

Leading a Neurodiverse Workforce: exploratory analysis of senior managers perspectives on neurodiversity within the Irish construction industry

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Abstract

Given the prevalence of neurodiversity which is estimated to be up to 20% of people around the world, it is clear there is an urgent need for conversation around the topic (Mahto et al ,2022). As outlined by Mahto et al (2022), organisations are currently finding it difficult to manage and support a neurodiverse workforce, while also trying to increase innovation and competitiveness in a tight labour market. As we move forward in this hybrid, remote world and with the great resignation adding extra pressure, organisations are seriously needing to look more broadly for new sources of talent, requiring organisations to truly acknowledge what neurodivergent employees bring to the table.

Neurodiversity and its historical context continue to be debated, while the lack of uncertainty around its overall meaning and associated characteristics continues to exist, impacting support given by senior managers and organisations. An area which has lacked exploration to date is neurodiversity from a construction industry perspective. As outlined by Sulzc, McGregor & Cakir (2021), little research has been undertaken to examine senior managers experience when dealing with neurodivergent employees and support provided. Based on this gap, the objective for this research is to explore *'what awareness do managers have of neurodiversity within the construction industry*'. By additionally identifying senior managers realization of neurological variation, while considering senior managers experience of supporting neurodiverse employees within their perspective organisations. Analysing HR practices within the construction industry, whether they promote an inclusive workplace environment, and investigating if recruitment practices within their construction companies include/exclude neurodivergent talent.

To facilitate this research alternative author perspectives have been outlined, while an inductive qualitative methodology in the form of semi-structured interviews provides a current body of thought. Findings have outlined three thematic findings by senior managers, understanding, inclusion and training which is underpinned by subjectivity. Resemblance's are outlined between literature and practical findings, with gaps being recognised and recommendations made.

Declaration Form

Submission of Thesis and Dissertation

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Chapter 1

Introduction

1.1 Rationale

Given the prevalence of neurodiversity which includes 4% of the Irish population (Brinzea 2019), it is clear there is a need for organisational consideration towards inclusive workforces and practices. Academics such as Hagner and Cooney (2005), and Knowles and Styles (2019) have outlined the plus to embracing neurodiversity within the workforce, however many industries and organisations have yet to envisage or indeed acknowledge the benefits. Despite the theoretical underpinnings outlining the advantages, there has been limited academic literature surrounding neurodiversity specifically within the construction industry. Szerelmey (2019) and Kulik (2014), goes so far as to state, many people within the construction industry have no idea of what the term neurodiversity even means.

This statement prompted the authors rationale for this research, to explore the extent to which senior managers are aware of neurodiversity, and to identify their knowledge of neurological variation of associated behavioural characteristics. The research also reviews senior manager's experience of supporting a neurodiverse employee along with existing HR recruitment practices and they're inclusivity.

1.2 Research Aims and Objectives

The main objective of this study, is to attain a rich comprehension of senior managers overall awareness of neurodiversity within the Irish Construction Industry. It is anticipated the study will shed some insight on existing perceptions of neurodiversity within the construction industry, providing foundations for additional research.

Overall Research Objective: Investigate senior managements perspective on neurodiversity within the construction industry - 'What awareness do managers have of neurodiversity? '

Sub-Objective 1: - Identify senior managers awareness of neurological variation, regarding characteristics associated with the neurodevelopmental conditions.

Sub-Objective 2: Consider senior managers experience of supporting neurodiverse employees within their perspective organisations. Cassell (1996) refers to a diversified workforce providing increased organisational efficiency, profitability, and innovation.

Sub-Objective 3: Analyse HR practices within the construction industry. As outlined by Grover (2019), only one in ten organisations consider neurodiversity in their people management and recruitment policies.

Sub-Objective 4: Investigate if recruitment practices within the prospective construction companies include/exclude neurodivergent talent. Pricope et al (2020) refers to some organisations having adapted practices such as an 'inclusive hiring process'. One may suggest this is more prominent with certain industries who are more adaptable and open to change.

Chapter 2

Literature Review

2.1 Introduction

This literature review will focus on specific core areas of neurodiversity including: the historical evolvement which aims to provide a historical viewpoint, and contextualize the conflicting supporting literature which surrounds the definition to date. One may outline understanding the differences, and complexity in how the term is defined will assist with the justification of this overall research.

Walker (2020) refers to recent research having identified the prevalence of coexisting conditions within neurodiversity. Alongside Autism, individuals may experience other symptoms of neurodevelopmental conditions, such as Attention Deficit Hyperactivity Disorder (ADHD), Aspergers, Tourette's Syndrome, Obsessive Compulsive Disorder (OCD), Dyslexia and Dyspraxia. As outlined by the Autistic Self Advocacy Network (2022) 'Neurodiversity is an umbrella term which encompasses a vast array of neurocognitive differences. CIPD (2018) outline bipolar disorder, depression, schizophrenia and anxiety can be often included under the umbrella of neurodivergence and/or the umbrella of mental health. However, in relation to the scope of this research, the primary focus will be on innate neurodivergence such as Autism and ADHD, with minimal reference to other neurodiverse conditions.

In addition, Walker (2020) suggests two in three people with ADHD have autistic spectrum traits, and people with ADHD are eight-fold more likely to meet the full criteria for an autistic spectrum diagnosis. Interestingly research conducted by Clark et al (1999), and Reiersen and Todd (2008) suggest that both Autism and ADHD share many behavioural features. Laundry (2021) argues there are many prevalent differences existing between the conditions, which include individuals with ADHD reporting high level of mind wandering, whereas individuals with Autism Spectrum Disorder (ASD) having set thinking patterns.

2.2 What is Neurodiversity

Walker (2020) considers neurodiversity to be a relatively new term which has evolved over time. Burnett (2020) and Leadbitter et al (2021) are of the opinion neurodiversity is not a new term, and argue it has been around for some time. Leadbitter et al (2021) alludes to the terminology being dated back to the early 90's due to the formation of the early autistic social groups, and the autistic self-advocacy movement, coined by academic scholar Judy Singer.

CIPD (2018) outlines it was Harvey Blume who was the first journalist to use the term 'neurodiversity 'in a written context, and since then the word has been developing. High functioning is a term which has been particularly prevalent within the Autism community causing for much debate. The term which refers to autistic individual's presenting behavioural and communicative abilities not deemed to impact their intelligence (Alvares et al, 2019). This category often referring to individuals who demonstrate more 'neurotypical' mannerisms.

The CIPD work report defined neurodiversity as the 'biological reality of infinite variation in human neurocognitive functioning and behaviour, similar to biodiversity in the natural world (CIPD 2018). This report suggests that 'neurodiversity considers those that are both neuro-typical and neuro-diverse. Those who are neuro-diverse are considered to have different neurocognitive functioning from a typical (neurotypical) cognitive profile' (CIPD 2018). McLoughlin (2021) argues this non-inclusive statement may cause for divide alluding to segregation of individuals. Shakespeare (2006) an advocate for the social model theory, has over time acknowledged that societal and individual factors need to be recognised. One could highlight this theory could pose concern as it characterizes on a social theory of neurocognitive variation, and does not account for the variation of needs and resources required by particular individuals from a medical perspective.

Walker (2020) outlines the neurodiversity paradigms main component causing for debate is the consensus of what it is, viewing Autism along with other neurodivergent conditions as nondisorders but merely 'a natural and valuable form of human diversity'. Hughes (2016) views neurodiversity as a social justice and civil rights movement, which is linked with the wider disability movement. The official technical diagnosis and classification of conditions is provided by the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders 5th Edition). Hughes (2020) suggests popular terminology can alternate from what is used in the DSM 5th edition. Silberman (2015) alludes to many academics having referred to a recent paradigm shift, acknowledging multiple cognitive variations while contradicting until recently the highly medicalised perspective that views Autism, ADHD and others as 'disorders' to be treated. The overlap between the neurodiversity movement, and Autism rights movement are fundamentally contrasting. The most prevalent distinction being the neurodiversity movement strives to be inclusive to all neurominiorities, not just autistics (Walker, 2021). Referring to innate neurodivergence specifically Autism and ADHD, these neurodevelopmental conditions will be explored within the next section.

2.2.1 Autism

Research suggests Kanner was the first academic to describe Autism in 1943. Honeybourne, (2019) suggests it was Hans Asperger who brought Autism to the forefront one year later, referring to a group of children with similar and significant patterns of behaviours. Wong (2018) outlines Autism as a 'spectrum of disorders which include Kanners Autism, and Aspergers syndrome pervasive developmental disorders. The analysed behavioural criteria include social interaction including eye contact, typical gestural communication, linguistic challenges and misunderstanding of social uses of language (Wong, 2018). For those who are diagnosed the behaviours and characteristics associated with the condition can vary tremendously. Dinishak (2019) alludes to some 'autists' having little to no speech, whereas others can be expressive and receptive to communication and refer to the condition as 'passing' referring to 'neurotypical'. Additionally, Dinishak (2019) refers to the term 'aspect blindness' where there is a blindness towards emotions expressed in human behaviour, such as facial expressions serving as the paradigmatic example (Dinishak 2019).

There is no denying the prevalence of Autism has increased over recent years however its escalation has been heavily debated. Is the influx in Autism prevalence due to environmental factors, or increasing awareness and social acceptability? Zylstra et al (2014) refers to improved understanding, and improvements in diagnostic tools as contributing factors. Campsi et al (2018) refers to the increase in the UK over the last 5 years being linked to environmental factors, such as pollutants and heavy metal exposure, a theory which could be acknowledged worldwide due to climate change, and its impact on the planet and its people. Lee & McGrath (2015) and Wu et al (2017), refer to advanced parental age as one of the most important risk

factors of Autism. It highlights as the childbearing age continues to rise, could environmental factors become even more instrumental in the prevalence of Autism. As neurodiversity continues to gain momentum over the next number of years, one may propose could social awareness and acceptability outweigh the debate for the increase in the reported numbers of Autism.

2.2.2 ADHD

ADHD is defined by ADHD Ireland (2021), as a 'medical neurobiological condition in which a brains neurotransmitter chemical is functionally ineffective, specifically dopamine and noradrenalin'. It is regarded as a genetic long-term condition which effects learning and behaviour in many cases from school years right into adulthood. Beaton et al (2022) suggest the neurodevelopmental disorder is distinguished by behaviours of distraction, impetuous and hyper activeness which can intervene with functions of life. Moody (2016) refers to a recent phenomenon which views dyspraxia and ADHD as specific performance difficulties. Grant (2010) (cited in Moody 2016) suggest the UK and US are similar in their definition of ADHD. Defined as 'a difficulty with executive function, characterized by poor concentration, distractibility, procrastination, relentlessness, impulsiveness and difficulties with sleep'.

There is no denying the value of the concept 'neurodiversity' has been exhaustively debated. One may suggest is it a case as humans we seek to belong to a particular cohort, rather than celebrating the psychology of individual difference. Do we find solace in identifying with a particular cohort, in order to justify how we think and act, could this be linked to societal pressure to have a diagnosis to elucidate particular behaviours and attitudes? Armstrong (2015) states 'if *the idea of a normal brain is a myth, why do we need to talk about diverse brains*. Additionally, suggesting '*if there is no normal flower or culture, we ought to give credence to the ideology there is no normal brain or mind*' (Armstrong, 2015).

