Workforce-Related Disclosure, its Determinants and Consequences for Workforce Outcomes and Corporate Performance of the FTSE 100 Firms

A thesis submitted for the degree of Doctor of Philosophy
by

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May 2023

"*Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants, electric light the most efficient policeman*."

– Louis D. Brandeis

"*If I'm prime minister… we're going to have not just consumers represented on company boards but employees as well*".

– Theresa May, Conservative Party leadership bid (July 2016)

This thesis is dedicated to my father who passed away in 2021 due to the pandemic (may his soul rest in peace).

This is for you dad. You always wanted to see me become a PhD holder. I hope this makes you proud, wherever you are.

Abstract

This thesis examines the extent, trends, and content of workforce disclosures in the United Kingdom (UK) in the light of UK's current regulatory environment and the 2018 Corporate Governance Code in addition to international frameworks such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB) guideline and the United Nation's Global Compact. Moreover, the thesis identifies the determinants of workforce disclosure of the FTSE 100 firms. It also investigates the consequences of workforce reporting, more particularly its relationship with workforce outcomes and financial performance for the period 2017-2020. In this context, this study makes a threefold contribution to workforce disclosure studies, mainly its novelty in terms of its conceptual framework combining workforce disclosure variables and performance variables, the context of the study (UK), as well as the development of a research instrument (index) used to collect workforce-related data.

To determine the extent and content of disclosures, a unique and comprehensive workforce disclosure index was developed based on UK and international regulatory frameworks such as UK's Corporate Governance Code 2018, Financial Reporting Council's (FRC) Guidance on Board Effectiveness 2018, GRI and SASB. Moreover, disclosure items related to workforce practices and welfare were also adapted from previous studies. The index was then used to collect data from corporate narratives such as integrated reports, annual reports, sustainability reports, and Environmental, Social and Governance (ESG) Databook.

It is found that the workforce disclosure index (WDI) including each of its components: workforce diversity (WDD), workforce welfare (WWD) and workforce engagement (WED) are increasing each year. This research also examines the workforce voice and engagement mechanism adoption trends of the FTSE 100 companies. The findings show that of the three core options for workforce governance voice mechanisms recommended in the 2018 Code, the majority of firms in the sample had appointed a designated non-executive director followed by advisory panels, while the least popular option was the worker director.

The first empirical chapter shows that WDI has a strong relationship with workforce voice governance mechanisms and workforce strategic posture (workforce-related policies, board ethnic diversity, board sustainability experience). Considering the stakeholder perspective, this finding suggests that a stakeholder-oriented regulatory framework increases emphasis on workers, transparency on measures used, and legitimacy of firms in ways visible to all workers and other stakeholders.

The final empirical chapter, which investigates the consequences of workforce disclosures, shows that the higher the extent of disclosure the better the workforce outcome, i.e., in this case lower gender pay gaps (both hourly and bonus). However, it appears progress in narrowing the gender pay gap has been slow over the four years, i.e., 2017-2020, and more nuanced regulations should be introduced to help address the fundamental issues. Additionally, the results of the final empirical chapter suggest that while there is a negative and significant relation between WDI and profitability, there is no relation between WDI and firm value.

Acknowledgments

I am truly and wholeheartedly grateful to my principal supervisor, Dr. Amama Shaukat for her support, constructive feedback, and guidance throughout my PhD journey. I am also thankful to my second supervisor, Dr. Abdalmuttaleb Al-Sartawi, for his guidance and morale support. He has been there with me in many of my academic journeys. I am sure this would not have been possible without their help.

I would like to express my deepest appreciation to Prof. Abdulla Al-Hawaj, the founding president of Ahlia University, for giving me the chance to pursue my PhD. Furthermore, I would like to thank the academic and supporting staff, and friends at Ahlia University and Brunel University, who have kindly provided the encouragement and friendship that I dearly needed throughout these years. Special thanks to my friend (you know who you are) for your support during my corrections. You saw me when no one else did.

My sincere gratitude and thanks go to my mother and father, for their eternal love, encouragement and support that has constantly encouraged me throughout this long journey. Finally, I want to thank my husband, who has supported me during my good and bad days.

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List of Abbreviations

AGM – Annual General Meeting
BED- Board Ethnic Diversity
BGD – Board Gender Diversity
BSE – Board Sustainability Experience
CD – Compulsory Disclosure
CEO - Chief Executive Officer
CG – Corporate Governance
CG Code – Corporate Governance Code
CIPD - Chartered Institute of Personnel and Development
COVID – Corona Virus Disease
CSR – Corporate Social Responsibility
ESG - Environmental, social and governance
FEM – Fixed Effects Model
FRC - Financial Reporting Council
FTSE - The Financial Times Stock Exchange
GRI – Global Reporting Initiative
HC – Human Capital
IC – Intellectual Capital
IIRC - International Integrated Reporting Council
ILO - International Labour Organization
KILM - Key Indicators of the Labour Market
LSEG - London Stock Exchange Group
NED - Non-Executive Director
NGO - Non-Governmental Organisation
OECD - Organization for Economic Co-operation and Development
OFR - Operating and Financial Review
OHS - Occupational health and safety
POLS - Pooled Ordinary Least Square
RBV - Resource-based View
REM – Random Effects Model
RO – Research Objective
ROA – Return on Assets
SASB - Sustainable Accounting Standards Board
SDGs - Sustainable Development Goals
SE – Sustainability Experience
SEC - Securities and Exchange Commission
SD – Solicited Disclosure
ST – Stakeholder Theory
TQ – Tobin's Q
UK – United Kingdom
UN – United Nations
USA – United States of America
VD – Voluntary Disclosure
VIF – Variance Inflation Factor
WDD – Workforce Diversity Disclosure
WDI – Workforce Disclosure Index
WED – Workforce Engagement Disclosure
WHO - World Health Organization
WO – Workforce Outcomes
WSP – Workforce-related Strategic Policies
WVGM – Workforce Voice Governance Mechanisms
WWD – Workforce Welfare Disclosure

Chapter 1

Introduction

1. Background of the Study

Globally there is a growing interest in the social responsibility of businesses among stakeholders including investors, shareholders, and other societal stakeholders. About half of the United Nation's Sustainable Development Goals (SDGs) (founded in 2015 as part of their 2030 Agenda for Sustainable Development) are related to social dimensions and human sciences. These are: SDG 3 (good health and wellbeing), SDG 4 (quality education), SDG 5 (gender equality), SDG 10 (reduced inequalities), SDG 11 (sustainable cities and economies) and SDG 16 (peace, justice, and strong institutions). Moreover, in a globalized environment which generates novel employment models and produces new labour-related management challenges, stakeholders are also paying more attention to the firms' human resources practices, working conditions, employee welfare, along with diversity and equal opportunities (Parsa et al., 2018; Monteiro et al., 2021).

Employees are often regarded as an organization's most valuable asset, which cannot be duplicated or imitated by competitors (Singh, 2019). Hendricks (2002) believes that firms should consider their workforce as productive assets rather than costly assets due to significance of employees in generating revenue as well as gaining sustainable competitive advantage and efficiency. They are therefore counted as a part of an organization's Human Capital (HC) which represents the volume of knowledge, technical skills, creativity, and experience of the organization. Considering the importance of human capital (HC) to both the social and economic pillars of sustainability, the UN has integrated decent work, equality, and the defense of human rights into many of its goals. More specifically, SDG 8 calls for promoting 'sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'. Additionally, labour rights, equal opportunities and decent work is tied to 6 out of the 10 principles of the United Nations' Global Compact initiative. In this sense, the CSR agenda of a firm is regarded as unfeasible if it does not consider both the physical and emotional well-being of its employees, integrates the principles of social responsibility into its human resource management and implements policies to develop a quality workforce and enhance employees' welfare and engagement (Monteiro et al., 2021).

Corporations, businesses, governments, and citizens need to engage and cooperate together to achieve sustainable development. Corporations play a major role in achieving sustainable development because they contribute to various multiplier effects such as job creation, income generation and workforce empowerment, human capital development, and technology transfer (Baumgartner and Rauter, 2017). Hence, corporate sustainability is increasingly regarded as the ultimate goal for corporations, whereby they are expected to meet the needs of the present generations without compromising the ability of the future generations to meet their own needs (Van Zanten & Van Tulder, 2021). Corporations strive to fulfill their sustainable development goals (SDGs) through several practices, which mainly include maintaining strong corporate governance (CG), reporting on their financial and non-financial performance, making socially responsible investments, and behaving in an ethical manner (Ashrafi et al., 2018).

Nelson Mandela (1994, p.1) is famously quoted saying in his inaugural speech, “Our deepest fear is not that we are inadequate. Our deepest fear is that we are powerful beyond measure. As we are liberated from our own fear, our presence automatically liberates others”. This statement can be equally applied to businesses and organizations. When firms become very powerful, they can become a threat to stakeholders, employees, and the society. Good corporate governance (CG) uses a system of rules, principles, and regulations to develop a culture of openness, accountability and fairness that positively influences the long-term success and sustainability of a firm. CG can hence be described as a system of structuring, organizing, operating, and controlling a firm in order to achieve the firm's long term strategic goals, and satisfy its various stakeholders, including shareholders, creditors, investors, employees, as well as community (Bansal and Singh, 2022). The United Kingdom’s Green Paper (2016) explains the purpose of corporate governance is to facilitate effective, entrepreneurial, and prudent management that can deliver the long-term success of a company. In addition to protecting the interests of shareholders, a good CG system involves considering the interests of employees and other stakeholders. A good CG also provides confidence that a firm is being well managed and directed.

Firms demonstrate their transparency, accountability, and social responsibility towards stakeholders by reporting information about their sustainable development activities (Filipiak and Dylewski, 2020). Social disclosures or corporate social responsibility disclosures are ways by which a firm communicates with its stakeholders, especially its investors, and informs them as to

how it has undertaken its social responsibilities. Manes-Rossi et al. (2018) also argue that firms respond to societal pressures using sustainability reporting as a tool for showcasing their socially responsible behavior. The terms ‘sustainability’, ‘environmental, social and governance’ (ESG), ‘non-financial’ or ‘corporate social responsibility’ (CSR) reporting have been used interchangeably, to describe reports with different degrees of focus on these issues (Ioannou and Serafeim, 2017). This thesis uses these terms synonymously. The extent and content of a firm’s non-financial reporting show a firm’s current social outcomes together with its future plan. This allows investors to understand how well the firm is able to manage its social risks (e.g., risk of distributional claims by stakeholders, Heal, 2005). It also informs investors how well a firm is prepared to deal with these risks in the future. Considering such arguments, some researchers (Malik and Kanwal, 2018; Garcia and Sousa-Filho, 2018; Manta et al., 2020) have examined the link between a firm’s social reporting and its financial performance and profitability.

Despite the growing calls for labour rights around the world, the Green Paper (2016) which was commissioned by United Kingdom’s Government following CG breaches, states that listed companies in the UK have been falling short of the high standards expected by the Government. Fueled by the criticisms of exploitive working conditions following a wave of corporate scandals (more recently, Sports Direct Plc, Boohoo plc, BHS), the UK introduced corporate governance reforms in 2018 to restore trust in the system and to give a stronger voice to workers (Green Paper, 2016; FRC, 2021; Villiers, 2021). The previous codes, prior to the 2018 reforms that is, have broadly prioritised the relationship between managers and shareholders rather than between managers and workers (Villiers, 2021). The aforementioned CG breaches lead to inquiry committees confirming that corporate governance is highly relevant to working conditions and prospects for workers and employees (Employment practices at Sports Direct Report, 2016). Consequently, the Green Paper (2016) put forward a series of options for strengthening the voice of a company’s employees as well as other stakeholders.

In addition to the UK government’s call for action, the emergence of global regulations and frameworks (e.g., UN Global Compact, Global Reporting Initiative - GRI, and Sustainable Accounting Standards Board - SASB) about human capital (HC) issues has further raised the attention directed to corporate social disclosure practices. Investors and other stakeholders could use these to monitor the management strategies related to a firm’s non-financial performance that

could impact corporate sustainability in the long run (Lokuwaduge and Heenetigala, 2017). Therefore, under the overarching notion of sustainable development and long-term value creation, investors, regulators as well as other stakeholders including employees are believed to be advocating increased social disclosures including employee-related disclosures of firms. The most vocal investors call for the publication of diversity data. However, some investor groups demand more comprehensive workforce disclosure (Batish et al., 2021). This act of integrating ESG data in the investment management and decision-making business has come to be known as responsible or sustainable investing (Berg et al., 2020).

Expanding on sustainability and social responsibility research to study workforce-related disclosure is a significant area for study because employee training, health and safety, welfare, employee engagement and voice are important intangible assets that may account for positive workforce outcomes and certainly appear to do so for stock performance (Edmans, 2011). Recent studies reveal a pronounced change in company wealth creation with the advent and growth of digital technology and an increasingly knowledgeable workforce (Kent and Zunker, 2017). Within this context, a company's social responsibility agenda is regarded as incomplete if it does not consider the emotional welfare and physical safety of its employees and incorporates the principles of social responsibility into human resource management policies to create a skilled workforce and enhance employees' well-being (Barrena-Martínez et al., 2019).

1.1. Research Problem

According to scholars, in United Kingdom (UK) as well as in other parts of the world, economic development has been characterized by neoliberalism, globalized capitalism and financialization, whereby the shareholder voice has been strengthened to the detriment of other stakeholders (Villiers, 2021). This has been threatening to the interests of workers as well as the long-term survival and performance of firms. In the UK, firms' commitment towards their employees had been wavering due to the financialized nature of its Corporate Governance (CG) Code (Green Paper, 2016; the Taylor Review, 2017). To address these criticisms of CG breaches, the Financial Reporting Council (FRC) introduced reforms to UK's Corporate Governance Code in 2018, emphasizing long-term performance instead of short-termism, company culture, board diversity, workforce diversity, stakeholder engagement, and strengthening workforce voice. Thus, bringing workforce-related welfare, engagement, and working conditions into the spotlight.

If firms have limited concern about an issue, there will be limited disclosure about said issue and vice-versa (Deegan et al., 2002). With respect to a firm's human capital, the levels of workforce disclosure provide investors and other stakeholders with a signal of its obligation to its employees and commitment towards their welfare (Mathuva et al., 2015). Hence, a number of international bodies including the UN, GRI, SASB, the Organization for Economic Co-operation and Development (OECD), and the International Integrated Reporting Council (IIRC) have actively promoted the disclosure of workforce-related information and have stressed the importance of such disclosure in corporate reports (Monteiro et al. 2021). Therefore, given the recent emphasis on workforce welfare, voice and engagement in the UK, this research aims to: (1) determine the extent of and trends in workforce disclosure; (2) its drivers and determinants; and (3) its consequences in terms of workforce and financial outcomes. This exercise will help ascertain whether the workforce-related governance mechanisms recommended by the 2018 Code were effective in encouraging UK firms to demonstrate their tangible commitment towards their employees.

Now that the researcher has established the growing importance of workforce-related disclosure in the light of the current regulatory climate, the following paragraphs discuss a bibliometric review by Monteiro et al. (2021) of the current workforce disclosure trends in the extant literature. Monteiro et al. (2021) conducted a comprehensive and systematic review of studies focusing on workforce-related disclosure published over the past twenty years (i.e., from 2000 to 2020) in journal indexed in the Web of Science and Scopus databases. The authors identified three main research themes, including (i) extent and determinants of workforce disclosures, (ii) occupational health & safety and workforce reporting as tools of legitimacy, and (iii) diversity and equal opportunities disclosures. Their analysis indicated that only a *few studies* on workforce-related reporting have been published over the last twenty years, compared to the significant number of studies on CSR disclosures and/or environmental disclosures concluding that not enough attention has been given to the well-being of a firm's most important assets, i.e., its workers.

Furthermore, their bibliometric review highlighted limitations in previous studies that is addressed in this research. In particular, Monteiro et al. (2021, pg. 1) noted "issues related to human resources management, such as work environment, occupational health and safety (OHS), work-life balance or diversity and equal opportunities, have been understudied by academic literature", despite the demand for such information by stakeholders. They further note that employee welfare,

engagement and voice have been understudied as compared to workforce diversity and health and safety issues. Many of the prior studies that aimed to identify the determinants or drivers of workforce-related disclosures focused on the association of firm size (Petera and Wagner, 2017; Bowrin, 2018; Cahaya and Hervina, 2019), industry membership (Tsalis et al, 2018; Cahya et al., 2017; Bowrin, 2018), ownership structure (Rahman et al., 2017), and board independence (Rahman et al., 2017; Tejedo-Romero and Araujo, 2018). However, none of these studies examined the association between workforce governance mechanisms and workforce disclosures. Moreover, the relation between workforce disclosures and workforce outcomes such as gender pay gaps has not been studied in prior literature. Accordingly, this current research aims to examine these understudied areas.

The bibliometric study conducted by Monteiro et al. (2021) validates previous statements (Cahaya et al., 2015; Searcy et al., 2016; Evangelinos et al., 2018; Wall et al., 2020) concerning the *narrow research attention* given to employee-related disclosure in the literature. Vithana et al., (2021) suggest that this is due to prior research subsuming employee-related reporting within the wider concepts of social or intellectual capital disclosures, whereby intellectual capital disclosures examine human capital disclosure from a firm's perspective, i.e., what employees can offer the firm in terms of knowledge, qualifications, skills and experience.

Up to the current researcher's knowledge, Monteiro's et al. (2021) paper is the most comprehensive and current bibliometric study regarding the state of workforce disclosure studies in the literature. It is a systematic review of the current trends of workforce disclosure studies; hence this study used the findings and limitations identified in Monteiro's et al. (2021) paper to support the need and motivation for investigating workforce disclosures in the context of the UK's reformed regulatory environment mainly in the research areas which are lacking in the literature.

Although workforce disclosure studies have been conducted in various countries around the world such as Australia, Bangladesh, Canada, Denmark, Ireland and Sri Lanka, the UK has been rather *understudied* so far (Monteiro et al., 2021; Vithana et al., 2021). This according to scholars (McCracken et al., 2018; Vithana et al., 2021; Villiers, 2021), is because the UK firms had been falling behind in terms of workforce-related reporting when compared to its international competitors prior to the introduction of regulatory requirements and initiatives. Based on scholars,

this gap in disclosure often leads to an underfunding problem for human capital development and also creates an information asymmetry problem for investors (Kim and Taylor, 2014). In addition, Molloy and Barney (2015) argue that firms need to be able to recognize the significance of human capital to fully assess the value of their workforce. Thus, workforce disclosure and its requirement, is not only important to firms, but also for investors and workers.

Based on the above discussion it can be concluded that there is a gap in the literature, as identified by previous research, and especially in the light of the recent global regulatory requirements and the new amendments made to UK's 2018 CG Code. This lack of recent research attention to workforce disclosures has motivated this study to understand how UK firms are actually addressing their CSR agenda given the significance of HC to corporate success and sustainability, and the increasing demand of stakeholders and regulators for labour rights and workforce disclosures (Parsa et al., 2018; Monteiro et al., 2021). UK is also an important context to study, as UK governance regulations have traditionally informed and paved the way for governance reforms around the world (Shaukat and Trojanowski, 2016). The regulatory environment, including that of the UK, and context of the study are discussed in detail in Chapter three of this thesis.

As previously mentioned, a several studies have investigated the relation between a firm's ESG disclosures and its corporate performance. Based on Cormier et al. (2011) higher levels of social reporting can reflect superior social performance which in turn can reduce the information asymmetry between a firm and its investors, as well as associated risks. It can hence be argued that disclosures would be associated with higher financial performance of firms. Furthermore, Siegel et al. (2009) argue that a strong social reputation, as showcased through social disclosures, can enhance employee morale and productivity. However, given the relative dearth of studies on social disclosures and even more so for specific employee-related disclosures, this study focuses solely on the workforce (human capital) disclosures of UK listed companies. The bibliometric review by Monteiro et al., (2021) indicates that there is scant attention given to examining the relationship between workforce-related disclosure and the financial performance of firms. In general, researchers have suggested that workforce disclosures have been used by companies to obtain competitive advantages, such as higher market value (Kaur et al., 2016), reduced cost of capital (Bowrin, 2018), improved image and reputation, and increased customer loyalty (Evangelinos et

al., 2018; Kent and Zunker, 2017). All these factors could lead to higher market financial performance and profitability. Cormier et al., (2009, 2011) for example find that social and human capital disclosure has a positive relationship with firm market value. Moreover, Lin et al. (2012) found a positive relationship between human capital disclosure (using Vergauwen et al.'s (2007) Intellectual Capital disclosure index) and profitability (ROA). Similarly, the studies by Vafaei et al. (2011) and Gamerschalg (2013) suggested a positive relationship between human capital (as part of Intellectual Capital) disclosure and firm market value.

From a company's social perspective, Cahaya et al. (2015) and Searcy et al. (2016) argue that workforce disclosures may also be a driving force to improving a company's social outcomes by improving working environment, employees' quality of life, and in turn their productivity. Enhanced reporting on workforce issues could motivate companies to make meaningful improvements in this area. Yet, as discussed above, most studies which test such relationships focus on intellectual capital (IC) disclosures (i.e., knowledge, technical abilities, personal qualities of employees) or social disclosures as a whole (workforce, community, and human rights) rather than specifically focusing on a firm's workforce practices and how the firm benefits the workers in terms of their social and economic wellbeing. Furthermore, based on the researcher's review of the literature, it appears to date, studies have not investigated the relationship between workforce disclosure and real workforce outcomes (e.g., workforce gender pay gaps). This is surprising given that often the underlying assumption in disclosure related policy making is that it will bring about real changes in firm behavior/performance (Christensen et al., 2018).

Thus, to the best of the current researcher's knowledge none of the previous studies have empirically examined the relationships between workforce disclosure and corporate performance or workforce outcomes, as previous studies either aimed to determine workforce disclosure drivers or tested the relation between overall social/IC disclosures and financial performance. To summarize, the current thesis has identified several gaps in the current and relevant literature. It extends on Monteiro's et al. (2021) systematic literature and identifies the following areas that need to be researched given the state of the market and regulatory environment in the UK.

First this study develops a novel and comprehensive index of workforce disclosures based on the recommendations of various regulatory frameworks including reforms recommended by the latest

UK's CG Code (2018). Previous workforce disclosure studies have focused on diversity and health and safety issues. This study extends prior work by including disclosure items that are understudied in the literature such as workforce welfare and engagement activities in addition to the above items. These workforce-related engagement activities were recommended by the recent UK governance reforms.

Second, most of the previous research on workforce disclosure have focused on 'determinants or drivers' of disclosures. This study revisits this relation but uses a much broader set of explanatory variables including variables related to workforce voice governance mechanisms which were introduced recently in the UK's CG Code and not used in prior studies.

Third, many of the previous studies examined the relationship between human capital disclosure (i.e., firms reporting on employees' knowledge, skills, and experience) and firm financial performance. Hence, these studies focus more on the disclosures of human capital from the firms' perspective. To the best of my knowledge, this is the first study that investigates the association between workforce-related disclosures from a worker's perspective in terms of their welfare, wellbeing, and engagement and links them with real workforce outcomes such as gender pay gaps as well as with firm financial outcomes.

1.2. Research Aim and Objectives

With the changes to the UK's CG Code in 2018 and more recent international initiatives, there is a need for research to examine whether there has been an increase in workforce disclosure in the narrative-based reporting sections in the annual reports and other corporate narratives of the UK firms. Insights are required into the type of workforce data that UK firms are reporting, and whether they are embracing and reporting new metrics based on employee engagement, employee voice, employee wellbeing, employee welfare, and employee diversity as recommended by the CG Code. In addition, it would be of interest from both theoretical and practical standpoints to examine workforce reporting, more particularly its association with workforce outcomes and financial performance of UK firms. Additionally, this research also attempts to identify the determinants of workforce disclosure of the UK listed firms.

Accordingly, the research objectives of this study are as follows:

RO1: To determine the recent trends in the extent and content of workforce disclosures of the FTSE 100 firms.
RO2: To identify the determinants of workforce disclosure of the FTSE 100 firms.
RO3: To examine the relationship between workforce disclosures and the *workforce-related outcomes* of the FTSE 100 firms.
RO4: To examine the relationship between workforce disclosures and the *financial performance (profitability and the market value)* of the FTSE 100 firms.

1.3. Summary of Research Methodology and Findings

The above research objectives, particularly RO2, RO3 and RO4, are met by hypothesizing and testing the relationships between workforce disclosures and the workforce-related outcomes and financial performance of the FTSE 100 firms. Since the main purpose of this research is to hypothesize and investigate the relationship between the extent and content of workforce disclosure and its link with workforce and financial performance of firms, it adopts a positivistic deductive approach using quantitative data and econometric methods. Quantitative data for workforce disclosures as per RO1, board diversity and the other study variables, were collected manually from corporate reports, company websites, strategic reports, and the director's business review reports. Data regarding the performance indicators were collected from Thomson Reuter's Refinitiv Database, Thomson Reuter's Financial Data, Annual Reports, and the United Kingdom's Gender Pay Gap Service. The study sample included UK's FTSE 100 listed companies, and data were collected over a period 2017-2020. The latest corporate reports that were available during the data collection phase were for the year 2020.

To measure the extent and content of workforce disclosures of FTSE 100 companies (as per RO1), the researcher developed a unique workforce disclosure index. The elements of the index were developed after undertaking a comprehensive review of the relevant literature and recommendations of regulatory frameworks for workforce-related factors in organisations. In addition to workforce-related disclosure items considered in prior disclosure studies, new disclosure items were added to develop the index. These items were identified from the

recommendations of UK's 2018 Corporate Governance Code as well as the GRI framework. Consequently, three main categories of workforce disclosure were developed: (i) workforce diversity, (ii) workforce welfare and (iii) workforce engagement. The rationale for including these categories in workforce index is discussed in detail chapter three of this thesis.

