coaching and mentoring (to gain confidence)	
9	● B. Doesn't dwell on the negatives, and accepts that will need to do things differently next time	
10	● B. Feels god guides and helps her when she is not confident	
11	● B. Growth mindset when feeling inadequate	
12	● B. Has Post-Its on her monitor - I am knowledgeable, I am worthy	
13	● B. Has to take intentional action to overcome feelings of IP	

The present - experiences of IP (continued)		
No.	Code	Theme
14	● B. Has to tell herself that she deserves to be there	Dealing with feelings of inadequacy / IP
15	● B. Has to tell herself that she has a good level of knowledge	
16	● B. Has to tell herself that she has earned it	
17	● B. Has to tell herself that she is worthy to be in rooms with people at higher levels that she is used to	
18	● B. Link success to tangible things to reduce feelings of IP	
19	● B. More open now when in doubt about a task	
20	● B. Mutual beneficial relationship (employee and employer)	
21	● B. Only speaks when has something valuable to add	
22	● B. Reach out to colleagues for help/support/advice when feeling inadequate	
23	● B. Recognises IP triggers, and tries to build strategies to address it next time	
24	● B. Resilience	
25	● B. Seeks mentorship and speaks to experienced colleagues	
26	● B. Sees opportunity to do things differently in future when something doesn't go well	
27	● B. Spends time to understand to avoid appearing stupid	
28	● B. Takes time to step back and reflect - when feeling most inadequate	
29	● B. Talks to those close to her when she doesn't feel confident or defeated	
30	● B. To not let other people's comments or behaviour impact her or take it personally	
31	● B. Tried to push through the fear - to deal with IP feelings	
32	● B. Tries to increase knowledge in areas where she feels inadequate	
33	● B. Tries to have a growth mindset when feel inadequate	
34	● B. Tries to reframe and put things in context when feel inadequate	
35	● B. When feels less confident or defeated, mode of defence is to shut off	
36	● B. When not comfortable with something - procrastinates	

The present - experiences of IP		
No.	Code	Theme
1	● C. A bit of fear when thinks about future career prospects	Reflecting on future career prospects leads to feelings of fear, anxiousness and self - doubt
2	● C. A lot of fear about the future	
3	● C. Anxious about the future	
4	● C. Confidence in abilities hinders changing careers / employer	
5	● C. Fear of moving to an unknown	
6	● C. Feeling like you always have to prove yourself	
7	● C. Feelings of an imposter	
8	● C. Feelings of inadequacy	
9	● C. Feelings of IP about the future	
10	● C. Feelings of IP dependent on situation	
11	● C. Feels stuck in terms of future career prospects	
12	● C. Feels that in a future role would want to immediately contribute positively	
13	● C. Inner voice	
14	● C. Internal feelings (negative)	
15	● C. Lack of confidence	
16	● C. Leader not advocating for her and her career progression	
17	● C. Nervous about new role	
18	● C. Not good enough	
19	● C. Personal expectations to perform linked to the fear that others would judge performance negatively	
20	● C. Questions her abilities in the future	
21	● C. Questions whether she would be bold and courageous for the role she wants in future	
22	● C. Self-doubt	
23	● C. The future scares her	
24	● C. Worries about her ability to performance manage in the future	
103	Total Codes	