Following on from this, one may ask the question who benefits from cohort labels. Do neurodivergent employees gain more support from organisations having their neurodevelopmental condition labelled, or in fact are employees more at risk of being discriminated against. Werkhoven et al (2022) is of the opinion diagnostic labels are heavily contested associated with harmful effects, due to the characteristics associated with the neurodevelopmental condition forming who the individual becomes.

Understanding the complex historical background associated with neurodiversity, supports the justification for the undertaken exploratory research. Having reviewed the evolvement and complexity of neurodiversity, a specific focus will move towards its existence within the workplace.

2.3 Neurodiversity within the workplace

Roux et al (2013) refers to working as a right of passage to adulthood which should be experienced by everyone. Scott et al (2017) suggest few companies value diversity, with limited consideration for disabilities within the workplace, particularly learning and thinking differences. Ortega (2009) refers to neurodiversity in the workplace as a typical neurological development of human variation.

Austin and Pisano (2017), highlight unemployment within the US neurodiverse population runs at 80%, including people with more severe disorders who would not be able to work. As outlined by Austin and Pisano (2017), one may suggest this figure highlights an untapped talent pool. Presenting the question why is this the case? CIPD (2018) outlined various challenges experienced by neurominority employees within the workplace. These include, and are not limited too social interaction, eye contact, difficulty with arithmetic calculations, maintaining focus and challenges with writing. Lopez and Kennan (2014) suggest job opportunities have not been made available to neurodiverse employees, due to the ongoing lack of information and understanding by employers. Within the next section neurodevelopmental conditions Autism and ADHD will be explored.

2.3.1 Autism in the Workplace

Currently one in 65 people in Ireland are on the Autism spectrum (Oireachtas 2021). As outlined by Roux et al (2017) low Autism employment rates are prevalent worldwide, from 14% in the US and Canada, to 32% in the UK. This concept is also supported by Girdler and Falkmer (2015) (cited in Waisman – Nitzan et al 2019) and Bury et al (2020) who suggest the employment rate of individuals with Autism is exceptionally low in mainstream workplaces, in comparison to people without disabilities. One may suggest this could be linked to

individuals experiencing huge social challenges, causing for difficulty in quality of work life, and in how as individuals they viewed themselves, and or by their colleagues (Bury et al, 2020).

Long and Kearnon (2018) identified various challenges experienced by autistic individuals, which include a specific focus by employers on 'soft skills. These ambiguous qualities require employees to have strong levels of social interaction, verbal and non-verbal communication automatically putting autistic individuals at an immediate disadvantage. Taylor et al (2020) suggests that 43% of autistic adults have left, or lost a job because of their condition. Happé (2018) refers to common strengths associated with Autism which need to be highlighted and acknowledged within the workplace. These include attention to detail, commitment to quality and consistency, creativeness, honesty and loyalty.

2.3.2 ADHD in the Workplace

ADHD Ireland (2021) estimates about 5% of adults in Ireland have ADHD. MacNeela (2016) outlines the process of getting an ADHD diagnosis may occur later in life, often associated with self-reflection due to maturity in life. One may argue the number of individuals receiving an ADHD diagnosis in Ireland may be miscalculated, in turn impacting the real number of people with ADHD within the workplace. This theory is supported by Wijk and Firfrey (2020), who suggests adults with ADHD remain underdiagnosed, due to the high existence of comorbid conditions such as mood, anxiety more doubtful to be communicated of one's own free will. This suggests adults with ADHD may develop compensatory mechanisms for the workplace, and less often report their symptoms impacting on performance (Wijk and Firfey, 2020). Beaton et al (2022) refers to behaviours associated with the condition not typically being perceived as positive, often met with high levels of criticism impacting individual's self-worth. Maynard (2021) suggests behavioural characteristics associated with the condition may impact the perception of criticism, resulting in a disposition of sensitiveness to exchanges which may not have been intended as criticism.

Thomas Brown (2001) (cited in Arnold 2010) identifies six areas of executive function affected by neurominority employees with ADHD, which can be viewed as challenges within the workplace: activation, focusing, regulating alertness sustaining effort and processing speed, managing frustration and modulating emotions, utilising working memory and accessing recall and, monitoring and self-regulating behaviour (Arnold, 2010). A recent study conducted by MacNeela (2016), explores ADHD diagnosed participants, identifying individuals felt the workplace was quite unforgiving. However, some participants did reflect on positive experiences within their perspective workplaces. These particular participants did refer to the success being linked to being matched with the right job (MacNeela 2016). This highlights the requirement for awareness and understanding by the employer, making sure that the position was harmonious with the individual's needs.

Nicholas et al (2019) (cited in Bury et al 2020) outline how exclusions of particular labour cohorts, can lead to negative impacts on organisations, and also on national and international economies overall. Having reviewed challenges faced by neurodivergent employees within the workplace, the next section will explore HR practices and managerial perspectives associated with a neurodiverse workforce.

2.4 Managing a neurodiverse workforce, and implementing HR practices which are inclusive

Whelpley and Perrault (2021) refer to recent research providing conflicting perspectives concerning the benefits of a neurodiverse workforce, and the difficulties associated with integration. Additionally, alluding to individuals having difficulties with retaining employment and receiving equal treatment. CIPD (2018) suggests neurodiversity is moving up the organisational agenda, as employers aim to move towards a more inclusive approach, including neurodivergent employees. CIPD (2018) outline HR are required to be creative in their approach to achieving an inclusive and diversified workforce. Austin and Pisano (2017) suggests the inclusive shift towards neurodivergent employees within specific industries, is due to prevalent staff shortages with a view towards neurodivergent talent, reasonable accommodations need to be considered which will be discussed in the next section.

2.4.1 Reasonable accommodations

The Employment Equality Acts 1998 – 2015 (EEA) outlaws' discrimination in a wide range of employment and employment related areas. The legislation refers to treating individuals indifferent or less favourable and is categorised under 9 grounds (Irish Human Rights and Equality Commission, 2022). One of the grounds includes disability, refers to individuals with

'physical, intellectual, learning, cognitive or emotional disabilities and a range of medical conditions. Under Section 33 of the Employment Equality Act, these discriminations towards individuals with disabilities includes application forms, interviews, aptitude tests, equal pay, access to employment and vocational training, promotion and disciplinary issues.

Laboris (2019) outlines under section 16 of the EEA, employers are required to make 'reasonable adjustments 'to the workplace environment, work routine or practice to enable individuals with a disability to carry out their work and have the same access to opportunities (AsIAm, 2022). This however does not require an employer to recruit an autistic or ADHD employee. Research conducted by Romualdez et al (2021) outlined that only over a third of participants rated the impact of disclosing to supervisors and co-workers positively, with subsequent adjustments being less positively endorsed.

In the 2017 case Home Office (UK Visas & Immigration) v Ms Kuranchie, a clear message was sent to employers that the duty to make reasonable adjustments for disabled employees is a broad one, reaffirming the responsibility for identifying such adjustments was on the employer (Legal Island, 2018). As a result of this one may ask the questions how far should an employer go to provide 'reasonable accommodations' (As I Am, 2022). Research conducted by Richards (2019) outlined the requirement of reasonable accommodations to support neurodiverse employees are vast, complex, time consuming and often emotionally intensive to the employer and wider employees. Supported by Burke et al (2013) who suggests employers can be hesitant towards accommodations due to the misconceptions of cost. However, the US Job Accommodation Network (2019) outlines 59% of common adjustments do not have an associated financial cost on the employer.

Szulc et al (2021) and CIPD (2018), suggest a strength-based approach should be taken, with a view of neurodivergent employees as assets rather than the concept of inability or weakness, outlining the implementation of accommodations within HR practices would enable an inclusive environment.

2.4.2 HR practices

As outlined by Goldfarb, Gal and Golan (2022), most prevalent HR practices have been geared towards the 'neurotypical' individual with a significant focus on performance rather than employee well-being. Research carried out since the Covid-19 pandemic by Goldfarb, Gal and

Golan (2022), highlighted the importance autistic employees placed on employment stability. It was suggested some autistic employees felt their levels of social anxiety had decreased, with the ability to work from home. Working from home enabled control of their own schedule, and high satisfaction of autonomy and choice (Goldfarb, Gal and Golan,2022).

Some organisations have acknowledged the need for change and accommodations to support neurodivergent employees, these include sensory sensitive office space, clear communication channels, and open and transparent work structures (Goldfarb, Gal and Golan,2022). Austin and Pisao (2017) refer to large organisations having recently altered their HR processes in order to assess and assist neurodiverse talent, such as adapting recruitment and onboarding processes. One may argue this is a select number of large multinational firms such as Microsoft and SAP, presenting the question do organisations really identify and promote neurodiverse talent, or is it a strategy to be viewed as an inclusive workplace. Some organisations have acknowledged the theoretical underpinnings promoting the positives of a neurodiverse workforce, which is evident through the establishment of organisations such as Specialisterne. Specialisterne work with over 30 companies in Ireland by providing a consultancy which recruits and supports talented people on the Autism spectrum, and those with similar neurodiverse challenges in gaining employment (Specialisterne, 2022).

2.4.3 Inclusive recruitment practices

Honeybourne (2019), suggests altering recruitment processes to be more inclusive of neurodivergent talent, would widen the applicant pool and provide an opportunity to build more creative and diverse teams. Walkowiak (2020) supports this concept, and outlines individuals are often tested on their ability to talk about how they do their job, not on how they actually do their job. Krzeminska et al (2019) outlines research and selection processes are subjective, determining talent too narrowly. Interviews can often have a bias against neurodivergent individuals, due to misunderstanding of reciprocation of nonverbal cues and shared intentionality. Research carried out by TRVST outlined that 93% of employers believed soft skills are 'essential' or 'very important', and 97% say they are key to business growth and success. So where does this leave neurodivergent employees who lack interpersonal ability, one may say at a huge disadvantage. Honeybourne (2019) refers to simple amendments to inclusive recruitment practices such as altering job descriptions could be a move towards inclusivity.

Mohr (2014) outlines a Hewlett Packard report identified that men apply for a job when they only meet 60% of the qualifications, whereas women only apply when meeting 100%. Mohr (2014) concluded what was holding women back from applying was not a mistaken perception about themselves, but a mistaken perception about the hiring process in its entirety. Mohr (2014) outlines this is critical as it highlights the need for women to have more information about the hiring process and to demonstrate more confidence. In turn this may encourage female neurodivergent candidates to have the confidence to apply for positions within organisations, which they would have previously been discouraged towards.

McKay (2019) refers to ditching the formal process of the interview processes, which lacks acceptance or difference of autistic and ADHD individuals. With reference to the construction industry, Pricope (2020) outlines particular processes which may encourage autistic or ADHD candidates, these include group-socializing sessions with senior managers, working on game projects such as robotic construction, and training sessions to make individuals more familiar with the work environment. This in turn would give managers the opportunity to become aware of the candidates and spot abilities (Pricope 2020).

