### Neurodiversity, corporate boards, and corporate performance: A systematic review, evidence-based recommendations and future research agenda

### Douglas A. Adu<sup>1</sup>

Nottingham University Business School, Accounting Department, Nottingham, UK Email: douglas.adu@nottingham.ac.uk

### **Nurlan Orazalin**

Department of Accounting and Finance Bang College of Business KIMEP University, Kazakhstan Email: orazalin@kimep.kz

### Mohamed Elmagrhi

Department of Accounting and Finance School of Management Swansea University Swansea, UK Email: m.h.a.elmagrhi@swansea.ac.uk

### Collins G. Ntim

Centre for Research in Accounting, Accountability and Governance (CRAAG)

Department of Accounting

Southampton Business School

University of Southampton, UK

&

UNEC Accounting and Finance Research Center, Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan
Email: c.g.ntim@soton.ac.uk

E-mail: douglas.adu@nottingham.ac.uk

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<sup>&</sup>lt;sup>1</sup> Address for correspondence: Douglas A. Adu, Accounting Department, Nottingham Business School, University of Nottingham, UK.

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### **Abstract**

**Purpose** - Globally, an increasing number of people are not only being medically diagnosed and classified as neurodiverse but also facilitated to participate in economic and social activities, including appointment to corporate boards. The study offers a comprehensive and up-to-date systematic literature review (SLR) of the existing studies on neurodivergent individuals (NDIs), neurodivergent individuals on corporate boards (NDOCBs), and their impact on corporate performance. We seek to synthesise and expand the present understanding of both the existing (i) theoretical foundations and (ii) empirical literature on (a) multi-level antecedents of NDIs, NDOCBs, and (b) the impacts that NDOCBs have on corporate performance.

**Design/methodology/approach** - The study adopts a three-step SLR method and bibliometric analysis to review one of the most extensive SLR datasets available to date on NDIs and NDOCBs, involving 159 theoretical, quantitative, qualitative, and mixed studies undertaken in more than 70 countries from 1976 to 2022.

**Findings** - Based on publications in 118 scholarly journals, we discover that most of the available research are descriptive and/or rely on one theory or none, rather than multitheoretical views. Second, we find that firm-level antecedents of NDIs and NDOCBs, rather than country-level antecedents, have been the focus of previous research. Third, there are noticeable methodological limitations, such as the scarcity of cross-country, mixed-methods, and qualitative studies.

**Originality/value** - There is little understanding of how neurodiverse people contribute to corporate performance decisions. Synthesis of literature reveals that, existing studies examining NDIs and NDOCBs and corporate performance, particularly from an accounting perspective are rare. Subsequently, we offer extensive and timely SLR of the existing studies on NDOCBs and corporate performance, highlighting the limitations, and discussing the prospects for future research on NDIs and NDOCBs.

**Keywords:** Systematic literature review, Neurodiversity, Economic and social inclusion, Board neurodiversity, Corporate performance

Paper type Literature review

### 1. Introduction

One of the most pressing issues in corporate governance (CG) is corporate board diversity (CBD) (Grey et al., 2024). CBD covers a diverse range of visible (e.g., gender, ethnicity, age, and physical disability, etc) and invisible (e.g., class, education, religion, experience, expertise, sexual orientation and cognitive/neuro condition, etc.) characteristics of board members, with existing social science and governance (e.g., Maxfield and Wang, 2024; Reguera-Alvarado et al., 2017) literature indicating broadly that CBD tends to have a positive impact on corporate financial and non-financial performance (Grey et al., 2024). Nevertheless, whilst the academic literature and policy/regulatory reforms regarding other aspects of CBD, such as ethnicity and gender, have been well-developed over the past three decades (Carter et al., 2010), those relating to neurodiversity are rare and largely ignored (Cumberlege, 2022; Bliebenicht, 2021). Recently, corporate board neurodiversity, including the appointment of neurodivergent people to corporate boards is steadily receiving attention from academics, governments, policymakers, practitioners, and supranational organisations (Ott et al., 2022). Meanwhile, neurological conditions have been identified as an equally valid path within human diversity (Kapp et al., 2013). Indeed, Singer (1999) was among the first to make a strong case for the politics of "neurodiversity," establishing that "the neurologically different' represents a new addition to the familiar political categories of class/gender/race". Neurodiversity is an umbrella medical term all-embracing several medically diagnosed and classified conditions, such as attention deficit hyperactivity disorder (ADHD), autism, and/or dyslexia (Dalton, 2013). The term was created to reframe the medical and social understanding of neurocognitive conditions (Khan et al., 2022; Kwan, 2020; Dobusch, 2021).

Worldwide, there has been a dramatic increase in the prevalence rates of neurodivergent individuals over the last few decades. While genetic/medical predispositions play a role, there is growing evidence that environmental (e.g., the use of chemicals/preservatives/artificial additives in processing food, air pollution, and exposure to neurotoxic metals like cadmium and aluminium) and social (e.g., delayed parenthood due to societal shifts, such as career prioritising, financial planning, and access to contraception, stress and lifestyle changes, such as poor diet and sleep deprivation) factors are contributing significantly to the rise of medically diagnosed and classified neurodivergent cases (Lin et al., 2021). The dramatic increase in neurodivergent cases has also been attributed to improved healthcare access and advancements in medical technologies, and this allowed for more accurate recognition and identification of neurodivergent traits that were historically misunderstood/overlooked. For example, in the UK

alone, autism diagnoses have increased by 787% in the past two decades (Russell et al., 2022). Similarly, the global prevalence of autism spectrum disorder has increased to 100 in 10,000 (up from 62 in 10,000) children within the past decade (Zeidan et al., 2022). This increase in neurodiversity medical diagnoses/classification reflects a positive societal and medical shift towards recognising and supporting cognitive differences.

The significant rising prevalence of neurodivergent individuals in the general population presents both opportunities and challenges for societies worldwide. Three main principles form the foundation of the neurodiversity movement (Kapp et al., 2013), which is built on a positive strengths-based approach. The first is that neurological aberrations are specialised variants rather than disorders (Jaarsma and Welin, 2012), and they contribute to an individual's (social) identity, which in turn gives them particular strengths (Baron-Cohen, 2017). Neurodivergent people are a unique resource for organisations and a valuable pool of talent for managers (Doyle and McDowall, 2021). For instance, they may have exceptional analytical and problemsolving skills, an unwavering focus and pattern recognition capabilities, and superior memory and mathematical skills, to name a few (Austin and Pisano, 2017). Specifically, neurodivergent individuals (NDIs) have the potential to make significant contributions to society, particularly in areas that require diverse perspectives and innovative thinking/problem-solving (Cumberlege, 2022; Bliebenicht, 2021; Roberson et al., 2021). For example, Elon Musk consistently ranked as the 'world's richest man/successful businessman who has publicly acknowledged that he has Asperger's syndrome (a form of autism spectrum disorder), exemplifies how resilience, unconventional thinking, and hyper-focus can drive innovation. Similarly, Bill Gates has also publicly declared that if he had been born in this day and age, he would have been linked with some kind of autism. Second, neurodivergent and neurotypical people should be treated equally and fairly because neurological differences are just variations (Lorenz et al., 2017), particularly in management and organisation science (Bernick, 2022). Third, given the performative nature of discourses and narratives on social inequalities and inequities (Dwertmann and Boehm, 2016), recognising the importance of discourse highlights the need for more ethical and non-stigmatising language and concepts when referring to individuals, who are "different" are needed (Baron-Cohen, 2017).

However, NDIs' contribution to society can vary widely across the spectrum, raising questions about how NDIs may be engaged to contribute to society, and if they contribute, what might be their impact. One possible area for ascertaining their socio-economic contribution is their participation in decision-making within corporate boardrooms. Scholars stress that because NDIs are wired in a different way from "neurotypical" people, neurodivergent

directors may bring new perspectives to the boardroom in the boards' effort to create or recognise value (Bono et al., 2021; Austin and Pisano, 2017; Baron-Cohen, 2017). For example, Austin and Pisano (2017) observe that most NDIs have higher-than-average capabilities, with research indicating that some neurodivergent conditions, such as dyslexia and autism, bestow special skills in pattern recognition, mathematics or memory<sup>2</sup>.

Despite recognising the importance of neurodiversity in enhancing corporate decisionmaking, neurodivergent people have historically been underrepresented<sup>3</sup>, particularly in top corporate leadership positions (e.g., CEOs, CFOs, and Board Chairs) (Ott et al., 2022; Bono et al., 2021). This may, arguably, be due to the fact that global reforms have focused excessively on physical diversity, particularly on gender, and neglected other equally important diversity aspects, such as board neurodiversity (Cumberlege, 2022). Further, prevailing studies have provided inadequate evidence on the value relevance of NDIs and neurodivergent individuals on corporate boards (NDOCBs) and their effectiveness. For instance, while a steady stream of scholars has employed a variety of theoretical perspectives to explore the causes and consequences of NDIs and NDOCBs, there have been few attempts to provide a thorough understanding by providing a systematic synthesis of this literature (e.g., Cumberlege, 2022; Ott et al., 2022; Bliebenicht, 2021; Bono et al., 2021; Austin and Pisano, 2017). Furthermore, and although there are few empirical works on neurodiversity and performance, review papers in this area are rare. These voids within the NDIs and NDOCBs research, as well as the recent increasing acknowledgement of the significance of NDIs and NDOCBs compared with other board diversity types are one of the primary motives to conduct this all-inclusive synthesis of studies on neurodiversity research that cut across corporate governance, accounting, and social science disciplines.

This study, therefore, seeks to address the following important questions. First, what is the impact of NDIs and NDOCBs on business decision-making and, consequently, on corporate non-financial and financial performance? Second, what theoretical intuitions that might elucidate the necessity for NDIs inclusion on corporate boards? It is essential to address this

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<sup>&</sup>lt;sup>2</sup>Individuals like Elon Musk, Steve Jobs, Bill Gates, Temple Grandin, and Greta Thunberg are among the famous NDIs who have received recognition for their extraordinary yet unorthodox leadership (Roberson et al., 2021). Eccentricities in the leadership approaches of these NDIs have been primarily attributed to their neurodivergent conditions, explicitly as people with Asperger syndrome (AS) or autism spectrum disorder (ASD) (Roberson et al., 2021; Cash, 1999).