12. Appendix D – Research Question 2 – Intrapersonal Factors : Codes

The past - internal factors		
No.	Code	Theme
1	• A. Assume comments made by others as your identity	Negative internal feelings and inner voice
2	• A. Constantly looking for acceptance	
3	• A. Despite experience, doubted abilities	
4	• A. Didn't see own potential	
5	• A. Feeling initially that people are better than her	
6	• A. Feeling of inadequacy	
7	• A. Feeling of not being worthy	
8	• A. Feeling of not belonging linked to self-doubt	
9	• A. Feelings of an imposter	
10	• A. Feelings of not deserving role	
11	• A. Feelings of self-doubt	
12	• A. Feels that everyone else does a good job at presenting	
13	• A. Felt not as good as others	
14	• A. Felt that she didn't have the fibre for the work she was supposed to be doing	
15	• A. Felt there was no way she was going to make it	
16	• A. Felt wasn't keeping up	
17	• A. Felt whatever she did it wasn't enough	
18	• A. Had no faith in herself to have a career	
19	• A. Inner conflict	
20	• A. Inner voice	
21	• A. Insecure	
22	• A. Internal feelings (negative)	
23	• A. Is an overthinker	
24	• A. It was all in her head	
25	• A. Lack of confidence - Internal causes	
26	• A. Lack of self-belief	
27	• A. Looking and wanting for validation from someone else is always there	
28	• A. Need for acceptance	
29	• A. Not deserving of recognition when achieve	
30	• A. Not good enough	
31	• A. Perception of others (positive in terms of competency)-different to own feelings	
32	• A. Quieten the inner voice	
33	• A. Self-doubt	
34	• A. Strength of inner voice can lead to failure	
35	• A. The need to dial down your inner voice and to dial up the voices of those you trust	
36	• A. Was always stressed	
37	• A. Women second guess themselves	

The past - internal factors (continued)			
No.	Code	Theme	
38	• A. Came from a working class family that had jobs not careers	Personal background and relationships	
39	• A. Confidence was impacted negatively by vision of her career not being possible due to family not supporting her move		
40	• A. Didn't think that a career was for a person like her		
41	• A. Factors from childhood		
42	• A. Felt and still feels unprepared for a professional career		
43	• A. First person to go to university in her family		
44	• A. Life event resulted in more focus on work		
45	• A. Moving countries as a child impacted levels of confidence and self esteem		
46	• A. People knowing personal background - made her feel inadequate		
47	• A. Personal relationship made her feel inadequate and impacted her work performance		
48	• A. Spinal operation impacted confidence - internal		
49	• A. After having her child she was determined to be better at work than before		Becoming a mother
50	• A. Becoming a mother decreased her confidence		
51	• A. Becoming a mother increased feelings of inadequacy		
52	• A. Becoming a mother made her feel vulnerable at work		
53	• A. Becoming a mother put pressure on her to prove everyone wrong		
54	• A. Being pregnant - felt people felt sorry for her & pity		
55	• A. Being pregnant made her feel inadequate		
56	• A. Couldn't perform all tasks because she was pregnant		
57	• A. Health issues after pregnancy impacted work performance and impacted confidence		
58	• A. Returning to work after maternity leave impacted confidence		
59	• A. Self-conscious about changes to working styles after becoming a mother		
60	• A. She felt that having a child was a weakness, could be seen as a weakness		
61	• A. She was determined that being a mother was not going to impact her work	High personal standards	
62	• A. Finds it difficult to take pride in anything that she does		
63	• A. Focusses on areas where she could have done better instead of areas where she succeeded		
64	• A. Needs to be best at what she does		
65	• A. Perfectionist		
66	• A. Self-critical		
67	• A. Very high personal standards		
68	• A. Women are harder on themselves		

The present - internal factors		
No.	Code	Theme
1	• B. Analyse until issue has a different meaning	Negative internal feelings and inner voice
2	• B. Anxious	
3	• B. Feeling of inadequacy due to education level	
4	• B. Feeling of IP occur regularly	
5	• B. Feeling that at some point it will fall apart	
6	• B. Feeling that need to do well at work due to not having a family	
7	• B. Feelings of an imposter	
8	• B. Feelings of inadequacy	
9	• B. Felt stupid	
10	• B. Inner conflict	
11	• B. Inner voice	
12	• B. Internal feelings (negative)	
13	• B. Is an overthinker	
14	• B. Not good enough	
15	• B. Questioned abilities / achievements	
16	• B. Questions herself	
17	• B. Reading too much into comments impacts feelings of inadequacy and can make her question her abilities	
18	• B. Remind yourself how you got there and that you deserve it	
19	• B. Self-critical	
20	• B. Self-doubt	
21	• B. Supressed feelings - kept them inside	
22	• B. The need to affirm her capabilities	
23	• B. Worried about what people would think if showed authentic self	
24	• B. Would she fare up in another manufacturer / company	
The future - internal factors		
No.	Code	Theme
1	• C. Advice in terms of understanding yourself from a young age - therapy	Having more self-belief, self-awareness and confidence
2	• C. In future to remove myself from an environment where I don't feel good enough	
3	• C. Keep reflecting on the past and have confidence	
4	• C. Need to "sell" oneself more in work content	
5	• C. Need to accept don't know everything and have ability to learn	
6	• C. Need to be more confident	
7	• C. Need to believe in oneself in the future	
8	• C. Need to feel deserving of position	
9	• C. Not to be afraid to remove myself or have the fear or loss	
10	• C. Now have confidence to assess environment and make a choice whether you want to be there	
11	• C. Should have acknowledged IP feelings and spoken about them	
12	• C. Should have been more confident	