Within the next section neurodiversity's prevalence will be explored within the construction industry.

2.5 Existing perspectives of neurodiversity within the construction industry

The Chartered Institution of Building Services Engineers (CIBSE) (2022), outline that many organisations are not set up to nurture the potential of their neurodiverse workforce. Grover (2019), refers to neurodivergent employees having various abilities, which are data driven and are essential within the construction industry. Despite the theoretical acknowledgements towards the benefits of neurodivergent employee's, construction companies continue to struggle as they lack the policies and cultures enabling an alternative way of thinking (Grover, 2019).

Wilmore (2020) references COVID-19 and Brexit as pinnacle factors associated with the ongoing skills shortage within the construction industry. Each year 1,500 neurodiverse people qualify with a third level qualification, predominately STEM (Specialisterne, 2022), outlining the opportunity in which a neurodiverse talent pool presents to the industry. Companies which has grasped the opportunity can be deemed as having made a step forward within the industry.

In the UK, a joint venture took place between Balfour Beatty and Sunbelt Rentals which introduced the first neurodiverse cabin within the workplace. The cabin provided integrated disability features such as coloured pluck sockets, switches to assist the visually impaired and tri coloured LED lighting for those who are hyper sensitive to bright light. These cabins were rolled out across multiple construction sites, and were introduced as standard practice for construction sites from January 2022 (Balfour Beatty, 2021). Despite the progress with our UK neighbours, little evidence signifies Ireland has ceased the opportunity to be more inclusive towards neurodivergent employees within the industry.

2.6 Conclusion

As outlined throughout the literature review, there is no denying neurodiversity is complex and challenging, as it has yet to agree on a definition excepted by all. Although inclusion has been acknowledged at a C-Suite level Grover (2019), there is no denying the construction industry needs to expand its mindset to all hierarchical levels, with a view of neurodiversity at its epicentre. With this in the mind the above literature review has been key in highlighting the existing gaps within research which includes 'awareness' within the industry. This void has prompted the need for understanding by asking key questions around the topic, and by engaging in an exploratory analysis to view 'senior managers awareness of neurodiversity' which will be discussed in greater detail within the next section.

Chapter 3

Research Questions

3.1 Research Objective

The primary aim of this study, is to attain a rich comprehension of senior managers overall awareness of neurodiversity within the Irish Construction Industry.

There is no denying existing literature reiterates the advantages of neurodivergent cohorts Brodley (2021), however awareness and understanding by senior managers of neurodiversity requires exploration, and its influence on inclusive HR practices.

3.2 Research Questions

Against the backdrop of the prevalence of neurodiversity, specifically Autism and ADHD this study explores the central research topic: *'What knowledge do managers have of neurodiversity?'*, in addition, exploring supporting sub-questions:

RQ1- Identify senior managers awareness of neurological variation within neurodivergent employees.

RQ2- Consider senior managers experience of supporting neurodiverse employees within their perspective organisations.

RQ3- Analyse HR practices within the construction industry, and whether they promote an inclusive workplace environment for neurodivergent employees.

RQ4- Investigate if recruitment practices within the prospective construction companies include/exclude neurodivergent talent.

Chapter 4

Methodology

4.1 Introduction

This chapter outlines the philosophical positioning of the study, methods used for collecting the data, methodology for data analysis and the justification and rationale for how and why they were chosen.

Leedy and Ormond (2015) identify research as a systematic approach of collecting, analysing and interpreting information in order to increase our understanding about a particular phenomenon. Before any research is undertaken, it is imperative the research philosophy or research paradigm is distinguished. Saunders Thornhill and Lewis (2012), provide a framework which outlines variable research methods as a way of structuring the strategy of the research project. The research onion outlined below identifies various philosophies, approaches, and strategies which can be applied to any research project.



(Saunders, Thornhill & Lewis 2009)

As outlined by Saunders, Thornhill and Lewis (2012), the philosophical framework can result in extension of classifications such as exploratory, descriptive, analytical and predictive research results known as a 'research paradigm'. Collis and Hussey (2009) refer to two main paradigms positivism and interpretivism, with additional approaches being formed by Saunders, Lewis and Thornhill (2009) including pragmatism and direct realism.

4.2 Theory Development & Rationale

When conducting the research process, consideration must be given to the process of the approach itself (Collis and Hussey 2009). The initial search for literature was completed through google scholar and a manual scan of leading HR and management peer reviewed web articles and books, The core research for the literature was facilitated through four databases: Norma Smurfit Library, Academic Search Complete, Business Source Premier and the Web of Science. The comprehensive search of these databases yielded substantial research, however there were notable literature gaps amongst all forms of neurodiverse conditions. Due to the complexity, inconsistency and broadness of the term 'neurodiversity', limitations were becoming evident at this stage of the research. In turn resulting in the research shifting towards a specific focus on neurodevelopmental conditions such as Autism and ADHD. It was found that much research to date has been centred around neurodiversity from an Autism perspective, however limited research had been undertaken on Autism and ADHD from a construction industry perspective.

The epistemological position identified for this study is interpretivism guided by Saunders, Lewis and Thornhill (2009) who references practical considerations when deciding on a philosophy, refencing it is not as much about the research being philosophically informed, but more about rationalising choices relative to alternatives. Interpretivism advocates the intricate and complex study of human beings, which requires the recognition of unpredictability and uniqueness of human beings. Individuals can often experience and understand the same objective reality in differential ways. Cohen, Mannion and Morrison (2007) supporting this theory with reference to research considerations, where the author must understand the noting of reality which is experienced at one place and one time, and compare it against alternative times and places. As outlined by Cohen, Mannion and Morrison (2007) understanding participants experiences is a central catalyst in forming the research objectives. Yin (1989) refers to interpretivism as a means of research which gains in depth insight into the participants lives, in turn giving an empathetic insight in why they act the way they do.

Saunders, Lewis and Thornhill (2009) outlines interpretivism as research which highlights the comparison between humans and physical phenomenon, with the latter having the ability to create meanings. In relation to this research it is these meanings which have particular significance as they outline senior managements perceptions, and experiences of neurodiversity within the Irish construction industry. Seeking to understand these meanings

will provide themes from the interview data. With this in mind the approach taken will be originating in the interpretivist paradigm guided by the participant and the data which unfolds. The research will also be guided by Boland (2013), centred around knowing what to do with the results, and guiding future strategy through recommendations.

The overall objective of this research is to identify senior managers awareness of neurodiversity, and identify what this means for organisations. In line with Collis and Hussey (2009), the research leans towards the interpretivist model, outlined below to support this concept:

- Location: Interpretivists prefer a natural location, this will enable the research to be guided by the participants. Additionally, providing fluidity which cannot be achieved through a positivism approach.
- Sample Size: For interpretivists the sample size is not an issue, as the aim of the research is to gain rich and detailed insights of the complexity of social phenomena.
- Theories and Hypothesis: Interpretivists use the findings of their research to develop hypotheses requiring further investigation.
- Reliability: Interpretivists refer to interpretations as more comparative as opposed to definitive, whereas credibility of findings for the positivist approach can be deemed as a high priority (Collis and Hussey, 2009). Although a reliable measurement is not always valid with results often being reproduceable however not always accurate i.e. not reflecting current position.
- Validity: High validity is associated with interpretivism research thus is reflected within this study, due to the idea that results measure what they are supposed to. A valid measurement is generally reliable as it is anticipated if results are accurate they should be reproducible (Collis and Hussey, 2009).
- Generalizability: Interpretivists generate findings from one setting to an alternate but similar setting, whereas positivists representative of the larger population select sample and demonstrate the characteristics of this sample. Often can be referred to as limitation within interpretivism, however the research is realistic with relation to time restraints (Collis and Hussey 2009).

4.3 Approaches to Research

Collis and Hussey (2009) suggest an inductive approach as a natural progression form an interpretivist philosophy. This enables the data to be contextually reviewed, allowing integration into the study by being involved in the process. This involvement of reviewing data and searching for patterns allows for the forming of general conclusions and theories. Deductive research is more objective in nature and is closely linked to positivism philosophy, requiring larger sample sizes and generation of results through a more rigid methodology. Initially quantitative research methods were considered, however upon further exploration a qualitative approach was identifies as the best fit. This decision was based on the following theoretical reasoning, as outlined by Gupta and Awasthy (2015), qualitative research poses the opportunity to yield information which may not have previously considered. Mellifront (2021) argues that a qualitative approach is more appropriate for exploring complex or relatively unexplored areas, which can be linked back to the research area of neurodiversity (Mellifront 2021). Yin (1989) an advocate for qualitative methods, suggesting it is the most appropriate when dealing with contemporary phenomena within real life contexts. Saunders et al (2009) also outlines participant experiences could not be portrayed through surveys or questionnaires deemed more suitable for standardised questions.

Pharm (2015) refers to quantitative research methods being used to determine context in numbers for example how many people undertake particular behaviours, whereas qualitative methods can help understand how and why behaviours take place. Quantitative research such as surveys allow for the collection of data from large group of participants. While recognising the excellence of surveys such as cross sectional, experimental and longitudinal the methodology is most typically employed in positivist paradigms. Zikmund et al (2012) refers to quantitative research as a way of searching for the truth about business phenomena through the application of scientific methods. The author suggests quantitative research does not lend itself to the 'authentic accounts of subjective experience' as cited by Silverman (2006). This resulting in the author feeling the quantitative methodology would be a miss match with the undertaken research.

Riach (2009) and Mellifont (2021) similarly used qualitive methodology's when exploring the lack of research identifying line manger engagement within neurodiversity, and analysing neurodiversity conferences, themes, representations, and evidence-based justifications for the explicit inclusion and valuing of OCD.

Fugard & Potts (2015) refers to major advantages of qualitative data, and its ability to enable to explore subjective outlooks, and to gather detailed accounts of people's experiences. However, one must not forget that any chosen approach to research must have its cons. Disadvantages often identified with qualitative data include interpretation of data as the data is hard to analyse, inability to make comparisons, not being statistically representative and lacking objectivity. Despite the disadvantages, Maxwell (2013) outlines qualitative research assists with better understanding, the meanings and perspectives of those studied, and how these perspectives shape their physical, social and cultural ideologies. Supporting the concept in gaining a deeper insight into the overall awareness senior managers have of neurodiversity within the construction industry. Additionally, the choice of strategy was supported by Corbin and Strauss (2009) who refer to specific characteristics shared by qualitative researchers, some of which the author would refer to as personal characteristics:

- Curious/imaginative and creative
- Willingness to take risks
- > Trust in oneself to see the value in work produced

4.4 Procedure Applied

Bluhm et al (2011) refers to interviews as the most prevalent qualitative method used within management and organisational research. Interviews can be used standalone or incorporated into mixed methods, or multiple qualitative methods (Bluhm et al, 2011). Despite its prevalence within research, Bryman (2012) argue interview methods can cause for tension between those advocating philosophical variation, and those promoting standardised criteria especially within positivist paradigms. However, despite this, the research stance will be anti-positivism in nature. The focus will be on gaining subjective knowledge through discussions which will be achieved through interviews.