<sup>&</sup>lt;sup>3</sup>Emerging research suggests that NDIs, as a segment of the general population, have historically endured unemployment and underemployment rates as high as 85-90% but have seen an opening of new career prospects during the past few years (Roux et al., 2015). In the UK, only 16% of NDIs are in full-time employment, and only 32% of NDIs are in some sort of paid work (National Autistic Society, 2016). In the US, just 58% of young autistic adults held a job at any point during their early 20s (Roux et al., 2015).

question because if the appointment of NDIs to corporate boards is to be sustained over the long run, then there should not only be a medical (e.g., cognitive) but also social/theoretical justification (e.g., economic, social, environmental, ethics and governance) behind such appointment. Finally, what combination of societal, corporate, country, and individual characteristics may help or hinder the appointment of NDIs to corporate boards globally?

Therefore, the primary aim of this research is to extend the body of existing literature by answering the aforementioned questions through a systematic literature review (SLR) of the prior research on NDIs, NDOCBs, non-financial performance (NFP), and financial performance (FP). In doing so, our study conducts a thorough synthesis of the current studies on NDIs and NDOCBs, identifies the research gaps, offers prospective policy implications, and makes recommendations for future research. Specifically, the paper intends to synthesise and expand on current knowledge of both the present (i) theoretical (social, psychological and economic) perspectives and (ii) empirical studies on the effects of NDIs and NDOCBs on several FP (capital structure, financial ratios - return of assets, return on equity, market value-total shareholder return, Tobin's Q, earnings management, executive compensation, CEO Pay, dividends, tax avoidance, mergers and acquisitions, gender pay gap, and financial reporting quality) and NFP (audit quality, CG, innovation, risk-taking/management, carbon emissions, climate change, biodiversity reporting, voluntary disclosure, social and environmental accounting, and health accounting and reporting). In doing so, the study addresses three key objectives. First, it conducts a comprehensive synthesis of studies on the antecedents of NDIs and NDOCBs and the impacts of NDIs and NDOCBs on NFP and FP. Second, the study examines the empirical, methodological, and theoretical weaknesses and strengths of prior research. Finally, the paper lays forth an agenda for future research on NDIs, NDOCBs, and business outcomes, while identifying the gaps in previous research based on the first and second objectives mentioned above.

### 2. Limitations of existing reviews on NDIs and NDOCBs and study's contributions

Although there is a dearth of prior studies on the distinct perspectives of NDIs and NDOCBs, some do exist (Cumberlege, 2022; Bliebenicht, 2021; Bono et al., 2021; Austin and Pisano, 2017). Only a small portion of these have performed SLRs (Doyle and McDowall, 2021; Khan et al., 2022; Szulc et al., 2021). For example, Khan et al. (2022) conduct an initial SLR that examines how NDIs impact business performance. Specifically, the authors synthesise 33 articles regarding neurodiversity in organisations and collated disjointed empirical research and

theoretical perspectives on NDIs in various organisations, providing a general idea of NDIs studies up until 2021. Khan et al. (2022) suggest that NDIs may lead to effective organisational outcomes through their intellectual ability and skills and establish more equal and inclusive corporate structures. Szulc et al. (2021) find that neurodivergent workers need a culture of empathy and creative talent management strategies that acknowledge cognitive diversity.

Previous SLR studies, however, suffer from several limitations. First, the impact of NDIs and NDOCBs on corporate performance, including innovation, has not been examined by the SLR reviewed (Khan et al., 2022). This may limit the extent of insights regarding the effect of NDIs and NDCOCBs on several NFP and FP outcomes of firms. Second, the extant SLRs have reviewed a few theoretical perspectives employed by prior studies that have examined issues relating to NDIs and NDOCBs. In addition, existing SLRs have mostly examined quantitative research, ignoring qualitative and mixed studies. These weaknesses may also hinder the advancement of theory and methodology, which keeps existing SLRs from offering comprehensive understandings of the antecedents and effects of NDIs and NDOCBs. Third, existing review studies are limited to one discipline, often focusing only on medical or social aspects rather than both (Khan et al., 2022; Szulc et al., 2021). Finally, the SLR studies that are currently available frequently involve a limited number of previous studies and were carried out over a short-period of time (Doyle and McDowall, 2021). For example, Doyle and McDowall (2021) included only 48 journal articles in their SLR, which covers a relatively short period (i.e., 1995-2005).

As a result, our current SLR aims to address the shortcomings of previous SLRs on NDIs and NDOCBs in several ways. First, our review includes both substantial empirical and theoretical investigations on NDIs and NDOCBs, which is different from earlier SLRs that have largely concentrated on empirical research. The current review specifically adds to the body of knowledge on the antecedents and effects of NDIs and NDOCBs by providing a comprehensive overview of the ideas, methods, and empirical data relating to the topic. To explain the antecedents of NDIs and NDOCBs and how they affect NFP and FP, we thoroughly examine a variety of theories (social, governance, psychological, economic, ethical, agency, and behavioural) and methodologies (quantitative, qualitative, and mixed methods). As a result, our SLR provides a more comprehensive understanding of the factors that may promote and hinder the establishment of NDIs and NDOCBs, as well as their effects on FP and NFP by integrating into the review of how, why, and what is known about NDIs and NDOCBs antecedents and implications.

Second, this SLR differs from previous reviews that concentrated on a single corporate outcome (e.g., Khan et al., 2022) by providing a very comprehensive overview of numerous factors influencing the appointment of NDIs and NDOCBs at various levels (i.e., country/social/firm/individual-levels), as well as their effects on various corporate financial and non-financial outcomes. Third, unlike previous SLRs that have largely concentrated on quantitative research, our SLR includes all categories of research carried out from various methodological perspectives, including quantitative, qualitative, and mixed-methods studies. Therefore, our SLR has the distinct chance to promote methodology pluralism, and consequently, progress by taking an eclectic approach to the review/investigation. Also, our SLR encompasses one of the largest SLR datasets consisting of 159 theoretical, quantitative, qualitative, and mixed studies published in 118 scholarly journals and conducted in more than 70 countries across more than 10 disciplines (including governance, business, accounting and gender, medicine, psychiatry, psychology, and other social sciences) between 1976 and 2022. Therefore, by using a multidisciplinary, multi-theory, and multi-methodological approach, our SLR will be of great interest and appeal to a wide range of stakeholders, including academics, investors, policymakers, and practitioners.

### 3. Methods

In examining the different methods adopted by prior research in the field, the study implements the three-step SLR method that was originally proposed by Tranfield et al. (2003). Adopting this SLR method can facilitate the evaluation of a broad range of literature that is solely pertinent to the topic of our investigation (Denyer and Tranfield, 2009; Roczniewska et al., 2022). Additionally, the three-step SLR approach enhances reproducibility and transparency, which reduces oversights and increases the acceptance of SLR in the field of this study (Olekanma et al., 2024). An outline of the three-step framework for conducting a SLR is shown in Figure 1.

### **Insert Figure 1 about here**

The first step was to find out the different databases/sources from which studies on NDIs, NDOCBs, FP, and NFP were identified and sampled. The main criteria were the database's repute, scope (i.e., its inclusiveness across different social science study topics and the international presence of the database with respect to its publications), and publication quality,

with a focus on peer-reviewed articles. This criterion resulted in the choice of 'Google Scholar', 'Scopus', 'Web of Science', and 'Business Source Ultimate' (EBSCO) as electronic databases to gain large samples to consider in our SLR. This research uses multiple databases to identify a wide range of publications and minimise the possibility of missing some articles available in one database but not in another (Agolli and Holtz, 2023; Morrison et al., 2024).

In the second step, we begin with the identification and development of a suitable pool of keywords and phrases pertinent to our study. Our search and identification of the relevant studies was conducted using the indicated pool of keywords (Peiró et al., 2021). To be specific, this entailed an initial search of the literature and "snowballing" of the keywords and phrases that appeared in the full text, titles, and abstracts of the papers (Alatawi et al., 2023). These keywords and phrases were linked to the study's focus ("neurodivergent individuals", "board neurodiversity", "board neurodivergent", "financial performance" and "non-financial performance". The authors regularly convened during this preliminary search to discuss and determine which search terms should be included in the final set of search terms and phrases (Olekanma et al., 2024). Table 1 displays the final set of keyword strings that were used to generate the list of research.

### Insert Table 1 about here

We apply this pool of phrases and keywords to search and gather the articles to be included in our SLR. By employing 'Google Scholar', 'Scopus', 'Web of Science', and 'Business Source Ultimate' as the primary sources of our electronic search, the study carried out the search for all possible fields (Olekanma et al., 2024). The main objective was to increase the quantity of studies in the preliminary article population. Further, we contrast the sample of articles included in prior SLR in the field of this research (e.g., Doyle and McDowall, 2021; Khan et al., 2022) with our initial sample of articles to confirm that main/relevant articles are not excluded from our sample. From the articles we identified through the phrases/keywords search, and in contrast with prior articles, we concentrated on the ones that have investigated the antecedents of NDIs and NDOCBs and their impacts on NFP and FP. Following these criteria led to our final sample of 159 theoretical, quantitative, qualitative, and mixed-method studies published in 118 journals between 1976 and 2022. Appendix '1' provides a detailed list of journals, and the number of articles sampled from each journal. Further, Table 2 shows the process of selecting the final sampled articles.

### **Insert Table 2 about here**

Additionally, the number of articles included in the review by year of publication is displayed in Figure 2. Furthermore, Table 3 provides the number of articles included in the SLR by discipline.

## Insert Figure 2 about here Insert Table 3 about here

The third step involved bibliometric and content analyses. Initially, a bibliometric analysis<sup>4</sup> was conducted to identify thematic clusters, establishing a foundation for examining central themes across the selected studies as applied by Olekanma et al. (2024). Bibliometric coupling, a technique that identifies relationships between articles through shared references, assumes that articles with more overlapping references likely explore similar topics (Aria and Cuccurullo, 2017). This approach is especially beneficial in SLRs as it is not affected by the publication dates of individual articles, making it effective for assessing thematic development over time (Zupic and Čater, 2015).