The future - internal factors (continued)		
No.	Code	Theme
13	• C. Should have shared feelings and requested feedback	Having more self-belief, self-awareness and confidence
14	• C. The need to increase confidence in future	
15	• C. Therapy to improve confidence	
16	• C. To take more control / be more proactive in the future career wise	
17	• C. We perpetuate our own patriarchy	
18	• C. Dysfunctions feed themselves with negative feedback	Not taking comments of others personally not internalising
19	• C. Ability to not let negative comments impact you	
20	• C. Acceptance that colleagues don't have to like each other	
21	• C. Could keep comments stored, and then impact you at a later point when other issues happen	
22	• C. Don't care about how others feel	
23	• C. How things people say are perceived negatively when it is not	
24	• C. Internalisation of negative comments	
25	• C. Learn to grow a thick skin	
26	• C. Need to not be as soft in future	
27	• C. Not caring about what other people think will reduce inadequacy and lack of confidence in the future	
28	• C. Not let things affect her and not be concerned about other's opinions	
29	• C. Not take things personally	
30	• C. Not to internalise things said or done by others	
31	• C. Not to over personalise things said by others	
32	• C. Should aim to exceed your own expectations and not those of everyone else	
33	• C. To not be impacted by other's comments / behaviour	
125	Total Codes	

13. Appendix E – Research Question 2 – Systemic Factors: Codes

The past - external factors		
No.	Code	Theme
1	● A. Although had the title, lacked power to say opinion	Impact of organisational culture and environment
2	● A. Always felt that she had to compete a little bit harder being a woman	
3	● A. Anxious to raise women-specific issues in male dominated environment	
4	● A. Being part of minority group impacted feelings of belonging	
5	● A. Being the only woman makes you feel inadequate	
6	● A. Boys club / clique	
7	● A. Brutal industry	
8	● A. Confidence impacted by non-inclusive culture	
9	● A. Confidence impacted negatively by hierarchical levels, boys club and being a minority	
10	● A. Culture became non-customer focused - seen as arrogant	
11	● A. Didn't feel like she would be taken seriously (as a women in a male dominated environment) if she applied for a promotion	
12	● A. Didn't feel welcomed into a male dominated environment	
13	● A. Disconnected culture	
14	● A. Feel that you may not be heard as a women	
15	● A. Feeling of being different in a male dominated environment	
16	● A. Feeling of not belonging	
17	● A. Felt couldn't give opinion / share ideas	
18	● A. First female in position	
19	● A. First person of colour	
20	● A. Focus on her improvement areas vs achievements - reduced confidence	
21	● A. Gender discrimination	
22	● A. Had to fight for oneself	
23	● A. Had to find opportunities to prove her abilities - to herself and others	
24	● A. Had to prove herself in patriarchal environment	
25	● A. Hard to sell your perspective as a women in a room of men	
26	● A. Hard to voice your opinion as a member of a minority	
27	● A. Hierarchical environment	
28	● A. Is difficult if you don't have the support of her leaders	
29	● A. Lack of confidence - External causes	
30	● A. Lack of constructive feedback - reduced confidence	
31	● A. Lack of gender diversity	
32	● A. Lack of inclusivity	
33	● A. Lack of women representation added to feelings of IP	
34	● A. Less likely to listen to her opinion because of her gender	
35	● A. Male colleagues put you down	
36	● A. Male confidence	
37	● A. Male dominated	