Reissner and Whittle (2021) advocates that there is no one best way of conducting interviewbased research. It was decided the most beneficial method of data collection for this study would be semi-structured interviews. This choice was guided by the authors background in Human Resource Management (HRM) and having experience conducting interviews. The existing literature also strongly highlighted the use of 'interviews' as a central source of data collation. Gupta and Awasthy (2015) suggest semi-structured interviews provide information which may not be possible using questionnaires or scales. Bradford and Cullen (2012) espoused semi-structured interviews as methods particularly appropriate in research which requires follow up or open-ended questions enabling prompting. Barriball and White (2013) refer to semi-structured interviews as a tool for the exploration of participant perception and opinions on complex issues and also deeming them suitable for participants with low subject awareness and towards the exploration of values, intentions and ideas. Cridland et al (2015) also refer to semi-structured interviews, catering for issues which may be meaningful to the participants enabling diverse perceptions to be expressed.

It is important to note there has been a number of disadvantages associated with semi-structured interviews such as Cameron and Price (2009), who refer to the time consumption associated with the interview process. Saunders et al (2009) refers to 'bias 'concerns within the interview process although the interview questions may be leading at times they undeniably provide new knowledge.

4.5 Data Collection

As the research aims to explore 'what awareness do managers have of neurodiversity', it was felt semi-structured interviews would provide the best tool for data capture. To capture the full essence of the interview, a voice recorder was used (Voice Recorder v4.0.1 by Live Bird Technologies) to maintain exact accounts of information given. As outlined by Saunders et al (2009), post interview reflection was also identified as necessary to capture contextual data which may have been initially missed, giving the opportunity to the researcher to replay and listen to the content.

4.6 Reliability & Validity

As outlined by Saunders, (2009) reliability outlines a uniformity of findings in terms of data collection techniques. Reliability can be often threatened due to the focus on participant and author bias and error. Despite this semi-structured interview need to be accepted and interpreted at face value. To support reliability for this research, transcripts were submitted to

the participating interviewees (senior managers) to review the accuracy of interview and the findings outlined. Due to the nature of semi-structured interviews, the validity of such a technique can often be questioned. It is fully appreciated and excepted that no two researchers will digest the criteria similarly. Byrne (2022) outline there is no expectation that codes or themes translated by one researcher may be replicated by another, although in some instance's replication could be possible. Silverman (2006), summarised recording emotions in the exact moment at that specific time cannot always be replicated and trying to reproduce would lessen authenticity.

4.7 Participant Sample

Convenience sampling was identified as the best non-probability sampling method for the undertaken research. This inexpensive and easy method, gives access to draw on participants with regards accessibility and proximity. Concerns often associated with this particular method is linked to the inability to tell whether the sample is a representative of the population resulting in a concern of producing more generalized results (Bryman, 2012).

Braun and Clarke (2013) refer to previous qualitative studies requiring a minimum sample size of at least twelve to achieve data saturation. Saunders and Townsend (2016) suggest what is considered to be an adequate sample size is dependent on the stance of epistemological paradigm, and the standards outlined by the reviewers and editors of the research. It is proposed the outlined sample size of twelve semi-structured interviews will enable adequate data saturation, as failure to meet data saturation would impact the quality of the research and content validity (Bowen 2008). Josselson an Lieblich (2003) refer to saturation stopping the data collection when the results start to become redundant a key factor of a sample size. Outlining that it can often be the researcher becomes saturated. It is paramount to collect sufficient data to represent the depth and breadth of the phenomenon.

Taking into consideration demographics for participants, the use of a bio form was completed which outlined gender, age, number of years in the industry, number of years in the company and number of years as a senior manager, size of the organisation, and number of employees which they manage. All participating subjects were initially contacted via telephone to build a rapport, and a subsequent email was issued which included an invitation addressed to the manging directors of the companies outlining the study aim, methodology, ethical approval, contact details of author and a participant information sheet. As outlined by Bartkowiak (2012) good communication is key within qualitative studies as it creates a relationship of trust and responsiveness.

4.8 Ethical Considerations

As outlined by Saunders et al (2009), researchers must be aware of their ethical responsibility when conducting research. Ethical approval was sought at the proposal stage and an NCI Ethics Review Application Form was submitted. Collis and Hussey (2009) refer to the importance of voluntary participation, anonymity and confidentiality which were all the core for this study. From the offset the purpose of this research was identified, confidentiality guaranteed and anonymity confirmed. Letters were issued to explain the process and requesting consent from each participant, voluntarily wanting to partake within the research. In line with GDPR legislation and Irish Data Protection legislation, permission to record the interviews was granted before commencement, and information of how data would be stored was identified. The data would be stored using a USB and computer folder which would be encrypted, with access to raw material only being available to the author and examiners if required. It was also agreed that copies of transcripts would be made available to the participants, and were forwarded to interviewees for authentication. A final copy of the work was also agreed to be circulated to participating organisations. Data will be retained for a period of 10 years, and subsequently all copies of the data will be deleted and shredded.

4.9 Interview Design

The research was conducted across three leading construction companies based in Dublin Ireland. Interviews took place within a private room of the host organisation in order to minimise disruption. The selection of the participants was based on the employee numbers within each organisation, as small construction companies would not have the staff levels required. The selection of the senior manager cohort was based on their experience in the industry and their senior positions with the companies. The interview process itself lasted between 25 – 45 minutes and was audio recorded. In total, twelve semi-structured face to face interviews took place, and commenced with an outline of the purpose of the process, reiteration of its voluntary nature and guaranteed anonymity. Initially four interviews were conducted, and based on these initial interviews, the schedule developed and expanded to twelve to enable more rich data (Appendix 1). As outlined by Galletta (2013) an interview schedule should be considered as a work in progress and remain subjective to change. An interview schedule is a guide for the process, to enable questioning of the defined topic, while allowing the participants such as the senior managers to respond in their own terms and additionally enabling other themes to transpire 'flowing conversation' (Choak 2012). Prompts were given to participants as deemed necessary in order to extract phenomenological data. The descripted data was then converting into a word document, by bringing the data alive by appreciating what has been said but also by the way it had been said, and concluding by a way of analysis and themes. The interviews were concluded by thanking the participants for their time, and contribution towards the research, while additionally a reflexive piece was completed on each interviewe to reflect observations through the process.

4.10 Data Analysis Method

Braun and Clarke (2006) outlined Thematic Analysis (TA) as a process of identifying patterns or themes within qualitative data. Unlike many other qualitative methodologies, thematic analysis is not linked to a particular epistemological or theoretical perspective. TA helps to create a logical structure for the research and focuses more on the frequency of the occurrence of various categories. Braun and Clarke (2006) refer to a 'good thematic analysis 'consisting of data having been analysed rather than summarised characterised by its significance, and avoiding using the main interview questions as themes. Byrne (2021) refers to three types of principal approaches which have been recently established with TA, 1/Coding Reliability Thematic Analysis (CRTA), 2/Reflexive Thematic Analysis (RTA), and 3/ Codebook Approaches to Thematic Analysis. Coding Reliability TA (CRTA) refers to a hypothesis based on the theory prior to data collection with evidence of the data formed in codes more aligned with a deductive approach. As outlined by Byrne (2021) CRTA accentuates the measurement of accuracy or reliability when coding data, involving the use of structured codebooks seeking a degree of consensus among multiple coders using Cohens Kappa. As outlined by Smith and Firth (2011), and Kings and Brooks (2017) Codebook approaches to TA are evident through

framework analysis or template analysis. Adopting an approach of a shared codebooks which shared conceptualisations of themes and domain summaries (Byrne, 2021). As outlined by Braun and Clarke (2019) RTA refers to research where the author plays an active role within the research. A primary focus of the TA will be on the data set, theoretical assumptions, and the analytical skill of the author linked with inductive tendencies bottom up reasoning. Braun and Clarke (2019) refer to RTA as 'the authors reflective and thoughtful engagement with their data and their reflective and thoughtful engagement with the analytical process' (Braun and Clarke 2019, p.594). The goal for this research is to identify themes, and use the themes to address the research. Codes identified will represent interpretations of patterns of meaning across the data set which will be reflective and thoughtful (Byrne, 2021). This process of coding identified as being organic and flexible in its nature evolving throughout the analytical process (Braun et al 2019). Due to the inductive approach to this study, codes were identified and reflective of the data, eliminating any pre-conceived theory or conceptual frameworks (Byrne, 2022). The inductive theory starting with a set of observations, which shifts from experiences to a more general set of propositions moving from the data to theory. As outlined by Braun and Clarke (2019) coding any analyses rarely falls into one side or the other, and a combination approach generally exists. A predominately inductive approach was adopted through this study outlining the boundaries of the research therefore, the data is not coded to fit pre-existing coding frames but instead is 'open coded' in order to represent meanings which were communicated by the participants (Braun and Clarke, 2013). Elements of a deductive approach however were used although limited so the open-coding contributed to the formation of themes outlined as meaningful to the research questions, and to ensure that the respondent/data-based meanings that emphasised were relevant to the research questions (Byrne, 2021).

Braun and Clarke (2006) distinguish thematic analysis between two level of themes known as semantic and latent codes. Semantic referring to 'explicit or surface meanings where the analyst is not looking for anything beyond what a person has said or written' (P.84). Whereas at the latent level 'starts to examine the underlying issues, assumptions and conceptualisations and ideologies which are theorised as shaping or informing the semantic content of the data' (p.84). For the purpose of this research both semantic and latent coding was utilised, semantic codes were identified as appropriate and latent themes were identified and guided based on judgement of appropriateness and relevance. As outlined by Patton (1990), this type of coding could result in the occurrence of double coding, with the semantic meaning communicated by the

respondent, and the latent meaning interpreted. Braun and Clarkes (2006) six-phase analytical process facilitates the analysis, and assists with identifying the elements of a TA;

1/Theme development which advanced using primarily an inductive, semantic and latent approach.

2/Familiarity of data including transcribing verbal data and by reading and re-reading the data, listening to the audio recorded data and making note of additional observations (Braun and Clarkes, 2006). This was achieved by formulating interview transcripts in tandem with field notes/ observations outlined by the interviewer.

3/ Generation of initial codes through predominately inductive coding involved carefully reading words and phrases which highlighted key points from the interviews, guided by the data the formation is from the ground upwards.

4/The research moved towards constructing the themes by collating all the coded data relevant to each theme (Braun and Clarke, 2006).

5/ The review of themes involved checking the themes 'work' in relation to the coded extracts and the full data-set, and began to form the individual themes and the relationship between the themes (Braun and Clarke, 2006). As outlined by Braun and Clarke (2006) in some instances it may be required to slit a theme into two or more themes known as clusters, or to discard the candidate themes and begin again the process of theme development. Defining and naming the themes required to write a detailed analysis of each theme, outlining the essence of each theme.

6/ Braun and Clarke (2006) refer to the writing up of the analytical process as an integral element of the TA process, it should present the reader with a coherent and persuasive picture of the data. As outlined by Cohen, Mannion and Morrison (2007) staying faithful to the data will result in the codes themselves deriving from data responsively rather than being created preponderately (P.148).