The sampled articles were thoroughly read, evaluated, analysed, coded, and classified by the researchers as the final step. Further, to get a solid grasp of the theoretical and empirical reasons for and against NDIs and NDOCBs, as well as the effects of NDIs and NDOCBs on different corporate performance metrics, we created a three-point theme analytic framework to guide the thematic analysis of the articles to be sampled as outlined in Figure 3. These themes are: (i) Theoretical viewpoints on NDIs and NDOCBs, where we focus on theories that have been employed by the reviewed studies; (ii) Antecedents of NDIs and NDOCBs, where the focus is on identifying and discussing the antecedents of NDIs and NDOCBs. Employing institutional theory; and (iii) Influences of NDIs and NDOCBs on FP and NFP, where we review and analyse the sampled articles to gain insights into the existing investigations on the impact of NDIs and NDOCBs on corporate FP and NFP.

### **Insert Figure 3 about here**

<sup>&</sup>lt;sup>4</sup>We utilised VOSviewer 1.6.2 for the bibliometric analysis. This software visualises co-occurrence matrices created from cited references within the dataset, positioning articles in a two-dimensional space based on the similarity of their cited sources (Van Eck and Waltman, 2014). Each cluster is identified and colour-coded based on the item's density within the cluster, a technique that highlights areas of thematic concentration and identifies distinct research streams (Perianes-Rodriguez et al., 2016). In this visualisation, articles with a close spatial arrangement indicate stronger thematic alignment, suggesting clusters of research on related topics. For brevity purposes, the results of the bibliometric analysis are not reported here but available upon request.

### 4. Results

### 4.1. Theoretical perspectives on NDIs and NDOCBs

Several empirical investigations on NDIs and NDOCBs have employed different theoretical perspectives. As shown in Table 6, studies on NDIs and NDOCBs have been informed by over 26 distinct theoretical perspectives (see Tables 5 and 6). These studies have been divided into two categories: (i) the country- and firm-level theories, which include theories of corporate governance and economics; and (ii) the social- and individual-level perspectives, which include theories of medical, public health, psychology, and sociology.

## Insert Table 5 about here Insert Table 6 about here

### 4.1.1. Economic and corporate governance theories

First, resource dependence theory (RDT) posits that businesses should appoint neurodivergent people as directors since NDOCBs can provide firms with a range of advantages, such as a stronger link to the outside environment (for example, neurodivergent customers) (e.g., Krzeminska et al., 2019). Including neurodivergent people on corporate boards can provide valuable resources that may contribute to improvements in FP and NFP (Krzeminska et al., 2019). Additionally, some scholars argue that appointing neurodiverse directors can improve trust in companies' claims of adhering to inclusion policies, which can enhance their abilities to recruit top talent in the future (Krzeminska et al., 2019; Pisano and Austin, 2016a).

Similarly, upper echelons theory (UET) suggests that board composition is a key factor in determining the decision-making approach (Adu et al., 2022). This theory indicates that firms should appoint neurodivergent people to corporate boards because neurodiverse directors can make more balanced and better decisions (Cumberlege, 2022; Bliebenicht., 2021; Bono et al., 2021). Prior studies suggest that neurodiverse directors are associated with increased FP and NFP (Cumberlege, 2022; Bliebenicht, 2021). According to Bliebenicht (2021), the appointment of neurodivergent people to corporate boards can add incredible value because neurodivergent minds have diverse ways of thinking. In particular, the use of scientific evidence, such as neuroimaging, has shown variations in brain "wiring" of neurodivergent people, which substantially increase their cognitive, critical thinking, and problem-solving

abilities/skills (Cumberlege, 2022; Bliebenicht, 2021). Nonetheless, the application of UET to NDOCBs, FP, and NFP suggests that future research could utilise this theory.

Stewardship theory (ST) indicates that corporate executives are expected to exhibit an obligation for upholding a commitment to standards, rules, and principles (Hernandez, 2008). In this case, the demand for predictability and structure stemming from neurodiversity, which manifests in NDIs as paying attention to rules and principles (Baron-Cohen et al., 2009), may lead to effective stewardship (Roberson et al., 2021). Studies supporting this theory have observed that NDIs are associated with trustworthiness and integrity (de Schipper et al., 2016), due to their concern for fairness and their concentration on rules and adherence (Roberson et al., 2021). These traits demonstrate stewardship, indicating responsibility for upholding a commitment to norms and goals (Hernandez, 2008). Nonetheless, the review reveals that limited research (e.g., Roberson et al., 2021) has used ST to explain the associations of NDIs with FP and NFP, and, hence, future applications of ST would be appropriate.

Our review further shows that *skill-biased technological change* (SBTC) theory is adopted by some studies to explain the issues related to NDOCBs, FP, and NFP. According to SBTC, neurodivergent people may offer unique skills and abilities that can improve boards' advising and monitoring roles (Giuliani and Zoran, 2019). Therefore, improving NDOCBs can have a beneficial impact on NFP (Walkowiak, 2021). Further, based on the *resource-based view* (Barney, 1991), the importance of human capital as a special resource that can offer the firm a competitive advantage and enhance organisational effectiveness is emphasised. In this context, NDOCBs can be considered as a source of assets that can give competitive advantage (Khan et al., 2022). Several scholars suggest that NDIs may bring diverse perspectives and possess special cognitive skills, such as increased problem-solving, creativity and invention, and attention to detail (Roberson et al., 2021; Austin and Pisano, 2017; Dalton, 2013; Jaarsma and Welin, 2012; Kapp et al., 2013). Prior studies report that NDIs are valuable because they are positively correlated with a firm's competitive performance through creativity, innovation, and improved problem-solving (Aureli et al., 2019).

The next theory that has been employed in elucidating issues associated with NDOCBs is skill-bias organisational change theory (SBOCT). This theory suggests that the increasing diffusion of new organisational practices within companies plays a crucial role in the growing demand for skilled workers (Piva et al., 2005). The core tenet is that companies are gradually moving away from inflexible and fragmented organisations towards ones that are more flexible and "holistic" (Piva et al., 2005). Nonetheless, our SLR reveals that limited studies have used SBOCT to explain the association of NDOCBs with NFP, and hence future applications of

SBOCT would be appropriate. In addition, according to Carter et al. (2010), *human capital theory* (HCT), which gained popularity in 1964, is concerned with a person's training, expertise, and experience. Human capital is 'unique' to each person. Due to the diversified and distinctive human capital that each director can contribute, and because this rises when they are chosen from varied backgrounds, HCT suggests that firms should improve NDOCBs (Farag and Mallin, 2016). Due to their diverse and distinctive capital, more diverse boards may also boost NFP (Isidro and Sobral, 2015). In this regard, neurodivergent individuals' superior abilities, such as their capacity for concentration, pattern recognition, completion of repetitive activities, high attention to details, strong focus, and participation, may be very helpful (Walkowiak, 2021; Pervin and Hagmayer, 2022).

According to *institutional theory* (IT), variations in organisations' policies, practices, work cultures, and requirements account for variations in the selection of neurodivergent people to top management teams (Walkowiak, 2021). For instance, the proportion of neurodivergent people appointed to the board might be influenced by strategic policies (such as positive action or an affirmative) (Walkowiak, 2021) and institutional diversity, including the nature of business activities or industry and the size of the firms (Walkowiak, 2021; Krzeminska et al., 2019; Autism Europe, 2014). Further, Krzeminska et al. (2019) maintain that the appointment of neurodivergent people to top corporate teams may be driven by business justification. Overall, we find that IT has rarely been applied by previous researchers to design and elucidate the determinants of NDOCBs and the impacts of NDOCBs on FP and NFP.

According to *legitimacy theory* (LT), a business is considered legitimate if its actions and operations align with the social norms of the community in which it operates (Ashforth and Gibbs, 1990; Ntim, 2016). In this context, firms may appoint neurodivergent people to top management teams as a means of enhancing their public relations and gain benefits from being considered as a firm that is 'doing good' (Pisano and Austin, 2016a). Similarly, Pisano and Austin (2016b) argue that firms that appoint neurodiverse directors may boost the morale of employees and benefits that originate from employees feeling good about working for a firm that is 'doing the right thing'. In brief, it appears that LT can adequately elucidate the projected beneficial effect of neurodiverse board members on FP and NFP. However prior studies have not applied this theoretical perspective in their empirical research design.

Neo-institutional theory (NIT) argues that firms employ social ideologies, institutional norms, or public opinion as "powerful myths" or "prescriptions of appropriate conduct" (Greenwood et al., 2008). NIT has been used more often in previous international management research to examine how multinational corporations respond to institutional requirements

(Kostova et al., 2008). However, this theory is less used to explain issues relating to neurodiversity. Hence, there are calls for researchers to investigate the circumstances that will make firms more inclined to go beyond mere compliance and adopt proactive steps to integrate NDIs into mainstream employment and top management teams, such as the board (Kuznetsova and Yalcin, 2017).

Critical mass theory (CMT) states that a sub-group of individuals might be able to influence the decisions of the group once it achieves a certain critical mass in terms of size (Torchia et al., 2011). This theory also indicates that NDOCBs may have a beneficial effect on corporate outcomes only if there is an adequate number of neurodivergent people on the boards (Torchia et al., 2011). However, our review reveals that CMT has not directly been employed to explain how NDCOBs influence FP and NFP, and hence, future application of the theory would be appropriate.

Some of the reviewed studies have also employed *stakeholder theory* (SHT). This theory proposes that firms that want to achieve long-term success and survival need to incorporate the needs of all stakeholders (Collier, 2008). In this context, the appointment of neurodivergent directors also signals to the various stakeholders that the firm is embracing the diverse talents and skills, which can influence FP and NFP. We observe that SHT has not directly been employed to explain how NDOCBs influence FP and NFP.

Another theory that has been employed in explaining issues with regard to NDOCBs is *signalling theory*. This theory suggests that firms may attract potential NDIs by demonstrating their commitment to neurodiversity (Spence, 1973). Such signals that NDIs will be able to fit in and advance in the firm are expected to be perceived positively, leading to a neurodiverse workplace, including NDOCBs (Khan et al., 2022). A few, but steadily growing studies support this theoretical prediction that the greater the commitment to neurodiversity, the higher the appointment of NDIs in the firm (Whelpley et al., 2021; Moore and Khan, 2020).