The past - external factors (continued)			
No.	Code	Theme	
38	● A. Male orientated	Impact of organisational culture and environment	
39	● A. No female had held decision making position before		
40	● A. Not listened to		
41	● A. Older black men treated her like a daughter and had to take care of her		
42	● A. Older black men would do her work for her		
43	● A. Others don't feel like you adding value		
44	● A. Part of minority group		
45	● A. Patriarchal culture		
46	● A. People feel you are wasting their time		
47	● A. People not listening to her opinion even where she is an expert		
48	● A. People talking over her made her feel inadequate		
49	● A. People with a long tenure didn't like new opinions		
50	● A. Questioned if she was in the right place		
51	● A. Questioned whether not being heard was gender related		
52	● A. Questioned whether she should look for a softer career		
53	● A. Remained silent (to reduce conflict) as wanted to be accepted		
54	● A. Scared to share opinion		
55	● A. She thought maybe engineering is not for females		
56	● A. Spoke without confidence		
57	● A. Toxic culture		
58	● A. Unfair employment practices		
59	● A. Voice wasn't heard or welcomed		
60	● A. Was made to feel that she didn't fit in as a professional woman		
61	● A. Wasn't brave enough to speak		
62	● A. Women were seen as inferior		
63	● A. Workplace bullying		
64	● A. Boss cried when she told him she was pregnant		Comments and actions of others
65	● A. Boss said she was not cut out for this industry		
66	● A. Boss said she wouldn't be the same after she had her baby		
67	● A. Boss told her directly that there is no way that she was going to make it in this industry		
68	● A. Boss was brutal		
69	● A. Certain people felt she didn't deserve the position		
70	● A. Colleagues didn't want her to succeed - saw her as competition		
71	● A. Comment from a leader made her question whether she was good enough		
72	● A. Her ambition threatened colleagues - they clawed her back		
73	● A. Invalidated appointment		

The past - external factors (continued)		
No.	Code	Theme
74	● A. Lack of support from others	Comments and actions of others
75	● A. Negative reactions from other regarding her success	
76	● A. Others questioning your position	
77	● A. People in senior positions were labelling me - loss in confidence	
78	● A. Things others said impacted confidence	
79	● A. Tyrant of a leader	
80	● A. Unsupportive management	
81	● A. When became more senior - was not well accepted by peers	
82	● A. Women leader who made everyone feel inadequate	Gender bias and stereotypes
83	● A Patriarchal culture allowed bias to be acceptable	
84	● A. Being outspoken and forthright seen as a women issue vs doing the job correctly	
85	● A. Career didn't progress as quickly as it should have due to gender	
86	● A. Gender bias and stereotypes	
87	● A. Girls bought up in the negative	
88	● A. Girls bought up to believe they are not as capable as men	
89	● A. Girls bought up to want people to accept and like them	
90	● A. Has felt that she hasn't progressed or been paid in line with her male peers	
91	● A. Men perceive her to be difficult / not easy to work with	
92	● A. People don't like a woman who leads like a man	
93	● A. People don't see the potential of women as they with men	
94	● A. Position given as a favour vs ability	
95	● A. Pressure on women to be everything	
96	● A. Social messages with respect to gender	
97	● A. Women need to justify their promotions and progression more than men	
98	● A. You just sit there take a nap if you need to	
The present - external factors		
No.	Code	Theme
1	● B. Autocratic organisational culture	Impact of organisational culture and environment
2	● B. Boys club / clique	
3	● B. Challenging environment	
4	● B. Cliquey	
5	● B. Confident when working in isolation due to the negative culture at work	
6	● B. Culture focused on results only	
7	● B. Feel more different as a woman than did in earlier years	
8	● B. Feeling of not belonging	
9	● B. Get nervous to fight point when opposed	
10	● B. Hierarchical environment	
11	● B. Inclusivity seen more as a tick box exercise	
12	● B. Lack of gender diversity	