Bryman (2012) refers to qualitative research often lacking clarity as it doesn't outline end point or conclusion to the study was reached. The was awareness was utilised throughout, summaries of interviews and field notes were included within the analysis outlining relevant comments made after audio recording concluded for which permission was agreed. Merging both
summaries and notes supported interaction with this qualitative analysis methodology in order to understand, integrate, identify, develop and draw conclusions.

4.11 Limitations

There were many limitations experienced throughout the study, access to organisations proved challenging as many senior managers were on annual leave for the months of May and early June. This placed significant pressure with regards the sample population, in turn delaying transcribing and analysing until the end of June. Initially sixteen interviews were hoped to be conducted, however due to time restraints this was deemed not feasible which required revisiting the sample size and data saturation would be achieved through twelve interviews rather than sixteen. Additional limitations experienced included the participant sample with regards to gender participation with only two females participating within the study. Due to the broadness of the term neurodiversity, it was also decided to have a primary focus on specific neurodevelopmental conditions Autism and ADHD.

Chapter 5

Presentation of Findings & Discussion

5.1 Analysis

This chapter aims to outline the main findings of the research study which were identified using Braun and Clarkes (2006) thematic analysis approach, specifically reflective thematic analysis which is divided into several sections, firstly identifying the interviewees profile which has been outlined below.

Participant A B С D Е F G H \mathbf{J} I K L М М М М Gender М М F М М М М F Male- M Female - F 41+ 41+ Age Range 26-30 41+ 41+ 41+ 41+ 31-31-41+ 41 +41+ 35 35 1 2 2 2 2 3 3 Organisation 1 1 1 3 3 HR Department Engineering Eng Eng Planning Eng Surveying Eng Director Director Eng Eng (Eng) 23 26 25 18 4 3 15 Years 5 4 6 8 6 Organisation 20 5 19 7 Years 2 15 20 1 4 5 6 10 Managing 3,000 3,000 520 520 520 400 400 Company Size 3,000 3,000 520 400 400

Table 5.1.1: Participant -Senior Managers Information

5.2 Thematic Findings

Throughout the analysis, reoccurring themes emerged which included understanding, inclusion, and training. Additional sub-themes emerged including communication and emotional intelligence, subsequently creating more solid themes strengthening the data analysis and discussion. The identified overarching themes will now be discussed in order of importance, in how they evolved throughout the data. The data formed by way of virtue in which understanding was the most prominent theme thus will lead the chapter.

5.3 Understanding

Understanding is subjective in its very essence, Resnick (2022) refers to understanding within neurodiversity which has been highlighted as of late by advocates and educators, in order to help people and how to identify and work with neurodivergent colleagues. However, the

misunderstanding of the terminology neurodiversity, and associated neurodevelopmental conditions continue to cause clarification difficulties. The data obtained, outlined that people are aware of the terms ADHD and Autism separately, however people are unaware of the umbrella term neurodiversity and its meaning. The theme of understanding and more specifically misunderstanding, was identified within ten of the twelve of the conducted semi-structured interviews, outlining its significance within the data. The below interviewee statements outline the prevalence of the theme within the study.

'Yes, I would know about the term neurodiversity but I wouldn't know the extent of which the definition fully covers, at the end of the day we all think differently it would be boring if we were all the same wouldn't it' (Interviewee J, Organisation 3).

'I have heard of Autism and ADHD but being open and frank with you I didn't realise they fall under the term neurodiversity, and I never heard of it before '(Interviewee I, Organisation 3).

'No, I had never heard of it but after you explaining it I understand it now, I was aware of ADHD and Autism separately but just never heard of these conditions being referred to under the term neurodiversity' (Interviewee G, Organisation 2).

'I have heard of the Autism and ADHD separately but as you say it actually I'm nearly sure I may have come across the term neurodiversity in a newspaper article, I can't remember who the article was about though. Being honest though I don't know if I fully understand the terms I know you explained it at the start of this interview, but I find it slightly confusing. Is it just a new term now used for people who think and act differently- is it a HR thing?' (Interviewee H, Organisation 2).

'Would you believe I have never actually hard of this term before, is this a term that has only recently emerged, I feel like I should be aware of it as I have managed people for years so it is definitely relevant to me and my role- it's a very interesting area and something I would like to explore more, I would know more about Autism and ADHD just because I feel like its talked about more in the media' (Interviewee K, Organisation 3).

'I get quite passionate about these things, If I don't fully understand the conditions how can I assist and support the employee. If I did understand more about neurodiversity it would benefit me so I could understand the strengths and sensitivities of such an employee. Just to be clear though I have heard of the terms ADHD and Autism but I wouldn't fully understand the characteristics associated with these conditions' (Interviewee L, Organisation 3).

The outlined text portrays the unfamiliarity and uncertainty experienced by participants as a result of not understanding the umbrella term neurodiversity, impacting the experience and knowledge of supporting neurodiverse employees. Research carried out by Beaton et al (2022) suggests levels of understanding are a key component of the negative evaluations that others have of neurominority employees.

In addition, the data highlighted that the participants were mainly aware of the term visible disability, but not as aware of the term invisible disability which is linked back to the overall theme of understanding. Even though the definition of the terms were outlined, the interviewees found it difficult to articulate their thoughts around this topic as outlined below:

'I do believe we have a lot more invisible diversity, but is not very open and transparent and believe we have a long way to go before people feel comfortable to openly display their invisible diversity. I don't really have an answer on how this can be achieved, but I think overtime that it will happen, not in my lifetime though' (Interviewee A, Organisation 1).

'After you described the term invisible diversity it made sense but before then I presumed it was referring to people who had different religious beliefs, sexual orientation or political views. I feel a bit silly now I was completely incorrect every day is a school day I suppose' (Interviewee B, Organisation 1).

A lack of understanding of neurodivergent employees has been identified leading to hiring processes, management practices and workspaces being designed only with neurotypicals in mind, in turn impacting senior managers experience of supporting neurodiverse employees within their perspective organisations (Armstrong, 2015). This theory is supported by the interviewees evident within the data below:

'If managers understood neurodiversity more and the particular behavioural traits associated with the conditions maybe things may change, processes and workspaces would be more geared towards everyone rather than just what as deemed as the normal thinking employee. However, I wouldn't have a clue where to start and it had never entered my mind until today' (Interviewee L, Organisation 3). As outlined by CIPD (2018), 90% of HR professionals in the UK did not consider neurodiversity in its people management practices. A statistic which is concerning for both employers and employees, as it highlights the lack of understanding previously referred to by Bury et al (2020).

'I don't believe my organisations recruitment practices are where they need to be in order to be inclusive towards neurodivergent talent, and I'm certainly not aware of their reference to neurodiversity which is concerning' (Interviewee A, Organisation 1).

'To work in the construction industry, it all takes teamwork and to be effective all team members need to understand each other as to work together to produce results. Unfortunately, I don't feel senior managers understand the characteristics associated with neurodivergent employees within the industry, thus they can't appropriately support identified team members. Having a family member who is neurodivergent has given me a slight advantage when understanding and supporting neurodivergent individuals (Interviewee A, Organisation 1).

The above data highlights the significant research gap identified by participants with regards organisational equality, and equality practices currently implemented by organisations.

Kulik (2014) refers to little research having been undertaken, to examine the experiences of line managers when dealing with neurodivergent employees, a concept which has been outlined by participants:

'As a senior manager I have supported a team member previously and I supported him but having 1-1 discussions about his condition. We mapped out where there would be challenges and opportunities and built a plan around these to help him perform to the best of his abilities. We agreed on a roadmap for his development built around his requirements and discussed the most effective way to integrate him into the team and project. I can truthfully say if I didn't understand neurodiversity due to my personal experiences, I wouldn't be in a position to implement these practices. Just to add though I wouldn't feel confident in supporting all conditions as I have just had experience with dyspraxia' (Interviewee G, Organisation 2).

'No, I wouldn't be able to support a neurodiverse employee, I just don't know enough about the condition to feel confident to support such an employee. We don't have any polices or set of procedure in how to support such an e employee (Interviewee H, Organisation 2). The outlined verbatim portrays participants perceptions as a result of not understanding the umbrella term associated with neurodiversity, and not having the experience or knowledge of supporting neurodiverse employees.

On a deeper analysis of these interviews a more philosophical issue emerged although not specifically mentioned within the literature, and this was around creating a supporting environment within the workplace outlined in the data below.

'My take on the world and the workplace is that before you can help and support a colleague, you first need to understand an identity how they see things and interpret things. I feel like this is at the epicentre of any understanding. Maybe this is my background in HR which make me think like that need to get to the root' (Interviewee D, Organisation 1).

'I feel it is important that a comfortable environment is established for neurodiverse employees and this is achieved through supports, I wouldn't know how to identify particular support only being as understanding as I could be' (Interviewee C, Organisation 1).

This interview data outlines the request and need for managers to view things through a neurodivergent employee's eyes, which can be formed by implanting a supportive environment.

In summary the data from the interviews outlines that there is a lack of understanding with regards the terminology associated with neurodiversity, in turn impacting supports given by senior managers and impacting people management practices. What additionally emerged was the sense of subjectivity of opinion in relation to neurodevelopmental characteristics associated with Autism and ADHD, as it meant different things to different people. The characteristics associated with the conditions varied between participants significantly from stating an ADHD individual is '*very intense and focused to a point of obsession with specific things and can mis interrupt what you are saying and asking as they may not be concentrating and can be easily distracted*' (Interviewee L, Organisation 3) compared with the statement of '*An individual with a high attention to detail who is sensitive to light and loud noises* (Interviewee K, Organisation 3).'*I would simply say a neurodivergent individual has communication difficulties*' (Interviewee B, Organisation I).

The interpretation of these characteristics reiterates the concept of misunderstanding, outlining neurodivergent employees may be continuously unconsciously rejected by their peers within the workplace.

5.4 Inclusion

As outlined by the Whitting (2022), employment statistics to date have outlined neurodiverse individuals often face discrimination issues. This has been more prevalent in companies focusing on the challenges often associated with neurodivergent talent, rather than the benefits in turn impacting inclusion. Kirkwood (2020) outlines research from McKinsey and Deloitte Australia has found clear evidence to suggest that inclusion and diversity does not only matter but has a consequential impact on an organisation's performance. It has been often debated on how organisations become more inclusive, and it has been acknowledged that it something which needs to be driven from the workplace environment and practices (Bury et al, 2020). Bury et al (2020) refers to the notion of social challenges reasoning, and resolve which require examination as factors towards an inclusive workplace. Acknowledging that there is a link between a supervisor's accountability towards social challenges such as labelling, and whether knowledge of a neurodevelopmental diagnosis is connected. Kirkwood (2020) refers to neurodiversity as a difficult topic due to many people not understanding it, which was evident within the data outlined in section 5.4. Additionally, it is suggested that in the world of mental health and / or many often feel uncomfortable with the labels it applies. For the senior managers who took part within this research it was evident that they had hesitations towards labels as it was felt it could it lead to employees being at a disadvantage.