The workforce disclosure index and its components were then used to hypothesize and test the relations identified in RO2, RO3 and RO4. Regression analysis using panel data methods were employed to test the proposed relations. To identify the appropriate panel data method to be applied for estimation, Breusch-Pagan (indicates the POLS - Pooled Ordinary Least Square or random effect model), and Hausman (indicates random or fixed effect) tests were carried out.

The findings in terms of the extent and content of workforce disclosure show that the workforce disclosure index (WDI) including its components: workforce diversity (WDD), workforce welfare (WWD) and workforce engagement (WED) are increasing each year. Considering the regulatory environment, a reason for such an increase could be the emphasis of the 2018 Code on the workforce. Based on the analysis of the extent and content of WDI, the results further show the component with the highest level of increase in the extent of disclosure is the WED score. This suggests the FTSE companies started to adopt the workforce mechanisms and engagement activities, suggested in the Financial Reporting Council's Guidance on Board Effectiveness (2018), and disclose about them to signal their compliance with the revisions in the 2018 Code. Moreover, the results of the first empirical analyses (in chapter five) indicate that WDI has a positive and significant relationship with workforce voice governance mechanisms and workforce strategic posture. The subsequent analyses (in chapter 6) examine the consequences of workforce disclosures. The results show a positive association between the extent of disclosure and actual workforce outcomes, that is the disclosure of gender pay gaps is associated with lower gender pay gaps. The findings of the final empirical chapter also show that there is a negative and significant relation between WDI and profitability. This could be due to the higher costs associated with compiling, preparing, reporting, and disseminating workforce-related information.

1.4. Research Significance and Contributions

The significance of this study lies in investigating the relationship between workforce disclosure (in terms of workforce diversity, workforce welfare, and workforce engagement), determinants of these disclosures, workforce-equality outcomes (gender pay gaps) and financial performance (profitability and market value) in the context of UK's 2018 Corporate Governance Code and other international guidelines such as the GRI, SASB and the UN's Global Compact. The current research thesis is significant as it achieves to contribute to knowledge, from academic, practical, and policy perspectives. Hence, certain implications for researchers, practitioners and policymakers are suggested.

Academic Contribution

This study contributes to knowledge by addressing several gaps in the literature. First, previous studies focus on environmental/CSR studies, with less attention given to social disclosure studies, and even to a lesser degree, workforce disclosure studies. Second, the majority of prior workforce disclosure studies focus on the level and determinants of reporting, with little to no research conducted that directly investigates the relationship between workforce disclosure and workforce outcomes. Third, this research adds to previous disclosure studies because no studies have addressed such links including the relationship between workforce disclosure and firms' real social behavior within the context of UK listed firms, particularly in the light of recent regulatory guidelines and international frameworks.

In addition, a thorough review of the literature shows that there is a lack of consistency in the discussion of social disclosures and performance, as well as mixed results in terms of the determinants of workforce disclosure. For example, while Abeysekera (2012) found that the level of workforce disclosure depends on firm size and board independence, Kaur et al. (2016) found that firm value and profitability affect disclosure. This study sheds new light on determinants of work-force related disclosures specifically as well as provides evidence on relevance of these disclosures for real workforce outcomes and financial performance of firms.

Conceptually, this study contributes to relevant literature by developing a comprehensive 'Workforce Disclosure' index – WDI - to gauge the extent and content of workforce data reported

by FTSE 100 companies. This index can be used by other researchers to measure extent and content of workforce disclosures in other countries as well as test the relevance for worker and financial outcomes.

Policy and Business Direction

This brings us to the practical contributions of this thesis. The findings are believed to be significant to policymakers and other stakeholders as they help them in gauging the level of commitment of UK firms towards adopting the recommendations made by the CG Code for improving a firms' workforce voice and engagement mechanisms. Moreover, it helps in understanding the effectiveness of these workforce mechanisms in terms of workforce outcomes and corporate financial performance.

This study developed a novel index of workforce disclosures based on the recommendations of various regulatory frameworks such as UK's CG Code (2018), GRI, SASB and the UN's Global Compact.

1.5. Organization of the Thesis

The rest of this thesis is organized as follows. Chapter two reviews the extant theoretical and empirical literature related to workforce reporting, sets definitions, provides background to the study, and explains the importance of human capital. In addition, it presents the differences between workforce disclosures and workforce outcomes including the relevant theories. Finally, it closely examines the different relevant theoretical frameworks underpinning the study and their implications from both a disclosure perspective and a performance one.

Chapter three presents the context of the study including the international and relevant regulatory environments. It critically reviews the previous workforce disclosure indices and addressed their pros and cons. Moreover, chapter three explains the development of this study's Workforce Disclosure Index, its components including the regulatory and academic motivations for its development by the researcher. It also addresses **RO1** and presents the trends and extent of workforce disclosure.

Chapter four explains in detail the research methodology that was developed for addressing the research aim, questions, and objectives. It elaborates on the philosophy, methodology, framework, research design, research strategy, collection of data, sampling design and the data analysis aspects. Moreover, a number of robustness tests were used to check if the findings of the main analyses can be generalised.

Chapters five and six address **RO2, RO3 and RO4**. They present the conceptual models of the study including a detailed explanation of variables and measures used, and also deal with the empirical analyses. Chapter seven provides the conclusions and implications derived from the discussions provided in Chapters five and six together with the contributions this research has made to theory, knowledge, methodology as well as business practice. The chapter also presents the limitations of this research including the areas that could be addressed in future research.

Chapter 2

Literature Review: Theoretical Frameworks

This chapter provides an in-depth discussion of the various theoretical frameworks and empirical evidence related to social reporting including employee-related disclosures and performance. It explains the different theories underlying the study and their implications from both a disclosure perspective and a performance one.

2.1. Importance of Human Capital

With sustainability and stakeholder capitalism high on today's corporate agenda, pressure has increased for companies to show their commitment to stakeholders, including their employee base. Recent events, from the COVID-19 pandemic to widespread protests for racial justice to the #MeToo movement, have made both companies and investors increasingly and acutely aware of the financial implications of how businesses manage people (SASB Human Capital Bulletin, 2020). It is no hidden fact that employees play a very important role in the sustainability and development of an organization. Human capital is considered as important as intellectual, structural and financial capital or similar to other assets that result in greater revenue for the organization (Becker et al., 1990). It is often argued that employees are an organization's most valuable and productive asset, which cannot be duplicated or imitated by competitors (Anitha, 2014; Flammer & Lou, 2017; Singh, 2019). However, continuous evolutions, such as globalization, technological advancements, increasing knowledge work, and rising competition, makes it essential for firms to acquire distinctive human capital for competitive advantage and organizational success. This makes skilled workers the major distinguishing factor for most organizations as they depend on their expertise to gain competitive advantage.

Recent studies (Sharma et al., 2018; Fahim, 2018; Singh, 2019) have indicated that retention of employees has become difficult, whereby organizations continue to lose workers to competitors with better working conditions, workplace environment, incentives, and security. Knowledge, trade secrets, skills, and contacts that a leaving employee takes out of the organization constitute a huge loss as most of the time when employees depart, they migrate to competing organizations (Levallet and Chan, 2019). However, to retain employees, maintain their loyalty and reduce their

desire to leave in favor of competitors, organizations need to pay more attention to them. Yet, a major difficulty in managing employees, as per the economics literature, is adverse behavior (moral hazard risk). Moral hazard arises in situations where the interests of employees and the firm are not aligned, and where their motivation and efforts are poorly observed by the firm. Examples of adverse behavior include reduced interest or attentiveness at work, tardiness, absenteeism, or disengaged behavior such as using work time for personal business. This leads to firms incurring large economic costs. Understanding how to effectively manage and engage employees is critical for a firm's competitiveness, social performance, and financial performance. Hence, it is at the very core of strategic management (Flammer and Lou, 2017).

Nonetheless, it should be made clear that such employee management and retention strategies are made against a regulatory and governance backdrop that determines the processes and boundaries of the decision-makers. In this sense, workforce-related disclosures in corporate reports provide stakeholders including regulators with an indication of the value that firms place on their human capital and what they are doing to develop quality workforce and enhance employees' welfare (Monteiro et al.,2021). With these premises, the following sections discuss the extant literature on workforce disclosure, and the relevant regulatory frameworks and policies guiding workforce disclosure. This thesis will use the term workforce as a synonym to employees and workers as it has been used by the Corporate Governance Code 2018.

Here it is necessary to make a distinction between Intellectual Capital (IC) or human capital disclosures which is from the firm's perspective. These are related to employee knowledge, competence, and education. Meanwhile, workforce disclosures are from the worker's perspective, i.e., it focuses on the social and economic wellbeing of employees. It is related to employee-related practices, rights, policies, welfare, and engagement. It basically stands for what the firm offers its employees rather than the other way round This study focuses on the latter as it examines the disclosures about the practices of firms such as employee diversity, welfare, and engagement.

2.2. Background on Workforce Disclosure

Workforce disclosure originated in the early 1960s when Hermanson (1963) tried to include workforce in the statement of financial position because he believed that human assets generated

monetary value for firms in line with physical assets. The current research uses the word 'Workforce' to represent middle and junior level employees, workers, associates, labourers or other similar words because it is used in UK's CG Code. The FRC stated in their Guidance on Board Effectiveness (2018, p) that they have used the term 'Workforce' for the purposes of the Code, and ''it is not meant to align with legal definitions'' of similar terms.

It can be argued, that Hermanson focused on the external reporting of human assets. Flamholtz (1971) criticized this fixation on the external reporting as it was giving the misleading notion that HC accounting was only focused on considering people as financial objects. It was clear here, that Flamholtz (1999) was beginning to emphasize the managerial perspective which appreciated the intrinsic value of employees and would assist in recruitment and management. This point of view is aligned with the core of IC, which is not concerned with accounting for human assets on financial statements. Nonetheless, the failure to move beyond the financial value of human capital (HC), has made the task of those advocating the intrinsic value of employees more difficult (McCracken et al., 2018).

Workforce disclosure can be examined from two point of views: intellectual capital (IC) disclosures and labour-related disclosures (Cahaya et al., 2015). With respect to the former point of view, workers are part of a firm's HC, and disclosures include information related to knowledge, competencies and technical abilities, and personal attributes such as commitment, attitude, creativity, energy, health, the willingness to learn, collaboration, team participation and motivation to achieve the company's objectives. Meanwhile, workforce or labour-related disclosures are aimed at improving corporate accountability and transparency through the disclosure of information related to labour -related practices, regulations, and frameworks (Mathuva, 2015; Das, 2017; Evangelinos, 2018). These can include information such as employee profile, working environment and conditions, workforce welfare, training, workforce health and safety, and diversity policies. One perspective (the HC perspective) views employees as resources and assets to be used to generate revenue, while the other perspective (the workforce perspective) views how the company can fulfill its social and economic responsibilities towards it employees. The current paper investigates the latter.

Initial efforts to disclose workforce data focused largely on Intellectual Capital (IC). Brennan (2001), for example, undertook a content analysis of Irish listed companies and found limited workforce information relating only to employee knowledge, education, and entrepreneurial spirit. She observed that human capital (as part of IC) reporting disclosures were quite minimal, with only employee experience being sporadically alluded to in the annual reports. Another study of Canadian listed firms by Bontis (2003) found minimal levels of HC disclosures, with some companies not even disclosing how many people they employed. Scandinavia took initiative in human capital reporting during the late nineteen-eighties and early nineteen-nineties with the introduction of HC and IC indicator models that linked disclosure to firm value (Wall et al., 2003). These developments helped to draw attention to the latent value of HC disclosures for firms. For instance, HC disclosures can be used to improve accountability and gauge better visualization about a firm's ability to yield value for different stakeholders over time (Hughen et al., 2014; Hakim et al, 2023). To illustrate, a bad health and safety track record may have a negative impact a firm's profitability through corporate fines, while a firm that shows its commitment to employees in its annual reports may be deemed as a safe and better investment, thereby improving its market value (McCracken et al., 2018). Relatedly, an exploratory study by Mariappanadar and Kairouz (2017) concluded that the perceived importance of workforce disclosure facilitates the dispositional effect bias of investors and encourages them to hold on to their stocks so as to appreciate in future value and reduce equity investment volatility.

However, with IC disclosure studies peaking in the early 2000s, studies started focusing more on labour-related CSR disclosures. Attention has switched from trying to place a value on human capital to understanding and leveraging workforce effectively (Wall et al., 2020). One reason for this could be the recent efforts towards sustainability, where investors are calling for sustainable investments and thus require ESG data to make optimal investment decisions. This change of focus has been further highlighted by regulations, initiatives (GRI, UN) and codes (i.e., UK's 2018 Code) that encourage more non-financial reporting, so shareholders and other stakeholders get a more holistic view of firm's strategies and how these impact employees, the wider community and society. An earlier study by Abeysekera and Guthrie (2004) used a wide range of workforce items, which were more focused on workforce disclosures than IC-related areas. They examined the workforce reporting practices of Sri Lankan companies and compared them with Australian ones.

They found that disclosure increased in both countries over the study period, but there were different degrees of importance attached to specific variables, such as employee entrepreneurship and employee knowledge. Another study by, Khan and Khan (2010) analyzed Bangladeshi company annual reports to examine workforce disclosure. They found that labour practices were not as poor as predicted, with the most frequently reported workforce items being number of employees, training, professional development, and recruitment policies. Moreover, Nielsen et al. (2017) found that companies in Denmark were moving away from broader IC reporting to focus on workforce practices.

Reiterating the points made in the Introduction section of this thesis, despite the growing need for workforce reporting, *UK firms* are lagging behind when compared to other countries (Roslender et al., 2012; McCracken et al. 2018; Villiers, 2021). There are a number of reasons for this phenomenon. Previous research (Roslender et al., 2012; McCracken et al. 2018) claim that UK companies are not able to integrate workforce into accounting effectively. Similarly, another reason for the UK firms lagging behind in the area of workforce disclosure is insufficient importance and meager attention towards their employees in terms of corporate governance (Sikka, 2008). This results in initiatives suggested by the government and other bodies not gaining any real momentum (Roslender & Stevenson, 2009; Wall et al., 2020). Nonetheless, a few studies (McCracken et al. 2018; Wall et al., 2020; Vithana et al., 2021) were conducted in the UK following the amendments made to the 2006 Companies Act in October 2013, as well as to UK's 2014 CG Code, where new regulations covering a firm's strategic and directors' reports, required firms to include information on the firm's impact on the environment, employees, and local community. However, the guidance to the UK's 2014 Code led to limited workforce disclosure due to a caveat stating that firms are only mandated to report on employees to clarify the position or future prospects of their business, and if information is deemed immaterial to this objective, firms are not required to report it (McCracken et al., 2018).

Notwithstanding the 2018 reforms and UK's regulations to strengthen employee voice as well as their social and economic positions, there is a research gap in the sense that so far previous studies (McCracken et al., 2018; Wall et al., 2020; Vithana et al., 2021) have focused on the code prior to the revisions. More particularly, there is a gap in the literature to investigate the effectiveness of the reforms on the extent of workforce disclosure.

In this context, McCracken et al. (2018) analyzed the annual reports of the FTSE 100 companies before and after the 2013 amendments to the Companies Act 2006. They found that most of the UK firms had been increasing their human capital disclosure, going beyond their legislative duties, and moving away from wider IC disclosures to focus more on labour-related issues. Similarly, motivated by the UK Labour government's initiatives in 2003 towards workforce disclosure, Vithana et al. (2021) examined the nature and extent of workforce disclosure of the FTSE 100 firms by developing a disclosure index measuring the depth and breadth of disclosures. Their findings suggest that workforce disclosure have increased over time, although selective reporting remains. The current study is different from previous studies as it focuses on the amendments in the revised CG Code 2018, mainly the workforce governance and engagement mechanisms. This study further links the level of workforce disclosure with firm's financial performance and workforce outcome. Additionally, Wall et al. (2020) conducted a content analysis to examine the level of workforce disclosure of Irish firms (for the period 2015-2017) and compared their practices with those of the FTSE 100 firms. Similar to previous studies, their research covered the period prior to the introduction of the CG Code 2018. They found that UK and Irish firms disclosed information on similar workforce items in their annual reports as they follow similar legislations.

To conclude, this section provides a brief history of employee-related reporting and its evolution from external reporting and IC disclosures to more specific workforce-related disclosures. However, it should be noted that no previous study has examined workforce disclosure in light of the new requirements of UK's 2018 CG Code.

2.2.1. Cost-Benefit Analysis of Preparing and Disclosing Workforce Information

Considering the economic perspective, firms should take actions that reduce costs or enhance benefits; that is, only disclosures that reduce costs or increase revenues are desirable (Gamerschlag et al., 2011). Brammer and Pavelin (2008, p.122) suggest that there are two types of costs involved in making disclosures: (1) "the costs of measuring, verifying, collating, and publishing social information"; and (2) "the loss of strategic discretion associated with making public commitments to verifiable future actions and/or performance". Similarly, Kolk (2004) identified two types of costs, financial and non-financial, which include commitment to report to stakeholders.

Furthermore, based on Dye's seminal work (1985, 1986), incomplete or partial disclosure may arise as some items in the manager's collection of confidential information are proprietary and because disclosure of even non-proprietary information might expose some proprietary information. Dye (1985) defines proprietary information as information whose disclosure might affect future gross earning and the managers' compensation. Therefore, firms might not disclose hard unsolicited disclosure information such as training cost, turnover rates, absenteeism rates, or employee satisfaction scores as they might reveal additional information that is proprietary. As such disclosure of workforce information might be less than optimal but within the requirements of regulations and other international guidelines such as GRI and SASAB. In such cases, signaling or disclosing good news might reduce the concern of investors regarding future earnings prospects while, simultaneously negatively impacting these prospects by unintentionally revealing proprietary information. Hence, it can be argued that a manager who seeks to maximize firm value will be less likely to make damaging disclosures, even about nonproprietary workforce-related data, unless the impact of workforce disclosure on the firm's value is expected to be substantial.

On the other hand, Hahn and Kühnen (2013) describe a list of benefits that firms can produce by reporting social data. These include improving a firm's reputation and legitimacy, motivating workers, increasing transparency, and strengthening its control processes. Gamerschlag et al. (2011) argue that firms face different levels of societal costs depending on the power of stakeholders. In other words, the more powerful or significant the stakeholder, the more willing the firm is to bear disclosure costs in order to reduce their societal costs because significant dangers may ensue for firms which hide or distort the truth of a bad social performance who may then be subject to adverse publicity, lobbying, boycott campaigns, protest by employees, pressure groups and even customers (Brooks et al, 12018). Chapter 5 of this study attempts to identify the drivers or determinants that might encourage firms to disclose information about their workforce.

2.3. Workforce Disclosure and Workforce Outcomes

Social responsibility towards employees includes both workforce disclosures (WD) and (workforce-related) outcomes (WO), which are differentiated in this thesis. Many previous social reporting studies fail to distinguish between disclosures and outcomes. This applies to workforce disclosure studies as well. This thesis aims to investigate the relationship between workforce

disclosures and social (workforce-related) outcomes. Hence, it is significant to point out that the differences and linkages between the two in this chapter.

In this study, workforce disclosure (WD) represents employee-related information which were hand collected from corporate reports such as annual reports, sustainability reports, ESG/GRI Excel books, and websites. However, some data related to workforce policies and SDGs such as policy on forced labour and policy on training were collected using the Refinitiv database. Appendix 1 presents all the workforce disclosure items including the sources from which they were collected manually by the researcher. On the other hand, workforce outcomes (WOs) refer to a firm's actual social performance in relation to its workforce such as the extent of workforce diversity, workforce voice mechanisms, workforce engagement practices, and workforce training and development activities. Nonetheless, there is a significant link between WD and WO. It could be argued that firms with poor WO tend to disclose more information to gain legitimacy and avoid sanctions from the society (Deegan, 2019; Patten 2020). On the other hand, other researchers (Clarkson et al. 2008) suggest that firms with good ESG performance should be keen to disclose more information. They define these outcomes as objective measures of ESG impact (e.g., quantitative indicators) which can be benchmarked to industry outcomes, something which socially poor performing firms will not want to do. Clarkson et al. (2008) further claim that that there is a demand by stakeholders for hard, objective measures of ESG performance in social responsibility reports, so that poor ESG performers cannot imitate good ESG performers by soft, unverifiable claims.

Sections 2.4 and 2.5 discuss the theories underlying WD and WO respectively. Solomon (2020), in his book 'Corporate Governance and Accountability' argues that with the increasing emphasis on stakeholders, firms creating value for shareholders has become synonymous with value creation for stakeholders by firms focusing their efforts on creating value for employees, communities, and the environment. Solomon (2020) further suggests that need for firms to be held accountable by stakeholders is of growing importance if corporate governance systems are to be fit for purpose. Failing to consider the needs of stakeholders can cause poor financial performance and even corporate failure. Performance of a firm in relation to employee issues has become increasingly very important as it can influence the firm's overall performance. Therefore, the communication of a firm's WO through workforce disclosures is essential to its success and long-run survival.

2.4. Theoretical Perspectives Underlying *Workforce Disclosure* and their Implications

Social disclosures may be compulsory/ mandatory (firms are legally required to deliver the information) or voluntary, where the extent and nature of reporting may vary substantially between firms. Gradually, mandatory reporting requirements have been introduced in many countries as disclosure regulations have progressed. This has resulted in an increase in disclosure levels in the affected countries (Ioannou and Serafeim, 2017). Firms report mandatory disclosures through regulated corporate reports such as financial statements, which is required for all UK companies. Nonetheless, complete, and mandatory CSR disclosures for UK firms still seems a long way off as the CG Code allows for a 'comply or explain' caveat. This caveat allows firms to have a flexible clause that makes it possible for them not to make disclosures granted that they justify their position (Ioannou and Serafeim, 2017). Therefore, managers need to decide on the extent and content of disclosure (whether optimal or not) by weighing the cost and benefits of disclosure. Their intuition to disclose (Dye, 1986) the reciprocity of voluntary and mandatory disclosure depend on the type of information to be disclosed - proprietary information or non-proprietary information.

Corporate social disclosures, which include workforce disclosures, are primarily voluntary in nature and consequently provide an area for research into the motivational aspects of disclosures. However, firms are increasingly requested to report on their engagement with stakeholders in various forms in light of intensified global attention on unethical corporate behavior and scandals. Governments, regulators (CG Codes), non-government organizations, and socially responsible investors are demanding social information from corporations. This marks a distinction between voluntary disclosure (VD) and compulsory or solicited disclosure (CD) (Van der Laan, 2009).

While there is no universally accepted definition for VD, Francis et al. (2008) believe that managers voluntarily disclose classified information because investors might interpret non-disclosure as bad news, leading to a reduction in the firm's value. Therefore, managers are inclined to disclose more information to reduce information asymmetry between firms and investors, hence allowing higher liquidity and reducing the cost of capital. This means that the value of the firm can be increased if the firm voluntarily reports (signals) private information about itself that is

credible and reduces outsider uncertainty (Connelly et al., 2011). On the other hand, Tian and Chen (2009) argue that CD refers to information disclosed by firms as mandated by regulators, Accounting Rules, Securities Law and Company Laws. In other words, VD means, except for CD, a firm chooses to disclose the information it wants for the sake of its reputation and investors. However, in the context of the current regulatory frameworks and initiatives, the lines between VD and CD are becoming blurry. Therefore, to place social disclosure in a theoretical framework, Van der Laan (2009) argues that by considering the motivations of managers for disclosing information, voluntary social disclosures are better explained by the legitimacy theory, while the stakeholder theory better explains solicited (compulsory) corporate social disclosure.

On the other hand, Foong et al. (2003) explain that the barriers to voluntary workforce disclosure is that employee-based information may be interpreted negatively by stakeholders including employees. For example, workforce disclosures by highlighting the importance of employees, may lead to undesirable consequences as it might support the employees and labour unions in bargaining for improved pay. This information may alert employees, make them more aware of the significance of their positions to their firms and provide undeniable proof of their importance in wealth creation. When workforce information is not disclosed publicly, employees may possibly be willing to accept lower pay, because they remain unaware of their importance to the firm. This has implications on the social or workforce outcomes of firms, firm accountability towards their employees, and the productivity of their employees. These notions are an aspect of critical accounting theory, where the output of accounting is viewed as a tool for the powerful and rich people to undermine the powerless and poor people.

Researchers have variously used agency, legitimacy, political economy, and stakeholder theory to explain different types of voluntary disclosures. However, an in-depth review of the extant literature indicates that there are two main streams of studies explaining social disclosures which include employee-related information. One stream uses economic based theories such as the agency theory, while the other stream uses socio-political theories such as the stakeholder or political economy (legitimacy, critical accounting) theories to explain social disclosures. In their study, Gray et al. (1995) reviewed relevant literature about social disclosures and investigated its trends in the UK from 1955 to 1988. They concluded that political economy, legitimacy theory and stakeholder theory are not competing theories. They may be viewed as different theories

offering complementary and enriching interpretations. As each of these perspectives approach the subject from different lenses, the following paragraphs offer a description of these different perspectives as they appear in the literature. Moreover, each of the theories explained in this chapter are used as the basis for motivating different components of the conceptual models developed in this thesis.

2.4.1. The Agency Theory

Until recently, the agency theory provided the dominant framework for research on CG (Aguilera & Jackson, 2003; Klein et al., 2012). The theoretical arguments of the agency theory are found in accounting, economics, finance, and organizational studies, and has influenced regulators around the world when looking to reform corporate governance activities (Cornforth and Edwards, 1999). As such, it is often the predominant theory in corporate governance research and policy development. Prior studies which examined workforce disclosure from the agency theory perspective include: (Motokawa, 2015; Shimeld et al., 2017; Pisano et al., 2017; Bowrin, 2018; Tejedo-Romero and Araujo; 2018; Raimo et al., 2020).