The present - external factors (continued)		
No.	Code	Theme
13	● B. Lack of race diversity	Impact of organisational culture and environment
14	● B. Limits creativity and use of initiative	
15	● B. Need to take calming tablets before meetings due to toxic environment	
16	● B. No space to discuss gender inclusivity issues	
17	● B. People not listening to her ideas makes her question her abilities	
18	● B. Politically charged with hierarchal structure	
19	● B. Sometimes you feel different as a woman in a male dominated environment	
20	● B. Struggles to voice her honest opinion with leaders	
21	● B. Toxic culture	
22	● B. Bad leader	
23	● B. Certain people are discouraging or put you down	
24	● B. Certain senior colleagues are negative and make you wary	
25	● B. Comments related to gender make her feel inferior	
26	● B. Don't thrive where there is a lack of direction and confusion	
27	● B. Lack of acknowledgement from leader	
28	● B. Lack of direction leads to confusion and impacts confidence in abilities	
29	● B. Lack of feedback	
30	● B. Lack of support from leaders	
31	● B. Male egos	
32	● B. Manager does not value her ideas	
33	● B. Manager looks at her in a scornful way if she suggests anything	
34	● B. The actions of an individual can make you feel incompetent	
35	● B. Treatment by leader does hurt inside	
36	● B. Want validation from leader	Gender bias and stereotypes
37	● B. Workplace bullying	
38	● B. Would like acknowledgement from leader	
39	● B. Gender bias and stereotypes	
40	● B. Gender discrimination	
41	● B. Women's style is perceived as soft by men	
42	● B. Worries about how people will perceive her as a women	
The future - external factors		
No.	Code	Theme
1	● C. An encouraging team gives confidence in ability	Inclusive organisational culture
2	● C. Company culture should align with your values	
3	● C. Culture is needed to support inclusivity	
4	● C. Good supportive organisational culture	
5	● C. If people listen to her thoughts and ideas in the future, that would validate her abilities	

The future - external factors (continued)		
No.	Code	Theme
6	<ul style="list-style-type: none"> ● C. Inclusion should be a business value with buy in from everyone 	Inclusive organisational culture
7	<ul style="list-style-type: none"> ● C. Inclusive culture played a part in feelings of IP decreasing 	
8	<ul style="list-style-type: none"> ● C. Politics in the workplace 	
9	<ul style="list-style-type: none"> ● C. The need for a business to invest in your learning and skill advancement 	
10	<ul style="list-style-type: none"> ● C. The need to be in the right environment that aligns with your values to flourish 	
11	<ul style="list-style-type: none"> ● C. Business could have supported more 	Supportive leadership
12	<ul style="list-style-type: none"> ● C. Good leader 	
13	<ul style="list-style-type: none"> ● C. Having a role model would have reduced IP 	
14	<ul style="list-style-type: none"> ● C. Having a supportive leader reduces feelings of IP 	
15	<ul style="list-style-type: none"> ● C. Leaders should be more aware of exclusion of women 	
16	<ul style="list-style-type: none"> ● C. Mentoring and coaching 	
156	Total Codes	

14. Appendix F – Research Question 3 – Manifestations : Codes

The past - manifestations of IP		
No.	Code	Theme
1	● A. After promotion distanced herself from the team	Change in presentation after promotion
2	● A. After promotion felt had to act more professionally	
3	● A. After promotion had to calm herself down and not be as outgoing	
4	● A. After promotion had to change how she dressed due to role change (shop floor to corporate)	
5	● A. After promotion worked more hours and on days off	
6	● A. Became controlling after promotion	
7	● A. Became defensive / defending	
8	● A. Changed the way she dressed	
9	● A. Changed way presented herself after promotion	
10	● A. Didn't want to stand out - changed the way she dressed	
11	● A. Different way of speaking to juniors and superiors	
12	● A. Had to suppress herself a little bit	
13	● A. Has had to become more stern after promotion	
14	● A. Lack of attention to people after promotion	
15	● A. Learnt that had to be serious when needed	
16	● A. People are scared of her at work	
17	● A. Presentation of self was different to true feelings	
18	● A. Promotion impacted projection of self at work	
19	● A. Promotion increased commitment to company	
20	● A. Promotion resulted in need to build a mask to cope and deal with new aspects	
21	● A. Thought that dressing in a particular way would impact technical respect	
22	● A. Toned herself down to fit in	
23	● A. After promotion - realised had a lot to prove, there were people who believed she didn't deserve it	Demonstration of ability and validation of position
24	● A. After promotion felt like she needed to step up	
25	● A. After promotion felt the need to validate the belief in her	
26	● A. Approached work with passion and interest	
27	● A. Can focus on deliverables rather than people aspects	
28	● A. Felt she needed to perform at a higher level after promotion	
29	● A. Had to keep fighting / pushing	
30	● A. Hard worker	
31	● A. Motivation to try harder	