'I would be very concerned using labels for employees, I feel that be using labels you're automatically isolating a person and outlining that they are in some way different which is not promoting inclusivity within the workplace. Can we not just accept that we may think differently without have to differentiate an individual' (Interviewee A, Organisation 1)

'If I were to put myself in a neurodivergent employees' perspective I would not like to be labelled. To me a label is not inclusive and I don't think it is the best approach to inclusivity within the workplace. I think we live in a time where everything needs labels, and I just don't personally agree with it. As a senior manager I promote inclusivity within my team and we respect our differences, it's what makes a good team we all have strengths and weaknesses but our differences strengthen the team dynamics' (Interviewee I, Organisation 3).

'For me I don't agree with labels, it's important to tell your manager about you condition so you can gain support but being labelled creates isolation' (Interviewee E, Organisation 2).

'I feel with labelling it can have a positive or negative effect, but being genuine and honest about it I think it is more negative. (Interviewee J, Organisation 3).

As outlined by (Werkhoven, Anderson & Robeyns, 2022) labels can often be overly reductionistic, people feel that they are nothing more than a label and their life is interpreted through the lens of that label. There is a possibility that some people may misuse their label, to avoid legitimate and constructive criticism by redefining opportunities for improvement into threats to their identity. What is evident from the outlined data is how managers viewed labels as negative, however, it must be noted that although the data outlined labelling as a disadvantage, it is paramount to note that within some therapeutically contexts labelling is required. As outlined by (Werkhoven, Anderson & Robeyns, 2022) 'individuals associated in evaluating the use of diagnostic labels should ask of each proposed policy and future direction: who would benefit?'.

Bierema (2010) refers to diversity management as a core part of HR, which is required for an inclusive culture. This has been somewhat limited to date within its practices, with little or no focus on neurodevelopmental and cognitive differences. As outlined below this theory is underpinned by the interview participants.

'I feel HR need to review the polices more regularly to ensure that they are more inclusive towards neurodivergent employees' (Interviewee A, Organisation 1).

'I would argue that the leadership team and HR don't promote neurodivergent talent within existing recruitment practices, it's all geared towards the neurotypical mind. Simply we need to be advertising our positions and outwardly promoting inclusiveness in the job description which we don't currently do'. (Interviewee G, Organisation 2).

'Greater engagement from HR specialists is required, time for HR to absorb the vast range of HR issues regarding an inclusive workforce, and advice how to achieve it, support to implement' (Interviewee C, Organisation 1).

'I feel HR need to include setting up targets in increase inclusion in the areas of recruitment, promotion and retention and identify how a line manager can implement reasonable adjustments' (Interviewee A, Organisation 1).

The above data outlines that within the construction industry, participants feel that HR and the leadership team need to be more inclusive towards existing practices with reference to neurodivergent talent.

Honeybourne (2019) outlines simple amendments to the recruitment process, such as stating working conditions, expectations and outlining the organisations commitment to discussing reasonable adjustments would encourage autistic and ADHD candidates to apply which is outlined below by participants.

'I think we need to communicate to candidates, and our own employees what reasonable adjustments are available and demonstrate how we could implement to improve our approach to inclusion and diversity' (Interviewee A, Organisation 1).

'I feel the organisation needs to conduct a survey to measure if people feel included and implement changes based on feedback. It is important to ensure recruitment practices are inclusive by particularly reviewing and ensuring reasonable adjustments are made. It would be great if reasonable adjustments could be identified to senior managers so we could implement on the back of this' (Interviewee F, Organisation 2).

In summary evidential from the data is the request from senior managers for organisations and specifically HR and management teams to lead from the top. It was suggested that this would be achieved through acknowledgement of the lack of current policies within the industry. Kirkwood (2020) suggests 'if leaders were more open about their own experiences and identifying as neurodivergent, the workforce would feel more comfortable in coming forward.

Additionally, emerging from the data was the link between the interview process and inclusiveness as discussed below. Three of the twelve participants referred to the interview format as a way of impacting inclusiveness while the nine participants preferred the in-person method. The data below highlights significant and rich data which was obtained from the interview process.

'I prefer virtual interviews as they are more inclusive towards employees, they allow people from all backgrounds to apply for a position. I also find they are more relaxed giving people the opportunity to be more themselves as they are in their home environment which can be more comfortable for people' (Interviewee J, Organisation 3).

'I do feel virtual interviews are far more inclusive than in person especially for neurodiverse individuals, as it removes the barriers around body language and social ques which would be far more existent in an in-person interview. However, I also value in person interviews as you can show an individual around the office which gives a brief outline to the company culture' (Interviewee I, Organisation 3).

'If logistics only allow virtual that's fine but for me person to person is preferable as it allows for body language / eye contact / presentation of the candidates are all factors which can be accessed' (Interviewee E, Organisation 2).

'I feel it benefits both parties to be interviewed in person' (Interviewee L, Organisation 3).

'Virtual interviews allow a much wider scope of contributors on both sides of the table. In person allow a better opportunity to read the person, a more comprehensive view of the nuances of their performance in the interview. Virtual allows a wider talent pool initially, but I prefer in person before a decision is made' (Interviewee F, Organisation 2).

Evidential from the interview data is that very little consideration was given to the communication difficulties, which a neurodivergent candidate may encounter though the selection process. Furthermore, evident within the above data was how senior managers viewed the way in which interviews were conducted based on their inclusiveness.

'Virtual interviews remove unconscious bias from the process, and means the assessment is based on competencies. Virtual interviews are also more inclusive as a neurodiverse person may feel more comfortable and less stressed being interviewed in their home environment. It would also offer the opportunity id issue interview questions in advance to give people a chance to reflect on their questions in a comfortable environment in turn offering inclusiveness.' (Interviewee D, Organisation 1).

Kirkwood (2020), refers to the importance of language/communication in relation to neurodiversity as it helps define whether and how an individual experiences inclusion. Within the next section the sub theme communication emerged which will be explored.

5.4.1 Communication

Doherty and Norsted (1996), refers to the subjectivity of opinion in relation to communication which can often mean different things to different people. Lindsay, McDougall and Sanford (2013) refers to the lack of accommodations explored for young adults with disabilities within the workplace, however it must be noted in order to receive workplace accommodations firstly one must disclose and communicate their condition.

The debate on whether disclosure can be a blessing or a curse continues to be exhausted by many which is outlined within this theme communication. Lindsay, Cagliostro and Carafa (2017) outlines lack of communication and non-disclosure can often lead to unnecessary job loss, unsafe working conditions, and negative impact on job performance and well-being. The below data outlines senior managers perceptions on disclosure within the perspective organisations.

'I do feel disclosure would help colleagues/peers understand that the individual may see/ perceive things differently, and that their strengths may not align with everyone else- but there is a role for them if tailored correctly. However, with most organisations I do feel the individual would be written off as difficult or different if an open mind is not taken. Dismissed as not asset to the team and too much work to integrate them (Interviewee B, Organisation C).

'I do believe we need to actively promote inclusion and diversity with regards employees disclosing and feeling comfortable in doing so. But it is difficult when an industry is not open and transparent and communicating effectively. I do believe we have a long way to go before people feel comfortable to openly display their invisible diversity, and this is due to lack of communication. It is a result of the construction industry's culture and alpha male dominated psyche which is often displayed but this slowly changing thankfully' (Interviewee A, Organisation 1).

'I would say my company would accept disclosure however it doesn't actively promote disclosure or mention it any of our policies' (Interviewee E, Organisation 2).

'I do believe my organisation supports disclosure and would do everything to support it, however it is not actively communicated, promoted or encouraged openly and this is probably more to do with the way the construction industry in how it operates, rather than my organisation. The industry can often be closed off in ways not communicating about what is going on' (Interviewee B, Organisation 1).

'If people know, then they have a chance to understand the particular behavioural traits they may have witnessed, and treat them as positive rather than a negative. However, I do believe unfortunately within my company if a person disclosed unfortunately they could be side-lined rather than supported. This would be due to potential preconceived opinions of the condition why may influence how they are treated' 'sigh' (Interviewee K, Organisation 3). The interview data from the research outlines that for some senior managers they felt their organisations encouraged communication around disclosure, however for the majority they felt their organisations didn't actively promote disclosure.

I know I'm not being politically incorrect when I say this, but If I was made aware of someone being neurodivergent I would be more hesitant to employ them and I know that sounds awful and I do feel that's just based on my not knowing enough about the conditions. Afraid of the unknown is the best way to put it' (Interviewee J, Organisation 3).

Emergent from the data is that while certain issues within communication factored more significantly within certain organisations, generic sub-categories of openness, transparency, and consistency emerged from all.

'It is up to each individual organisation to provide communications to increase awareness and supports' (Interviewee D, Organisation 1).

'I don't feel that my company communicates enough on its existing polices, I certainly have never seen anything circulated with regards neurodiversity, maybe there is a policy somewhere in a dusty handbook but it hasn't been circulated to senior managers' (Interviewee G, Organisation 2).

5.5 Training

Upon analysis of the data it was apparent within eleven of the twelve of the semi-structured interviews conducted, the need and requirement for training. Specific training included awareness training, upon further explanation, it was outlined that awareness training included both awareness of the neurodevelopmental conditions with regards the associated characteristics of neurodiversity, but also of oneself specifically around emotional intelligence.

Goleman (1996) outlines self-awareness is a key feature of emotional intelligence (EI) which requires reflection of one's strengths, weaknesses, and seeing oneself in a positive but also realistic manner. An additional element of self-awareness is the ability to manage emotions interrupting what is behind a certain emotion and learning how to handle such an emotion (Goleman, 1996). Additionally, Goleman (1996) outlined empathy as key social ability, understanding individuality of perspectives and respecting differences in how people feel about things. Communication which was discussed in section 5.3 and relationships play a key feature in one's self-awareness, and by being a good listener and distinguishing between what someone says and does with your own reactions and judgements. One may ask the question how is this linked to training, what became apparent within the data was the need of senior managers to deeply understand the neurodiverse employee which was discussed in section 5.1 and it was felt that additional training would be required to achieve this as outlined below.

'I would need more training to understand the requirements of a neurodiverse employee, I wouldn't currently feel informed enough to be in a position to support such an employee'. I would need various types of training around communication but most importantly how I could effectively support such an employee (Interviewee E, Organisation 2).

'I think I would be supportive but I certainly would require additional training, what comes to mind in relation to what training maybe around empathy. Sometimes I feel like I'm not empathetic enough maybe it's a construction industry thing but it's something I struggle with' (Interviewee K, Organisation 3)

'I would need training in how to assist a neurodivergent employee, I would like to be more confident and would like to understand more but I would seek training to gain a better appreciation of what a neurodiverse individual is going through. Emotional Intelligence training would be something which I could identify as a training that would be needed. It is actually a training which I would like to explore more, my company hasn't started rolling out this type of course recently. (Interviewee H, Organisation 2).

'It would be great if the company looked at providing awareness training to help people understand the benefits that neurodiverse individuals can bring to the workplace (Interviewee F, Organisation 2).

'I don't feel the organisation provides training on how to support a neurodiverse employee, I feel they need to do more to train managers in how to deal with the employees correctly' (Interview B, Organisation 1).