Next, *job demands-resources theory* (JDRT) posits that job demands, such as workload, time pressure, and emotional demands, may influence NDIs' performance (Schaufeli and Taris, 2014). This theory also highlights some positive factors (i.e., resources) that can enhance the performance of NDIs (Spoor et al., 2022). Job demands, specifically in the absence of necessary resources, are generally associated with negative job outcomes, including reduced engagement and lower organisational commitment (Schaufeli and Bakker, 2004). Our SLR shows that JDRT has been used by a few studies to explain the low number of NDIs and NDOCBs in various firms (e.g., Spoor et al., 2022).

According to *information decision theory* (IDT), diversity can improve a firm's FP (Jing et al., 2022). Under the IDT framework, when there are substantial differences within the group, knowledge and abilities that diversity brings to the table can fully enhance the group's cognitive resources and improve FP (Scott et al., 2017). Based on IDT, companies ought to hire NDIs since they are good at making better, more balanced decisions (Jing et al., 2022). For instance, existing research indicates that NDIs are linked to improved organisational performance (Jing et al., 2022; Scott et al., 2017).

### 4.1.2. Sociological and psychological theories

Social role theory (SRT) proposes that a probable motive of why companies do not have neurodiverse directors is the influence of the "think manager think neurotypical individual (those without an identified neurodivergence)" stereotype (Davies et al., 2023; Bliebenicht, 2021; Kwan, 2020; Carrero et al., 2019; Annabi and Locke, 2019; Patton, 2019). Conversely, Davies et al. (2023) indicate that society primarily expects neurodivergent people to hold conventional roles, including caring for and raising children, whereas neurotypical individuals are expected to be managers, leaders, and directors. This stereotype might account for the low number of NDOCBs.

The next theory that has been employed in elucidating issues concerned with NDOCBs is attribution theory. In his research, Heider (1958) notes that, in general, people are curious about ordinary occurrences. They want to know what individuals can do and whether their abilities and personal traits play a major role in what they can accomplish (Heider, 1958). According to this theory, co-directors of NDIs (in a circumstance where a neurodivergent individuals choose not to disclose their condition) are probable to attribute the behaviours of a neurodivergent director to negative factors, which might lead to detrimental outcomes for both the neurodivergent director and the firm (Patton, 2019). Surprisingly, few studies (Patton, 2019) have employed attrition theory to explain the exclusion of NDIs in top management teams of firms. Additionally, productive complementarity theory states that there exists a productive complementarity between cognitive diversity and organisational agility (Walkowiak, 2021). Proponents of this theory stress that this beneficial relationship originates from the intrinsic value of neurodiversity (e.g., Walkowiak, 2021). For example, the inclusion of NDIs and NDOCBs can help improve innovation, such as digital transformation, which can eventually improve FP (Walkowiak, 2021).

Next, group theory within the wide range of organisational behaviour research also suggests that co-directors represent a crucial source of social support and validation of one's personal worth (Sherony and Green, 2002; Sherif and Sherif, 1964). In this case, whether or not co-directors of NDIs support an accommodation request may reflect the extent to which co-directors support and value the request of the NDI director (Schur et al., 2014). Within this perspective, if an accommodation request made by a NDI director is granted but co-directors fail to offer their support to such approval, then the granting of the accommodation may be perceived merely as a legal gesture rather than an indication of the NDI director's value to the firm (Schur et al., 2014). Nevertheless, a few studies have employed group theory (e.g., Schur et al., 2014).

Social cognitive theory (SCT) emphasises the role that cognitions have in influencing people's actions (Mellifont, 2020; Swearer et al., 2014). According to SCT, people tend to avoid actions in which they believe they will be penalised and engage in those in which they will be rewarded (Swearer et al., 2014). In this case, SCT calls for firms to employ reward systems to help prevent bullying of directors, managers, and employees who are neurodivergent in the first instance when such behaviours are detected (toxic workplace culture) (Mellifont, 2020). Remarkably, few studies have employed SCT to explain the effects of NDIs. In addition, *critical disability theory* (CDT) seeks to detect and question the normative assumptions inherent in conventional disability studies and reform the discourse to include NDIs (Rocco, 2005). In this regard, CDT focuses on how NDIs may be seen as possessing unique strengths stemming from distinctive ways of thinking (Roberson et al., 2021). However, a few studies (Roberson et al., 2021) have applied CDT to explain how neurodiversity may serve as a cognitive strength from which leadership derives, although its ability to explain this concept appears limited.

Further, social exchange theory (SET) states that people typically give back the favours they receive in exchange for the other party's goodwill and assistance (Blau, 1964). In this case, some scholars argue that SET can explain the interactions between NDIs, supervisors, and managers (Meacham et al., 2017). For example, Meacham et al. (2017) maintain that SET can be effective in illuminating the process and outcomes of effective place of work associations (e.g., NDIs well-being), especially among NDIs. For example, NDIs are very committed to their organisations and have a strong desire to fit in and form lasting social bonds (Luecking, 2011). Similarly, according to social identity theory (SIT), individuals prefer working with those who have similar demographic backgrounds, which could account for the existence or lack of NDOCBs (Kaczmarek et al., 2012). SIT explains how NDIs may modify their self-

identity and identify with the business under the influence of neurodiversity-inclusive HR systems (Luu, 2018).

According to *stigma theory* (ST), a person's reputation, behaviour, or quality of characters might be socially discrediting in a certain way, leading to their mental classification by others as an undesirable, excluded stereotype rather than a recognised and accepted, normal one (Whelpley et al., 2021). A few studies have employed ST to explain the exclusion of NDIs in the workforce (Whelpley et al., 2021). In addition, *social classification theory* proposes that including NDIs in the workforce and/or as directors will lead to a situation where employees and other directors may be reluctant to interact with the NDIs and neurodivergent directors (Jing et al., 2022). Employees who may view NDIs as people with communication challenges and lacking sufficient skills in a fast-paced work setting also give them bad feedback, which might negatively impact the team's overall performance (Jing et al., 2022).

### 4.2. Antecedents of neurodivergence on corporate boards

Our SLR reveals a variety of elements at the individual, firm, societal, and national/country levels that can explain or predict the presence of NDOCBs. Most prior research on the topic examines single-level factors, while little research provides evidence of a broad and multi-level explanations for NDOCBs (e.g., Khan et al., 2022).

### 4.2.1. Individual-level factors

First, neurodivergent individuals may be appointed to top management positions and boards due to their human capital traits including unique technical and soft skills (Remington and Pellicano, 2019), high performance (Khan et al., 2022; Remington and Pellicano, 2019; Meacham et al. 2017), reliability (Khan et al., 2022; Remington and Pellicano, 2019), trustworthiness (Khan et al., 2022; Remington and Pellicano, 2019), education (Khan et al., 2022; Bliebenicht, 2021; Loiacono and Ren, 2018), networking abilities (Bliebenicht, 2021), team problem-solving skills and greater creativity (Loiacono and Ren, 2018; Meacham et al., 2017), and enhanced well-being (Meacham et al., 2017). For instance, Houdek (2022) documents that NDIs possess unique attributes, such as coping strategies, thinking styles, and life experiences that, when embraced by firms, can lead to service innovation and better organizational outcomes. Similarly, Ortiz (2020) shows that neurodivergent employees are timely, reliable, loyal, and innovative. Prior studies also suggest that the appointment of NDIs to corporate boards has beneficial impacts on board decisions (Ortiz, 2020).

Second, family conditions, including having neurodivergent partner or neurodivergent children (Briggs, 2022; Whelpley and Perrault, 2021; Chamak, 2008), influence the emergence of NDOCBs. For instance, a Microsoft's vice president, Mary Ellen Smith declared during a World Autism Day event at the United Nations in 2015 that the firm would be recruiting people with autism as part of an overall initiative to hire more individuals with disabilities (Whelpley and Perrault, 2021). She shared the story of her son's autism diagnosis and how she sometimes had to "pinch" herself to believe that people now see autism as a benefit in the workplace (Whelpley and Perrault, 2021). Smith made a call to action during her speech, urging businesses worldwide to hire people with autism (Whelpley and Perrault, 2021). In another crucial example, the CEO of Hart Schaffner Marx, Doug Williams, had a child with autism. When his kid reached adolescence, Williams started to worry more and more about his son's future while also realising that other families with autistic children were dealing with similarly dire circumstances (Elejalde-Ruiz, 2016). Williams responded by redesigning Hart Schaffner Marx's office to make it easier for autistic people to work there (Whelpley and Perrault, 2021). This included installing an exercise area painted in blue to facilitate a calming effect for autistic staff members and implementing a new hiring procedure to promote inclusivity in the recruitment process. Although it is evident that creating jobs that cater to the requirements of autistic people benefits autistic employees, Williams pointed out that the firm might benefit strategically from its autism programme and that autistic employees are a remarkably underutilised segment of the workforce (Whelpley and Perrault, 2021).

Third, NDIs' barriers that can impact the prospects of securing board appointments include challenges related to disclosing their neurodiversity during the application process, as this usually leads to stigmatisation and discrimination (Macdonald and Cosgrove, 2019; Johnson and Joshi, 2016). Our SLR reveals that the disclosure of neurological conditions during the recruitment and appointment of neurodivergent people seeking management and board roles led to perceptions and stigma of (in)ability connected with neurodiversity (Carrero et al., 2019; Macdonald and Cosgrove, 2019). In response, scholars maintain that firms should ensure that HR policies do not promote inequity and that benefits are equitable and inclusive (Krempley and Schmidt, 2021).