Many studies of CG stress the relevance of the agency theory for firm value, as it is concerned with the owners' perspective (Jensen and Meckling, 1976; Fama and Jensen, 1983). The agency theory primarily deals with the principal–agent relationship that exists due to the separation of ownership and management in public corporations. The agency framework defines managers as agents and shareholders as principals. Hence, according to Jensen and Meckling (1976), the principal-agent relationship is a contract under which the principal(s) engage the agent to perform services on their behalf. This involves shareholders delegating some decision-making authority to the managers. However, this gives rise to the agency problem because managers may not act in the best interests of shareholders. The agency conflict manifests when managers focus on enhancement of investment choices and/or remuneration which is not tied to performance, while shareholders focus on reducing risk and costs while increasing financial returns (Ferrell et al., 2016). It is not unusual for disclosure studies to indicate that managers have more information about their firms' prospects than shareholders and outside investors (Bamber and McMeeking, 2007). As a result, managers may make decisions about projects and investments that shareholders might perceive as less than ideal.

This problem of misalignment of interests increases under the conditions of information asymmetry, when one side (the agent) has more information than the principal. In such cases, agency problems cause moral hazard and adverse selection which tend to be very costly (Eisenhardt, 1989). Information asymmetry can be reduced significantly through more ESG or CSR disclosure, leading to lower firm risk and lower cost of capital (Cormier et al., 2011). The theory, nonetheless, highlights that shareholder incur agency costs and residual loss when interests vary among the parties. Ang et al. (2000, p. 81) believe that agency costs result from "management's shirking and perquisite consumption". To control managers' opportunistic behavior and reduce agency costs, shareholders use monitoring activities and demand higher levels of disclosure. Therefore, to show shareholders that they are acting optimally, managers disclose more non-financial information. Information release to shareholders including other stakeholders is controlled by sets of principles in the Corporate Governance Code which govern a firm's transparency in terms of financial and non-financial disclosure (Gibbins et al., 1990). This implies that given the emphasis on the workforce in UK's 2018 Code, firms disclose more about employees to reduce information asymmetry and demonstrate alignment between the interests of managers and shareholders, which helps potential investors to rationalize their investment decisions. It can hence be argued that the agency theory is essential to this thesis since it recognizes the importance of disclosures as a measure to mitigate opportunistic managerial behavior.

Nonetheless, those against the agency theory (Doucouliagos, 1994) claim that the agency theory focuses solely on economic assumptions as the basis for motivation and fails to capture human behavior as a reflection of organizational life. Moreover, it is important to note that the agency view does not negate the need to protect stakeholders (other than shareholders) but holds that this protection should be given by means of market contracting or government regulation (Friedman, 1970), something to which this study returns to below. According to these assumptions, the agency theory fits well with RO4 (i.e., investigating the relationship between workforce disclosure and financial performance).

Additional theories are needed to explain human behavior and is found beyond the economic-based stream. These are discussed in the following sections.

2.4.2. Political Economy Theory

From a political economy perspective, society, politics, and economics are inseparable conceptually and practically. The political economy theory discusses the power conflicts that occur between society, politics, and economics. Gray et al. (1995, 1996) while attempting to explain voluntary CSR including employee-related disclosures, divided the theory into two broad categories, namely the classical and the bourgeois. The classical political economy theory describes disclosures as a method used by the rich and powerful to assert their own privileged positions at the expense of the powerless. The critical accounting theory, according to the researcher, appropriately reflects this viewpoint. On the other hand, the bourgeois political economy theory assumes pluralistic society in which accounting does not favor specific interests over the others. Legitimacy theory is rooted in the bourgeois stream of political economy theory. It presumes that many stakeholder classes have the power to influence various decisions by firms, government, and other organizations (Deegan, 2007).

Based on Deegan and Unerman (2006), the political economy theory assumes that economics cannot be separated from society and politics. Economic challenges cannot successfully be addressed without contemplating the social, political, and institutional frameworks in which the economic activity occurs. However, Spence et al. (2010) and Brown and Dillard (2013), criticize the bourgeois theories and highlight their failure to question what the critical researchers see as the underlying political demands. Spence at al. (2010) argue that these theories have nothing to offer about the politico-economic context within which firms develop their strategies of legitimation. The below sections discuss the political economy theories in more detail.

From a social disclosure perspective, Guthrie and Parker (1990) claim that corporate reports are social, political and economic documents. They serve as a tool in achieving organisational goals, and in manipulating the attitudes of external stakeholders. As such, disclosures (such as workforce-related information) have the ability to communicate social, political, and economic notions to multiple stakeholder groups.

2.4.2.1. The Legitimacy Theory

The legitimacy theory has been used by a number of accounting scholars to explain workforce disclosures made within corporate reports (Lin et al., 2012; Alvarez, 2015; Bowrin, 2018; Evangelions et al., 2018; Vithana et al., 2021). The concept of *legitimacy* is key to the legitimacy theory. This theory hence fits best with RO2 (research objective 2) which can be used to explain the determinants or drivers of workforce disclosures. Suchman (1995, p. 574) defines legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions”. This abstract notion of society is more accurately defined by Freeman’s (1984) definition of stakeholders as groups that influence or are influenced by the realization of a firm’s purpose. Based on this perspective, firms tend to voluntarily disclose or hold back information because they believe such communication is relevant and important to *legitimize(warrant)* their actions towards societal values and norms. In this sense, firms seek to legitimize their continued existence by taking socially acceptable actions or by appearing to take these acceptable actions (Ehnert et al. 2016). In other words, the legitimacy theory offers a mechanism that supports firms in fulfilling their social contracts through social or CSR disclosures.

Accordingly, previous studies (Guthrie et al., 2006; Deegan and Unerman, 2006) argue that a social and metaphorical contract exists between a firm and the society. This contract allows a firm to survive and reap rewards in exchange for socially desirable actions. The survival of the firm will be threatened if the society perceives a breach in this contract. The social contract is based both on stated and unstated stakeholder expectations about how a firm should operate. Deegan (2006, p. 278) describes the explicit or stated stakeholder expectations for the social contract as the “legal requirements”, while the “non-legislated societal expectations” are unstated or implied. In this sense, even a CG Code’s ‘comply or explain’ clause could be regarded as “a means of legitimating deviations from individual code provisions” (Seidl et al., 2013, p. 796). Moreover, compliance with frameworks and guidelines such as the global reporting initiative (GRI) can also offer legitimacy to firms (Van der Laan (2009). Beck et al. (2017) argue that society uses these guidelines to exert its authority to redefine and express social norms of disclosures. Therefore, given the current regulatory setting in the UK, it is expected that firms disclose more workforce-related information to meet the requirements of the CG Codes and disclosure initiatives (UN, GRI).

However, the opponents of the legitimacy theory (e.g., Clarkson et al., 2008) argue that firms with proactive strategies and superior social outcomes have incentives to inform stakeholders of their strategy through voluntary disclosure. The disclosure of information must be supplemented by measurable actions realized in compliance with social values and norms. This contradicts the legitimacy theory regarding social performance and disclosure. Cho et al., (2015) attempted to look at the legitimacy theory from a more 'nuanced theoretical lens' (p. 79). They explored corporate disclosures across various façades and found that firm hypocrisy increased even within the same organization. They conclude that there are differing responses of firms to sustainability as: economically beneficial (rational façade), embracing of new technologies (progressive façade) and sensitive to societal and the environmental welfare (reputation façade). The legitimation process, hence, boosts the reputation façade of firms as it seeks to obtain and maintain the approval of stakeholders. In the context of disclosure, Patten (2020) reemphasizes that firms can use legitimation to reduce political and social exposure by using words rather than actions, which he deems harmful.

Hummel and Schlick (2016) hold a middle ground and conclude that a firms' reporting behavior is assumed to be driven with the aim of increasing financial performance (voluntary disclosure theory) and simultaneously avoiding the negative consequences of threatened legitimacy (legitimacy theory). That is both legitimacy and VD theories are compatible. From a legitimacy perspective, it can be argued that disclosure on social activities such as workforce practices can help in establishing and maintaining stakeholder expectations, which will return better financial results. This implies that firms tend to disclose more workforce-related information to improve their financial performance and to avoid the negative consequences of non-disclosure in the current regulatory climate. Thus, firms disclose more information to reduce potential regulatory intervention.

2.4.2.2. Critical Accounting Theory

The critical accounting theory is used by accounting researchers to rationalise the reasons for non-disclosure of workforce information by firms. Based on the classification made by Gray et al. (1995), the current researcher believes that the critical accounting theory is rooted in the classical political economy theory. Deegan (2013, p.252) defines the classical view as "Tending to perceive

accounting reports and disclosures as a means of maintaining the favored position of those who control scarce resources (capital), and as a means of undermining the position of those without scarce capital. It focuses on the structural conflicts within society.t is important to include this theory to cover all the theoretical grounds." Critical accounting theory suggests that accounting is used to quantify events as a way to undermine labour (Deegan, 2006). In our current era, various attempts have been made to measure intangibles such as workforce, in order to better manage firms. The theory further stipulates that output produced by accounting, for example annual reports, serve as a means to legitimize information that allows firms to assert and further their own interests, with little regard to employees (Samudhram et al., 2010). In other words, accounting reports are tools used by firms to offer a perception, an image, and not actual representation.

From the critical accounting perspective, firms fear disclosing vital workforce information, as it might improve the bargaining power of employees and trade unions and encourage them to demand higher pay. This creates information asymmetry between firms and employees, where the latter might be willing to accept lower wages, since they remain uninformed about their significance to the former. A study by Roslender and Stevenson (2009) highlights an event in the UK illustrating the political agenda and controversies surrounding workforce reporting. In 2005, UK's taskforce recommended that workforce disclosure should be mandatory. However, later that year the legislation was revoked by the Chancellor of the Exchequer amidst widespread criticism from various groups. Moreover, in 2002 it was announced that the Operating and Financial Review (OFR), which had been voluntarily disclosed by a large number of UK firms since the early 1990s, would become a mandatory requirement (Rowbottom and Schroeder, 2014). This decision, however, was revoked in 2005. Roslender and Stevenson (2009) claim that this intervention against mandatory workforce disclosure has been interpreted as an attempt to appease the accounting profession, mainly auditors. This is a reason for the UK firms lagging behind other countries in workforce reporting (McCracken et al., 2018). This perspective might help in explaining non-disclosure of workforce-related information, and the reason for certain firms opting to explain their stance rather than complying with the CG Code.

2.5. Theoretical Perspectives Underlying Workforce Outcomes/Performance and their Implications

As mentioned earlier, this thesis distinguishes between workforce disclosure and workforce outcomes. Therefore, the below section discusses the theories related to social performance and what motivates firms towards social responsibility. However, the social performance theories offer some perspectives on disclosure.

2.5.1. The Stakeholder Theory

The stakeholder theory stands in contrast to the agency theory and Freidman's shareholder primacy theory (1970). Stakeholder theorists have long argued that firms should not only be managed for shareholders, but for a broader set of stakeholders (Klein, 2012). The stakeholder theory was developed as an extension to the agency theory by Freeman (1984) in response to changes that occurred in the 1980s in the business environment. The stakeholder theory is the main contender to the agency theory as it considers the welfare of all non-shareholder stakeholders, whereby shareholders are only one of many interested parties. Freeman (1984) replaces the concept that managers have a duty to shareholders with the notion that managers need to have a fiduciary relationship with stakeholders. Evan and Freeman (1988, p. 79) define stakeholders as individuals or groups who "benefit from or are harmed by, and whose rights are violated or respected by, corporate actions". These include employees, suppliers, customers, local environmentalists, vendors, governmental agencies, and the wider society. Freeman's (1984) theory suggests that a company's real success lies in considering the welfare of all its stakeholders, not just those who might profit from its stock. In contrast to the agency theory, the stakeholder concept is intended to 'broaden management's vision of its roles and responsibilities beyond the profit maximization functions to include interests and claims of non-shareholders (Mitchell et al. 1997). Therefore, as opposed to the criticisms made about the agency theory, this theory understands that human behavior is more complex than self-serving (Jones and Wicks, 1999).

Freeman's (1984) stakeholder theory suggests that firms should use social responsibility as part of effective corporate governance mechanisms to settle conflicts between non-investing stakeholders and managers. In light of the signficance of employees as primary stakeholders, Freeman (2001)

believes that their interests with the firm are mutual. Employees have their source of livelihood at stake where they receive wages and security in return for their work. Furthermore, employees often depend on their work for social relationships, self-identity and self-actualisation. In turn, employees are required to meet certain expectations such as representing the firm positively and responsibly in local communities. As such, and in exchange for their loyalty, employees need to participate in decisions affecting their use as means to the firm's ends. It is on this basis that employees can be identified as stakeholders who have a moral claim on and high legitimacy in the organisation (Mitchell et al., 1997). Van der Laan (2009) indicates that the stakeholder theory offers an explanation for accountability to employees. It can hence be argued that the workforce extent of disclosure by UK firms should improve given the emphasis of the 2018 Code on employee engagement and communication with the board of directors.

Another aspect of the stakeholder theory (ST), the insturmental ST, explains the relationships between stakeholder management practices and corporate performance. The instrumental ST assumes a positive relation between social performance and financial performance, including the satisfaction of the different types of stakeholders, such as employees, is key for organizational financial performance (Donaldson and Preston, 1995; Jones and Jeffrey, 2019). This notion assumes that managers pay attention to stakeholders when and because it is in the firm's interest to do so, i.e., improved financial performance and returns. The instrumental ST is applicable to a firm's financial performance and supports RO4 (the relationship between disclosure and financial outcomes). On the other hand, the normative ST relates to the identification of ethical, moral, or philosophical guidelines for how companies should take their stakeholders' interests into account. Most of the normative arguments in favor of stakeholder theory are based on fundamental notions of fairness and 'a basic equality among stakeholders in terms of their moral rights as these are realized in the firm (Baumfield, 2016).

It is worth mentioning that the stakeholder theory can be applied to both WD and WO. From a social *(workforce) disclosure perspective*, the stakeholder theory assumes that the long-run survival and success of the firm requires the support of stakeholders, and social disclosure is often used as a tool of communication between the management and its stakeholders to win the necessary support. If a firm considers the welfare of its stakeholders, acts morally, and attends to social purposes then it will improve its performance (Letza et al., 2004). As stakeholder theory is

applicable to both WD and WO, it fits with RO1 (extent of WD), RO2 (i.e., the determinants of WD) and RO3 (i.e., the relationship between WD and WO). Therefore, the stakeholder theory is the overarching theory guiding this study.

However, not all stakeholder groups are equally important to firms, whereby they possess different levels of power, and depending on the urgency and the legitimacy of their claims (Mitchell et al. 1997). Within the limited resources and time on their hands, managers can only respond to the most critical demands of one or two powerful stakeholder groups, overlooking requests from other groups. This is in line with the instrumental perspective of the stakeholder theory rather than the normative basis for acting. Similarly, Deegan and Blomquist (2006) believe that disclosure on specific types of information can be used to attract or maintain certain groups of stakeholders. This implies that disclosing information about workforce is essential in the current environment to placate regulators, investors as well as employees, thus impacting the social (e.g., employee welfare) and financial (firm value and profitability) performance of firms. Several previous studies have used the stakeholder theory in their workforce disclosure studies (Lin et l., 2012; Absar, 2016; Petera and Wagner, 2017; Bowrin, 2018; Alawi and Belfaqih, 2019; Cahaya and Hervina, 2019). Given the objectives of this study, the stakeholder theory is the main driving theory supporting and guiding the current research.

2.5.2. Resource-based View (RBV) Theory

The resource-based view (RBV) theory supports the notion that internal competencies and capabilities of a firm are linked to its corporate performance. A firm's internal capabilities and competencies, including its employees, can be nurtured for the competitive advantage of the firm (Grant, 1991). Besides tangibles and intangibles, resources include personnel-based resources such as employees, culture, training, commitment, engagement, and loyalty. Moreover, Makadok (2001) classifies resources into resources and capabilities:(1) financial resources, (2) physical resources, (3) business-specific assets such as skilled employees and managers and superior internal processes, and (4) competences including the ability to complete specific value-added tasks together with expansion of supporting resources. A firm is said to have a competitive advantage when its resources and capabilities are not easily copied or duplicated or imitated by competitors (Barney and Arikan, 2005). The RBV theory can be used to explain workforce-related

corporate performance. For instance, McWilliams and Siegel (2001) have used RBV to explain profit maximizing corporate social responsibility. This means that firms with unique and capable employees are able to achieve superior corporate performance and a sustainable competitive advantage. However, it is worth noting that the RBV assumes that firms achieve this advantage through discretionary rational managerial choices, and selective resource accumulation and deployment (Oliver, 1997).

From a *workforce disclosure perspective*, there are two schools of thought regarding the level of reporting of employee-related information. On the one hand, the RBV theory could explain the reasons for non-disclosure of employee-related information (Samudhram et al., 2010). An important implication of RBV is that competitors should not be able to imitate a firm’s rare resource, at least in the short term. One approach that can be used by a firm to prevent imitation or at least delay imitation is by disclosing less information through corporate reports to competitors about the firm’s employees. For example, with regards workforce diversity and its positive impact on employee productivity, as indicated by Richard et al. (2007). On the other hand, Delery and Roumpi (2017) argue that based on the RBV view, investors consider the importance of employees as organizational resources capable of guaranteeing a competitive advantage to companies. A study conducted by Salvi et al. (2021) supports this view by finding a negative relationship between HC disclosure (as part of IC) and a firm's cost of capital and a positive association between HC and firm value, thus showing the economic relevance of workforce information.

2.6. Chapter Summary

Chapter two provides an introduction and background knowledge about workforce responsibility and disclosures. It presents the theoretical underpinnings of both social disclosure studies and social performance studies. While stakeholder theory is the overarching theory, different ROs are supported by additional theories. RO2 (determinants of WD) is supported by the legitimacy theory). In terms of the RO3 which investigates the relationship between workforce disclosures and the workforce-related outcomes, the theory which underpins this relationship is the stakeholder theory. On the other hand, the theories which best fit with RO4 (which investigates the relationship between workforce disclosures and financial outcomes) are the agency theory and the instrumental stakeholder theory.

Chapter 3

Conceptual Development of Workforce Disclosure Index

3.1. Regulatory Frameworks and Policy Guidelines for Workforce Disclosure

In this chapter I discuss the relevant regulatory frameworks, and policy guidelines regarding social responsibility reporting, mainly workforce disclosure. Many FTSE listed firms already and voluntarily provide social information. For instance, they promote and publicize their social responsibility related activities and achievements either in their integrated reports, annual reports, sustainability reports, strategic reports, or in separate stand-alone reports. There are several regulatory frameworks and policy guidelines directing the social responsibility disclosures of these listed firms. These are the UK's Corporate Governance Code and its supplementary Guidance on Board Effectiveness, UK's Companies Act 2006, and other international guidelines and standards such as the Global Reporting Initiative (GRI), and the Sustainability Accounting Standards Board (SASB). These are discussed below.

3.1.1. UK's Regulatory Frameworks

3.1.1.1. UK's Corporate Governance Code 2018

The Cadbury Report (1992) defines corporate governance (CG) as the system by which companies are directed and controlled. Effective Corporate Governance (CG) and its regulations contribute to the attractiveness of a country in terms of inward investment, business development, and the efficiency of capital markets and their effectiveness in the service of the real economy. As such, the United Kingdom (UK) is regarded as an attractive place for businesses and investors due to its well-structured Corporate Governance Code which combines high standards and flexibility.

However, no system is perfect. For decades, corporate governance had been reigned by a financialized agency model. Shareholder voice had been reinforced through financialization, and political and economic powers of many firms and organizations. As a result, there had been a remarkable increase in income inequality and wealth, with firm managers and shareholders taking a large profit. This had been detrimental to the interests of employees and other stakeholders, as well as the long-term performance and sustainability of the firms themselves given that innovation

and investment in research and development had been hindered as a result (Adams et al, 2015). In fact, as stated in the UK's Green Paper (2016), a discussion forum soliciting corporate governance reform, there is evidence that a number of UK companies had been falling short of the high standards expected by the Government, whereby some directors had lost sight of their broader legal and ethical responsibilities. More specifically, UK's labour market had become characterised by risky employment opportunities such as fake self-employment, agency work, short-term contracts, and zero-hours contracts (Hyman, 2018; Villiers, 2021) which some argue (Dorling, 2016) led to a protest in the Brexit referendum in 2016, which shook UK's economy and political environment. In contrast, as cited by McCracken et al., (2018) and Vithana et al., (2021), there had been a surge in human capital reporting in Australia, some Pacific Rim countries, and Scandinavia, while the UK had been lagging behind other countries in disclosing about human capital practices and working conditions.

The discussions presented by scholars as well as the Green Paper (2016) produced a shift in how to define the purpose of corporations in society, i.e., companies should not only advance the interests of the shareholders, but they should consider a broader stakeholder model that includes the voice and interests of employees and other stakeholders. Therefore, by giving a stronger voice to those outside the boardroom, the Government aims to incentivize businesses to take the right long-term decisions, more sustainable business performance and build wider confidence in the way businesses are run and help restore the public's trust. This reflects the stakeholder model as opposed to the former shareholder primacy and agency models as explained in the previous chapter of this research.

In short, the central tenet of scholars and governments' call for corporate governance reform was that companies should be managed with a dedicated focus on creating long term-value for shareholders as well as other stakeholders, such as customers, workers and the wider public, to gain their confidence and respect. In 2016, the United Kingdom's Green Paper urged UK corporations to strengthen transparency and disclosure practices related to stakeholder engagement. The Green Paper specifically called for governance and reporting requirements in relation to workers. Although, the Stakeholder theory of corporate governance has been developed extensively in the UK and has even been ingrained into law in the form of the Companies Act 2006, it has now been markedly embedded in the latest version of the Corporate Governance Code

which was published by the Financial Reporting Council (FRC) in July 2018 in response to the Green Paper.

Consequently, the development of this study's research instrument, *the Workforce Disclosure Index (WDI) (see table 3.4),* was motivated by emphasis of workforce governance and engagement by the UK Corporate Governance Code. However, it should be noted that this emphasis on strengthening stakeholders' engagement during corporate decision-making processes through its improved reporting remains firmly in the spotlight not only in the United Kingdom (UK), but also in other territories such as the USA. Following UK's reforms, and in acknowledgement of the value of employee information to investors, the Securities and Exchange Commission (SEC) in the USA, updated workforce disclosure requirements in November 2020 as part of a broad overhaul of Form 10-K business disclosure. Furthermore, in a recent study on Directors' Duties and Sustainable Corporate Governance, the European Commission (2020) identified stakeholder involvement as one of the factors contributing to company sustainability and helping to tackle short-termism. Historically, firms had only been required to disclose their total number of employees. A few disclosed geography or division, full-time versus part-time employees, or the number represented by labour unions, hence any disclosure beyond this was unusual (Batish et al., 2021).

As alluded to above, the UK's reputation as a leader in both corporate and sustainability reporting (KPMG, 2017) corresponds with the emphasis placed on disclosure by successive Governments. The view being that increasing transparency and accountability of companies in turn improves corporate standards. The 2018 CG Code revised disclosure rules in response to market demand for increased transparency into human capital and social practices so that investors and other stakeholders would gain greater insight into how companies prioritize, manage, and measure the performance of their employee base. However, unlike other international regulatory frameworks, the 2018 Code goes beyond non-financial disclosure, promotes a more inclusive approach to stakeholder engagement and introduces, for the first time, stakeholder participation mechanisms, with a particular focus on workforce communication and engagement tools. According to the FRC's 'Guidance on Board Effectiveness' and the Code's Provision No. 5, one or a combination of the following mechanisms should exist in a company to ensure workforce engagement: (1) a director appointed from the workforce; (2) a formal workforce advisory panel; and (3) a designated

Non-Executive Director (NED). If the board has not chosen one or more of these methods, it should explain what alternative arrangements are in place and why it considers that they are effective.

The FRC's 'Guidance on Board Effectiveness' reinforces the board's main responsibility for ensuring that workforce policies and practices are in line with the company's purpose and values and support the desired culture. Communication between the workforce and the company, referred to as the 'workforce voice', should be as broad as possible and involve those with formal contracts of employment and other members of the workforce who are affected by the decisions of the board regardless of their geographic location. The Code (2018) suggests engagement through a range of formal and informal channels, underlining that the three methods specified in the Code are not the only ways of engaging with the workforce and that they are not intended to displace existing channels of communication. The Guidance also provides useful examples and suggestions of good practice of communication methods and workforce engagement activities. Examples of communication methods include surveys (pulse surveys), speak-up hotlines, and workforce representation. Examples of engagement activities include hosting talent breakfasts/ lunches, town halls, open-door days, consultative groups, listening groups, meeting groups of workforce representatives, involvement in training, mentoring, site-visits, employee AGMs, digital sharing platforms. The UK Corporate Governance Code indicates that firms should follow a 'comply or explain' principle to disclosing of non-financial indicators. The 2018 Code applies to all companies with a premium listing of equity shares and had taken effect from 1 January 2019. It is important to note that all of this was considered by the researcher in the development of the research design and index, and in data collection.

3.1.1.2.Companies Act 2006 and Other UK Regulations

UK Companies Act 2006 section 172 explicitly discusses issues related to corporate governance. It clearly defines company success as promoting the interests of shareholders while also taking account of other stakeholders. It states that in their duty to promote the success of the company for the benefit of its members, directors must regard the interest of their employees and other stakeholder considerations. Moreover, UK Companies Act 2006 section 417 (5) and (6) state that there are several significant key performance indicators (KPIs) a listed firm is required to disclose information about, through either financial and/or non-financial key data. These include employee,

community, social and environmental issues. Sec. 417 sets the requirement for one of the main components of the directors' report, the business review. It is a narrative report of the company's business used to supplement the figures as presented in the annual accounts. According to sec. 417(2) the purpose of the business review is to inform members of the company and help them assess how the directors have performed their duty under sec. 172. The main difference between the two sections is whereas sec. 172 refers to the impact of the company's operations on the community and stakeholders, sec. 417(5) and (6) deal with the disclosure of information about these operations. The Companies Act states that companies should act in accordance with the 'comply or explain' approach of disclosing of non-financial key performance indicators in their Business Review report.