'I would be confident in supporting a neurodiverse employee for certain conditions however not all, and I do feel training would be required to be as effective as possible to help that employee. A variety of training could be rolled out such as outlining the characteristics with the conditions, how to input a plan for supporting such an employee and also as a manager how to time manage such an employee. As like many industries, the construction industry is all about time efficiency and making money. it would be important to provide tools in how you could manage your time to support to give the best support to the employee' (Interview A, Organisation 1)

Thorndlike cited in Goleman (1996) outlines 'social intelligence is both distinct from academic abilities and is deemed a key part of what makes people do well in life. The practical intelligences are so highly valued in the workplace, as it is this kind of sensitivity that allows effective managers to pick up on the tacit messages which is outlined below.

'Inclusion training is a must for senior managers to understand how to create an inclusive team, I feel mangers don't have the tools or awareness without adequate training. This could be how to be more inclusive within interviews or altering job descriptions. (Interviewee J, Organisation 3).

The interviewees outlined the need and identification for training, apparent from the data is the tacit messages which senior managers require training on, to be able to identify and distinguish the extent to neurodivergent employee needs.

'Providing training on inclusion would give people the understanding and the tools to equip them to effectively embrace diversity' (Interviewee D, Organisation 1).

Moving onto the next section, the findings will be discussed in a thorough capacity, outlining the literature advancement and in so doing its value will be illustrated.

5.6 Discussion of themes

5.6.1 Understanding

As outlined previously by Walker (2021) in the literature review, when there is uncertainty and unclarity surrounding language being used, understanding is not attainable. Doyle (2020) with a view of neurodiversity from a medical perspective, suggests the term is still evolving, and is not yet well captured. The terminology around neurodiversity continues to have conflicting and confusing definitions, with overlapping symptomatology and minimal guidance on practical support in the workplace. Additionally, suggesting a move towards a biopsychosocial model would eliminate the diagnosis and deficit associated with neurodiversity, with a view to multi-disciplinary collaboration (Doyle,2020).

The research data points to there being some knowledge with regards neurodevelopmental conditions such as Autism and ADHD, however often not referred to under the umbrella term neurodiversity. which asks the question why?

Evident from the literature review, is the prevalence of Autism and ADHD which has increased over recent years. Rimland (cited in Zylstra et al 2014) refers to a biological basis for the increase in the awareness of the disorder which is most closely associated with medical ideologies. Barke and Thapar (2021) argues Autism origins are linked to early development as a result of underlying brain dysfunction, while others believe the increase is due to awareness and social acceptability which have been mentioned within the literature review. Mahto et al (2022) outlines it is not that neurodiversity is more common, it is people are more aware of it and there is better diagnosis, MacNeela (2016) suggests individuals with ADHD may be getting a diagnosis later in life, in turn impacting the true reflection of people with ADHD within the workplace. Reflective within the data is that neurodiversity is not a term which has been actively used within the Construction Industry, and familiarity with the term was vague presenting confusion for senior managers. For senior managers who did understand the term familiarity was limited and more closely linked to personal experience with family members who were neurodiverse.

For those who understood the term neurodiversity, the extent to their understanding of the characteristics associated with the conditions ADHD and Autism are finite and subjective. The overarching theme understanding can be linked back to the literature review with regards the neurodiversity paradigm. This has caused for much debate on how it views Autism and ADHD as either disorders or non-disorders in turn impacting the use of our terminology. Jaarsma and Welin (2012) suggest the neurodiversity paradigm views Autism as an identity, a difference but not as a disability, suggesting the core element of the neurodiversity movement is disparity in neurological development, and functioning across humans as a natural and valuable feature of human difference not automatically pathological (Leadbitter et al 2021). This data identifies the terminology that we use to describe neurodiversity, is based on our own perception in how we view Autism and ADHD as either disorders or non-disorders, and is all linked back to the overall concept of understanding. Additionally, the data demonstrates the lack of understanding and information by employers supported in the literature review by Lopez and Kennan (2014). In turn impacting the supports given by senior managers, and also the impact on people management practices. As outlined within the literature review understanding the discourse of

neurominority employees, will enable fluidity of movement between medical and social models to support both individuals and employers (Doyle 2020).

Leadbitter et al (2021) refers to the growth of the neurodiversity movement causing for much ethical, theoretical and ideological debates within theory and practice. The interpretation of the overall data with regards the understanding theme - is that senior managers working within the construction industry, have a very limited understanding of neurodiversity in its entirety, and are not overly familiar with the associated terminology. Although the participants outlined some limited knowledge of Autism and ADHD, it is evident that the participants are unfamiliar with the characteristics associated with the individual conditions.

Identification of characteristics associated with the conditions of Autism and ADHD substantially varied depending on the academic's descriptive nature. It presents the question as we are all so different as individuals, is it accurate to group our individual characteristic traitsin other words is that inclusive in its essence? Although the answer to this question has not being answered as it would need further research, what is addressed and evident within this study is the lack of understanding of neurodiversity which has cause for future concern in relation to future biases within existing workplaces. Which leads into the next section the inclusion theme which will be analysed.

5.6.2 Inclusion

Werkhoven, Anderson and Robeyns (2002), heavily contests the harmful effects of labels, in some instances a clinical need has been identified for such a label. Whelpey (2001) outlines individuals with labels have challenges with receiving equal treatment within the workplace. The interview data identified that within the construction industry, participants felt HR and leadership teams needed to be more inclusive towards existing practices which would assist with labelling concerns.

As outlined within the CIPD People Management Magazine (2022), the people management analysis of official data outlined that the HR department isn't the most diverse field. As a people profession it needs to better practise what it preaches. Matthew Cope a HR Business Partner who is neurodivergent himself identifies the need for policies and procedures to be more inclusive, and to think more about how we find capable people (CIPD People Management Magazine, 2022). There needs to be a focus on best practice around successful neurodivergent recruitment campaigns, and individual development (CIPD People Management Magazine, 2022).

As referred to within the literature review, the CIPD (2018) have stated that neurodiversity is becoming more apparent on the organisational radar with an aim to be more inclusive. The data from this research study suggests the construction industry is not there yet. Austin and Pisano (2017), outline this movement is only happening within certain industries who have identified the importance of having inclusive practices. Blanchard (2021) proposes although senior leaders and managers may be prioritizing some aspects of diversity and inclusion, neurodiversity is not at its epicentre. Evident from the data was the lack of consideration given to the communication challenges neurodivergent employees may encounter, and how this may impact the overall success of the selection process. The majority of senior managers outlined their preference to have more in person interviews, but never took into consideration the need of the neurodivergent candidate.

5.6.3 Communication

The need for communication was identifiable from the data set, senior managers identified that they wouldn't feel confident in implementing reasonable adjustments as it was never communicated.

'I would say my company would accept disclosure, however it doesn't actively communicate and promote openness and transparency, and how to implement reasonable adjustments as far as I'm aware of anyway. I wouldn't feel confident or know where to begin with such a task and would need support from HR' (Interviewee L, Organisation 3).

'Communication in the company would be what I would describe as great, often we are just expected to figure things out ourselves with little or no help' (Interviewee, K, Organisation 3).

Additionally, identifiable from the data was that senior managers felt their organisations would encourage disclosure of neurodiversity. However, for the majority they felt their organisations didn't actively promote this, it could be best described it as the 'unspoken word'. 'I think my organisation would encourage disclosure however this wouldn't be actively talked about or included in any of our policies' (Interviewee E, Organisation 2).

One may ask the question if it's not actively promoted how does one know that it is supported. There was also reference to the construction industry being quite closed, and lacking openness and transparency. A staggering statement outlined by (Interviewee J, Organisation 3) was that if a neurodivergent employee disclosed their neurodevelopmental condition, they would be more hesitant to employ the person. Bewley and George (2016) refer to the stigma which is often associated with a neurodevelopmental diagnosis and is evidential from this statement. It could be argued that the participants statement is solely based on fear and the unknown however one should not speculate as this is not a psychology study. What the data does outline is there underlining tendencies which could be linked to unconscious based in turn impacting open communication and disclosure.

5.6.4 Training

Training was a theme which was not apparent within the literature review, however was frequential within the data. From the data, identified was the need for senior managers to receive training with regards understanding of the neurodevelopmental condition's Autism and ADHD, associated characteristics and supporting mechanism for senior managers i.e. implementing reasonable adjustments. As it is the responsibility of an organisation to make reasonable accommodations, it is only rational to expect that adequate training needs with regards implementation would be provided. Furthermore, identifiable within the data was the significant need for training of one's self-awareness around emotional intelligence, and how this could impact the level of support provided. As outlined within Whatling (2012) refers to Burnham and Harris who states that 'people who are different (from you) are not necessarily the same as (each other): we should never assume that people from the 'same' country, family, or local culture follow the same rules of behavior, preference and so on'. And this concept refers to senior managers and their approach to how they support a neurodivergent colleague no approach will be the same, however we must provide the tools in order for them to succeed. Mahto et al (2022) outlines 'we can empower neurodivergent individuals and help them selfadvocate, but we need to make sure others in the organization are trained as well'.

5.7 Importance of findings

The findings above are important to the Irish construction industry but also to field of HR. They identify the need for senior managers within the industry to be provided with the appropriate tools to support neurodiverse employees including training, implementing inclusive practices, and above all understanding. The findings outline that HR need to revisit their current practices with a view of making them more inclusive to neurodivergent talent. The data and the literature review also identify the intrinsic link between the industry having an ongoing staff shortage, and the lack of construction companies utilizing neurodivergent talent to address this. Within the literature review Grover (2019) refers to the opportunity neurodivergent talent would bring to the construction industry, a practical implication which is acknowledged and supported. Austin and Pisano (2017) outline there is a limited number of neurodivergent employees within the workplace, by tapping into the existing neurodivergent talent pool it would present the practical implication for neurodivergent individuals to gain employment. Orduna (2020) highlights digital workplaces are looking to grow their neurodivergent talent pool, outlining they were just at the beginning of this 'neurodiversity revolution'. Organisations in the digital age have talent challenges just like the construction industry, so one may ask the question why are there differences between the industries?

The theory and data outline it all relates back to 'awareness'- knowledge or perception of a situation of a fact. Knowledge and perceptions within current digital companies are strong compared within the construction organisations which is a fundamental issue, until this is addressed the unique abilities of neurodiverse talent will not be identified or channelled in a productive way.

Chapter 6

Conclusion

6.1 Final thoughts

The underlying study data identifies and reflects the primary research question posed '*what* awareness do senior managers have of neurodiversity', showing there is a limited level of comprehension demonstrated by senior managers within the construction industry. 'Any Fool Can Know, the Point is to Understand' (Albert Einstein) (cited in UKCIP, 2013).

Referring to the supporting sub-questions, apparent from the data was that senior managers have a very vague understanding of neurological variation, and little to no experience of supporting a neurodiverse employee. HR practices within the industry could be described as lacking not geared towards the neurodivergent employee. The recruitment practices within the perspective organisations mainly formed with the 'neurotypical' in mind and often based on the senior managers preference i.e. the structure of the interview process.