Fourth, many NDIs may find traditional interviews to be quite challenging (Carrero et al., 2019). For example, interview circumstances can be problematic for people with autism, especially if they struggle with eye contact, stress management, or confidence issues (Hagner, 2003; Chang et al., 2023; Saleh et al., 2022a; Saleh et al., 2022b). According to Austin and Pisano (2017), interview scores for NDIs are probably going to be lower than for their less

skilled neurotypical counterparts. Long-term, hands-on skill assessments may be better (Annabi and Locke, 2019), and project-based evaluations with relaxed interactions can let candidates' abilities show (Patton, 2019). In contributing to the debate on neurodiverse applicant screening, interviewing, and selection, Saleh et al. (2022a) maintain that there are a range of modifications to screening and application procedures (such as the job interview) that can help guarantee that hiring practices avert implicit biases and are more equitable for autistic individuals. This particularly includes elements that influence hiring decisions (such as verbal and nonverbal clues, self-presentation, and promotion), which may not have any real bearing on future work performance (Saleh et al., 2022a). In exploring how to effectively tackle potentially problematic processes for neurodivergent populations, Saleh et al. (2022a) identify and discuss the disparate consequences (for applicants who are neurodivergent) and other risks that arise from depending on selection factors (such as social behaviour) that are not predictive of job performance. The authors offer valuable recommendations for approaches that promote fairer processes not only for neurodivergent job applicants but also for more diverse talent pools in general. In addition, Saleh et al. (2022b) argue that the prevailing hiring process in many organizations, which is made up of a blend of conventional assessment strategies, including interviews by multiple or groups of people, work samples and employment tests, may include potential obstacles that people with ASD may encounter in their job search. In addition, newer technology-based methods, including the use of "back-end" human resources management software that helps manage vital administrative tasks, asynchronous video interviews, or the use of social media platforms such as LinkedIn for recruitment may equally have potential pitfalls for NDIs that can prevent them from getting recruited (Saleh et al., 2022b).

Fifth, in the process of recruiting board members, if neurodivergent applicants decide not to disclose their condition, they face a new issue since they are unable to get support, the right information, accommodations, and assistive devices (Clasby et al., 2022; Ghanouni and Raphael, 2022). This has an adverse effect on how well they perform during the appointment process (Carrero et al., 2019; Macdonald and Cosgrove, 2019; Remington and Pellicano, 2019). Hence, some studies (e.g., Olinover et al., 2022) observe the significance of finding suitable circumstances for promoting enhanced executive decisions among neurodivergent candidates.

Sixth, low internal support for NDIs has been identified as a crucial factor contributing to the low representation of NDIs in the workforce and NDOCBs (Bliebenicht, 2021; Whelpley and Perrault, 2021). Getting NDIs through the door is not enough; internal procedures are

essential for effectively managing this special group of workers and maximising their potential (Whelpley and Perrault, 2021; Wehman et al., 2016; Volpone et al., 2022).

Seventh, NDIs frequently face severe levels of occupational exclusion and are denied holding top managerial opportunities (Knapp et al., 2009). In addition to stigmatisation (Bakare et al., 2019), stereotyping and biases (Premeaux, 2001), and isolation (Hedley et al., 2018), those who obtain employment frequently encounter unsatisfactory employment outcomes (Tomczak, 2021), as well as negative effects on their mental health and well-being (Mastroianni and Storberg-Walker, 2014). In addition, Hedley et al. (2018) identify individual factors, such as time management, attention, and coping with change, as barriers to workplace success of NDIs.

Eighth, the issues related to social capital also present a unique barrier to NDIs (Nash, 2024). Scholars argue that sharing an office with team members might be advantageous for neurotypical individuals if high social capital is linked to being a good team player (Prusak and Cohen, 2001). This is because NDIs often find it difficult to adjust to the social integration standards that these workspaces are intended to promote, NDIs are more likely to feel uneasy working in such environments (Nash, 2024) and hence, may be excluded (Richards, 2012). The intricacy of human-human interactions, which include gestures, facial expressions, abrupt changes in tone of voice, and body language, can overwhelm some NDIs (Lagunju et al., 2014). Furthermore, Harnett (2019) also identifies the harsh office lighting and noise levels in openplan office spaces as another barrier at the individual level.

Finally, Dobusch (2021) investigates the individual barriers facing neurodivergent individuals and documents that neurodivergent applicants face a distinct challenge if they decide not to disclose their condition: they are unable to get support, necessary information, accommodations, and assistive devices, which may have a detrimental impact on their performance during the recruitment process. Sang (2016) documents the difficulties NDIs face when completing skills-specific tests during the selection and appointment processes. In addition, NDIs might face difficulties in establishing social bonds, interpreting/conveying emotions, or making eye contact (Nash, 2024). Other studies have revealed that transitioning from school to the labour market is difficult and stressful for NDIs (Garrels et al., 2022; Posar and Visconti, 2019).

### 4.2.2. Social-level factors

The appointment of NDIs can be determined by different social-level factors. First, prevailing social mechanisms support the representation of NDIs on corporate boards (Bliebenicht, 2021; Loiacono and Ren, 2018). Within the social mechanism perspective, head-hunters (Doldor et al., 2016), board chairpersons (Brunzell and Liljeblom, 2014), and CEOs (Dasgupta et al., 2018) are just a few examples of social actors who might use their status in society to appoint neurodivergent directors. For instance, a neurodivergent CEO or Chair is more likely to appoint a neurodivergent director (Whelpley and Perrault, 2021; Elejalde-Ruiz, 2016). Social support is another crucial social-level factor which can offer more opportunities for NDIs to be appointed as directors (Lynas, 2015). Typically, social support may come from a family (Kapp et al., 2013), friends (Johnson and Joshi, 2016; Kapp et al., 2013), business agencies, and other social networks (Johnson and Joshi, 2016). In addition, some research indicates that NDIs need various forms of social support, including inclusive leadership, education systems, and training programmes, to offer them adequate knowledge, social networks, and a diversity-supportive culture required for board directorship roles (Khan et al., 2022; Beetham and Okhai, 2017).

In addition, other social-level factors, such as family size, income, and commitments linked to raising a family, may encourage NDIs to apply, improving their chances of getting appointed as directors because they need jobs to support their families (e.g., Bliebenicht, 2021; Beetham and Okhai, 2017). Another social-level factor that drives firms to appoint NDIs to the board may originate from the community and global recognition. For example, a few pioneering firms that embraced NDIs in their management teams have received recognition and awards from the United Nations for their global corporate responsibility (Austin and Pisano, 2017). Finally, Sumner and Brown (2015) emphasise how training methods intended for NDIs, such as cognitive and perceptual testing, self-paced tutorials, and webinars, are inequitable for those with varying learning preferences and needs.

### 4.2.3. Firm-level factors

Many studies have provided evidence on firm-level characteristics that may influence the emergence of NDOCBs (e.g., Khan et al., 2022; Kwan, 2020). Indeed, some scholars observe that firms face challenges when recruiting and appointing neurodivergent individuals to top management positions (Whelpley et al., 2021; Carrero et al., 2019; Annabi and Locke, 2019). They document a lack of information about neurodiversity, stereotyping, and negative attitudes towards neurodivergent applicants as the typical examples of challenges at the firm-level.

According to the literature examining neurodiversity perspectives at the firm-level, there is a lack of knowledge about neurodiversity, misunderstandings regarding accommodations, and a belief of high costs (Annabi and Locke, 2019; Kwan, 2020).

Additionally, little knowledge about neurodiversity often leads to misconceptions regarding the actual abilities of applicants identified as neurodivergent (Khan et al., 2022; Farkas et al., 2020). This may include relying on stereotypes about neurodivergent directors, such as unfounded assumptions about their intelligence (Macdonald and Cosgrove, 2019; Kapp et al., 2013), or the notion that NDIs would be better suited in specialised workshops than to "regular" workplaces or boardrooms (Ditchman et al., 2016). Further, some studies detect that the appointing team (mostly a team consisting of neurotypical people) may demonstrate negative attitude and discriminatory behaviour towards neurodivergent applicants (Loiacono and Ren, 2018; Sumner and Brown, 2015). Noticeably, there have been calls for firms to make an authentic effort to modify the appointment process and address the needs of neurodivergent applicants at all levels of appointment (Farkas et al., 2020). In this case, the appointment of NDIs in top management teams has often been driven by compliance with legal requirements (Sumner and Brown, 2015).

At the firm-level, the recruitment/hiring process has been identified as another crucial factor that may account for the low level of NDCOBs. According to Krzeminska et al. (2019), hiring practices still tend to define talent too narrowly, while Patterson (2019) notes that excessive dependence on interviews creates bias against NDIs who choose unusual modes of engagement. Neurodivergent people experience unemployment or underemployment partly due to such unsuitable organisational recruiting practices, with estimates suggesting rates as high as 90% for this minority group (Lever, 2016). In addressing some of these challenges, Richards et al. (2019) found that reasonable adjustments for NDI employees are far more likely to be successful if the line manager overseeing these adjustments is skilled or trained in neurodiversity.

Another firm-level factor that can explain the lack of appointment of neurodivergent directors revolves around costs. Firms may have assumptions about the significant costs/expenses associated with neurodiversity in the boardroom are similarly linked to a lack of knowledge and awareness of the topic (Khan et al., 2022). This may include the presumptions about altering the workplace and boardroom to accommodate neurodivergent directors or anticipating the need to pay for expensive diversity training (Kwan, 2020; Patton, 2019). In addition, concerns about detrimental effects on the performance and well-being of board members if a neurodivergent director is appointed may also result in teams' negative

attitudes toward neurodivergent applicants (Carrero et al., 2019). Other studies have documented that firm-level factors that can explain the appointment of NDIs include shareholder proposals for NDOCBs and equal employment opportunity regulations (Khan et al., 2022; Loiacono and Ren, 2018). The review of literature, therefore, shows that, at the firm level, the appointing teams' lack of awareness of neurodiversity has led to misconceptions, which in turn cause structural and psychological hurdles to the appointment of neurodivergent directors (Khan et al., 2022).

A crucial firm-level factor that can explain the presence of NDOCBs may be the need for innovation (Loiacono and Ren, 2018). With the growing intense competition in the corporate world, the need for firms to draw on a bright and talented pool of individuals who have the capacity to think and process things in different ways becomes more important (Loiacono and Ren, 2018). For example, Shein (2020) observes that firms are increasingly seeking to recruit NDIs to fill key IT roles. Similarly, Shein (2020) argues that NDIs are suitable candidates for technology jobs because they have "hyper-focused attention" to details and pattern recognition.