In addition, Part 4 of UK's Companies (miscellaneous reporting) Regulations 2018 states that as part of the director's report requirements, the report must include a statement on workforce engagement describing the arrangements made by directors during the year to provide workers with information on matters of concern to them as workers. Moreover, the report must include the approaches taken during the year to consult with workers or their representatives so that the views of workers can be considered in taking decisions which might affect their interest.

Other relevant regulations include gender pay gap and Chief Executive Officer (CEO) pay ratio reporting requirements. Ending the gender pay gap has been a policy aim of the UK government for a number of years, with then Prime Minister David Cameron announced his aim to "end the gender pay gap in a generation" in 2015 (UK Government Press Release, 2015). According to GOV.UK (UK's official website), under the Government Equalities Office (2020), all UK registered companies with more than 250 employees are mandated under law to report their gender pay gap starting 2017 to the Office. Gender pay gap calculations are based on employer payroll data drawn from a specific date each year. Nonetheless, the Government Equalities Office encourages firms with less than 250 employees to report their gender pay gap information to reap the benefits of disclosure. In addition to gender pay gap, new regulations which came to force on 1 January 2019, stated that UK's biggest companies with more than 250 employees, are mandated to disclose annually the ratio of their CEO's pay to the pay of their UK employees (GOV.UK, under Department for Business, Energy & Industrial Strategy, 2019).

3.1.2. International Policy Standards and Guidelines

3.1.2.1.Global Reporting Initiative Standards

The Global Reporting Initiative (GRI) was introduced in 1997 to create a globally accepted reporting framework and to improve the quality of sustainability reporting. The main purpose of GRI Standards is provide an international, standardised language that firms could use to improve transparency, credibility, comparability, and clarity of their disclosures. It epitomizes the global best practice of economic, environmental, and social impacts. Although, GRI is an independent body, collaboration with the United Nations Global Compact aids the production and continual review and assessment of the Standards. The GRI guidelines have been revised several times over the years and have fully transitioned to modular standards in 2018. The most recent one (as of the time this study was conducted) is the Sustainability Reporting Standards (2018). It includes different sets of standards as per the figure below:

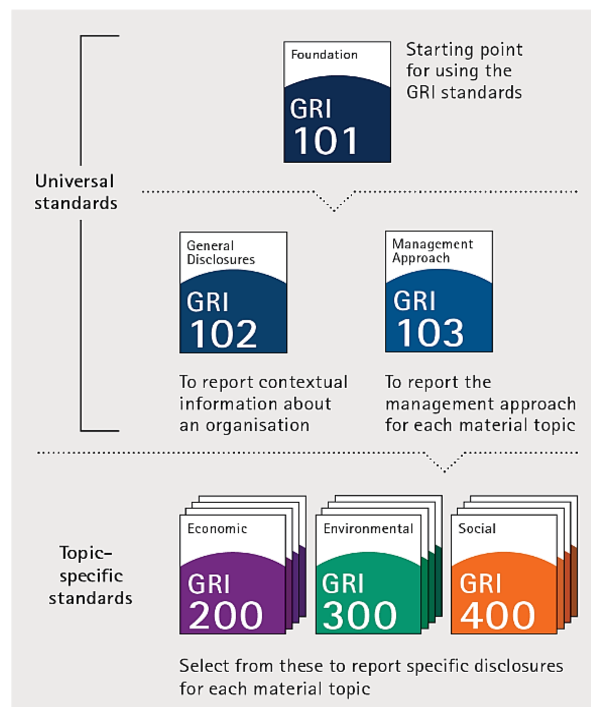


Figure 3.1: Overview of the types of GRI Standards/ *Source: Global Reporting Initiative website*

The GRI 400 series which deals with social indicators, mainly labour practices, is relevant to this study. The social category is divided into four sub-categories. These are (1) labour practices and decent work, (2) human rights, (4) society, and lastly (4) product responsibility. The labour

practices and decent work sub-category is further divided into standards and performance indicators (see Table 3.1). The GRI Standards are created in accordance with international labour practices by conducting independent audits. Each GRI standards report, states the instruments and international standards that were used in developing the standards. These include the International Labour Organization, the Organisation for Economic Co-operation and Development, the World Health Organization (WHO), and the United Nations. These were helpful in understanding the regulatory background of this study, against which the variables of the study were identified and used in the development of the index.

Table 3.1: Overview of relevant GRI Standards related to labour practices

GRI Standard	Latest Update	Definition	Examples of Instruments used in developing the Standard
GR1 401: Employment	2016	The Standard states disclosure requirements on the topic of employment, and requires information on employee hires, turnover, employee benefits, and parental leave.	- International Labour Organization (ILO), 'Declaration of Social Justice for a Fair Globalization', 2008. - International Labour Organization (ILO), 'Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy', 2006.
GRI 402: Labour/Management Relations	2016	The Standard states disclosure on the topic of labour/management relations and requires information on collective bargaining agreements.	- Organisation for Economic Co-operation and Development, OECD Guidelines for Multinational Enterprises, 2011. - International Labour Organization (ILO), Key Indicators of the Labour Market (KILM), 2015.
GRI 403: Occupational Health and Safety	2018	The Standard states disclosure on the topic of occupational health and safety, and requires information on promotion of worker health, worker training,	- International Labour Organization (ILO), Guidelines on Occupational Safety and

		participation, consultation and communication on occupational health and safety.	Health Management Systems, 2001. - United Nations (UN) Resolution, 'Transforming our world: the 2030 Agenda for Sustainable Development', 2015.
GRI 404: Training and Education	2016	The Standard states disclosure on the topic of training and education, and requires information on average hours of training, training programs, mentoring, etc.	- International Labour Organization (ILO) Convention 142, 'Human Resources Development Convention', 1975. - International Labour Organization (ILO) Convention 168, 'Employment Promotion and Protection against Unemployment Convention', 1988.
GRI 405: Diversity and Equal Opportunity	2016	The Standard states disclosure on the topic of diversity and equal opportunity, and requires information on diversity of governance bodies, employees, and pay gaps.	- United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) and United Nations Global Compact, 'Women's Empowerment Principles', 2011.
GRI 406: Non-discrimination 2016	2016	The Standard states disclosure on the topic of non-discrimination, and information on incidents of discrimination.	- A number of international conventions and declarations such as the UN Convention on the Elimination of all Forms of Discrimination against Women (CEDAW), 1979; and the UN International Convention on the Elimination of All Forms of Racial Discrimination, 1963.
GRI 102: General Disclosures	2016	The Standard requires general information on, such as the total number of employees	- International Labour Organization (ILO) Convention

		by gender, and collective bargaining agreements.	135, 'Workers' Representatives Convention', 1971. - United Nations (UN), Report on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, 2011.

Source: Global Reporting Initiative website and topic-specific reports

The Standards GRI (401-406) and GRI 102 can be used by an organization of any type, size, sector, or geographic location that wants to report on its impacts and activities related to the topic. Firms can show that they take their stakeholder responsibility seriously by complying with the GRI standards. The GRI standards are the most widely adopted global standards for ESG disclosure, especially in critical sustainability issues (KPMG, 2017; Sannino et al., 2020; Halkos and Nomikos, 2021). Therefore, a large number of firms consider the GRI standards in developing and disclosing their sustainability reports. The GRI framework can be used to objectively identify the GRI disclosure levels of a firm's social performance, whereby higher levels of disclosure tend to imply a positive response to social pressure exerted by investors, regulators, and other stakeholders (Sannino et al., 2020; Halkos & Nomikos, 2021). Additionally, GRI has been growing in popularity among investors and shareholders, whereby they are increasingly demanding that their firms to use GRI as a reporting framework (Halkos & Nomikos, 2021).

The list of disclosure requirements and variables selected for this study from each of the GRI standards are detailed in section of this chapter.

3.1.2.2.Sustainability Accounting Standards Board

The Sustainability Accounting Standards Board (SASB) is an ESG guidance framework that sets standards for the disclosure of sustainability issues which are the most business critical. It aims facilitating effective and standardized communication between companies and their investors. According to their website, standards are developed and upheld using a transparent due process that is both informed by the market and evidence based. Busco (2020) cites that the SASB standards reinforce the measurement, management, and reporting of ESG activities.

The SASB's Conceptual Framework constitutes five sustainability dimensions: environment, social, human, business model and innovation, and leadership and governance. Under each dimension there are general issue categories, disclosure topics, and accounting metrics. Disclosure topics are included as part of the standards when the due process shows that there is investor interest and financial impact through research as well as consultation with companies and stakeholders. As per SASB's Human Capital Bulletin (2020), SASB Standards provide a useful starting point for assessing which issues and metrics to disclose under various reporting regulations globally. It can be used as a complementary guide for companies reporting their ESG disclosures.

In terms of workforce disclosure, 'Human capital' is one of the most dominant areas of disclosure across SASB's 77 Standards, available in all 11 sectors and the majority of individual industry Standards. Similar to the GRI framework, the SASB's Human Capital dimension includes disclosure requirements related to (1) employee health and safety, (2) employee engagement, diversity, and inclusion, and (3) labour practices. Each of these areas, based on the Bulletin (2020), are likely to affect productivity and the ability to retain and attract talent. This is line with the extant literature by Sharma et al. (2018), Fahim (2018) and Singh (2019) as discussed in 3.5.1. The list of disclosure requirements and metrices selected for this study from each of the SASB Standards are illustrated in Appendix I.

In October 2018, the London Stock Exchange (LSE) approved SASB's Standard to be used by the listed companies (Busco, 2020). UK's Financial Reporting Council (2021's snapshot) declared that in 2020 the UK ranked third in the top three countries adopting the Sustainability Accounting Standards Board (SASB for short) standards. Of the UK companies using SASB Standards, 12% locate their disclosures in their annual report, 59% use a separate sustainability report, and 28% disclose them elsewhere (FRC, 2021). In addition to SASB, FRC's snapshot demonstrated that these companies also use the GRI framework for reporting. According to Busco (2020), the GRI framework is complemented by the SASB which focuses on providing disclosure guidelines that are material to all stakeholders. However, a difference between the two is audience. While GRI provides information to multiple stakeholders (regards social impact), the SASB targets investors (regards financial impact). Further as reported by the CEOs of GRI and SASB (2017), the two frameworks support each other rather than competing.

3.1.3. Summary of Relevant Frameworks and Guidelines

To summarize, the development of this study's index is justified and motivated by the current regulatory environment which advocates voluntary and mandatory reporting of social responsibility activities of firms. Disclosing workforce information is a means by which firms can gather and analyse information to create long-term value, be resilient in the constantly changing environment, and an essential way to convince stakeholders that the business has a truly sustainable future. As such, several regulatory standards and frameworks have been established to guide firms in developing their annual and sustainability reports. Therefore, it is now relevant and timely to examine corporate social responsibility, particularly a firm's responsibility to its employees, in the current environment of rising awareness of stakeholder responsibility. Although there is an overlap among the regulations and standards, each is designed to meet explicit requirements of stakeholders, in this case information about workforce and employees. The following section provides a summary of the relevant regulatory framework, standards, and guidelines both in the UK and internationally.

Table 3.2: Summary of relevant frameworks and guidelines

Framework/Guideline	**Territory**	**Requirement/ Guidelines**	**Type of Disclosure***
Corporate Governance Code 2018 (including Guidance on Board Effectiveness 2018)	UK	Requires a company to report on workforce communication (voice) and engagement arrangements. Companies can use one or a combination of the following: (1) a director appointed from the workforce; (2) a formal workforce advisory panel; and (3) a designated NED. Other communication activities to be employed and reported on include surveys, and whistleblowing policy and hotline.	"Comply or Explain"
Companies Act 2006 Sec. 172, Sec. 417 (5) and (6)	UK	Require a UK listed company to present financial and/or non-financial key performance indicators related to the workforce and other social issues. Firms are also required to follow the "comply	"Comply or Explain"

		or explain" principle to non-financial indicators in its Business Review section.	
Companies (miscellaneous reporting) Regulations 2018 Part 4	UK	The director's report, as part of the annual report, must include workforce engagement arrangements made by directors and the approaches taken during the year to consult with workers or their representatives so that the views of workers can be considered in taking decisions which might affect their interest.	"Comply or Explain"
Gender Pay Gap Reporting requirements	UK	Mandatory reporting of gender pay gap for firms with more than 250 employee headcounts.	Mandatory
CEO Pay Ratio Reporting requirements	UK	Mandatory reporting of CEO to employee pay ratio for firms with more than 250 employee headcounts.	Mandatory
London Stock Exchange requirements	UK	Require listed firms to report relevant environmental, social, and workforce, information as well as to integrate ESG disclosure requirements into listing rules and CG standards.	Voluntary
United National Global Compact Initiative	International	Follows 10 universally accepted principles in areas related to ESG. 6 out of the 10 principles are tied to labour rights, decent work, and human rights.	Voluntary

Global Reporting Initiative Standards	International	Report on social responsibility information and performance indicators. Information required on labour practices and decent work include employee hires, turnover, employee benefits, parental leave, collective bargaining, on promotion of worker health, occupational health & safety training, average number of training hours per employee, board diversity, pay gaps, and discrimination incidents (GRI standard reports are used in parallel with management approach requirements).	Voluntary
SASB Guideline	International	Report on sustainability themes including the human capital dimension, both on general issue categories and industry-specific disclosure requirements. Disclosure metrics include employee turnover rate, percentage of gender and ethnic group representation of employees, confidentiality of speak up hotline, employee engagement score, and recruitment efforts.	Voluntary

*Note: Mandatory: Firms are legally required to report the information by regulators with no 'Comply or Explain' clause or caveat. Based on UK's Gender Equality Office's gender pay gap reporting is mandatory for UK firms with more than 250 employees.
Comply or Explain: Firms have a flexible clause that makes it possible for them not to make disclosures granted that they justify their position.
Voluntary: Firms are neither legally required nor is there a 'comply or explain' clause to report the information. It is entirely up to the firm to choose to report it.

3.2. Review of Literature on Workforce Disclosure Indices

This section reviews available workforce assessment tools, also known as indices, their pros and cons and emphasizes its contribution to the literature. Table 3.3 demonstrates the recent and relevant indices identified from the extant literature. It draws comparisons between the indices and explains the pros and cons of each index. The researcher regarded the advantages as well as the

flaws of the workforce disclosure instruments and developed a comprehensive and rigorous WDI. As can be seen from table 3.3, none of the assessment tools included specific measures of employee engagement items or key performance indicators. The indices reviewed included a general and single employee engagement item which either measured frequency (McCracken et al., 2018; Hassan and Mustafa, 2019) or the presence or absence of a single item (example Chen et al, 2021; Vithana et al., 2021). Therefore, allowing a degree of subjectivity for the researcher to determine what employee engagement entails.

Although content analysis enables the range of disclosure to be compared across firms, it does not allow measurement of the extent of information as it does not show the emphasis that firms attach to each item. According to Unerman (2000), frequency of words, sentences or proportion of pages capture the extent of disclosure. On the other hand, Bewley & Li (2000) argue that the number of different topics discussed is considered as a reasonable measure of management's commitment to disclose information. Hence, the researcher considered the detection of the presence/absence of a particular item against a structured index (index approach) a more appropriate method than counting of sentences, words, or proportion of pages when one is analyzing a range of disclosure media such as annual reports, integrated reports, sustainability reports and web pages.

Consequently, to avoid any shortcomings of the content analysis method discussed above, first, each category of information in this study's index includes multiple measures covering a variety of disclosure items. For example, under the workforce engagement category, unlike the indices reviewed in table 3.3 which include a single item for engagement, this study's index includes up to 8 items related to employee engagement gauged from the FRC's Guidance (2018). Thus, giving a more comprehensive approach to the content analysis method. Second, although there are two approaches for the calculation of the disclosure index (Raimo et al.,2020), this study adopted the equal weighted approach as opposed to the subjectivity of weighted approaches that allocate varying weights and judgements to different items (Branco & Rodrigues, 2009; Bisogno et al., 2014; Raimo et al., 2020).

Moreover, in the light of the relevant regulatory frameworks, the index includes the requirements of UK's Corporate Governance Code, Companies Act 2006, the GRI framework, and the SASB

standards. In addition, data on some measures included in this study 's index was identified and collected from Refinitiv database.

Table 3.3: A Review of Recent and Relevant Workforce Disclosure Indices from the literature

Assessment Tool	What the tool reports	Variables	Data Source / Methodology used	Pros and Cons
Human resource accounting disclosure checklist (Pham et al, 2022)	Disclosure scores and extent of human resources accounting information.	Training, employee, health and safety, work, and board of directors related items.	Content analysis was applied to analyze the extent of human resource disclosures.	Pros: One of the only checklists which provides a breakdown of the items such as training (hours, cost, number of courses) Cons: Does not separate policies, disclosures or performance indicators. Does not include any items related to employee engagement except for a survey.
Human Capital Disclosure Index (Absar et al., 2021)	Disclosure level of employee-related information	Financial value of human capital, employee profile, whistleblowing policy, employee benefits, equal opportunity, employee health & safety and wee-being, employee engagement.	Data collected from sample companies' websites. The researchers developed their index from previous studies and added new items related to employee engagement & training.	Cons: Uses only company websites as a source for data collection. Disclosure level calculated as percentage of firms reporting a particular item. Moreover, disclosure items such as employee engagement or training are reported as single items, which do not give specific examples of what each item entails. This implies a degree of subjectivity in deciding whether an information is relevant or not.
Human Capital Index (Raimo et al., 2020)	Level of employee-related disclosure	Items included employee profile by gender, age, region. Other employee related information such as recruitment policies, health and	Data collected using Bloomberg for companies which only reported through integrated reports. Companies which did not report using	Pros: Employee information was integrated with governance and board level analysis to enhance analysis. Cons: Does not differentiate between employee disclosure

		safety policies, career development, employee productivity, employee profitability.	integrated reporting, or with no data on Bloomberg were eliminated.	items and performance indicators. The study is based on cross-sectional analysis instead of panel analysis. Board diversity only looked into gender diversity and did not include ethnicity diversity.
Non-Financial Human Capital Disclosure Index (Hassan & Mustafa, 2019)	Frequency (word count) and disclosure levels of director and workforce information.	Directors' competence, Employee thanked, Leadership qualities of directors.	Content analysis of annual reports and website information.	Pros: Examines non-financial information. Cons: Focuses on frequency of disclosure items (no. of words) appearing in the annual reports. It does not differentiate between disclosure and performance items. It considers financial impact rather than social impact. Moreover, it reports on general board of directors' information as it does not include racial, ethnic board measures.
Human Resource Disclosure Index (Vithana et al., 2021)	Level of employee information disclosure.	Procedural related disclosure such as employee health and safety, employee diversity, employee numbers. Sustainable related disclosure such as employee engagement, employee training, career development.	Data collected from the FTSE 100 annual reports using a disclosure scale.	Pros: Considers the depth of reporting by using a disclosure scale of 0 to 5. Categorizes disclosure into procedural and sustainable disclosure. Cons: The study does not consider the revised Corporate Governance Code 2018 and its implications. It rather focuses on previous codes. Therefore, does not include good practice and detailed examples of workforce engagement and communication activities.
Diversity Reporting Survey	Level of diversity reporting and its determinants.	Employee diversity information.	Survey questionnaire distributed among the sample firms. The	Cons: Limitation includes companies declining to participate in the survey, and the biased views

(Maj, 2018)			variables were identified from the literature and questionnaire was developed based on the author's own elaboration.	of participants when filling the surveys.
Human Capital Disclosure Index (McCracken et al., 2018)	Frequency of human capital disclosure level, employee welfare, and organizational justice and equity.	Items included commitment, leadership, apprenticeships, training, employee turnover, wellbeing, and diversity.	Content analysis of FTSE 100 companies using frequency of line count.	Pros: Categorizes the disclosure items, recognizes employee welfare and engagement as a separate category. Identifies examples of good practice with regard to reporting across items in the analytical framework. Cons: The study does not consider the revised Corporate Governance Code 2018 and its implications. It considers Companies Act 2006 after the 2013 amendment.
Employee-related information disclosure index (Kent and Zunker, 2013)	Frequency (word count) of employee-related information disclosure.	Presence of employee related disclosure, and governance related information such as size of board, CEO duality, number of board meetings, identity of external auditor.	Content analysis of annual reports. Employee-related information is categorized and identified as positive, negative or a mixture of positive and negative information by three independent coders.	Cons: Examines general employee related disclosure. It does not provide a comprehensive list of measures or items. Moreover, the index does not measure the diversity of the board of directors in terms of nationality, ethnicity, experience.
Human Capital Reporting Index (Moller et al., 2011)	Frequency (word count) of human capital information.	Items included competence, brain power, training, education, know-how, commitment, absence, turnover,	Content analysis of annual reports.	Pros: Designed an instrument for HC controlling and introduced a cause-and-effect model of human capital including company internal and external factors.

		satisfaction, diversity, and empowerment.		Cons: Similar to the other studies which use frequency analysis, this provides a less than comprehensive view of disclosure.
Human resources disclosure as part of an overall corporate social responsibility disclosure index (Branco & Rodrigues, 2009)	Level of corporate social responsibility disclosure	Human resources disclosure included items related to employee health & safety, employee training, employee profiles.	Content analysis of annual reports	Pros: Uses an unweighted index to be an appropriate method as it enables the proper detection of variation between the disclosures of the companies analyzed.
Human Capital Reporting as part of Intellectual Capital Disclosure Index (Abeysekera and Guthrie, 2004)	To report on degree of emphasis placed by firms on human capital disclosure. Measures frequency (word and line count) of human capital attributes	Attributes included know-how, education, vocational qualifications, diversity. Performance indicators included growth ratios, efficiency ratios, stability ratios.	Content analysis of annual reports	Pros: Categorizes disclosure items into internal, external, and human capital. Cons: Although collects information regarding performance indicators, the study does not differentiate between the disclosure and performance items.

3.3. Development of the Workforce Disclosure Index

3.3.1. *Workforce Disclosure Components and Measures*

This section describes the various relevant disclosure measures used in this study. These include the index developed for the study and Thomson Reuter’s Refinitiv database measures related to the workforce.

From the previous discussion, it can be established that some consistent criteria are required for developing a rigorous and comprehensive workforce disclosure index. Firstly, it should reflect some important aspects of social responsibility towards employees, both in terms of disclosure and performance. Second, it should enable the researcher to convert narratives into quantifiable

indicators. Third, it should employ comparable, credible, and verifiable data available from the corporate narratives, companies' websites, and reports. Although the index was developed by adapting items from already available instruments, published by other researchers, the internal consistency of the developed index is further explained in chapter four. This research develops a unique index that meets the above criteria and uses various methods to avoid the shortcomings of previous studies. Moreover, to augment the items in the Index, some workforce-related measures included in the Index were also identified from the social (workforce) category from the widely used the Refinitiv database. It is important to note that the disclosure items are equally weighted within each sub-index. However, the overall index is not equally weighted, i.e., the number of items vary within the sub-indices (the workforce diversity disclosure sub-index, the workforce welfare disclosure sub-index and the workforce engagement disclosure sub-index) depending on the extent of regulatory guidance available on that particular sub-index. For example, the current researcher has included all the relevant workforce engagement disclosure items in the index based on the 2018 Code and the Guidance on Board Effectiveness (2018).

Over the past several decades, following the stakeholder theory that aims to enhance corporate sustainability, a growing number of firms have started to incorporate social activities as part of their environmental, social, and governance (ESG) activities into management practices. Social disclosures are a way or a tool through which a firm communicates with its stakeholders, particularly its investors, and informs them as to how it deals with its social responsibilities. Considering the importance of a company's employee base (as discussed in chapter two), the primary challenge is how to measure the contribution of human capital to corporate strategy and performance (McCracken et al., 2018). As human capital is an intangible asset (i.e., employees are not capitalized on the balance sheet), its value is revealed indirectly in future corporate results. According to Batish (2021), while some studies link workforce management to future performance, the methods for measuring it are indirect. For example, Edmans (2011) uses the best 100 companies to work for in America as a proxy for employee satisfaction scores (hence a proxy for quality of human capital management). Edmans (2011) finds these to be correlated positively with long-term stock performance. However, employee satisfaction is not a comprehensive measure of effective workforce management. Bearing this in mind, this study aimed to develop a comprehensive index to measure a firm's disclosure on its workforce management. The measures

were identified based on regulatory standards and guidelines as well as previous literature and consist of workforce governance (voice and empowerment), workforce diversity, workforce welfare, and workforce engagement.

In order to measure the extent and content of workforce information disclosed, a commonly used approach known as indexing has been adopted. This approach had been proposed by Wallace and Naser, (1995). This means that an index instrument has been developed to measure and quantify data collected. As mentioned, the index developed for this study is based on a variety of disclosure frameworks (such as the GRI standards and the SASB standards) and prior literature. Disclosure on items included in the Index are collected from publicly available sources such as annual reports and/or sustainability reports. Indexing involves scrutinizing the information disclosed against a list of items. A score is then given depending on whether an item is disclosed or not; then a total score is calculated for each firm. Thus, the index method is a model that includes a number of disclosure items into a single measure (Marston & Shrives, 1991). The advantage of using an index is that it enables to rank order the firms in respect of their disclosure scores (Owusu-Ansah, 1998). Another advantage is that an index score can be considered as a variable to which a researcher can apply both non-parametric and parametric approaches. This therefore allows suitable statistical analysis to be carried out (Cooke and Wallace, 1990). This further enables benchmarking to rank/compare workforce disclosure among the firms.

The following paragraphs review the components of the workforce disclosure index including the justification for including them in this study.