The past - manifestations of IP (continued)		
No.	Code	Theme
32	● A. Over prepare for meetings	Demonstration of ability and validation of position
33	● A. Pressure to work harder	
34	● A. Promotion lead to a feeling that had to add more value than before	
35	● A. The need to demonstrate worthiness	
36	● A. The need to do things well and right	
37	● A. Could have been more entrenched and added more value if had had more confidence	Feelings of IP negatively impacted career progression
38	● A. Could have held her ground more (impact of IP on career progression)	
39	● A. Could have progressed quicker in career if had more belief in abilities	
40	● A. Could have put herself forward for more senior jobs (impact of IP)	
41	● A. Didn't go for roles due to feelings of inadequacy	
42	● A. Didn't push oneself in career	
43	● A. Feelings of IP hindered career progression	
44	● A. Feelings of IP made me not take the leaps when I could have or should have	
45	● A. If has any doubts about ability or thinks she can't do her work as well as others, doesn't go for things as doesn't feel worthy yet	
46	● A. IP impacted career progression negatively	
47	● A. IP impacted her so severely that she resigned	
48	● A. Lack of self-belief impacted career progression	
49	● A. Left employer with no work due to level of depression	
50	● A. Not good at selling oneself	
51	● A. Questioned her career choice	
52	● A. Self-doubt impacted career progression	
53	● A. Should have stood up for herself more	
54	● A. Throughout career have been "pulled" forward rather than pushing oneself	
The present - manifestations of IP		
No.	Code	Theme
1	● B. Approachable & friendly	Presentation of self at work is more closely aligned with authentic self
2	● B. As a leader congruency between what I say and do is important	
3	● B. Authenticity is needed to build trust	
4	● B. Being your authentic self	
5	● B. Being your authentic self relieves self-doubt and pressure	
6	● B. Can be demanding but balances it with trust	
7	● B. Change of leadership style - from male style, to empowering style	
8	● B. Changed leadership style to more feminine as led like a man in the past	

The present - manifestations of IP (continued)			
No.	Code	Theme	
9	● B. Changed ways of working after promotion	Presentation of self at work is more closely aligned with authentic self	
10	● B. Collaborative management style		
11	● B. Doesn't micro manage, trusts her team		
12	● B. Empathetic and understanding working style		
13	● B. Engagement with people		
14	● B. Fairly fearless in role		
15	● B. Has a work persona but tries to align it as closely as possible to true self		
16	● B. Inclusion		
17	● B. Is a supportive leader		
18	● B. People orientated leader		
19	● B. Naturally a people pleaser		
20	● B. Person at work similar to person at home		
21	● B. Personality at work aligns with inner feelings		
22	● B. Present as a positive element at work		
23	● B. Presents as bubbly and positive at work		
24	● B. Presents as honest		
25	● B. Professional working style		
26	● B. Quite strong in terms of pushing team to deliver		
27	● B. Supportive leadership style		
28	● B. Tries to be as authentic as possible		
29	● B. Tries to dress smarter after recent promotion		
30	● B. Value trust as a leader		
31	● B. Vulnerable (positive - as a leader)		
32	● B. Discount abilities and successes		Difficulty in accepting, recognising and celebrating success
33	● B. Does not externalise success		
34	● B. Doesn't celebrate success		
35	● B. Doesn't congratulate herself enough		
36	● B. Doesn't think that success is enough		
37	● B. Doesn't broadcast achievements		
38	● B. Doesn't celebrate success enough		
39	● B. Doesn't need validation		
40	● B. Doesn't thrive on recognition		
41	● B. Externalise success by celebrating with the team		
42	● B. Humble when succeed		
43	● B. Internalise success		
44	● B. Others are more proud of her success		
45	● B. Overwhelming sense of relief when succeed		
46	● B. Questions success		
47	● B. Sense of pride when achieve success but doesn't externalise it		
48	● B. Share accolades as a team and everyone involved is recognised		