The demand of consumers for diversity is another firm-level factor that is driving NDOCBs (Loiacono and Ren, 2018). Because consumers are diverse, it is important that workforces producing consumer goods and services are also diverse in nature (Loiacono and Ren, 2018). Ortiz (2020) provides evidence that consumers have preference for doing business with firms that employ people of all capabilities, including NDIs. In addition, external pressure (e.g., enhancing reputation) may compel firms to employ NDIs, as such firms perceive external benefits for doing so (Whelpley and Perrault, 2021).

Skill set diversity is another firm-level factor that may drive NDOCBs (Loiacono and Ren, 2018). Research shows that NDIs possess specialised abilities that are extremely important to businesses, especially high-tech firms (Khan et al., 2022). One characteristic shared by all NDIs' brains is an exceptional capacity for focus, reasoning, creativity, visual thinking, and imagination (Roberson et al., 2021). These valuable qualities might be useful in performing tasks that call for having a broad perspective, coping with incomplete information, or considering problems from several angles (Loiacono and Ren, 2018).

The competencies of neurodivergent employees are highly advantageous for several industries, especially for high-tech sector firms where programming, cybersecurity, and innovative problem-solving skills are essential (Loiacono and Ren, 2018). Shein (2020) underscores that NDIs are a talented, skilled, and remaining untapped resource. In support, Faragher (2018) observes that firms that fail to embrace NDIs may be missing out on the benefits associated with alternative ways of thinking.

### 4.2.4. Country-level factors

Beyond business reasons and moral principles, there are national/legal institutional systems that may affect the absence/presence of neurodivergent directors. Kõlves et al. (2021) found the lack of social integration and unemployment to be major challenges associated with NDIs. In responding to these crucial inequalities, various governments have put in place measures to address these challenges. Globally, the human rights of minorities are covered under the Universal Declaration of Human Rights (United Nations, 1948) and the Convention of the Rights of Persons with Disabilities (United Nations, 2006).

Several European and Asian countries have passed laws that require quotas for the percentage of people with disabilities (including those who are neurodivergent) that businesses must employ (Loiacono and Ren, 2018). These quotas range from 1.5% in China to 7% in Italy (Loiacono and Ren, 2018). Firms that fail to meet the quota incur taxes ranging from 0.25% to 4% of their monthly payroll, depending on the country (Loiacono and Ren, 2018). In this case, firms are strongly incentivized financially by these regulations and penalties to hire talented NDIs, particularly as international corporations seek to enter expanding Asian markets (Loiacono and Ren, 2018).

Patton (2019) investigated the legal requirements and accommodations of NDIs and showed that there are legal workplace protection mechanisms in various countries. For example, the 2008 revisions to the Americans with Disabilities Act (ADA) in the USA require firms to provide accommodations for NDIs in the workplace, and the impetus for these accommodations remains confidential (Whelpley and Perrault, 2021). Because of this, coworkers of NDIs who have accommodations may wonder why they are getting "perceived as better" or receiving "different" treatment (such as alternative work assignments) and may even get resentful of their "unfair" (unequal) treatment (Paetzold et al., 2008; Colella et al., 2004). According to Kensbock et al. (2017), NDIs who request accommodations may also encounter harassment and abuse from their co-workers, and firms may also have a bad experience with accommodations for NDIs. In response to these challenges, the US Equal Employment Opportunity Commission (EEOC) mandates that NDIs should be protected under the ADA laws (Hensel, 2017). The legal protection framework in the US is expected to encourage the hiring and appointment of NDIs in top management teams, including corporate boards.

Similarly, several countries have enacted laws aimed at protecting and promoting NDIs' employment. For instance, in Canada, NDIs are protected under the Canadian Human Rights Act of 1977, whereas in the UK, the Equality Act 2010, which replaced the Disability

Discrimination Act of 1995, offers protection to NDIs. In Australia, NDIs are covered under the Disability Discrimination Act of 1992 (Patton, 2019). In the United Arab Emirates, the government has instituted an affirmative action on opportunity and employment for disabled people, including NDIs known locally as Emiratisation (Camulli and Guohui, 2019). This affirmative action, including quotas and incentives, aims to address crucial components of employment by ensuring optimal and sustainable employment for people with disability (Camulli and Guohui, 2019). Furthermore, many nations have laws that are based on the strong principle that every member of society should be treated equally and fairly (Loiacono and Ren, 2018). According to this viewpoint, individuals who identify as neurodiverse ought to be respected and provided with the same opportunities as their neurotypical counterparts (Loiacono and Ren, 2018).

Several studies have also shown the effect of certain social-economic factors, namely culture, unemployment rate, self-employment rate, divorce rate, education level, inequality, marriage rate, GDP per capita, and GDP growth-on the appointment of neurodivergent directors (Bliebenicht, 2021; Patton, 2019; Jaarsma and Welin, 2012). For instance, the education rate of NDIs has a positive influence on the emergence of NDIs as directors (Bliebenicht, 2021). Furthermore, other researchers (Jaarsma and Welin, 2012) demonstrated that society-wide institutions, including business environment, economy, political freedom, and economic and political decisions made by the majority of neurotypicals influence the presence of NDIs as executive directors.

As stated above, the appointment of NDIs is influenced by various factors. The findings from the review demonstrate that NDIs have less opportunities to become directors when compared with "neurotypical" individuals. Thus, to become board members, NDIs must first work to enhance their skills, experience, and expertise while also receiving more support from their families, employers, regulators, and governments.

- 4.3. Consequences: The impact of board neurodiversity on financial and non-financial performance
- 4.3.1. The association between neurodiversity and corporate non-financial performance
- 4.3.1.1 Neurodiversity and corporate social responsibility

CSR can be implemented through various corporate activities/initiatives, such as giving donations, issuing CSR reports, reducing corporate fraud, and fostering gender diversity in top-management, among others. This section presents a review of studies on the effects of

NDIs/NDOCBs on various measures of CSR. Most studies have found a positive relationship between NDIs/NDOCBs and CSR. For example, Jing et al. (2022) observe a positive correlation between the number of NDI employees and CSR in China. Similarly, Kwan (2020) documents that socially responsible human resource practices in firms can play an important role in the appointment of more NDIs and concludes that NDIs and CSR are intertwined. More importantly, de Schipper et al. (2016) document that NDIs are associated with unique skills, including honesty, loyalty, attention to details, and creative talents with beneficial impacts on NFP (e.g., environmental performance, innovation and CSR) of firms.

By contrast, Taylor et al. (2021) observe that autistic traits are associated with fewer engagements in pro-environmental behaviours in Canada. Further, the authors show that autistic traits do not predict pro-environmental attitudes/beliefs and conclude that irrespective of climate-related actions, autism and mental health conditions may present barriers for pro-environmental actions.

### 4.3.1.2. Neurodiversity and corporate reputation

A few studies have investigated the effects of NDIs and NDOCBs on corporate reputation and reported that neurodivergent board members bring a good reputation to firms (e.g., Khan et al., 2022; Bliebenicht, 2021). For example, Whelpley and Perrault (2021) found that firms may appoint NDIs as a way of enhancing their brand and reputation and generating goodwill for their work environment. Similarly, Krzeminska et al. (2019) find that the inclusion of neurodivergent people on the board can improve corporate image due to public relations and marketing advantages that follow from perceptions that the firm is 'doing good'.

### 4.3.2. The relationship between neurodiversity and corporate financial performance

Several studies have found a positive relationship between NDIs and profit margin, return on assets, return on equity, employment growth, sales, service quality, and return on portfolio (Jing et al., 2022; Whelpley and Perrault, 2021; Foss, 2018). For example, Foss (2018) documents that NDIs who are frequently side-lined in normal innovative decision-making should be embraced and liberated to become creative contributors to corporate profitability. The author maintained that neurodiversity has a positive impact on FP. Similarly, Whelpley

and Perrault (2021) found that firms having high internal support and high external pressure to hire autistic individuals tend to present the most positive financial impact from their autistic workforce and present the most positive employment outcomes for autistic individuals.

In addition, Patton (2019) showed that NDIs are underrepresented in top management teams despite the fact that they are highly intelligent and capable of executing excellent work, with the potential to boost productivity, increase quality, and promote innovation. Further, according to Scott et al. (2017), by comparing the work performance of workers with and without ASD, neurodiverse people tend to have above-average attention to detail in their duties, which results in higher-quality work). The authors concluded that NDIs provide benefits to firms without incurring additional costs. Roberson et al. (2021) also observed that cognitive characteristics associated with neurodiverse directors, including sensitivity and attention to details, visual thinking, ability to recognise patterns in stimuli, and the need for structure and routine, lead to creative performance.

In addition, Krzeminska et al. (2019) report that the beneficial impacts of NDOCBs may originate from the unique traits of neurodiverse conditions. Krzeminska et al. (2019) also demonstrated that neurodivergent people tend to possess leadership skills that is often required for successful business activities. In addition, in a qualitative study based on interviewing leaders or experts of neurodiversity initiatives, Walkowiak (2021) examined the relationship between the neurodiversity of the workforce and digital transformation at the individual, organisational, and industry levels. The author established that neurodiversity management contributes to digital transformation by closing the digital skills shortage, shaping algorithms of artificial intelligence, and offering a competitive advantage for innovation. The findings show that neurodiversity management provides an effective model of inclusion that can mitigate the development of inequalities associated with digital transformation in organisations. Ott et al. (2022) observed that firms promoting the appointment of NDIs may potentially gain access to a diversity of skills, including but not limited to unwavering focus and pattern recognition capabilities, excellent analytical and problem-solving abilities, and memory and mathematical skills.

### 5. Discussion and suggestions for future research

### 5.1.Methodological and contextual gaps

The majority of studies have concentrated mostly on developed countries, such as the UK, the US, and Canada, neglecting other developed and developing markets, as illustrated in Table 4.

Only few studies have focused on other countries, including Nigeria, Thailand, Singapore, Saudi Arabia, and South Africa. There are several reasons for the lack of research in cross-country and developing countries contexts. First, most studies have focused on one country, and this may be largely due to the fact that different countries have different legal, political, economic, and cultural systems. Second, several studies have revealed that accessing data in developing countries is difficult due to insufficient annual reports in English and the lack of CG data, including board profiles (board neurodiversity information), board meetings, and board compensation (Kapp et al., 2013). Nevertheless, the number of firms issuing their annual reports in English with more CG data is increasing. Therefore, we hope to see more cross-country studies, including those conducted in the context of developing economies.