3.3.1.1. Workforce Diversity

Diversity is a fundamental characteristic of modern vibrant cosmopolitan cities. Just as biodiversity is essential for a thriving natural environment, human diversity is important for a thriving business environment. Dobbs (1996) refers to diversity as any perceived difference among individuals such as age, sexual preference, geographic origin, lifestyle, profession, functional specialty, and position or tenure with an organization. In recent years, diversity of employees has become a major topic of both academic and of political discussions. Since societal and political discussion about these topics shape the business environment of companies, information about the

current workforce diversity of a company and its development is important, both for the company itself and for its perception by investors, employees, and other stakeholders (Werkmeister, 2016). Employees feel cared about and appreciated by the organization when it comes to diversity. Thus, as a key resource, diversity (be it gender, age, ethnic origin, geographic origin, experience, etc.) among employees if effectively addressed and valued, can be converted into the organizational capability for its sustainable success (Tuan, 2019).

The relevance of diversity has been recognized by academics, researchers, decision-makers and regulators (Maj, 2018). The 2018 UK CG Code recommends firms to value diversity and to set out clear policies and disclosures on diversity. Moreover, it requires boards to consider diversity in all its forms, including gender, social, ethnic, and educational backgrounds. Several initiatives, including GRI and the UN Global Compact, among others, include sections devoted to diversity. Jamali and Dirani (2014) argue that both diversity and CSR are linked in the sense that both strategies address employees as the target group, in addition to issues on human rights and inclusiveness. Firms have a responsibility towards their employees and must hence make sure that they are transparent in their ways of treating their workforce. In addition, the workforce composition and profile should be both well documented as well as reflect the community from which employees are drawn, including diversity, especially gender diversity (Sealy et al. 2016). Additionally, to increase awareness and alert them to their rights employees should be provided with information about what benefits and rewards (including non- monetary benefits) they will receive (Schlechter et al., 2015).

Stakeholders are increasingly demanding information about the employment of gender diverse groups or minorities, equal opportunities, and the incorporation of disadvantaged (disabled) groups, among others, which constitute diversity topic (Batish et al., 2021). Diversity reporting represents the factor for addressing inequalities in firms, and therefore can be perceived as potential aid in the CSR and diversity agendas, as it allows for measuring diversity and eventually managing it (Shimeld, 2017). In this sense, reports are not simply passive descriptions of reality, as they rather enable it. Reporting and disclosures are used by firms to back up their much-demanded diversity claims. By showing diversity and reporting any discrimination cases, firms are able to demonstrate accountability of a full range of stakeholders and not just shareholders (Maj, 2018).

3.3.1.2. **Workforce Welfare**

A firm's concern for the welfare of its workforce can be traced back to the philanthropists of the nineteenth century, when the impulse to improve employee welfare was believed to be mutually beneficial (Cannon, 1994). The welfare of employees is moreover closely linked to the notion of the firm acting as a good citizen (Carroll, 1991). It refers to how the firm acts within its environment, and hence includes issues such as employee wellbeing, health and safety, working conditions and ethics (McGuire et al., 1988). Additionally, Alvarez (2015) include training activities, career development, incentives, rewards and employee health and safety as part of employee welfare. Therefore, to improve and develop their workforce, firms need to ensure that employees are treated well, and employee welfare is enhanced (Gallie et al., 2012). Enhancing workforce welfare means extending practices that go above legal requirements. Firms need to regard various aspects of an employee's life and to fulfill an employee's social and personal expectations (Nie et al., 2018). These practices differ from worker-wellbeing to career development, continuous training and learning, fair compensation, and inclusive recruitment procedures (Nie et al., 2018).

Firms claiming to treat their workforce ethically would be expected to provide an account of their actions by reporting on workforce-related procedures and conduct (Parsa et al., 2018). Firms should thus understand the significance of taking care of their employees and be in a position to disclose the benefits resulting from the welfare practices, policies and procedures that are in place. For instance, a high turnover or employees leaving the firm can suggest poor working conditions and low employee satisfaction (McCracken et al., 2018).

3.3.1.3. **Workforce Voice and Engagement**

UK's 2018 CG Code emphasized the importance of workforce engagement through several workforce voice mechanisms. Boards of directors need to communicate with employees and conduct various engagement activities to increase their visibility with the workforce and ensure that a wide selection of views are gathered to gain insights into the culture and concerns at different levels of the business (FRC's Guidance on Board Effectiveness, 2018). This can encourage boards to consider long-term interests rather than short-term returns which supports corporate

sustainability. A review of the literature supports this intersection of CG with voice and engagement. Better communication from company executives helps better employee engagement (Attridge, 2009). Although both voice and engagement are separate constructs, they are greatly linked together. Employee satisfaction has been shown to be associated with both voice (Thomas et al., 2010) and engagement (Schaufeli et al., 2008; Kwon et al., 2016). Chillas et al. (2020) suggest that voice can be perceived as a mechanism for workforce engagement and empowerment. Thus, voice and engagement share similar and overlapping outcomes.

The literature on employee voice presents no agreement on the definition of the term. Voice can be presented at two levels of analysis. First, it can represent a structural phenomenon that includes arrangements such as trade unions, collective bargaining, and grievance systems. Second, it can represent an individual or group process that involves speaking up in organizations (Gruman and Saks, 2020). In this research, voice is concerned with the latter perspective as it reflects UK's 2018 Code. In this context, Spencer (1986, p. 491) defined employee voice as "Grievance procedures, suggestion systems, employee management meetings, counseling services, ombudsman services, nonmanagement task forces, question and answer programs, and survey feedback". This is in line with Chillas et al.'s (2020) argument that as a literal term, employee voice refers to channels of communication, and in metaphorical sense it covers control mechanisms representing enactments of power relations in firms. Furthermore, Detert and Burris (2007, p. 869) defined voice as "the discretionary provision of information intended to improve organizational functioning to someone inside an organization with the perceived authority to act, even though such information may upset the status quo of the organization and its power holders".

The recent past has witnessed a significant increase in research on employee engagement and its importance to firm performance (Gruman and Saks, 2020). Leiter and Maslach (1998) view engagement as the opposite of burnout. They define engagement as an active involvement with personally fulfilling activities that enhance an employee's sense of value. The FRC's Guidance (2018) provide examples of such activities including involvement of employees in training and development activities, employee meetings, attending events hosted by the firm, townhalls, and open days. Similarly, in their study, Robinson et al. (2004) showed that the key driver of employee engagement is an employee's "sense of feeling valued and involved".

When individuals are disengaged, they remove their personal selves during their work performance leading to lower productivity (Gruman and Saks, 2020). This is in line with CIPD survey of 2000 employees in Great Britain, which found that communication is the top priority for improving employee engagement. This includes being kept informed about what is going on in the organization and providing opportunities for employees to communicate their views and opinions upward (Markos and Sridevi, 2010). Moreover, in their annual report, Polymetal International (2020) stated that workforce disclosure is a form of employee engagement activity, aiming to communicate with employees. It is assumed that firms with higher levels of workforce disclosures will have increased levels of employee engagement and productivity because they feel valued.

3.3.2. Refinitiv Workforce Measures Used in Index Development

As mentioned earlier, a major challenge for researchers is the measurement of a firm's ESG quality. This means quantifying how well a firm performs with respect to various ESG criteria (for example diversity). To address this challenge, most empirical ESG analyses have turned to ESG scores/ratings constructed by professional data providers. One of the most used data providers is the Asset4, currently known as Refinitiv (Berg et al., 2020). Thomson Reuters Refinitiv ESG is a comprehensive database of the London Stock Exchange Group (LSEG). As of 2020, the database includes over 9000 publicly listed companies (Gianfrate et al.,2021). It provides environmental, social and governance measures used mainly by corporate executives, managers, and investors. It provides comparable, verifiable, and systematic, hence objective ESG information reflecting market changes. The ESG Scores are available on Refinitiv's Eikon platform. Refinitiv's ESG scores have been used and referenced in more than 1,200 academic research papers over the past 15 years (as cited by Berg et al., 2020). Data sources include annual reports, sustainability reports, company websites, NGO websites, stock exchange fillings, and news sources. Primary data used are objective and publicly available. To ensure data quality, a combination of algorithmic and human processes is used (Refinitiv, 2022).

Refinitiv has ten categories of KPIs within three main areas, environmental (three categories), social (four categories) and governance (four categories). Only one category within the social pillar related to **'Workforce'** is relevant for this study. The workforce category includes up to 30 metrics. It broadly covers four themes such as diversity and inclusion, career development and training,

working conditions, and health and safety. Hence, the workforce score is defined by Refinitiv (Refinitiv, 2022, p.22) as "measures of a company's effectiveness in terms of providing job satisfaction, a healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce". Refinitiv's methodological documentation (2022) demonstrates in detail the methodology used for calculating rating scores. Starting from raw data, Refinitiv uses a percentile rank methodology to define scores at different levels of granularity. In terms of calculating category scores, Refinitiv treats data points as either Binary (Yes, No or Null) or numeric, where Binary data points are converted to numeric values for the percentile score calculation. The ratings are Z-scored and normalized to place the score between 0 and 100 percent.

A number of previous studies used Refinitiv to measure firms' ESG performance (Cao et al., 2019; Dyck et al., 2019; Albuquerque et al., 2020; Berg et al., 2020; Guerin et al., 2021). Refinitiv has recently been referenced in an ESG white paper featured at the World Economic Forum in 2019 (WEF, 2019), and also analyzed as one of the three key ratings providers in a recent OECD report (Boffo & Patalano, 2020). Therefore, as Refinitiv offers a comprehensive ESG database, and is widely used for its data quality, this thesis includes (1) workforce-related measures to support the development of the index and (2) a means for collecting workforce-related data. Specifically, the binary and numeric data related to the workforce category and themes such as workforce-related policies, diversity data and sustainable development goals were obtained from Refintiv Eikon for the purposes of this study. More particularly, the workforce disclosure measures included: Diversity and inclusion (e.g., women employees), career development and training (e.g., training hours), and health and safety (e.g., policy statement).

3.4. The Workforce Disclosure Index

Given the advantages of the index approach, and its suitability in collecting data related to workforce disclosures from corporate narratives, this study developed a workforce disclosure index (WDI) to collect data. The table below illustrates the disclosure items and the regulatory as well as academic literature motivating the inclusion of the disclosure items. The table, furthermore, shows whether the disclosure items are mandatory, or voluntary based on the UK and international regulations. As explained previously, the disclosure items are equally weighted within each sub-index, that is each item if disclosed carries 1 point and zero otherwise. However, the overall index

is not equally weighted as the number of items vary within the sub-indices (workforce diversity disclosure includes 10 items, workforce welfare disclosure includes 17 items and workforce engagement disclosure includes 8 items). This variation in the number of items in the sub-indices below depends on the extent of regulatory guidance (UK's 2018, CG Code GRI, SASB) available on that particular sub-index. For example, the current researcher has included all the relevant workforce engagement disclosure items in the index based on the 2018 Code and the Guidance on Board Effectiveness (2018). Moreover, for example, regarding the workforce welfare disclosure requirements, the regulatory frameworks such as GRI identified more items in their reporting requirements when compared to the other components. See table 3.4. below for more information regarding the motivation for including each disclosure item.

Table 3.4: Workforce Disclosure Index (WDI)		
Discourse Items	**Mandatory /Voluntary***	**Motivation for Disclosure Item**
Workforce Diversity Disclosure Index		
Number of employees, breakdown by gender diversity	Voluntary	Guidance on Board Effectiveness (2018) Pham et al. (2022) Refinitiv SASB
Employee Age Distribution Profile	Voluntary	Guidance on Board Effectiveness (2018) Pham et al. (2022)
Employee Nationality or Ethnic Diversity Profile	Voluntary	Guidance on Board Effectiveness (2018) SASB
Employee Disability Profile	Voluntary	Guidance on Board Effectiveness (2018)
Employee Sexual Orientation Profile	Voluntary	Guidance on Board Effectiveness (2018)
Employee Discrimination Cases reported	Voluntary	GRI 401: EMPLOYMENT
Ethnicity Pay Gap /Hourly Pay	Voluntary	UK Government Equalities Office
Ethnicity Pay Gap /Bonus Pay	Voluntary	UK Government Equalities Office
Gender Pay Gap /Hourly Pay	Mandatory	o UK Government Equalities Office o Mandatory reporting to the Equalities Office since 2017

Gender Pay Gap /Bonus Pay	Mandatory	○ UK Government Equalities Office ○ Mandatory reporting to the Equalities Office since 2017
Workforce Welfare Disclosure (WWD) Index		
Employee Benefits including share purchase schemes and remuneration	Voluntary	○ Vithana et al., (2021); Branco and Rodrigues (2009), Das (2013), Menassa (2010), Surdu et al. (2020), Pham et al. (2022) ○ GRI 401: EMPLOYMENT ○ Guidance on Board Effectiveness 2018 ○ Refintiv
Recruitment/ No. of Recruits / No. of Hires	Voluntary	○ GRI 401: EMPLOYMENT ○ Guidance on Board Effectiveness 2018 ○ SASB
Employee Appreciation and Rewards	Comply or Explain	○ Corporate Governance Code 2018
Whistleblowing cases raised during the year	Comply or Explain	○ GRI 401: EMPLOYMENT ○ Corporate Governance Code 2018 ○ Guidance on Board Effectiveness (2018)
Whistleblowing cases closed or solved during the year	Voluntary	○ GRI 401: EMPLOYMENT ○ Corporate Governance Code 2018 ○ Guidance on Board Effectiveness (2018)
Confidentiality in raising concerns (whistleblowing)	Comply or Explain	○ Corporate Governance Code 2018 ○ SASB
CEO to Employee Pay Ratio	Mandatory since 2019	○ GOV.UK, under Department for Business, Energy & Industrial Strategy, 2019
No. of Training Courses	Voluntary	○ GRI 401: EMPLOYMENT ○ Guidance on Board Effectiveness ○ Vithana et al., (2021); Branco and Rodrigues (2009), Das (2013), Gamerschlag et al. (2011), Ismail and Ibrahim (2009), Menassa (2010), Tagesson et al. (2009), Costa & Agostini (2016), Surdu et al. (2020), Pham et al. (2022) ○ Refinitiv
No. of Employees Trained	Voluntary	○ GRI 401: EMPLOYMENT ○ Guidance on Board Effectiveness 2018
Money invested in training	Voluntary	○ GRI 401: EMPLOYMENT ○ Guidance on Board Effectiveness 2018 ○ Pham et al. (2022)
Average training Hours or days per employee	Voluntary	○ GRI 401: EMPLOYMENT ○ Guidance on Board Effectiveness 2018 ○ Pham et al. (2022) ○ Refinitiv

Career Planning	Voluntary	o GRI 401: EMPLOYMENT o Guidance on Board Effectiveness 2018
Family Benefits including support for daycare at workplace, maternity, paternity leaves, holidays and vacations	Voluntary	o GRI 401: EMPLOYMENT o Guidance on Board Effectiveness 2018
Occupational Health and Safety	Voluntary	o GRI 401: EMPLOYMENT o Guidance on Board Effectiveness 2018 o Vithana et al., (2021), Branco and Rodrigues (2009), Bayoud et al. [37], Das (2013), Gamerschlag et al. (2011), Ismail and Ibrahim (2009), Menassa (2010), Tagesson et al. (2009), Surdu et al. (2020), Pham et al. (2022) o Refinitiv o SASB
Consultation and Participation of Employees in health and safety	Voluntary	o GRI 401: EMPLOYMENT o Guidance on Board Effectiveness 2018
Health and Safety Training	Voluntary	o GRI 401: EMPLOYMENT o Guidance on Board Effectiveness 2018
Promotion of Health and Wellbeing of Employees including gyms, insurance, health days.	Voluntary	GRI 401: EMPLOYMENT
Workforce Engagement Disclosure Index (WEDI): (These are recommended by the Corporate Governance Code, and companies can choose and report any of the engagement approaches listed in the Guidance on Board Effectiveness)		
Involvement of employees in Training	Voluntary	Guidance on Board Effectiveness 2018
Staff General Meetings	Voluntary	Guidance on Board Effectiveness 2018
Employee-related Surveys	Voluntary	o Guidance on Board Effectiveness 2018 o Pham et al. (2022)
Staff Appraisal and feedback on performance	Voluntary	Guidance on Board Effectiveness 2018
Mentoring, Apprenticeship, Sponsorships	Voluntary	Guidance on Board Effectiveness 2018
Hosting and Bespoke Events/ Town Halls	Voluntary	Guidance on Board Effectiveness 2018
Site Visits	Voluntary	Guidance on Board Effectiveness 2018

Succession Planning of Talent & Employees	Voluntary	o GRI 401: EMPLOYMENT o Guidance on Board Effectiveness 2018

*Note: Mandatory: Firms are legally required to report the information by regulators with no 'Comply or Explain' clause or caveat. Based on UK's Gender Equality Office's gender pay gap reporting is mandatory for UK firms with more than 250 employees.
Comply or Explain: Firms have a flexible clause that makes it possible for them not to make disclosures granted that they justify their position.
Voluntary: Firms are neither legally required nor is there a 'comply or explain' clause to report the information. It is entirely up to the firm to choose to report it.

3.5. Analysis of the Extent and Trends of Workforce Disclosure

This section addresses the first research objective of this study, RO1 by showing the extent and trends of workforce disclosures of the FTSE 100 companies for the period (2017-2020) including its components: workforce diversity disclosure, workforce welfare disclosure, and workforce engagement disclosure:

Table 3.5: Extent and Trends of Workforce Disclosure

Variable	Year	Median	Mean	S.D.	Min.	Max.
Workforce Disclosure Index						
Workforce Disclosure Index Score = **(A + B + C)**	**Overall**	**55.556**	**53.573**	**15.953**	**2.778**	**91.667**
	2017	38.889	40.531	13.083	16.667	69.444
	2018	50.000	46.858	13.943	2.778	77.778
	2019	58.333	59.905	10.634	36.111	88.889
	2020	66.667	66.864	10.512	36.111	91.667
Workforce Diversity Disclosure Score = (A)	**Overall**	**40.000**	**40.000**	**17.466**	**0.000**	**90.000**
	2017	30.000	33.737	15.881	0.000	70.000
	2018	30.000	37.172	15.189	0.000	70.000
	2019	40.000	40.707	15.795	10.00	90.000
	2020	50.000	48.300	19.439	10.00	90.000
Workforce Welfare Disclosure Score = (B)	**Overall**	**61.111**	**58.244**	**17.325**	**5.556**	**100.00**
	2017	44.444	46.613	15.925	11.111	88.889
	2018	55.556	51.627	16.596	5.556	88.889
	2019	61.111	64.310	12.898	33.333	94.444
	2020	72.222	70.306	12.225	38.889	100.00
Workforce Engagement Disclosure Score = (C)	**Overall**	**62.500**	**60.076**	**27.077**	**0.000**	**100.00**
	2017	37.500	35.354	19.041	0.000	87.500
	2018	50.000	48.359	23.121	0.000	87.500
	2019	75.000	73.9810	17.828	25.00	100.00
	2020	87.500	82.375	16.485	12.50	100.00

Table 3.5 shows the descriptive statistics of the WDI score including its components for the overall period 2017-2020 as well as per year. The mean score represents the percentage of firms attaining an item in the Workforce Disclosure Index. The table indicates that the WDI including each of its components are increasing each year. This is depicted as a visual representation in figure 3.2 which shows that by the end of the period under study, workforce engagement disclosure score had the highest level of disclosure with an average score of 87.5 %, while the workforce diversity disclosure score had the lowest level of disclosure with an average score of 50 %.

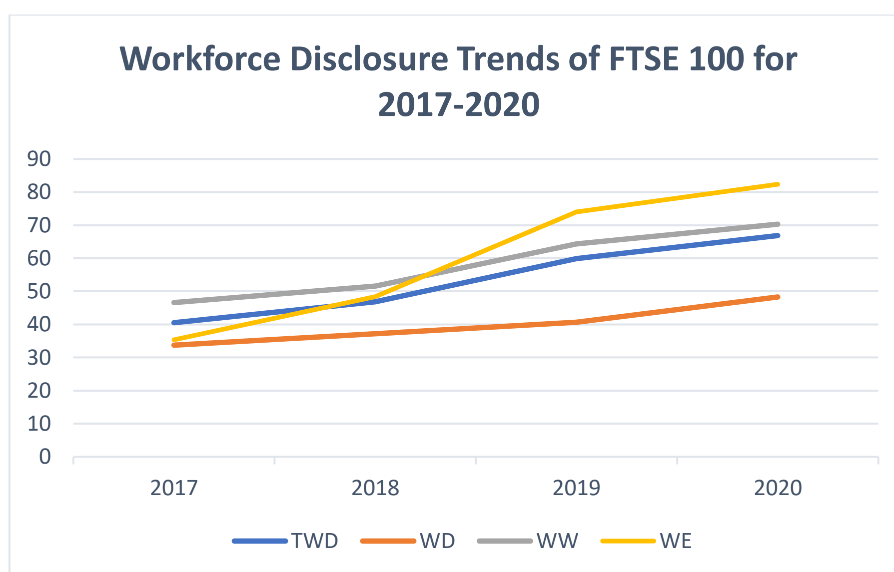


Figure 3.2: Trends of workforce disclosure and its components by FTSE 100 (2017-2020)

Table 3.6: Year on year change in the Index and its components

Index Component	Mean Difference 2018-2017	Mean Difference 2019-2018	Mean Difference 2020-2019
Workforce Disclosure Index– WDI	6.327	13.048 (+ 6.720 %)	6.959 (-6.089 %)
Workforce Diversity Disclosure- WDD	3.434	3.535 (+ 0.101 %)	7.593 (+ 4.058 %)
Workforce Welfare Disclosure- WWD	5.014	12.683 (+ 7.669 %)	5.996 (-6.687 %)
Workforce Engagement Dis. – WED	13.010	25.631 (+ 12.620 %)	8.385 (-17.246 %)

*The figures in the brackets indicate the % of increase/decrease in disclosure when compared to the previous year's disclosure.

**WDI = Workforce Disclosure Index, WDD = Workforce Diversity Disclosure, WWD = Workforce Welfare Disclosure, WED = Workforce Engagement Disclosure

Table 3.7: Multiple Comparisons – Year on Year Change in the Index showing significant differences

Variable	(I) Year	(J) Year	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Workforce Disclosure Index– WDI	2017	2018	-6.3267*	1.7244	.000	-9.7169	-2.9365
		2019	-19.3738*	1.7244	.000	-22.7641	-15.9836
		2020	-26.3336*	1.7200	.000	-29.7154	-22.9519
	2018	2017	6.3267*	1.7244	.000	2.9365	9.7169
		2019	-13.0471*	1.7244	.000	-16.4373	-9.6569
		2020	-20.0069*	1.7200	.000	-23.3886	-16.6251
	2019	2017	19.3738*	1.7244	.000	15.9836	22.7641
		2018	13.0471*	1.7244	.000	9.6569	16.4373
		2020	-6.9597*	1.7200	.000	-10.3415	-3.5780
	2020	2017	26.3336*	1.7200	.000	22.9519	29.7154
		2018	20.0069*	1.7200	.000	16.6251	23.3886
		2019	6.9597*	1.7200	.000	3.5780	10.3415
Workforce Diversity Disclosure- WDD	2017	2018	-3.4343	2.3691	.148	-8.0920	1.2233
		2019	-6.9696*	2.3691	.003	-11.6274	-2.3119
		2020	-14.5626*	2.3631	.000	-19.2086	-9.9165
	2018	2017	3.4343	2.3691	.148	-1.2233	8.0920
		2019	-3.5353	2.3691	.136	-8.1930	1.1223
		2020	-11.1282*	2.3631	.000	-15.7743	-6.4822

	2019	2017	6.9696*	2.3691	.003	2.3119	11.6274
		2018	3.5353	2.3691	.136	-1.1223	8.1930
		2020	-7.5929*	2.3631	.001	-12.2389	-2.9468
	2020	2017	14.5626*	2.3631	.000	9.9165	19.2086
		2018	11.1282*	2.3631	.000	6.4822	15.7743
		2019	7.5929*	2.3631	.001	2.9468	12.2389
Workforce Welfare Disclosure- WWD	2017	2018	-5.0141*	2.0648	.016	-9.0736	-.9547
		2019	-17.6965*	2.0648	.000	-21.7560	-13.6370
		2020	-23.6923*	2.0596	.000	-27.7416	-19.6430
	2018	2017	5.0141*	2.0648	.016	.9547	9.0736
		2019	-12.6823*	2.0648	.000	-16.7418	-8.6229
		2020	-18.6781*	2.0596	.000	-22.7274	-14.6288
	2019	2017	17.6965*	2.0648	.000	13.6370	21.7560
		2018	12.6823*	2.0648	.000	8.6229	16.7418
		2020	-5.9957*	2.0596	.004	-10.0451	-1.9464
	2020	2017	23.6923*	2.0596	.000	19.6430	27.7416
		2018	18.6781*	2.0596	.000	14.6288	22.7274
		2019	5.9957*	2.0596	.004	1.9464	10.0451
	2017	2018	-13.0050*	2.7519	.000	-18.4155	-7.5945
		2019	-38.6363*	2.7519	.000	-44.0468	-33.2258

Workforce Engagement Dis. – WED		2020	-47.0214*	2.7451	.000	-52.4183	-41.6245
	2018	2017	13.0050*	2.7519	.000	7.5945	18.4155
		2019	-25.6313*	2.7519	.000	-31.0417	-20.2208
		2020	-34.0164*	2.7451	.000	-39.4133	-28.6194
	2019	2017	38.6363*	2.7519	.000	33.2258	44.0468
		2018	25.6313*	2.7519	.000	20.2208	31.0417
		2020	-8.3851*	2.7451	.002	-13.7820	-2.9881
	2020	2017	47.0214*	2.7451	.000	41.6245	52.4183
		2018	34.0164*	2.7451	.000	28.6194	39.4133
		2019	8.3851*	2.7451	.002	2.9881	13.7820
*. The mean difference is significant at the 0.05 level.							