The need for implementation of additional training was identified and support required, as outlined by the CIPD (2018), there is a significant link between a neurodiverse workforce, and a forward moving organisation. Mahto et al (2022) outlines organisations who make the endeavour to recruit, retain and nurture neurodivergent workers avail of an expanded array of skills and approaches. The below practical recommendations have been identified over a 6-month timeframe in which consideration has been given to the financial, resource and timescale implications.

6.2 Practical recommendations

As outlined by Szulc et al (2021) the AMO Model (Ability, Motivation, Opportunities), is a framework which can be used to outline the needs of neurodivergent individuals, achieved by modified HR Practices. By highlighting the role of individuals and their characteristics, the model is suitable to draw attention to the need for diversified HRM systems. The model is capable of recognizing, availing and prospering the certain skills that inhabit neurodivergent individuals. Employees can be competent and motivated however if they don't have the opportunity to contribute, or thrive it goes beyond performance. It starts with the view point of recruitment, selection and the hiring processes which can be unfortunately often saturated with unconscious bias and automatically have 'neurotypicals' in mind. There is a need for organisations to move away from the one size fits all approach to be more inclusive.

6.2.1 Attracting and developing talent – As a starting point, setting up a pilot program aimed at recruiting neurodiversity talent into the construction industry. This can be achieved through hiring partnerships with organisations like Specialisterne, who are a national company contributing to a global aim of one million jobs for people on the Autism spectrum (Specialisterne, 2022). There would be financial costs associated with this agreement, similar to teaming up with any recruitment agency which would be included in organisational budgets. Upon success of the pilot program the perspective organisations could expand the hiring initiative. One must allude to a common misconception associated when hiring neurodiverse employees, is that there are huge costs involved with hiring neurodiverse employees, however this is not the case. Scott et al (2017) outlines there is no increased costs in comparison to employing a 'neurotypical' employee, and there is also no difference between supervision, employer or workplace training costs. The Job Accommodation Network (2019) outline that most accommodations which are implemented are free or at a minimal cost. A study facilitated by Specialisterne Austria (2018) outlined for every €1 invested in supporting individuals on the Autism spectrum who gain employment, there was a net gain of €6.28. The challenges which may be associated with this concept would be time restraints in setting up, as it would require time to build effective relationships with an organisation such as Specialisterne. It would also involve time by HR Practitioners to educate and communicate to colleagues the importance of having neurodivergent talent within the perspective companies. Resistance may be anticipated initially, however with effective communication it is believed this obstacle would be addressed. It is estimated that this practical recommendation would take 3-6months.

6.2.2 Revisiting hiring processes – Can be achieved by reviewing how positions are advertised, outwardly promoting inclusiveness within the job descriptions which can achieved immediately with no lead in time required. Honeybourne (2019) outlines simple changes such as outlining working conditions, expectations and organisational commitment, to discussing reasonable adjustments would encourage neurodivergent candidates with limited financial implications.

Work sampling has been identified as being appropriate, and would involve testing ability by giving candidates a sample of typical work to do (Lievens and Klimosky, 2001). This could apply to candidates for the planning departments which involves a series of modelling, and also for the surveying department which would involve costing and would have limited financial

implications on the perspective organisations with projects being assigned to all candidates applying for positions within these departments. In comparison to competency-based interviews which is time and resource consuming. Although work sampling was referred to within the interview schedule, it was felt participants were not overly familiar with the term but once described they understood the concept. Challenges which may be encountered with this process as outlined within the data, senior managers preferring to have face to face interviews. This would suggest that there may be resistance encountered when moving away from the competency based in person interview. Once the process was explained and communicated it is believed it could be implemented within a three-month timeframe. There would be no financial cost to this practical recommendation however it would require some thought by senior managers thus would have a time and resource cost.

6.2.3 Creating an inclusive work environment – This could be achieved senior managers becoming mentors and buddies which would build on inclusiveness, and create a supportive culture while also building flexibility particularly around hybrid working. As outlined by Austin and Pisano (2017) suggest neurodiverse teams are found to be 30% more effective.

The literature review outlined the importance of employment stability with social anxiety decreasing due to working from home (Goldfarb, Gal and Golan, 2022). With this in mind as outlined by Whitting (2022) each manger should engage in a process to find out how each employee works best, how they better understand assignments and adapt their style accordingly not only for neurodivergent employees but for all employees (Whitting, 2022). This recommendation will require senior managers to seriously consider what portions of work suit certain individuals. Although this process may appear to be time consuming, and impact staff resources due to time restraint, it must be prioritised as we continue to work remotely and work in a hybrid world. In line with the human capital theory which is related to the resource – based view, organisations have the ability to generate substantial competitive advantage though its human capital (Ho, 2013). Probably the greatest untapped asset existing within organisations today. In terms of thinking of people in terms of the bullet points on their job description, focus needs to be on what they truly bring to the table created through appropriate policy's, educating managers and leaders in terms of awareness training (Mahto et al 2022).

Secondly providing training and working with Irish centre for diversity in obtaining the Investors in Diversity Equality, Diversity and Inclusion (EDI) mark would be a great starting point to the journey of inclusion (Irish Centre for Diversity, 2022). This would offer a clear structured framework to transform the organisations culture, requiring the establishment of diversity and inclusion policies, delivering effective communication of policies to all staff, and undertaking diversity and inclusion training for all leaders (Irish Centre For Diversity, 2022). This would take approximately three to five weeks from start to finish with a financial cost of ϵ 3,000 for the award, this best practice model demonstrates a commitment by the organisation to measure and demonstrated EDI maturity (Irish Centre for Diversity, 2022). This recommendation would also require time and resources as it needs to be imbedded which is an ongoing longstanding process.

Simply by altering traditional HR practices inevitably one can make a better workplace which is a more inclusive place for everyone' Mahto et al (2022). As stated by Jim Kwik 'If an egg is broken by an outside force, life ends, if broken by an inside force, life begins. Great things always begin from the inside' (Kwik 2020). This recommendation could also be achieved in the short to medium term of a 3-6-month timeframe.

Having outlined the above recommendations, additional research is required in the area of neurodiversity within the construction industry. This includes examining underlying processes of desirable employment outcomes when dealing with neurodivergent employees (Szulc 2021), and from the neurodivergent employees' perspective.

6.3 Limitations with methodological approach

Limitation identified included the data based on the selection of the participants twelve senior managers within three organisations, as previously outlined this was impacted by time restraints and demographics. The results from data could be identified as a more generalised data set from the partaking construction companies, rather than an overall reflection industry itself. The methodological approach identifies the probabilities, acknowledging that not all probabilities are true however varied opinions are expressed. Interpretation, limitations were identified being both limited and broad in equal measures, making it difficult to manage. Despite the limitations identified, time management was achieved, opinions were obtained and findings have been presented in addition to concluding thoughts and recommendations.

7.0 CIPD Reflective Statement

The process of producing the dissertation has been both rewarding and challenging, two words which come to mind to explain the process is 'discipline' and 'resilience'. With regards discipline it has required ongoing dedication and time management, to work full time and study part-time, which upon reflection is no easy task. It has also required resilience to continually research the topic area of neurodiversity, by continuously obtaining up to date research, and at times digging deep to keep amending and updating the research throughout the process.

When I was initially deciding on my research topic, and how I was going to move forward, I spent some time reflecting on what interested me both professionally and personally. I wanted to focus on a research area which I had a keen interest in, and would be relevant to my day to day work in HR. Initially identifying how I always had a very keen interest in neurodiversity, not only in my professional capacity as a HR Practitioner, but also in my personal life. I have always been interested and questioned whether HR polices are inclusive enough, and by having an interest within the construction industry I felt there was a strong link between both concepts to require further exploration. Like most research, I did face initial challenges, and this was around obtaining research from the Irish construction industry on neurodiversity. However, it reiterated the research gap and requirement for exploration and was overcome by obtaining research from the UK as a starting point.

Looking back over the last two years after completing the Postgraduate Diploma in HRM and the Masters of HRM this year, the personal experience of completing all the modules has been limitless, and being able to implement theoretical knowledge into practice has been so rewarding. More specifically writing this dissertation, and measuring how substantial the experience has been in helping me grow is unbounded. It has given me the opportunity to encounter self-directed learning, critically evaluate contemporary literature and draw on these influences by implementing inquiring skills. It has also enabled me with the ability to analyse data, and form rigorous explanations for research findings while justifying its significance. It has strengthened my analytical ability to approach a complex study which are all requisites of a HR Practitioner. In relation to what I would do differently to be more effective, I would have given myself more time to complete the research study. At times I felt I was always a chasing a deadline to finish a specific section, which often didn't enable much reflection as much as I would have liked. As a parting thought from, I have learned so much throughout this study, and feel enriched as a HR professional from the study's findings. I hope this research will support further analysis and advance theory in the area of neurodiversity, not just for the construction industry but for all industries. Moving forward I have identified learning needs in line with the 70/20/10 framework which include ongoing on the job training around supporting neurodiverse employees, and also ongoing training in the area of employment law which supports inclusive practices. Additionally, completing a train the trainer course would enable me to deliver internal awareness training on neurodiversity for senior managers.

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Appendix 1- Instrument for Data Collection – Semi Structured Interview Questions

BIO Form

a. Male		Fen	nale	 _			
b. Age							
20 – 25	26-30		31-35	36- 40)	41+	

c. What department are you currently working within in your organisation?

d. How many years are you working for the organisation?

e. What is the approximate size of the organisation?

- f. How many years are you working as a manager?
- g. How many employees do you currently manage?

Research Questions

1. Have you previously heard of the term neurodiversity? - (definition outlined above).

2. Are you aware of any neurodiverse employees within your organisation?

3. In your opinion what characteristics would you associate with neurodevelopmental conditions such as Autism and ADHD?

4. Have you supported a neurodiverse team member previously, if so how, if no how would you envisage supporting a neurodiverse colleague?

5. Would you feel confident in supporting a neurodiverse employee, and do you feel you would require additional training?

6. What's your opinion on the advantages and disadvantages of disclosure of a neurodevelopmental condition such as Autism or ADHD?

7. Do you feel your current organisation supports disclosure of neurodevelopmental conditions, if yes please explain, and if no what more do you think could be done?

8. Are you familiar with the term reasonable adjustments? if yes please explain what it means to you, if no please explain how you would perceive the term.

9. In your opinion as a manager, would you feel confident in implementing reasonable adjustments within your organisation? please advise how you would implement.

10. What do the terms visible and invisible diversity mean to you? Can you tell me more about forms within your workplace? Are they any supports or barriers people might have?

11. In an ideal world, how would you make your organisations HR practices inclusive to everyone? please explain.

12. As a manger are you involved in the recruitment process within the organisation i.e. interviews? if so are the interviews competency based.

13. In your opinion what are the advantages and disadvantages of conducting interviews in person or virtually? could you please elaborate on why you would prefer one method over the other.

14. In your opinion what would you deem as inclusive recruitment processes?

15. (A)Have you previously heard of the term work sample? (definition to be outlined).

15. (B) Could you outline some advantages and disadvantages of work sampling?

16. Based on your experience within the construction industry, could you please describe some inclusive HR practices or initiatives which you have seen? If you are not aware of any please state so.