Further, we observed some weaknesses in the methodological approaches employed by past research. First, a few studies have used interviews and/or observations as data collection methods, although these methods can produce rich data. Specifically, conducting interviews with NDIs and NDOCBs would help researchers learn more about their expertise, experiences, behavioural patterns, and skills, among other factors. Second, prior studies have not measured and assessed the presence of NDIs, such as NDCOCBs, as a percentage of board members who are NDIs. Hence, future studies may use this measure as a proxy for NDIs, providing new insights into their investigations. Third, few studies have employed qualitative and mixed-methods research approaches, although they are equally effective for data analysis. Therefore, future research should use interviews and/or observations as data collection methods. We also suggest that researchers apply both qualitative and mixed-method research approaches in the future.

### 5.2 Theoretical gaps

As previously highlighted, most academic literature on NDIs and NDOCBs has either not employed a theoretical framework at all or applied theories that are irrelevant to the research questions/hypotheses being addressed. Specifically, most studies lacking a theoretical framework can only describe phenomena without understanding why they occur, making it challenging to predict or derive meaningful inferences from the data. To improve the calibre of their research, future researchers are thus recommended to explicitly identify and utilise theoretical perspectives that are related to their research questions/hypotheses. Further, some studies have utilised theoretical frameworks in a more descriptive manner that do not

necessarily link them to their empirical findings. Therefore, future studies should establish a clear connection between their theoretical frameworks and empirical findings.

In addition, a few studies (Jing et al., 2022; Luu, 2018) have utilised a multi-theoretical framework. Each individual theoretical perspective has limitations (Nguyen et al., 2020). Utilising multiple contrasting or complementary theories can better explain the different facets of NDIs/NDOCBs, NFP, and FP. For example, theories, such as stakeholder theory, resource dependence theory, and neo-institutional theory can provide different perspectives on the impacts of CG structures on NFP and FP. Therefore, future studies may use multi-theoretical frameworks, incorporating insights from economic, CG, social, and psychological theories.

### 6. Conclusion

This study offers a comprehensive SLR to review and analyse the existing theoretical and empirical literature on NDIs and NDOCBs and their influences on corporate performance. We analysed 159 studies in 118 scholarly journals in various disciplines, including accounting, economics, finance, business and management, ethics and CSR, medicine, public health, psychology, and social sciences from 1976 to 2022.

This SLR makes several contributions to the field of NDIs and NDOCBs. Based on theoretical frameworks related to individual-, firm-, social, and national/country-level views of the antecedents and effects of NDOCBs, we reveal that NDIs contribute significantly to NFP and FP, despite some (stereotype-based) challenges they face in becoming board members. Additionally, we identify four levels of factors affecting the absence/presence of neurodivergent directors and reveal that individual-, firm-, social- and country-level factors have different impacts on the antecedents of NDOCBs. Further, we observe that explaining/predicting the effects of NDOCBs on performance outcomes, including CSR, innovation, environmental performance, and accounting performance, is challenging, although some studies have reported beneficial effects. Finally, we recommend examining the effects of national culture and country-level governance dimensions on the appointment of NDOCBs and the relationship between NDOCBs and NFP and FP. This is because past studies have several limitations, including a lack of qualitative and mixed-methods research, cross-country analysis, multi-theoretical perspectives, and empirical research on NFP and FP.

The study offers a number of high-level practical policy implications for improving corporate boards' inclusion of neurodiverse individuals. First, the findings of this SLR have crucial practical regulatory implications, especially linked to global efforts, involving board

diversity. Considering this, when organisations undertake board diversity policy reforms, they have incentives to include NDOCBs in their governance disclosure mechanisms, which can enhance corporate oversight and add immense value to the organisation. In this instance, policymakers across the globe may include and require neurodiversity reporting or disclosure at the board level. Second, our study presents a strong case for encouraging shareholders of organizations to vote in favour of greater diversity in executive appointments in terms of visible traits (e.g., gender, ethnicity, age, and physical disability) and invisible characteristics (e.g., class, education, religion, experience, expertise, sexual orientation, and cognitive/neuro condition). It is expected that increased diversity will enable effective board oversight to ensure that board decisions generate long-term value (Grey et al., 2024). Third, the results of the study have important implications for firms' hiring policies. Our evidence suggests that boards with neurodiversity are likely to have better governance mechanisms compared to those without neurodiversity. This suggests that neurodiversity can make a tremendous contribution to diversity of thought in board decision-making (Bliebenicht et al., 2021). In this case, nominating committees should seek neurodivergent individuals when recruiting new board members. Finally, our findings highlight the need to move away from viewing neurodiversity as a deficit needing accommodation to recognising the unique strengths and innovative perspectives it offers. This means actively valuing diverse thinking, problem-solving, and attention to detail, rather than focusing on challenges or expecting conformity.

Despite its important contributions and multiple insights into the current knowledge of NDOCBs, our study has some limitations. For example, as suggested by Tranfield et al. (2003), a preliminary "scoping study" would better assess the relevance and size of the extant literature and offer more objective criteria for defining the SLR subject area/topic. Nevertheless, we mitigate this limitation by having frequent meetings to discuss and identify the most relevant search strings for inclusion/exclusion of terms, keywords, and phrases in the final search pool. Furthermore, NDIs and NDOCBs represent just one area of research focusing on modern businesses and corporate boards. Thus, future studies could focus on NDIs non-business contexts, such as charities, non-profit organisations, and public sector entities. Another common limitation of SLR is that classifying/categorising past studies based on certain criteria is challenging and may lead to information loss. Nevertheless, by following a systematic approach with feasible recommendations for conducting a high-quality SLR, we posit that the risks to reliability and validity remain within acceptable limits.

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## **List of Tables**

 Table 1. Keywords

Key relationship			Search string
Neurodivergent	individuals,	board	("Board" OR "Manage*" OR "Executive*" OR "CEO" OR
neurodiversity,	non-	financial	"Executive compensation" OR "CEO Pay" OR "Director*")
performance and financial performance		mance	AND ("Neurodiverse*" OR "Neurodivergent people" OR
			"Asperger syndrome" OR "Dyslexia" OR "Dyspraxia" OR
			"Autistic" OR "Neurotypical people" OR "intellectual
			disabilities" OR "Attention deficit hyperactivity disorder" OR
			"Autism" OR "Tourette's syndrome" OR "Neurological
			condition") AND ("Sustainable business practice*" OR
			"Sustainable business*" OR "Sustainability" OR "Environmental
			Social Governance" OR "ESG" OR "Greenhouse gas*" OR
			"Carbon" OR "Environment*" OR "Financial reporting quality"
			OR "Audit" OR "Audit quality" OR "Corporate governance" OR
			"Diversity" OR "Gender" OR "Ethnicity" OR "Age" OR
			"Merger*" OR "Climate" OR "Health accounting" OR "Tax
			avoidance") AND ("Financial" OR "Non-financial" OR
			"Performance" OR "Capital structure" OR "Market value" OR
			"Tobin's Q" OR "Dividends" OR "Earnings"

**Table 2.** An outline of the procedure used to choose the studies in the sample

Studies exclusion/inclusion stage	Total	Number of
		studies
Total studies discovered during the first search	14, 203	
Studies with duplicates removed	5,100	
Excluded studies after reading the titles	4,761	
-Books		207
- Theses and Dissertations		546
-Non-English studies (Spanish, Russian, French		321
and Portuguese)		
-Non-corporate governance studies		3,687
Studies whose abstracts required reading	339	
Excluded studies after reading the abstract	94	
Studies that required reading the entire text	245	
The following reasons led to the exclusion of	86	
studies:		
- Non-peer reviewed studies and working papers		12
-Reviewed studies		8
-Full texts were not available		19
-Neurodiversity is not a main variable		15
-Business outcomes differ from our review		32
The entire set of studies that are part of this review	159	

 Table 3. Count of studies by discipline

Discipline	Number of studies
Administrative, sociology, and other social sciences	45
Psychology	27
Management and leadership	42
Others (e.g., entrepreneurship, human relations, development,	8
equality, diversity and inclusion)	
CSR, business and business ethics	19
Accounting, auditing and finance	12
Economics	2
Tourism	2
Gender	2
Total	159

Table 4. Number of studies by geographical scope

Country	Total	No. of studies	Country	Total	No. of studies
Single country studies	144				
Developed countries	105				
Asia and Pacific	14		Europe	49	
Australia		7	UK		28
Japan		3	Ireland		2
Korea		1	France		2
New Zealand		1	Germany		2
Singapore		1	Poland		2
Taiwan		1	Czech		1
			Denmark		1
			Greece		1
			Netherlands		1
			Italy		1
			Croatia		1
North America	42		Lithuania		1
Canada		5	Norway		1
US		37	Finland		1
			Romania		1
			Spain		1
			Sweden		1
			Switzerland		1
Developing countries	39		Asia and Pacific	23	
			I		

Africa	13		Bangladesh	1
Cameroon		1	China	1
Egypt		1	India	1
Ghana		1	Indonesia	1
Kenya		1	Iran	1
Malawi		1	Iraq	1
Mauritius		1	Jordan	1
Morocco		1	Malaysia	1
Nigeria		2	Pakistan	2
Senegal		1	Philippines	1
South Africa		1	Sri Lanka	1
Tanzania		1	Thailand	1
Tunisia		1	Turkey	1
Europe	2		Vietnam	1
Bulgaria		1	Israel	3
Russia		1	United Arab	2
			Emirates	
Latin America	1		Oman	1
Argentina		1	Kuwait	1
Cross-country studies	15		Saudi Arabia	1
Total	159			

**Table 5.** The quantity of studies by type of research methodology and by number of theories

	No direct theory	One theory	Two theories	Three & theories	more Total
Mixed	14	2	2	0	18
Qualitative	88	10	1	1	100
Quantitative	31	7	2	1	41
Total	133	19	5	2	159

**Table 6.** Theoretical perspectives and their predictions on the effects of NDIs/NDOCBs on financial and non-financial performance