Tables 3.6 and 3.7 above present the year-on-year trends in the total disclosure index and its components. Table 3.6 provides a brief look at the trends while table 3.7 presents a closer look at the statistically significant differences by year. The results in table 3.6 indicate that following the introduction of corporate governance reforms there is a jump in the extent of WDI in 2019, with the highest jump being a 12.62 % increase in the WED score. One reason for such an increase could be the emphasis of the 2018 Code on the workforce, whereby companies started to adopt the workforce mechanisms and engagement activities and disclose about them to signal their compliance with the Code. However, although there is an increase in the extent of disclosure in 2020 as indicated by figure 3.2, the jump or momentum in the level of disclosure is less than in 2019. It could be justified that most of the FTSE 100 companies had already adopted the various workforce mechanisms in 2019, therefore the momentum of the extent of disclosure either remained the same, became stagnant or slowed down in the following year. Table 3.7 further illustrates the statistically significant differences between the disclosure components (WDI, WDD, WWD, WED) by year. The multiple comparisons indicate that while all the year-on-year differences are significant for WDI, WWD and WED, there are statistically insignificant differences between the years 2017 and 2018 as well as between the years 2018 and 2019 in terms of workforce diversity disclosures (WDD).

The trends in the behavior of companies' disclosure, sectoral trends and adoption of the workforce mechanisms are explained in the sections below.

Table 3.8: Year by Year change in the behavior of companies' disclosure (2017-2020)

Disclosure	**Trend**	**(2017-2018)** Number of Firms (%)	**(2018-2019)** Number of Firms (%)	**(2019-2020)** Number of Firms (%)
WDI	Increasing	73 (79.34)	90 (96.77)	81 (87.10)
	Decreasing	10 (10.90)	0	5 (5.38)
	Stable	9 (9.78)	3 (3.23)	7 (7.53)
WDD	Increasing	23 (25.0)	30 (32.26)	38 (40.86)
	Decreasing	5 (5.43)	8 (8.602)	5 (5.38)
	Stable	64 (69.57)	55 (59.14)	50 (53.76)
WWD	Increasing	50 (54.35)	79 (84.95)	70 (75.27)
	Decreasing	15 (16.30)	0	12 (12.90)
	Stable	27 (29.35)	14 (15.05)	11 (11.83)
WED	Increasing	63 (68.48)	83 (89.24)	56 (60.22)

	Decreasing	7 (7.608)	0	2 (2.151)
	Stable	22 (23.91)	10 (10.75)	35 (37.63)

The figures in the brackets indicate the percentage of firms in that year.

*WDI = Workforce Disclosure Index, WDD = Workforce Diversity Disclosure, WWD = Workforce Welfare Disclosure, WED = Workforce Engagement Disclosure

As Table 3.8 indicates, in the light of the revisions introduced in the 2018 Code, 90 companies (96.77 %) increased the extent of their WDI in 2019, while the disclosure level of 3 (3.23 %) companies remained stable when compared to the previous year's disclosure. Moreover, no company (0 %) during 2019 decreased the level of their WDI. However, while in 2020, 81 companies (87.10 %) further increased the level of their WDI, 5 companies (5.38 %) reduced their disclosure levels and 7 (7.53 %) remained stable. It should be noted that the table does not include companies that have newly joined the FTSE 100 index during the year of the study, as there was no basis for comparison. The sample nevertheless included all the firms listed in the FTSE 100 during the year under study, to avoid the survivorship bias.

3.6. Industrial Trends in Workforce Disclosure of the FTSE 100

If peer-firm disclosures inform managers about existing economic conditions, then peer-firm disclosures can help managers make more informed investment decisions (Roychowdhury et al., 2019). Hence, in addition to year-on-year trends, this section examines the industrial trends based on the industries being classified according to the FTSE Russel Industry Classification Benchmark (ICB). The FTSE 100 listed-UK corporations are the focus given their central role within the UK economy. As many are market leaders within respective sectors not only in the UK, but internationally, they are integral for shaping the necessary sustainability transition. Full details of the sample and sample selection are in chapter four.

Table 3.9: Sectoral Trends in Workforce Disclosure of the FTSE 100 (2017-2020)

Industry	**Disclosure**	**2017**	**2018-17**	**2018**	**2019**	**2019-18**	**2020**	**2020-19**
Oil and Gas	WDI	30.56 (4)	6.25	36.81 (4)	49.31 (4)	12.5	65.97 (4)	16.66
	WDD	30.00	0	30.00	30.00	0	55.00	25
	WWD	37.50	6.94	44.44	55.56	11.12	63.89	8.33
	WED	15.625	12.51	28.13	59.38	**31.25**	84.38	25
	WDI	41.61 (11)	4.46	46.07 (12)	61.37 (11)	15.305	68.98 (12)	7.61

Basic Materials	WDD	28.18	6.82	35.00	31.18	-3.82	40.833	9.653
	WWD	53.03	1.6	54.63	70.20	15.57	78.70	8.5
	WED	30.68	9.95	40.63	70.45	**29.82**	82.29	11.84
Industrials	WDI	40.74 (12)	8.33	49.07 (12)	57.91 (13)	8.84	61.71 (14)	3.8
	WDD	33.33	3.34	36.67	37.69	1.02	37.14	-0.55
	WWD	45.83	5.56	51.39	62.39	11	67.06	4.67
	WED	38.54	20.84	59.38	73.10	13.72	80.36	7.26
Consumer Goods	WDI	47.22 (12)	2.98	50.20 (14)	62.70 (14)	12.5	68.055 (14)	5.355
	WDD	37.5	-1.02	36.48	40.71	4.23	42.86	2.15
	WWD	57.40	0.14	57.54	69.44	11.9	73.81	4.37
	WED	36.46	14.43	50.89	75.00	**24.11**	86.61	11.61
Consumer Services	WDI	36.97 (21)	6.97	43.94 (22)	55.56 (21)	11.62	62.43 (19)	6.87
	WDD	32.86	6.24	39.10	40.00	0.9	50.00	10
	WWD	40.12	5.84	45.96	58.20	12.24	64.035	5.835
	WED	35.12	10.9	46.02	69.05	**23.03**	74.34	5.29
Healthcare	WDI	42.06 (7)	11.83	53.89 (5)	61.81 (4)	7.92	63.89 (4)	2.08
	WDD	22.86	3.14	26.00	27.50	1.5	32.50	5
	WWD	53.17	7.94	61.11	70.83	9.72	70.83	0
	WED	41.07	31.43	72.50	84.40	**11.9**	87.50	3.1
Telecommunications	WDI	48.61 (2)	1.39	50.00 (2)	73.61 (2)	23.61	77.78 (2)	4.17
	WDD	50.00	0	50.00	60.00	10	70.00	10
	WWD	52.78	2.78	55.56	77.78	22.22	77.78	0
	WED	37.50	0	37.50	81.25	**43.75**	87.50	6.25
Utilities	WDI	42.22 (5)	3.34	45.56 (5)	62.22 (5)	16.66	69.96 (6)	7.74
	WDD	40.00	2	42.00	54.00	12	55.00	1
	WWD	44.44	4.45	48.89	58.89	10	73.61	14.72
	WED	40.00	2.5	42.50	80.00	**37.5**	81.25	1.25
Financials	WDI	40.82 (23)	7.33	48.15 (21)	63.13 (22)	14.98	71.09 (22)	7.96
	WDD	36.96	2.56	39.52	43.64	4.12	57.27	13.63
	WWD	44.93	7.72	52.65	66.91	14.26	72.47	5.56
	WED	36.41	12.4	48.81	78.98	**30.17**	85.22	6.24
Technology	WDI	31.94 (2)	4.17	36.11 (2)	55.56 (3)	19.45	65.74 (3)	10.18
	WDD	30.00	0	30.00	43.33	13.33	63.33	20
	WWD	33.33	5.56	38.89	53.70	14.81	55.56	1.86

	WED	31.25	6.25	37.50	75.00	**37.5**	91.67	16.67

*The figures in the brackets indicate the number of firms in that industry during the year.

**WDI = Workforce Disclosure Index, WDD = Workforce Diversity Disclosure, WWD = Workforce Welfare Disclosure, WED = Workforce Engagement Disclosure

As can be seen from Table 3.9, the WDI scores show an increasing trend across all industries, with the highest disclosures in 2019 being particularly attributed to telecommunications (73.61 % with a 23.61 % increase), financials (63.13 % with a 14.98 % increase), consumer goods (62.70 % with a 12.5 % increase), and utilities (62.22 with a 16.66 % increase). In 2019, telecommunications and technology witnessed the highest jump in overall workforce disclosure followed by utilities, whilst healthcare and industrials had the lowest jump in the extent of workforce disclosure following CG reforms.

Due to the emphasis of the Code on workforce engagement, the results demonstrate an increasing trend in workforce engagement disclosures in all industries, with an increased focus on WED when compared to the other components WDD and WWD. With regards to workforce diversity disclosure, it is the only component in basic materials which witnessed a reduction (- 3.82 %) in the extent of workforce disclosure following the 2018 reforms. However, the following year, 2020, saw a significant increase in WDD by 9.653 % in basic materials. Another interesting observation from Table 3.8 is that workforce diversity is the disclosure component with the lowest levels of disclosure across the industries. Firms with lower WDD explained that the reason for not disclosing diversity profile is due to unavailability of data where a portion of employees prefer not to self-identify their ethnicity, race, gender identity, sexual orientation, or disability status.

To conclude, a closer examination of workforce disclosure from an industrial perspective shows that all industries are focusing more on their employees in the annual reports albeit with some industries disclosing more than the others, as some improvements or lower scores in the consecutive year (2020) can be observed. However, it is difficult to state unequivocally which industry under review can be dubbed the best, as there were some vivid differences in the number of companies in particular sectors and years as per table 3.8. Nonetheless, the results give us an overall glimpse and insights into the initial response of the various industries to the 2018 CG reforms.

3.7. Chapter Summary

In conclusion, this chapter discusses the context of the study including the international and relevant regulatory environments. It discusses the development of the Workforce Disclosure Index, its components including the regulatory, policy, and academic motivations for its development. It presents the workforce disclosure index, its components, and measures. Finally, this chapter addresses research objective one by demonstrating and discussing the year-on-year and industrial trends of workforce disclosure of the FTSE 100 covering the period 2017-2020. The conceptual models and the remaining research questions are addressed in chapters five and six.

Chapter 4

Research Methodology

4. Introduction

Chapter four describes the research methodology used for addressing the research questions raised in this study. Accordingly, in this chapter the appropriate research philosophy, research approach, and method are selected so that the empirical investigation could be conducted in a systematic manner. This resulted in the identification of the sample firms from which data was to be collected, the process of collecting data and the analysis of the data collected. Therefore, based on the nature of this research in determining the causal relationships among variables, the research design and methodology of this study is primarily quantitative. However, before analyzing the research design and methodology followed in this study, it is deemed important, to define and discuss the general philosophical and methodological issues underpinning to business research. More specifically, chapter four starts by comprehending and dealing with the research philosophy also known as epistemology. The following sections carefully explain the research approach and method selected for this study, including the research framework and the research design. In addition, the chapter included a detailed description of the study's sample and any ethical considerations that follows. Finally, the chapter includes aspects related to data collection, data management and data analysis.

4.1.Ontology and Epistemology

Business research, being part of the social sciences, is connected to some philosophical dimensions and issues that need to be considered before conducting a research project in any business or management topic. This section, consequently, discusses the research philosophy, important to be considered before conducting this study.

Research paradigm determines the philosophical dimensions of social sciences. Creswell (2007) emphasizes the importance of establishing a research paradigm because it will substantially influence how the researcher conducts social research and how one frames and understands social phenomena. Ontology and epistemology are the two main philosophical foundations that

distinguish research paradigms (Saunders et.al., 2019). In the field of the empirical sciences, the researcher constructs hypotheses, or systems of theories and tests them against experience by observation and experiment. Although this seems to be an easily understood process, there are several philosophical concerns that need to be taken into consideration. The field under which, these issues are discussed is called ontology and epistemology or philosophy of science and is closely related to social research, as well as all forms of research.

Ontology is said to be concerned with what reality is and the nature of reality (Uzun, 2016). Ontological assumptions affect the way a researcher views the world and what they consider to be real. Deriving from ontology is epistemology, which concerns the theory of knowledge, its nature, and limits (Blackburn, 1996), and how people acquire and accept knowledge about the world. According to Hughes and Sharrock (2016), epistemology is related to philosophical claims about the way in which the world is known to us or can be known to us. It involves issues about the nature of knowledge itself. Eriksson and Kovalainen (2008) explained that epistemology may be objective or subjective; objective epistemology recognizes the outside world, which is hypothetical impartial, while the subjective epistemology suggests that the outside world is in the realm of clarifications from reflection. The two sides of epistemology are positivism and interpretivism. Thus, the ontological perspectives of researchers shape their epistemological beliefs in terms of how knowing and understanding reality can be developed, and of the relationships between the researcher and that which is researched. As this is an empirical research study, which mainly aims to identify the causal relationship between workforce governance disclosure and firm performance, it is founded upon the ontological viewpoint that the reality of financial accounting can be discovered through sensory experience or empiricism, that accounting is objective, and that accounting hypotheses can be statistically tested to produce generalizable findings (Bisman, 2010; Peng and Shen, 2019).

After having defined the philosophical idea underpinning business research, researchers must carefully establish the research approach and method to answer the research questions raised in this study. The two main research approaches that dominate the literature and which a researcher can follow are, positivism (deductive approach) and interpretivism (inductive approach) which as explained are the two viewpoints of epistemology. The deductive approach is preferred to be used in a study where a researcher is using theory at the beginning of the study. On the other hand, the

inductive approach is preferred if the researcher is building from data to wider themes and then to a more generalized model or theory (Creswell & Creswell, 2021). In terms of the field of financial accounting, namely financial disclosures, and reporting, it is observed that a number of research studies have used existing and established theories. Assessments of leading accounting journals show most articles have a foundation derived from the positive accounting theory (Gaffikin 2007; Peng and Shen, 2019; Wiratama & Asri, 2020). It has been further argued that despite the growth of interpretivism and critical realism in accounting research, positivism has been and will remain the dominating philosophy of science in knowledge generation in the field (Kym, 2014; Peng and Shen, 2019). Given that positivist research is the branch of academic research in accounting that seeks to explain and predict actual accounting practices, this study will adopt a deductive approach.

Ensuing the adoption of the philosophical viewpoint as well as the research approach, researchers must select the most appropriate research method for their study. The commonly used research methods include quantitative and qualitative methods. When the characteristics of quantitative or qualitative research are discussed, the four essential elements of the research process must be addressed. They are epistemology, theoretical perspectives, methodology, and methods (Crotty, 1998). The table below demonstrates the main differences between the two methods in light of the two research approaches, the deductive approach and inductive approach.

Table 4.1: Comparison of Quantitative (Deductive) and Qualitative (Inductive) Research Methods

Quantitative Method	**Qualitative Method**
Assumptions:	**Assumptions:**
➢ Objectivist epistemology where the nature of reality (ontology) is static, single, tangible, and fragmentable.	➢ Constructivist epistemology where the nature of reality (ontology) is multiple, dynamic, constructed, and holistic.
➢ Social facts have an objective reality.	➢ Reality is socially constructed.
➢ Knower and known are independent, a dualism.	➢ Knower and known are interactive, inseparable.
➢ Primacy of method	➢ Primacy of subject matter
➢ Variables can be identified, and relationships measured.	➢ Variables are complex, interwoven, and difficult to measure.
➢ Axiology: Research is objective, value-free	➢ Axiology: Research is subjective, value-laden and bias is present.

Purposes:	**Purposes:**
➢ Generalisability (Time and context free generalisations through nomothetic or generalised statements) ➢ Reducing phenomena to simple elements representing general laws ➢ Prediction ➢ Causal explanation	➢ Contextualization (Only time and context bound working hypotheses through idiographic statements) ➢ Taking a broad total view of phenomena to detect explanations beyond the current knowledge. ➢ Interpretation ➢ Understanding actors' perspectives
Approach:	**Approach:**
➢ Begins with hypotheses and theories. ➢ Manipulation and control. ➢ Uses formal, structured, standardised instruments. ➢ Experimentation and intervention ➢ Deductive ➢ Component analysis ➢ Seeks consensus, the norm. ➢ Reduces data to numerical indices. ➢ Abstract language in write-up ➢ Large samples needed to generalize conclusions	➢ Ends with hypotheses or grounded theory. ➢ Emergence and portrayal ➢ Researcher as the instrument ➢ Naturalistic or nonintervention ➢ Inductive ➢ Searches for patterns ➢ Seeks pluralism, complexity. ➢ Makes minor use of numerical indices. ➢ Descriptive write-up ➢ Small Samples
Role of Researcher:	**Role of Researcher:**
➢ Detachment and impartiality ➢ Objective portrayal ➢ Outsider's point of view or Etic	➢ Personal involvement and partiality ➢ Empathic understanding ➢ Insider's point of view or Emic
Methods of Data Collection:	**Methods of Data Collection:**
➢ Uses questionnaires, surveys and systematic measurements involving numbers.	➢ Uses participants' observation, in-depth interviews, document analysis, and focus groups.
Data Analysis and Findings:	**Data Analysis and Findings:**
➢ Uses mathematical models and statistics to analyse the data. ➢ Findings are reported in impersonal, third-person prose by using numbers.	➢ Data are usually in textual, sometimes graphical, or pictorial form. ➢ Findings are reported in a first-person narrative with a combination of etic and emic perspectives.

Sources: Adapted from Yilmaz (2013), Saunders et al. (2019cre), and Creswell & Creswell (2021)

Table 4.1, which draws comparisons between the deductive and inductive approaches, presents several implications for this study's research design. Considering the positivistic ontological assumptions of this research, which aims to determine causal relationships among variables, the research design and methodology of this empirical study is mainly quantitative. As a quantitative study is theory-driven, and hence regarded as deductive, reviewing theories, constructs and models is of vital importance. Moreover, any hypotheses developed should be based on strong theoretical and conceptual foundations. The previous chapters have attempted to report on these requirements, with an in-depth literature review, analysis of theories and constructs and development of hypotheses. Following the discussions on the research philosophies, approaches and methods that need to be selected and understood for this research, the following section presents the research framework developed to address the research questions. The research framework presents and describes the choice of a particular philosophy, research approach and method alongside the rationale for the choice.

4.2.Research Framework

Omotayo and Kulatunga (2015) define the research framework for a study as the philosophical position adopted by the researcher in addition to the research approach, method, and techniques to be utilized to address the research questions. Furthermore, it is used to establish the research design, details on data collection, and the steps involved in analyzing the data. Taking this into consideration, the research framework developed for this study requires the researcher to comprehend the relationship between workforce governance, benefits, and engagement with social and financial performance of firms. It has been established in the previous chapter that a conceptual model and hypotheses have been developed to examine these relationships. To test the model, the epistemological and ontological issues need to be addressed retrospectively.

In the empirical study, the phenomenon of testing the association between the variables, dependent and independent is understood. Moreover, the quantitative method is adopted accordingly by establishing and testing the study hypotheses derived from the ontological notion that social institutions exist independently in similar ways to natural organizations by which the theoretical perspectives can be investigated. Therefore, the model can be developed and structured to observe reality and finally generate new insights (Ryan et al., 2002). The research paradigm henceforth includes both the objective stance of the environment and the level and nature of regulation

exercised. Accordingly, under the dimension of objectivism, this study adopts the realist ontological perspective and the positivist epistemological stance, by which the current researcher investigates the observable social reality, in which the logical explanations and understanding result in finding logical solutions to social problems. Subsequently, to conclude, the basis of the researcher's philosophical belief stems from the validity of variables (i.e., deductive belief), in which the process of inferring general truths relies on rational belief (i.e., the process of reason) and introspective belief (i.e., the process of reflection).

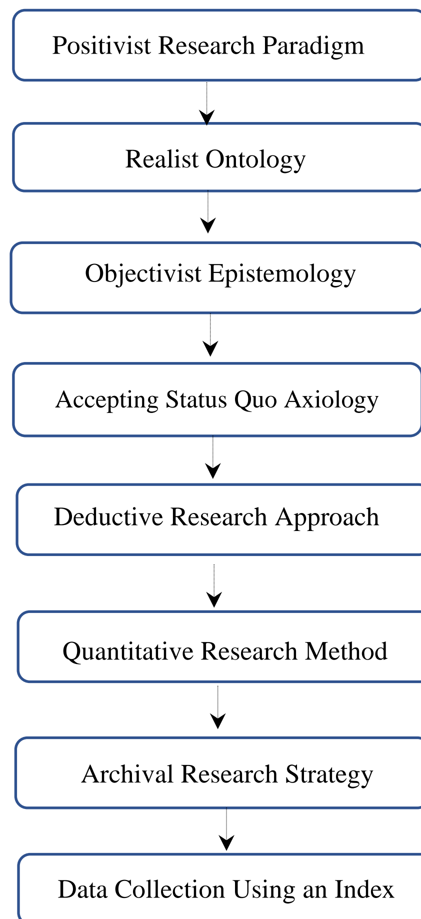


Figure 4.1. The Research Framework adopted for this study

Source: Developed by the author for the current study

4.3.Research Design

The next step in the research framework is to determine the research design. A review of research methodology literatures suggests that the nature of research questions or hypotheses determine the selection of the research design in any study (Fishman, 1991; Collis & Hussey, 2014). Therefore, depending on the deductive approach adopted in this study, the quantitative research design was used. Research design involves several steps. Sekaran & Bougie (2016) explained that research design should include the purpose of the research, type of study, details on collected data, sample (for example firms) from which the data was collected, size of the population and sampling design, data analysis, robustness tests, time period of the study, context or place, and research strategy. This section attempts to briefly discuss the aforementioned steps of research design.

An important part of this research was hypothesis testing aimed to investigate and explain the relationship between workforce governance mechanisms, workforce disclosures, and social and financial performance of firms. The type of study used was hypothesis testing which led to the analysis of the correlational and causal relationship amongst the dependent and independent variables. The main data, i.e., secondary data about WDI was hand collected from a variety of publicly available sources including annual reports, sustainability reports, integrated financial reports, company's GRI (Global Reporting Initiative) Excel Books, company websites, strategic reports, director's business review reports. Moreover, some WD items such as workforce policies were collected from Thomson Reuter's Refinitiv Database. The data from corporate narratives were hand collected as binary data for the WDI. Additional data related to performance measures were collected from Thomson Reuter's financial data, Hargreaves Lansdown Asset Management website, and the United Kingdom's Gender Pay Gap Service. The sample of the study included UK's FTSE 100 listed companies over a period 2017-2020 (see Appendix II). The latest annual reports and sustainability reports that were available at the time of data collection were pertaining to the year 2020.

Binary data (1 if the item is disclosed and 0 if the item is not disclosed) was the data of choice due to the limited disclosures of hard data items by the FTSE 100 firms such as money invested in training, average training hours, number or training courses, number of site visits, etc. These hard data items are voluntary in nature (recommended by the GRI and SASB) and therefore only a few

companies opt to report on them. Moreover, if only some employees choose to disclose a binary variable it is less prone to error than a using continuous variable (e.g., no of employees with disability) as firms are inconsistent in disclosing a particular item. Furthermore, the current researcher collected the binary data manually from annual reports and other corporate narratives because databases such as Bloomberg and Refinitiv had no or limited data on workforce disclosures.

Data was analyzed using statistical procedures which included descriptive statistics, correlation matrices analysis, and regression analysis. Normality, multicollinearity, and other robustness measures were used to verify the index and the data collected. To aid comparison and understanding of the trends of workforce disclosures in the light of UK's regulatory environment including international frameworks (e.g., GRI, SASB) data on all variables was collected for the period of 4 years from 2017 to 2020.

The following sections of this chapter delve into details of the research strategy including choice of the Index approach, data, and sample analysis as well as collection and illustration of analytical procedures used in the study.

4.4. Research Strategy

Research strategies are used for exploratory, descriptive, and explanatory research. Saunders et al. (2019) explain that research strategies depend on the philosophical underpinnings of the study, the amount of time and other resources available, as well as the extent of existing knowledge (literature). The research strategies widely adopted by researchers include action research, experimental research, heuristic inquiry, ethnographic research, survey research, grounded theory, archival research, case study, and phenomenological research (Saunders et al., 2019). However, it should be noted that despite the myriad number of strategies available to researchers, research strategies are guided by the research questions that need to be addressed. Therefore, providing the positivist ontological and objectivist epistemological underpinnings of this research including the sources of data available, *the archival research strategy* is considered most useful and appropriate for this study. The research questions being addressed by the researcher aimed to investigate and explain the determinants of workforce disclosure and the relationship of these disclosures with

firm performance (social and financial) within the context of UK's revised Corporate Governance Code, which was implemented in 2019, and which introduced new regulations related to workforce engagement. The research questions were addressed using conceptual models (chapters five and six) that clearly identified the dependent, independent and control variables.

As this study aimed to verify the hypotheses which represent the theoretical associations determined in the conceptual model, the strategy required was to collect binary data (dichotomous in nature) and numerical real data to measure the variables and test the relationships using various econometric tests and statistical techniques.

4.4.1. Index Approach

To collect data from the sample (UK's FTSE 100 listed companies), archival research based on corporate narratives was employed. Accordingly, an index was developed and used to collect data from corporate narrative documents, which is a commonly used strategy in financial accounting and reporting research (Craig et al., 2010; Merkl-Davies et al., 2011; Brennan & Merkl-Davies, 2018). This is largely due to the importance of corporate narrative reporting in accounting which constitutes the primary means of communicating with an organization's audiences such as shareholders, investors, stakeholders, and society at large. Corporate narrative disclosures are used to provide an account of managements' actions and decisions, to inform shareholders about strategy, to establish organizational identity and reputation, to persuade organizational audiences of the legitimacy of the organization, to persuade shareholders of the advantages of a merger or takeover, or to persuade potential investors to invest in the company (Merkl-Davies et al., 2011). Therefore, corporate disclosures are vital to users and other stakeholders, who use the information to make decisions.