The present - manifestations of IP (continued)		
No.	Code	Theme
49	● B. Shares wins with those close to her	Difficulty in accepting, recognising and celebrating success
50	● B. Struggle to celebrate success internally	
51	● B. Success doesn't give confidence about the future	
52	● B. Success feels good	
53	● B. Success not over emphasised	
54	● B. Success results increased confidence in abilities and what can achieve in future	
55	● B. Success validates position	
56	● B. When recognised for success, discounted it as part of her job	
57	● B. When succeeds ignores positives and focuses on where she could have improved	
58	● B. When succeeds move on and must do the next thing better	
59	● B. When succeeds - thanks and rewards team with praise	
60	● B. Ability to deal to IP increases over career	
61	● B. Ability to deal with IP has increased over career - but not at the rate that feelings of IP has	
62	● B. Don't talk in meetings unless 100% confident	
63	● B. Experience IP in private life too	
64	● B. Feel like an imposter because is treated like she is a director but she isn't	
65	● B. Feeling the need to demonstrate worthiness	
66	● B. Feelings of IP throughout career	
67	● B. Forums where experience IP are less or recognises where is happens more	
68	● B. Has realised that everyone has got weaknesses not just her	
69	● B. Has to remind herself that she is adding value	
70	● B. Haven't overcome feelings of IP	
71	● B. IP feelings surface when working with people at higher job level / have an influence over her career progression	
72	● B. IP is triggered being in a room with people that can make decisions about her future	
73	● B. Knows that she has the knowledge and skills but also that she can learn a lot from those around her	
74	● B. Knows that the IP feelings will come - can't control or stop them	
75	● B. Lack of confidence as no longer has a vision to work towards	
76	● B. Lack of understanding of the value of a work deliverable impacted confidence	
77	● B. Loses confidence when she is distracted	

The present - manifestations of IP (continued)		
No.	Code	Theme
78	● B. More equipped to deal with IP feelings	Feelings of IP continue to exist in current career
79	● B. More equipped to talk about feelings	
80	● B. Not being included impacts feelings of IP	
81	● B. Positive feedback "fills you up"	
82	● B. Questions abilities when looks back and thinks things could have been done better	
83	● B. Questions abilities when makes mistakes	
84	● B. Questions performance	
85	● B. Questions whether she adds value	
86	● B. Still experiences IP	
87	● B. Too much information - cause confusion and impact confidence	
88	● B. When caught off guard and hasn't been focused or put in enough effort makes her question her abilities	
89	● B. When didn't get appointment - felt inadequate	
90	● B. When interacting with senior managers feels like she is not giving them what they want - linked to their lack of understanding	
91	● B. Each promotion lead to questioning whether it is deserved and ability	
92	● B. Feelings of IP fluctuate	
93	● B. Feelings of IP have increased throughout career	
94	● B. Feelings of IP linked very much to environment and how people make you feel	
95	● B. Feelings that IP have impacted her more as she has got older	
96	● B. Increase in feelings of IP throughout career	
97	● B. IP increases with more responsibility and more exposure	
The future - manifestations of IP		
No.	Code	Theme
1	● C. Belief that feelings of IP will continue in the future	Feelings of IP will continue in the future
2	● C. Hope will manage IP better in the future	
3	● C. Knows that once she is out of her comfort zone IP feelings will occur	
4	● C. Thinks feelings of IP will always be there	
5	● C. Thinks main reason for her still experiencing IP in the future will be due to lack of gender diversity	
6	● C. Thinks that with more knowledge will get better at her job and feelings of IP will decrease	
7	● C. Thinks will still experience IP in the future	
8	● C. To change feelings of IP would require constant attention	
9	● C. Will experience IP in future	
160	Total Codes	