Theoretical perspectives	No of Studies	Determinants of	NDIs/NDOCBs and corporate outcomes		
		NDIs/ NDOCBs			
			Corporate non-FP	Corporate FP	
	Economic and corporate				
	governance theories				
Resource dependence theory	8	+	+	NA	
Resource-based view theory	2	+	+	NA	
Skill-bias technological	4	+	+	+	
change theory					
Skill-bias organisational	2	+	+	+	
change theory					
Institutional theory	3	+	+	NA	
Human capital theory	1	+	+	NA	
Legitimacy theory	12	+	+	+/-	
Neo-institutional theory	2	NA	+	NA	
Critical mass theory	1	+	NA	NA	
Critical disability theory	7	+	+	NA	
Stakeholder theory	6	+	+	+/-	
Job demands-resources theory	2	+	NA	NA	
Information decision theory	3	+	+	+	
Stewardship theory	2	+	+	+	
Signaling theory	4	+	+	+	
Upper echelons theory	3	+/-	NA	NA	
	Sociology and				
	psychology theories				
Social role theory	8	+/-	-	NA	
Stereotype theory	5	-	NA	NA	
Attribution theory	3	+/-	+	NA	
Group theory	2	+	NA	NA	
Social cognitive theory	2	+	+	NA	
Social exchange theory	4	+/-	NA	NA	
Social identity theory	3	+/-	+	NA	
Stigma theory	1	-	NA	NA	
Social classification theory	4	-	-	-	
Productive complementarity	1	+	+	NA	
theory					

Source(s): Table by authors

**List of Figures** 

## Step 1: Identification of Data Sources

- Select reputable and high-quality academic databases
- Evaluate accessibility and comprehensiveness of sources



## **Step 2: Selection of Relevant Studies**

- Develop a comprehensive list of keywords and search terms
- · Retrieve a broad pool of studies
- Apply strict inclusion and exclusion criteria to finalize selected literature



## Step 3: Thematic Examination of Selected Literature

- Read and code each study based on:
  - Key descriptive attributes
  - Methodological approach (single-country vs. cross-national)
  - Theoretical frameworks and empirical insights

**Figure 1.** Adopted three-step framework for conducting a SLR.

**Source(s):** Figure by authors

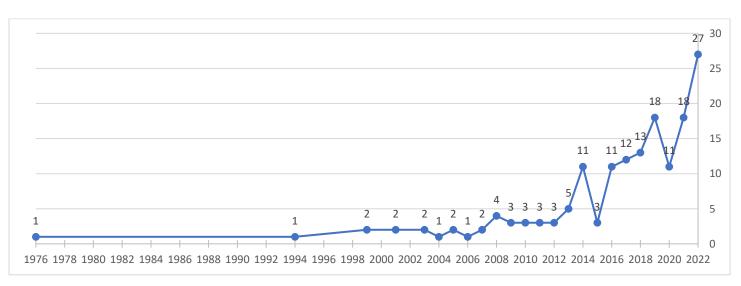
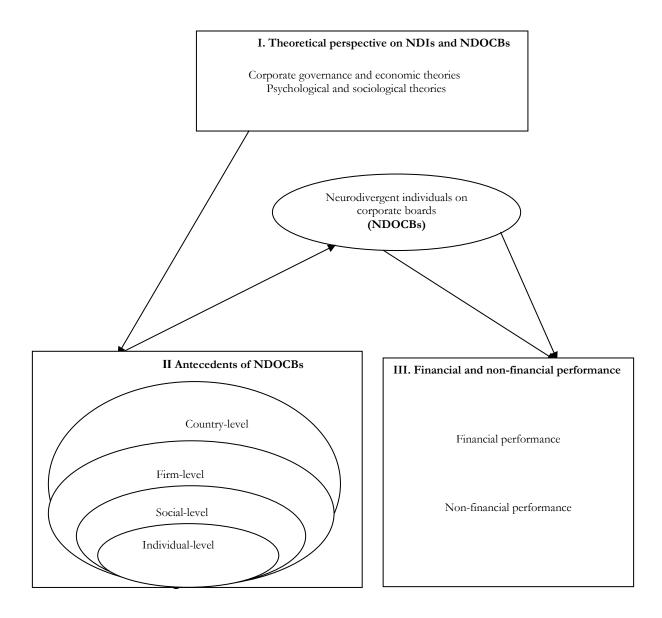


Figure 2. Number of studies by year of publication.



**Figure 3.** Framework for understanding neurodiversity on corporate boards **Source(s):** Figure by authors

Appendix 1. Detailed list of journal and number of studies sampled from each journal

Journal	CABS ranking	No. of studies
Accounting, auditing and finance		12
Journal of Accountancy	0	1
Corporate Ownership and Control	0	1
Disability and Society	0	1
Equality, diversity and inclusion: An international Journal	1	4
Harvard Business Review	3	2
Corporate Social Responsibility and Environmental Management	1	1
Journal of Environmental Psychology	0	1
Sustainability	0	1
Economics		2
American Journal of Economics and Business Administration	0	1
Amfiteatru Economic Journal	0	1
Sociology, and other social sciences		45
Basic and Applied Social Psychology	1	1
Annali dell'Istituto Superiore di Sanità	0	1
Administration and society	2	1
Communications of the ACM	2	1
Disability Studies Quarterly	0	2
Employee Relations	2	1
Employee Relations: The International Journal	0	1
Entrepreneurship Theory and Practice	0	1
Epilepsy and Behavior	0	1
European Child and Adolescent Psychiatry	0	1
Focus on Autism and Other Developmental Disabilities	0	1
Frontiers in Psychology	0	1
Good Autism Practice	0	1
Health Care Analysis	0	1
Health Psychology and Behavioral Medicine	0	1
HR News Magazine	0	1
International Journal of Advances in Scientific Research and Engineering	0	1
International Journal of Disability, Development and Education	0	4
Journal of Career Development	1	1
Journal of Disability Policy Studies	0	1
Journal of health care for the poor and underserved	0	1
Journal of Public Health	0	1
Journal of vocational Rehabilitation	0	3
Occupational Health and Wellbeing	0	2
Open Journal of Social Sciences	0	1
Organization	2	1

Personnel Review	2	5
Perspectives on Language and Literacy	0	1
Research in Education	0	1
Sociology of Health and Illness	4	1
Systems Research and Behavioral Science	2	1
The Leadership Quarterly	0	1
Work	0	2
Business, business ethics and CSR		19
Advances in Autism	0	1
Arab Journal of Psychiatry	0	1
Business and Professional Communication Quarterly	0	1
Contemporary Social Science	0	1
Frontiers in Psychiatry	0	2
Human Relations	4	1
Jordanian Educational Journal	0	1
Journal of Autism and Developmental Disorders	0	6
Journal of Business and Psychology	2	2
Journal of Population and Social Studies	0	1
Social Indicators Research	0	1
Technological Forecasting and Social Change	3	1
Gender		2
Gender, Work and Organization	3	2
Leadership and management		42
Academy of Management Perspectives	3	2
Academy of Management Review	4*	1
Advances in Developing Human Resources	2	1
Asian Journal of Interdisciplinary Research	0	1
Australia and New Zealand Journal of Developmental	0	1
Disabilities	0	
Autism	0	4
Discourse and Communication for Sustainable Education	0	1
European Journal of Contemporary Education	0	1
Group and Organization Management	3	2
Human Resource Development Review	2	1
Human Resource Management	2	1
Human Resource Management Journal	4	1
	2	1
Human Resource Management Review	3	1
Intellectual and Developmental Disabilities	0	1 2
Intellectual and Developmental Disabilities International Journal of New Technology and Research	0	1 2 1
Intellectual and Developmental Disabilities International Journal of New Technology and Research International Journal of Psychiatry Research	0 0 0	1 2 1 1
Intellectual and Developmental Disabilities International Journal of New Technology and Research International Journal of Psychiatry Research Journal of Education and Work	0 0 0 2	1 2 1 1
Intellectual and Developmental Disabilities International Journal of New Technology and Research International Journal of Psychiatry Research Journal of Education and Work Journal of Environmental and Occupational Science	0 0 0 2 0	1 2 1 1 1
Intellectual and Developmental Disabilities International Journal of New Technology and Research International Journal of Psychiatry Research Journal of Education and Work	0 0 0 2	1 2 1 1 1 1 1 5

Journal of Policy and Practice in Intellectual Disabilities	0	1
Journal of Psychology and Behavior Studies	0	1
Leadership Quarterly	4	1
MIS Quarterly Executive	2	1
MIT Sloan Management Review	3	1
Research in Developmental Disabilities	0	3
Review of International Comparative Management	0	1
Turkish Archives of Pediatrics/Türk Pediatri Arşivi	0	1
Work, Employment and Society	4	2
Psychology		27
Administration and Policy in Mental Health and Mental Health Services Research	0	1
American Journal of Orthopsychiatry	0	1
Applied Psychology	4*	1
Applied Research in Quality of Life	0	1
Autism in Adulthood	0	1
Autism Research	0	2
Behavioral and Brain Sciences	0	1
BMC Psychiatry	0	1
British Medical Bulletin	0	1
Cogent Psychology	0	1
Contemporary European History	0	1
Criminal Behaviour and Mental Health	0	1
Developmental Psychology	0	1
Ethos	0	1
JAMA Network Open	0	1
Journal of Applied Psychology	4*	2
Journal of Cross-Cultural Psychology	3	1
Journal of Intercultural Ethnopharmacology	0	1
Journal of Research in Pharmaceutical Science	0	1
Nordic Journal of Psychiatry	0	1
Personnel Psychology	4	1
South African Journal of Occupational Therapy	0	1
The Psychologist-Manager Journal	0	2
Transcultural Psychiatry	0	1
Others		8
Employee Responsibilities and Rights Journal	0	1
Philosophical Transactions of the Royal Society B: Biological Sciences	0	1
PloS one	0	2
Roeper Review	0	1
Saudi Journal of Biological Sciences	0	1
Social and Cultural Geography	0	1
Social Science and Medicine	4	1

Tourism		2
Current Issues in Tourism	2	1
Journal of Human Resources in Hospitality and Tourism	1	1
TOTAL		159

NB: Ranking of "0" represents journals that are not included in the CABS ranking