Since this research has adopted a positive paradigm and an objective epistemological belief, it presumes that knowledge parallels an independently observable reality and can hence be discovered by researchers who serve as impartial observers and record keepers of events. This means that social phenomena can be represented without interference by means of objective measurement. Consequently, as the use of indices puts emphasis on objectivity and generalisability, it appropriately fits with the positive paradigm (Merkl-Davies et al., 2011; Bini

and Giunta, 2021). There are several reasons this research opted to develop and employ an index for data collection. First, the philosophical underpinnings and framework of this research guided the researcher to choose this method. Second, as cited by Drisko & Machi (2016), researchers can use indices or numerical scores in evaluation work to compare and contrast communication against previously documented objectives. Disclosure indices are an often-applied method in accounting research, mainly in studies involving corporate reports such as annual reports, being used to provide a summarized one-figure indicator either of the full contents of reports of comparable firms or of particular aspects of interest covered by such reports (e.g., ESG disclosures or voluntary disclosures) (Ahmed and Courtis, 1999; Nelson et al., 2003). This can also be applied to this research as it aimed to compare and contrast communication with stakeholders (e.g., corporate narratives) against regulatory requirements and guidelines (e.g., Corporate Governance Code requirements).

Third, given that this is a positivist explanatory study which used hypothesis testing to investigate the relationships amongst variables, it employed an index as a disclosure assessment tool to collect data from secondary sources. This method requires the researcher to implement an index scheme to capture numerical and binary data (Wolfe, 1991). Therefore, as the development of an index involves converting qualitative data into quantitative measures of a firm's disclosure behavior (which can be then linked to variables, such as social performance or employee productivity, by means of statistical association tests to explain the determinants of disclosure behavior), the researcher developed an Index to collect data from the corporate narratives of UK's FTSE 100 listed companies. As explained in chapter three, the workforce disclosure index was developed taking into consideration the theoretical, empirical, and regulatory frameworks.

The following sections detail the data and sample analysis, industry description for the period 2017-2020, and describe the data collection method and tools. Variable measurements and definitions will be discussed in the chapters relevant to the specific research questions.

4.5.Data and Sample Analysis

The sample is an unbalanced panel data, over a period of four years (2017-2020) and consists of UK's FTSE 100 listed companies. The latest annual reports and sustainability reports that were

available at the time of data collection were pertaining to the year 2020. However, the researcher collected additional financial and social performance data for the year 2021 to account for the impact of the workforce disclosure of 2020 on the firm performance of the sample companies in 2021. In archival research strategies, researchers know the population of texts (corporate narratives) well, making it possible to do a more targeted sampling. In such cases, the choice of sample is guided by its relevance to the purpose of the review study under consideration (Drisko & Maschi, 2016).

The FTSE 100 companies were chosen for a number of reasons. It is acknowledged in the literature that firms with the largest market capitalization, a common characteristic of the FTSE 100 companies, are likely to be leaders in the reporting of workforce data (Abeysekera & Guthrie, 2004). According to the London Stock Exchange's website (2023), the FTSE 100 companies on average have a total market capitalization of £ 2 trillion as of 2023. It was felt therefore that such organisations should be setting an example through good practice to those further down the FTSE listing. Moreover, it is likely that these companies would be fully aware of both the statutory requirements of the CG Code and initiatives by government and industry bodies promoting workforce reporting (Abeysekera & Guthrie, 2004; McCracken et al., 2018; Vithana, et al., 2021). Visibility in the case of the FTSE 100 firms encourages organizations to adhere to social pressures because stakeholders are likely "to take a greater interest in organizations that directly affect them, or at least in organizations of which they are aware" (Meznar & Nigh, 1995, p. 980). Visibility likely forces organizations to be more sensitive to stakeholders' expectations. Hence, the choice of the FTSE 100 companies for this research. To avoid survivor bias, as FTSE 100 companies vary from year to year, the researcher collected data for all listed companies during the year under observation. The current research made every effort to collect all workforce-related data including performance-related data available over the period of the study.

Industries were classified using the 'FTSE/DJ single-digit Industry Classification Benchmark' (ICB for short). These are (1) Oil and Gas, (2) Basic Materials, (3) Industrials, (4) Consumer Goods, (5) Health Care, (6) Consumer Services, (7) Telecommunications, (8) Utilities and (9) Technology. Table 4.2 gives the summary of industries covered in the sample over the period of the study. The companies list (see appendix II) for the 2017-2020 was solicited from and provided by FTSE Russell.

Table 4.2: Sample Industry Breakdown by Year					
Industry Code	**Industry**	**2017**	**2018**	**2019**	**2020**
0001	Oil and Gas	4	4	4	4
1000	Basic Materials	11	12	11	12
2000	Industrials	12	12	13	14
3000	Consumer Goods	12	14	14	14
4000	Health Care	7	5	4	4
5000	Consumer Services	21	22	21	19
6000	Telecommunications	2	2	2	2
7000	Utilities	5	5	5	6
8000	Financials	23	21	22	22
9000	Technology	2	2	3	3
	Total	**99**	**99**	**99**	**100**

As can be seen from the table consumer services and financials represent the majority of firms in the FTSE 100 sample. It is worthy to note that for the years 2017,2018 and 2019 a firm was excluded from the total of the100 sampled firms due to the unavailability of its annual or sustainability reports.

Within the 'financials' sector falls mostly banks, financial institutions, and insurance companies. Within the 'consumer services' sector falls mostly retailers such as food, drug, and general retailers, as well as media, and travel and leisure firms. The 'industrials' sector includes firms that involve heavy manufacturing such as construction and building materials, aerospace, as well as other industrial engineering industries like electrical equipment, machines, and components. To conclude, the sample accounts for a broad range of industries over the study period The disclosure trends and reasons for the trends are explained in detail in chapter three.

4.6.Data Collection

Corporate narratives (annual reports, integrated reports, sustainability reports, director's reports) are known to have significant influence on the decisions of users including financial analysts, individual investors, institutional investors, bank credit staffs, securities brokers, etc. The information presented in these reports are official publications of high credibility. First, according to Cooke (1989), the disclosure items in corporate annual reports are relevant and material to the decision-making of users who cannot access the information sources otherwise; and if the relevant, material items are not disclosed, a user's decision will not be an optimal one. Useful disclosure is

necessary for an effective capital market, and when the disclosure is transparent and accurate, the information asymmetry can be minimized. Being as this study focuses on the external reporting of workforce data, annual reports, and other corporate narratives such as sustainability reports are used for data collection, as they are regarded as a valuable means for examining a firm’s workforce practices (McCracken et al., 2018).

Second, all listed firms must publish an annual report whereby auditors are required to ensure voluntary disclosures are consistent with the auditor's overall knowledge of the firm. Auditors are advised to inform the users of the financial statements if any voluntary disclosure is inconsistent with the auditor's knowledge of the firm (Ghandar and Tsahuridu, 2012). Thus, corporate reports such as integrated reports or annual reports are tools that must be used by all listed firms, which also provide a point of comparison between firms.

Third, scholars found there is a relation between voluntary social disclosure in reports and the extent of disclosure provided by other media (Lang and Lundholm, 1993; Oliveira et al., 2011). Fourth, firms have control over the voluntary disclosures published in their annual reports and are less vulnerable to the potential risk of external interpretations or distortion by the media (Guthrie and Parker, 1989; Campbell, 2000). Hence, the annual report represents voluntary information that management has selected to communicate to the stakeholders. Finally, the annual report presents a historical document of the activities of a firm and management's perceptions in a comprehensive and concise manner (Neimark, 1995).

It is important to note that corporate narrative documents such as annual reports, sustainability reports, integrated financial reports, company’s GRI (Global Reporting Initiative) Excel Books, company websites, strategic reports, director’s business review reports, and Thomson Reuter’s Refinitiv Database were used to collect binary data related to disclosures. On the other hand, Thompson Reuter’s financial data, UK Government’s website and corporate narratives were used to collect workforce outcomes and financial performance data.

Appendix I lists the source of data collection concerning each variable and item (dependent and independent) included in the WDI index.

4.7. Chapter Summary

This chapter has dealt with the methodology required to address the research questions. The research framework developed indicated that positivist philosophical stance supported by an objective ontological position, deductive approach and quantitative research method could be used to test the conceptual models developed. The research design shows that the research was conducted using UK's FTSE 100 companies. The index approach was used to collect data from publicly available sources and corporate narratives.

Data was analysed using correlational analysis and regression analysis. The following presents a summary of all the statistical tools and econometric tests used in the study.

Table 4.3: Summary of Statistical and Econometric Tests Used

Statistical and Econometric Tests Used	**Purpose**
Mean, Median, Frequency, Percentage, Std. Deviation, Minimum, Maximum, Graphics and Charts of disclosure trends	Descriptive Statistics
Hausman Test	Choosing between FEM and REM models
Skewness, Kurtosis, Jarque Bera, box-and-whisker plots	Normality (Data diagnostics)
Collinearity Diagnostics: VIF test and Correlation matrices	Multicollinearity test (Variable diagnostics)
Durbin Watson Test	Autocorrelation test (Model diagnostics)
Breush-Pagan and Cook-Weisberg test	Heteroscedasticity test (Model diagnostics)
Fixed Effects Model (FEM) for panel data analysis	Testing Hypotheses

Chapter 5

Determinants of Workforce Disclosure

5. Introduction

Workforce disclosures are a means through which a firm informs its stakeholders, including investors, as to how it has handled its social commitment and responsibility towards its employees. While a number of national and international regulatory frameworks exist including the FRC's Guidance on Board Effectiveness (2018), workforce disclosures by firms remain voluntary in nature including in the UK. Therefore, variation exists among firms in the UK with respect to their workforce disclosures. A firm's commitment to make any kind of disclosures necessitates investing in considerable human and financial resources, including preparing, verifying, and reporting of those disclosures. Thus, firms which do it voluntarily must have the capability and should be convinced of drawing positive benefits by doing so such as reducing information asymmetry and leading to superior corporate performance (Cormier et al., 2011; Kaspereit and Lopatta, 2016). Before examining the consequences of workforce disclosures for a firm and its stakeholders, this chapter focuses on and examines determinants or drivers of workforce disclosure by the FTSE 100 listed companies.

Most of the existing studies, as suggested by the review of the literature, examine the extent of workforce disclosure (Kansal and Joshi, 2015; Alvarez, 2015; Absar, 2016; Tejedo-Romero and Araujo, 2016; Maheshwari et al., 2017; Berry and Jones, 2018; Bordunos and Kosheleva, 2019). While a few studies do examine the determinants of workforce disclosure (Kent and Zunker, 2017; Bowrin, 2018; Alawi and Belfaqih, 2019; Cahaya and Hervina ,2019), the focus of studies conducted within the UK has been rather narrow and confined to measure the extent and determinants of disclosure right after amendments made to the Companies Act 2006 (McCraken et al., 2018; Vithana et al., 2021). This study's WDI was developed to measure the extent of disclosure more comprehensively, tackling several important workforce components. To elaborate further, Vithana et al. (2021) include IC and procedural Human Resources-related disclosure items. These do not include any items related to employee diversity or engagement. Similarly, McCraken et al.'s (2018) index includes disclosure items which are more general in nature when compared

to this study's WDI. For example, their index includes an employee engagement item but does not provide any intricacies of what engagement activities entail. McCraken's (2018) Index measures the frequency of the term 'Employee Engagement' but does not measure the different activities that could be considered as employee engagement. Taking the regulatory frameworks and guidelines into consideration, the WDI provides more comprehensive measures for diversity, welfare, and engagement, for example detailing various engagement activities and mechanisms that UK firms have been encouraged to adopt by the 2018 CG Code. To sum up, there have been significant advancements both in regulation and practice related to employee-relevant reporting and to the best of the researcher's knowledge no prior study has investigated the extent and determinants of workforce disclosures within the current regulatory environment in the UK. Particularly in the light of the Corporate Governance Code 2018 and employee voice mechanisms introduced as part of it.

Accordingly, the following question is explored in this chapter: what are the determinants of workforce disclosure of the FTSE 100 listed companies? However, often times, disclosure can be selective and cursory, thus raising ethical concerns about the intentions of the firm in its communication with investors and other stakeholders, and the limitations of reporting in terms of the usefulness of the information. Hence, an empirical research design to examine workforce disclosure should consider how comprehensive and substantial the disclosures actually are. The study hence adopts the index approach to measure the extent of workforce disclosure based on relevant regulatory frameworks and guidelines both in the UK and worldwide (UK's Corporate Governance Code, Companies Act 2006, UN's Global Impact Initiative Standards, GRI, and SASB) and the drivers thereof.

5.1.Review of Literature on Determinants of Workforce Disclosure

Managers have many motivations and reasons to disclose social information including employee related information in the annual report. Some of these motivations include the need to reduce the cost of capital, to comply with regulatory frameworks and policies, accountability to report, to satisfy stakeholder expectations, to respond to certain threats to a firm's legitimacy, to win specific reporting awards or to influence certain stakeholder groups (Deegan, 2002; Kent and Zunker; 2017). Monteiro et al. (2021) suggest that previous workforce disclosure studies identified the

drivers or determinants of workforce disclosure according to four main categories (in order of importance) firm-level drivers, governance-level drivers, country-level drivers, and report-level drivers. According to the bibliometric review by Monteiro et al. (2021), previous workforce disclosure studies consider firm-level drivers to include firm-specific characteristics such as firm size, industry, market capitalization, and employee power (voice). Governance-level drivers include board characteristics such as board independence, board size, and board diversity. Country-level drivers include the regulatory context. Report-level drivers refer to whether firms produce (or do not produce) non-financial reports. Not all studies used all the drivers. As this study relates to one particular country's regulatory environment within which employee-related corporate governance reforms have recently been introduced, it is the firm and governance level drivers that are most relevant for this research. Table 5.1 reviews key and influential workforce disclosure studies.

Moreover, to understand what drives firms to disclose workforce-related information it is important to look at stakeholder salience (Vithana et al. 2021). Stakeholder salience refers to the degree to which managers give priority to competing stakeholder claims (Baumfield, 2016). Mitchell et al (1997) identified three factors that contribute to stakeholder salience: power (defined as 'the probability that one actor within a social relationship would be in a position to carry out his own will despite resistance', or the ability of one social actor to get another social actor to do something it would not have otherwise done); legitimacy (the perception or assumption that the actions to be taken are desirable, proper or appropriate) and urgency (time sensitivity). The 'relative absence or presence' of one, two, or all three of these factors determines the degree of priority that managers will give to a given stakeholder claim. Therefore, it can be argued that firms disclose specific workforce-related information in accordance with the priority given to employees among other stakeholders. Indeed, in the current stakeholder sensitive business climate, employees meet all three criteria for stakeholder salience.

In this context, the application of the stakeholder theory is taken as a reference, starting from the influential work of Ullmann (1985), for the foundation of the main constructs of the study. Ullman (1985) critically analyzed prior literature in the area of CSR. Due to the lack of solid theoretical models that explained CSR activity and disclosure, he developed a robust framework for predicting CSR based on the stakeholder theory put forward by Freeman (1984). The framework allows to

explain social disclosure and its determinants from several perspectives such as stakeholder power, manager's strategic position, corporate governance, and firm performance. Ullmann's (1985) model has been widely used in CSR and social accounting studies (Herbohn et al., 2014; Kent and Zunker, 2015; Pajuelo Moreno and Duarte-Atoche, 2019), becoming a reference work in sustainability and social disclosure research.

Kent and Zunker (2017) use Ullmann's (1985) model, adapt it and build upon it to explain the drivers of employee disclosure by firms. Their study considers employees as powerful stakeholders rather than shareholders. The first aspect of the model is employee (workforce) power, which assumes that a workforce's has dominance in relation to the firm, is a driver influencing workforce disclosure. Generally, stakeholders want something from a firm. Some groups of stakeholders want to influence what the firm does and other groups, such as workers, care about the way they are impacted by the firm's actions (Reverte, 2009). In this regards, Kent and Zunker (2017) suggest that a firm is more motivated to perform well and report its workforce-related activities if its employees have more power. Therefore, firms with higher workforce power report more workforce-related information than those with lower workforce power. If this power is low, employees tend to be overlooked by the organization. In this sense, only the firms which really regard their employees as important will advance toward more proactive employee-related strategies and workforce disclosure.

Kent and Zunker (2017) measured employee power through employee share ownership (ESO) in the firm. ESO is mandatory to be disclosed in Australia in accordance with the Corporations Act (2001), which is the context of their study. Kent and Zunker (2017) measured ESO dichotomously, i.e., a value of zero was given to a firm with no ESO and a value of one was given otherwise. However, previous researchers (Kruse, 2016; Kruse and Kurtulus, 2017; Whitfield et al., 2017) argue that employee share ownerships schemes can be viewed as an attempt by firms to shift financial risk onto their employees rather than to empower them, i.e., leading to employee dissatisfaction rather than giving them power. The current study, measured employee power using the workforce voice mechanisms introduced by the 2018 CG Code in the UK. These mechanisms include (1) worker representation on the board, (2) a formal advisory panel, or/and (3) designated NED. As the Code mandates one or a combination of these CG mechanisms, this study measures workforce voice dichotomously. This measure is deemed appropriate given UK's recent regulatory

framework and the Code's recommendations to empower the workforce by "strengthening the employee voice in the boardroom'' (the Guidance, 2018, p.15). The measurement of the variables is further discussed in section 5.3.1.

The second aspect is strategic posture which assumes that board of directors (BoD) is signficant to the quality of corporate governance that should reflect strategic vision, organizational culture, values, and disclosure. Therefore, firms showing more active strategic posture towards employees should tend to report more workforce disclosures. In their study, strategic posture represents corporate governance and the recognition of employees in firm strategies and policies. According to Kent and Zunker (2017), their study measured corporate governance using the Horwath Corporate Governance Report which annually rates Australia's largest 250 companies on their corporate governance structures. The current study also measures strategic posture using corporate governance structures in terms of board diversity and committees as well as the presence of strategic policies related to the workforce. Accordingly, in their study, Kent and Zunker (2017) found that employee power and strategic posture positively influences workforce disclosure.

To conclude, Monteiro et al.'s (2021) categories and Kent and Zunker's (2017) model are complementary in nature, where firm characteristics (including employee power), board of directors' attributes, and firm's employee-related policies and strategies are likely to be relevant for employee-related disclosures.

Table 5.1: A Review of key (prior) studies on determinants of workforce disclosure

Author(s)/Year	Aim	Theory Used	Findings
Abeysekera and Guthrie (2004)	To examine the disclosure patterns of human capital observed in 30 Sri Lankan firms for a period of two years.	Agency theory and stakeholder theory (Implicit)	Some of the first studies that moved beyond the scope of IC and focused on workforce-related information. The study found that the level of human capital information increased over the study period. The findings suggested higher levels of disclosures in areas of employee training, health and safety, career development.

Khan and Khan (2010)	To examine the extent workforce reporting in 32 leading Bangladeshi firms for a period of three years.	Legitimacy theory	Similar to Abeysekera and Guthrie (2004) this paper focused on labour-related information beyond IC. The most disclosed items are employee training, number of employees, career development and employee recruitment policies. The findings suggest that disclosure increased over the study period due to regulations introduced in 2009.
Mäkelä (2013)	To critically analyze the employee reporting of the 25 largest Finnish firms in 2008.	Critical Accounting theory	The analysis indicates that disclosure shows only a partial picture of employees. Employees are presented in a narrow and mechanistic manner. From the ideology perspective, workforce disclosures are influenced by unitarist ideologies. This finding is similar to Vithana et al., (2021).
Alvarez (2015)	To assess the extent to which Spanish companies (105 listed) comply with disclosure recommendations regarding employees.	Legitimacy theory and stakeholder theory	Firms pay more attention to social issues and labour practices about workers than to the ones related to IC.
Motokawa (2015)	To test the association between voluntary workforce disclosures and profiles of 253 listed firms on the Tokyo Stock Exchange.	Agency theory, stakeholder theory, legitimacy theory,	No. of workers and the average salary are positively associated with the level of voluntary HC disclosures.
Shimeld et al. (2017)	To analyze the influence of the issuance of the Australian Securities Exchange Corporate Governance Principles and Recommendations on diversity reporting of 120 listed firms for the period 2009 and 2012.	Agency Theory	The disclosure recommendations have little impact as the changes are superficial
Bowrin et al., (2018)	To analyze the extent and drivers of HR disclosures for 117 listed firms and selected state enterprises from 6 African and Caribbean countries during 2011/12.	Agency theory, stakeholder theory, and legitimacy theory	The overall extent of workforce reporting is minimal. Firm size, industry, and governance affect the level of disclosure.

Kent and Zunker (2017)	To identify the drivers of employee disclosures of 970 listed firms on the Australia Securities Exchange Limited	Stakeholder theory	Employee power (measured by employee concentration), and the quality of corporate governance (measured by board's composition, employee recognition in strategies,) positively affect the extent of workforce disclosures.
McCracken et al. (2018)	To assesses the state of workforce reporting in the UK of the FTSE 100 companies before and after relevant amendments to the Companies Act 2006 introduced in 2013.	RBV Theory and legitimacy theories (Implicit)	Regulations on human capital disclosure affect the level of disclosure. Disclosure on employee training, health and safety, career development and employee leadership increased over time. This is similar to the findings of Khan and Khan (2010) and Abeysekera and Guthrie (2004).
Raimo et al., (2020)	To analyze the level of Human Capital information contained within corporate reports and to identify the variables that influence disclosure.	Agency Theory	Results showed a positive and significant impact of firm size, board size, board independence and board diversity on the level of disclosure.
Vithana et al., (2021)	To analyze the nature and extent of human resource disclosures of UK FTSE 100 firms following the Labour government's attempts (2005 to 2009) to encourage firms to report on their human capital practices and to foster deeper employer–employee engagement.	Stakeholder and legitimacy theories.	Workforce disclosures have become more coherent over time. Unitarist approach to employee relations led to a comprehensive form of reporting. The authors explain that within a unitarist ideological environment employees and managers have common goals which are pursued in a friendly environment.
Salvi et al. (2021)	To determine the level of human capital disclosure and investigate the relation between HC information and the cost of capital and firm value.	RBV Theory	Firms can reduce investors' perceived firm risk by increasing the level of HC disclosure, leading to a lower cost of capital. Results also suggested that increased levels of human capital reporting are associated to firms' improved access to external financial resources, consequently enhancing firm value.

Absar et al., (2021)	The study examines the level of workforce disclosures in the websites of all the 30 listed banks of Dhaka Stock Exchange (DSE), Bangladesh.	Stakeholder theory	Employee training was found as the highest disclosed item. In contrast, no bank disclosed information about employees' age profile, whistleblower policy, trade union activity, employee satisfaction, employee attrition, employee disability.
Pham et al., (2022)	This study examines the relationship between firm characteristics and human resource disclosures of non-financial companies listed on the Vietnam Stock Exchange. Data were collected from the annual reports of 80 selected companies for the period 2016–2018.	Agency Theory Stakeholder Theory	The study found that the level of human capital disclosure in Vietnam is relatively low. The findings further revealed a significant positive relationship among foreign ownership, firm size and human resource disclosures.
Li et al., (2023)	This study follows a case study approach for a firm to determine the level and content of labor-related disclosure.	Legitimacy Theory	The study found that the firm increased labor-related disclosure over the years, with more focus on occupational health and safety issues, followed by training.

5.2. Theoretical Model and Hypotheses Development

Considering the above, this section develops a conceptual model, with support of appropriate theories and empirical studies, to answer the research questions posed.

This research draws on Ullmann's (1985) stakeholder model, as also adapted by Kent and Zunker (2017) to explain why firms report workforce-related information in their corporate reports. This model is based on the stakeholder theory forwarded by Freeman (1984). According to Kent and Zunker (2017), stakeholder demands are more likely to be met when the relevant stakeholder resources, such as employees, are considered key to the sustainable and long-term success of the firm. Management, therefore, makes more effort to meet the expectation and demands of powerful stakeholders. There are three main reasons for drawing on Ullmann's (1985) model. First, it considers stakeholder salience which refers to the extent to which managers give priority to

particular stakeholder claims. Second, as per Kent and Zunker (2017) it enables researchers to identify important stakeholder groups associated with specific topics of social disclosure rather than focusing on a wide range of stakeholders. For example, it is likely that environmental lobbyists are more powerful stakeholders in terms of environmental-related disclosures, while lenders and shareholders are expected to be the primary stakeholders for financial reporting disclosures (Healy and Palepu, 2001). Similarly, measures of workforce power are likely to be important for disclosures relating to workforce-related information. Finally, Ullmann's model based on stakeholder salience and the stakeholder theory, implies that firms are likely to adopt a proactive stance to manage certain stakeholders such as employees and make relevant disclosures (Ullmann, 1985; Kent and Zunker, 2017).

In this current study, specific employee-related firm and corporate governance characteristics are categorized using Ullmann's (1985) and Kent and Zunker's (2017) model consisting of two main dimensions: firm's strategic posture and employee power (employee voice) to explain workforce disclosure. The model was initially developed by Ullmann (1985) to explain the relationships among social disclosure, and social and economic performance. However, since Ullman's (1985) work, significant advances have been made in both theory as well as regulation regarding the drivers of social disclosures in general and employee-related disclosures in particular. Hence, given the current regulatory climate and requirements of UK's 2018 Code, this research builds on this model and adds new governance drives such as various types of board diversity and corporate social responsibility (CSR) committee to measure the strategic posture of the firm towards its employees. Recent research has also called for the study of governance mechanisms relevant for a firm's social outcomes (e.g., social disclosures) to move beyond gender diversity and include other types of diversity such as age, ethnicity, education etc. (Veldman et al., 2023). By including these diversities in explaining employee disclosures, this research responds to this call. This research also examines the role of various employee voice mechanisms introduced by the UK CG Code and uses them as a measure of employee power to investigate their relevance to workforce disclosures.

The following sections motivate and discuss the expected relationships explaining workforce disclosures and develops hypotheses accordingly.

5.2.1. Workforce Power and Workforce Disclosure

The first dimension of Ullmann's (1985) model is stakeholder power, adapted by Kent and Zunker (2017) as employee power. The current definitions of power are derived from the initial belief that power is the likelihood that one party within a social relationship is in a position to act in accordance with their own will despite any oppositions. As explained earlier, while some stakeholder groups want to influence what the firm does, others care about how they are affected by the company (Reverte, 2009). Employees as a group are regarded as powerful stakeholders since their work is instrumental for the economic success of firms (Kent and Zunker, 2017). More recently in the UK, employees are able to increase their stakeholder power through the three mechanisms introduced by the 2018 Code, namely: (1) a director appointed from the workforce; (2) a formal workforce advisory panel; and (3) a designated Non-Executive Director (NED) representative. This can lead to employees participating in corporate governance and having a voice in corporate decision-making including decisions that are directly relevant to them. In addition, the revised Code, and its accompanying Guidance (2018) emphasize the importance of effective whistleblowing policies and hotlines that protect employees, who voice their opinions, from retaliation. These are included in this study as part of the strategic posture measurement. Du Plessis (2020, pg. 2) argues that the whistleblowing hotline transforms the radical practice of whistleblowing or 'speaking truth to power' into a practice of 'speaking truth through power'. In this sense, whistleblowing policies and hotlines increase the stakeholder power of employees.

Furthermore, firms are more likely to report workforce disclosures in their corporate reports when there are a larger number of employees relative to the size of the firm (Kent and Zunker, 2017). Employee power as measured by employee concentration occurs within firms that need a large proportion of workers to conduct business so that workers are necessary to maintain and grow the business (Kuasirikun and Sherer, 2004). Thus, management is more likely to be motivated to report on employee issues. Employees may respond negatively towards the firm if they believe management does not care about their interests and if management does not report information about them (Lev, 1992).

A review of the literature indicates that previous studies (Robert, 1992; Chiu and Wang, 2014) found that social reporting is positively related to stakeholder power. With respect to workforce

disclosures, empirical studies such as the study by Kent and Zunker (2017) reported a positive and significant relationship between employee power and the level of workforce disclosure. Similarly, Ghaderzadeh and Mohammadpanah (2020) used Ullman's (1985) model and examined 107 firms listed on the Tehran Stock Exchange using the index and frequency methods. They also found a positive association between employee power (employee concentration) and the level of workforce disclosure based on the index approach. However, they found no significant relationship based on the frequency of word/ sentence index approach. Therefore, referring to previous studies, firms with higher employee-related power report more workforce disclosures than those with lower employee power. These reflect the predictions of the stakeholder theory and are used as a basis to explore the influences of employee power on a firm's employee-related reporting. It is hence hypothesized that:

H1: There is a positive relationship between employee power and workforce-related disclosures.

5.2.2. Employee Friendly Strategic Policies, Board Diversity and Board CSR Committee (Collectively called Strategic Posture) and Workforce Disclosure

The second dimension of Ullmann's (1985) model is strategic posture, which is incorporated into the Kent and Zunker's (2017) workforce disclosure model as an element of employee-related strategy and policies. Developing CSR policies, programmes and activities is considered as a part of an active stakeholder management strategy. However, firms following an inactive strategic posture neither try to manage its relationship with its workforce nor disclose information about its labour-related practices (Herbohn et al., 2014; Kent and Zunker, 2017). According to the Cadbury Report (1992), CG supports firms by providing them with strategic guidance, direction, and control in the form of a governance structure (board of directors - BoDs) which represents the distribution of responsibilities and rights among the various groups in the firm. These groups include the shareholders, BoD, managers, employees, and other stakeholders who are directed by the regulations and procedures for decision-making on corporate affairs.

The stakeholder approach to strategic management suggests that management needs to develop and implement strategies that satisfy the different groups of stakeholders. Adopting and formulating the appropriate vision and strategy of firms, including their environmental and social strategy, is the responsibility of the BoD (Mackenzie, 2007). Although HC is recognized as the

most important asset of any firm, there are interesting policy and analytical reasons to care about how the BoD's decisions impact workers, how workers can impact CG, and how the role of workers has been treated as a labour issue by CG (Hiwatari and Roe, 1999). Based on the resource-dependency theory, BoDs can be used to lower external uncertainty including risks resulting from social responsibility challenges (Pfeffer and Salancik, 1978). Additional BoDs can bring numerous benefits to firms such as access to medium of information between the firm and social and environmental risks, information in the form of counsel and advice, privileged access to resources, and legitimacy (Pfeffer and Salancik, 1978; Mallin and Michelon, 2011). It is also argued from a legitimacy theory point of view, that BoDs can be perceived as a means to enhance their reputation and a mechanism of legitimacy (Mallin and Michelon, 2011), since its role is to make sure the firm is operating efficiently, and the workforce's interests are taken into consideration in the decision making of the firm's top management. This means that board of directors can be a part of the solution to CSR challenges (Shaukat et al., 2016) faced by a firm in the market in which it operates.

5.2.2.1.Board Diversity

From an RBV perspective, Katmon et al. (2017) and Khan et al. (2019) assert that diverse boards play a big role with respect to CSR disclosure, given that it is the firm's valuable resource in enhancing the firm's CSR disclosure. Consequently, board diversity is one of the strategic capabilities under the lens of RBV theory. Hsu et al. (2013) found that one of the important firm resources is international directorship on the board which enhances CSR disclosure. Hsu et al. (2013) argue that ethnic directors are strongly committed to firms' accountability, transparency, and reputation in the market. Similarly, Du Plessis et al. (2012) found that ethnic diverse boards could effortlessly understand the demands and preferences of stakeholders within the same ethnic group, which would eventually enhance CSR disclosure. Many previous studies using board diversity have focused on gender diversity (Muttakin et al. 2015; Hassan & Mustafa, 2019; Raimo et al., 2020). Harjoto et al. (2018) argue that directors with diverse backgrounds, i.e., going beyond gender, bring their idiosyncratic views to the boardroom and reduce individual biases. This improves the ability of boards to recognize the needs and interests of various stakeholder groups, facilitating more in-depth discussion on social responsibility performance as the outcome of stakeholder management. Thus, this research covers broader and more comprehensive measures of diversity including demographic (gender, ethnicity) and professional (experience) diversity.

Additionally, the 2018 Code indicates that the board has overall responsibility for disclosure of employee-related information in the annual report and has a role in ensuring transparent disclosures of employee-related information. It further promotes the notion that board of director appointments should be on the basis of diversity of gender, social and ethnic backgrounds, cognitive and personal strengths. Accordingly, boards will value diversity and be responsive to the views of wider stakeholders, including employees. Therefore, the 2018 Code encourages greater transparency and disclosure about the make-up of the workforce to support this. Moreover, point 16 of the FRC's Guidance (2018, p.4) state: "Diversity of skills, background and personal strengths is an important driver of a board's effectiveness, creating different perspectives among directors, and breaking down a tendency towards 'group think'". Developing a more diverse board and executive pipeline is vital to increasing levels of diversity amongst the workforces. However, it is up to the board to decide which aspects of diversity are important considering the needs and context of the business. Therefore, it is interesting to identify the diversity aspects that the FTSE 100 boards have chosen and deemed appropriate in the light of regulatory guidelines.

Understanding the role of the BoD in establishing the strategic vision and direction of the firm, a few studies have recently explored both on a theoretical and empirical level, the responsibility of CG towards wider stakeholder groups, mainly employees. In this context, recent studies show mixed results. Studies (Tejedo-Romero and Araujo, 2018; Furlotti et al., 2019; Monteiro et al., 2022) reported that women on board is positively associated with workforce diversity reporting. On the other hand, Manita et al. (2018) found no significant relationship between board gender diversity and ESG disclosures. Kent and Zunker (2017) reported that the quality of corporate governance (as measured by board attributes and employee recognition in strategies) positively affect workforce-related reporting. Moreover, Khan et al. (2019) adopted the RBV theory and observed that gender, nationality, and tenure diversity of the board improve social disclosure, although educational background had a negative impact on social disclosure. Katmon et al. (2017) however documented a negative relationship between board diversity (nationality) and social disclosure, and a positive association between educational background and social disclosure.

The researcher observed that prior studies consider only board gender diversity (Furlotti et al., 2019) or board characteristics (Kent and Zunker, 2017) and their relationship with workforce disclosure. While other studies (Rao and Tilt, 2016; Khan et al., 2019; Issa et al., 2022) examine

the relationship between board diversity (beyond gender) and social disclosures in general, but do not explicitly establish these links with workforce disclosures. Accordingly, this study extends on these prior studies and investigates the relationship from a workforce perspective.

5.2.2.2. Workforce-related Strategic Policies

Furthermore, according to Kent and Zunker (2017), another approach for managers to demonstrate an active posture is by including their workforce in the strategic process. One way is the firm's recognition of employees in the firm's mission statement, which is considered as a strategic tool presenting the firm's vision, and by which workers can develop an emotional connection with the firm. In this thesis, I argue that the Strategic Report and Director's report as mandated by UK's Companies Act 2006 present as a stronger measure of strategic posture given the context of the study. Both reports must include information about the firm's employees and human rights issues, including information about any policies of the firm related to those matters as well as the effectiveness of those policies. Therefore, it is expected that there is a positive relationship between employee disclosure and strategic and director's reports acknowledging employees. Considering the RBV and legitimacy perspectives, it is expected that firms with an active strategic posture tend to disclose more information related to their employees.

5.2.2.3.CSR Committee

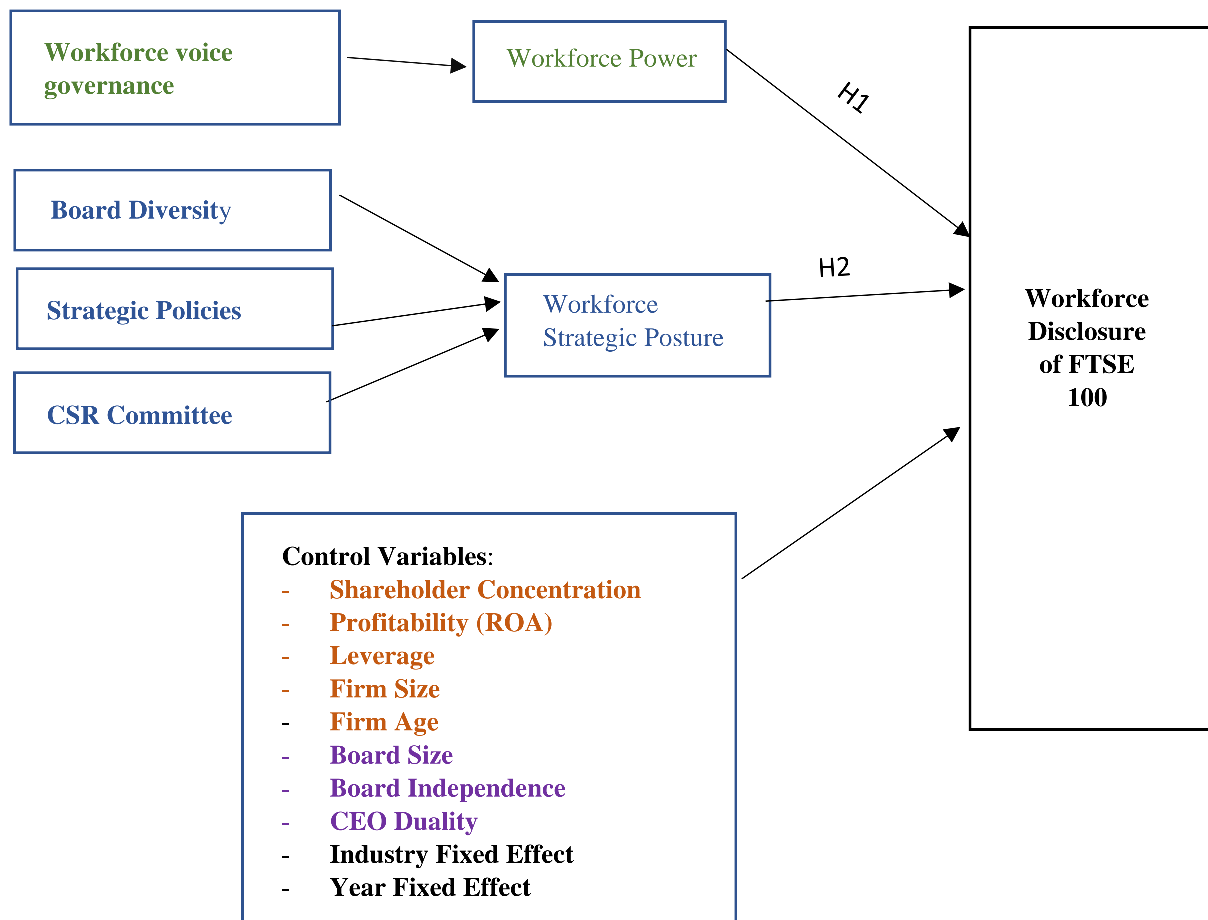
Corporate governance arrangements involve setting up a CSR Steering (or social) Committee, consisting of senior executives and reporting to the main board. Kent and Zunker (2017) state that the presence of a social responsibility committee is an indicator of good corporate governance and is particularly relevant to a workforce disclosure study. Meng et al. (2013) found that CSR disclosure is positively associated with the improvement of corporate governance mechanisms through CSR committees. Similarly, Peters and Romi (2013), Dienes et al. (2016) and Cucari et al. (2018) found that the existence of a CSR committee improves the level of CSR information disclosure.

It is hence hypothesized that:

H2: There is a positive relationship between workforce strategic posture and workforce-related disclosure.

5.3. Conceptual Model for Determinants of Workforce Disclosure

Figure 5.1: Conceptual Model 1 - Determinants of Workforce Disclosure



5.3.1. Models, Variables and Measures

5.3.1.1.Model Tested

The following model is developed to test the above-mentioned hypotheses (H1-H2):

WDI i,t = β0 + β1 Workforce Voice Gov. i,t + β2Board Ethnicity Diversity i,t + β3Board Gender Diversity i,t + β4Board Sustainability Experience i,t + β5 Workforce Strategic Policies i,t + β6 CSR Committee i,t + β7 Board Size i,t + β8 Board Independence i,t + β9 CEO Duality i,t + β11 Profitability i,t + β11 Leverage i,t + β12 Firm Size i,t + β13 Firm Age i,t + β14 Shareholder Concentration i,t + [Industry Dummies] + [Year Dummies] + ε i,t **(Equation 5-1)**

In the above model, the dependent variable is workforce disclosure index (WDI) which includes three main components: workforce diversity disclosure, workforce welfare disclosure, and workforce engagement disclosure. Given the reforms made to the 2018 Code, **workforce voice governance mechanisms** and **workforce strategic posture** are important explanatory variables. Additionally, based on the literature a wide number of control variables are used including **board characteristics (board size, board independence, CEO duality)**, **firm characteristics (profitability, firm size, firm age, leverage, shareholder concentration)**, and industry, and year fixed effects.

5.3.1.2.Measurement of the Variables

The current study uses a number of variables selected on the basis of the study theoretical perspectives, insights from previous literature, relevant regulatory frameworks, and the Refinitiv ESG Database. In this section, the I discuss and explain the key research variables under examination including the set of control variables. Appendix I summarizes the names, definitions, measurements, data type and data sources of all variables in the current empirical study.

5.3.1.2.1. Dependent Variable

WDI: WDI consists of 36 items and is the sum of WDD (workforce diversity disclosure score/ 10 items), WWD (workforce welfare disclosure score/18 items) and WED (workforce engagement

disclosure score/8 items). The score ranges from 0 to 100 % and is calculated as a percentage of the disclosure sum scored over the total number of items in the index.

- **WDD**: WDD (workforce diversity disclosure) is a component of the WDI disclosure index as developed in chapter 3. UK's Code (2018) emphasizes the importance of corporate culture to sustainability of businesses by promoting and valuing workforce diversity. Sec. 3 (89) of the Guidance on Board Effectiveness states that firms need to be transparent about the profile of their workforce to improve the diversity at each level of the company. Diversity aspects as suggested by the Guidance (2018) cover age, disability, nationality or ethnicity, social background, and gender. Companies can provide relevant information through diversity reports. Accordingly, these diversity aspects were included as measures of 'Workforce Diversity' in the index. This study employs varying and comprehensive measurement methods (see Appendix I) to determine the extent of disclosure. Appendix I presents the variable definitions, measures, and sources of data collection. With regards to employee diversity, the index measures gender diversity (binary: disclosure level as in 0 if not disclosed, 1 if disclosed for the disclosure index). Other diversity aspects including age, disability, ethnicity, sexual orientation profiles, ethnicity pay gaps, and cases of discrimination are measured as disclosure levels (binary: 0 if not disclosed, 1 if disclosed). The study furthermore measures gender pay gaps using two measures (binary: disclosure level as in 0 if not disclosed, 1 if disclosed for the disclosure index). For full details of WDD components, see part 1 of Table 3.4 in chapter 3.

- **WWD**: Workforce Welfare Disclosure. This measure is also discussed in detail chapter 3. As mentioned, previous studies (Raimo et al., 2020; Absar et al., 2021; Vithana 2021) included workforce welfare disclosure measures such as career development, training, health, and safety, family benefits, and rewards and appreciation. This study adds further disclosure measures based on the GRI, SASB and UK's 2018 code. It provides a more comprehensive and detailed list of disclosure measures including number of training courses, average training hours per employee, training costs, whistleblowing cases raised, whistleblowing cases closed, confidentiality of the whistleblowing hotline, consultation, and participation of employees in health and safety training, and promotion of health and wellbeing of employees including gyms memberships, insurance schemes, and health or sports days. This study

measured disclosure in terms of (binary: 0 if an item is not disclosed, 1 if an item is disclosed). For full details of WDD components, see part 2 of Table 3.4 in chapter 3.

- **WED**: Workforce Engagement Disclosure. As mentioned in section 3.2., previous studies measured workforce engagement as a single measure, by measuring frequency of word/line count of the term 'engagement'. However, since the 2018 CG Code emphasizes the importance of workforce engagement for a firm's sustainable success, the Guidance 2018 provides various examples and suggestions for good practice such as firms conducting bespoke events, townhall meetings, breakfast gatherings, engagement and Your Say surveys, staff appraisal and feedback on performance, site visits, mentoring, staff general meetings and employee involvement in training. This study goes beyond a single measure and measures the level of disclosure of the engagement activities in terms of (binary: 0 if not disclosed, and 1 if disclosed). For full details of WDD components, see part 3 of Table 3.4 in chapter 3.

The full details of motivation for disclosure items and actual items included in the disclosure index are discussed in chapter three.

5.3.1.2.2. **Independent Variables**

Workforce Voice Governance Mechanisms (Workforce Power): Literature on human resource management have used the term 'voice' sparingly. Wilkinson et al. (2014, p.3) narrows these definitions of voice which focuses on "how workers communicate with managers and are able to express their concerns about their work situation without a union, and on the ways in which employees have a say over work tasks and organizational decision-making". UK's CG Code (2018, p.15) defines workforce voice as "Communication between the workforce and the company is often referred to as the 'employee voice'. In light of the requirements of the Code 2018, i.e., calling for the strengthening of workforce voice in the boardroom, this research uses the workforce voice mechanisms recommended by the FRC to measure employee power at the top. These include 3 mechanisms: (1)worker representation on the board, (2) a formal advisory panel, (3) designated NED, or any other alternative arrangement. As the Code mandates one or a combination of these CG mechanisms, this study measures workforce voice in the form of an index (binary: presence of

top level employee voice mechanism as in 0 if not present, and 1 if present). Table 5.2 below provides details of components of workforce power.

Workforce-related Strategic Posture: Developing and disclosing about social responsibility programs is a part of an effective corporate governance and stakeholder management strategy. On the other hand, a firm implementing an inactive strategic posture do exert any effort to govern and manage its relationship with its workers. As a result, firms adopting a more active strategic posture to workers are assumed to report more workforce-related information in their annual reports. Workforce-related strategic posture is measured through board diversity characteristics (gender diversity, ethnic diversity, sustainability, or SR experience), workforce-related policies (for example diversity policy and engagement policy), and availability or presence of a CSR committee. Table 5.2 below provides details of components of strategic posture.

- **Board Diversity:** As per the 2018 Code, Principal J, board appointments should promote diversity of gender, ethnic backgrounds, social backgrounds and experience, and strengths. This study measures board diversity using a variety of variables. It consists of board ethnicity diversity, board gender diversity, and board experience diversity, mainly board sustainability experience. **Board gender diversity** is measured in terms of percentage of women on the board compared to the total number of directors on the board. This is consistent with previous studies by Müller (2014), Solakoglu and Demir (2016), and Elmghaamez and Akintoye (2021). The FTSE 100 boards have been increasing the percentage of gender diversity on the board based on the recommendations of the Hampton-Alexander Review Report (2016-2021) to reach the 33% target by the end of 2020. Therefore, companies are requested to disclose the number of females on the board or to explain non-compliance. **Board sustainability experience diversity** includes the percentage of board members with sustainability backgrounds and experience. **Board ethnicity diversity** measures the percentage of board members of ethnic backgrounds. Following the Parker Review Committee Report (2017), led by Sir John Parker, the FTSE 100 firms were obliged to have at least one director of color by 2021. Companies that do not meet the board composition regarding ethnic diversity recommendations should explain in their Annual Reports why they have not been able to achieve compliance.

- **Workforce Strategic Policies:** Another way for managers to include employees in the strategic process is the company's recognition of employees in corporate strategies and policies (OECD, 2004; Babnik et al., 2014; Parker Review Committee Report (2017-2021); Hampton-Alexander Review Report (2016-2021)). As per the Parker Review Committee Report (2017), a description of the board's policy on diversity should be set out in the Annual Report. UK's Coporate Governance Code (2018), Principle 1.E. , requires boards to ensure that workforce policies and practices are consistent with the company's values and support its long-term sustainable success. It, moreover, requires firms to report policies on diversity and inclusion (Provision 23), workforce engagement (Provision 41), and whistleblowing (Section 57 of the Guidance of Board Effectiveness). The researcher includes the recognition of employee policies in corporate strategic reports, annual reports, and director's reports as a measure of strategic posture. This study therefore measures in the form of an Index, the presence/absence of 11 specific workforce-strategic policies (binary: presence of the policy as an in 0 if note present, and 1 if present). The workforce-strategic policies measured are detailed in table 5.2 below. Refinitiv database and corporate reports were used to collect data on the presence of workforce-related policies.

- **CSR Committee**: Previous studies (Peters and Romi, 2013; Meng et al., 2013, Kent and Zunker, 2017) measured CSR Committee as the presence of a social responsibility committee in the firm through binary measures (i.e., 0 when CSR committee is not present and 1when CSR committee is present). Accordingly, the availabilty of a CSR committee is measured in the form of an index (binary: 0 if no CSR committee is present; 1 if a CSR committee is present).

Table 5.2: Components of the Independent Variables		
Workforce Voice Governance Mechanisms (WVGM)		
Breakdown of items in employee voice mechanisms: one or a combination of the following methods should be used. If the board has not chosen one or more of these methods, it should explain what alternative arrangements are in place.		
Workforce Board Representative	"Comply or Explain"	Corporate Governance Code 2018
Advisory Panel	"Comply or Explain"	Corporate Governance Code 2018

Designated Non-executive board of directors	"Comply or Explain"	Corporate Governance Code 2018
Any other mechanism such as employee forums/ unions	"Comply or Explain"	Corporate Governance Code 2018
Workforce Strategic Posture (WSP):		
Workforce-related Strategic Policies: Total of workforce policies disclosure/total number of items in the index		
Component	**Mandatory/Voluntary**	**Source of Component**
Policy on Workforce Diversity & Inclusion	"Comply or Explain"	Corporate Governance Code 2018
Policy on Non-Discrimination	Voluntary	GRI 401: EMPLOYMENT Refinitiv
Policy on Workforce Engagement	"Comply or Explain"	Corporate Governance Code 2018
Policy on Whistleblowing	"Comply or Explain"	Corporate Governance Code 2018 SASB
Policy on Workforce Skills Training	Voluntary	○ GRI 401: EMPLOYMENT ○ Refinitiv
Policy on Workforce Career Development	Voluntary	○ GRI 401: EMPLOYMENT ○ Refinitiv
Policy on Health & Safety of Workforce	Voluntary	○ GRI 401: EMPLOYMENT ○ Refinitiv ○ SASB
Policy on Forced Labour	Voluntary	○ GRI 401: EMPLOYMENT ○ Refinitiv
Policy on Board Diversity	"Comply or Explain"	○ Corporate Governance Code 2018 ○ Parker Review ○ Hampton-Alexander Review 2016 ○ Refinitiv
Sustainable Development Goal 5 - Gender equality and women's empowerment	Voluntary	○ United National Global Compact Initiative ○ Refinitiv

Sustainable Development Goal 8 - Full and productive employment and decent work for all	Voluntary	○ United National Global Compact Initiative ○ Refinitiv

*Note: Mandatory: Firms are legally required to report the information by regulators with no 'Comply or Explain' clause or caveat. Based on UK's Gender Equality Office's gender pay gap reporting is mandatory for UK firms with more than 250 employees.
Comply or Explain: Firms have a flexible clause that makes it possible for them not to make disclosures granted that they justify their position.
Voluntary: Firms are neither legally required nor is there a 'comply or explain' clause to report the information. It is entirely up to the firm to choose to report it.

5.3.1.2.3. Control Variables

Researchers have found that disclosures are affected by a firm's attributes or characteristics such as firm size, shareholder concentration, industry affiliation as well as corporate governance characteristics (Cowen et al., 1987; Haniffa and Cooke, 2005; Muttakin and Subramaniam, 2015; Cahaya et al., 2017; Bowrin, 2018; Tsalis et al., 2018; Alawi and Belfaqih, 2019). Therefore, in line with previous literature, this analysis paper includes board independence, board size, CEO duality, firm size, leverage, firm age, shareholder concentration and industry affiliation as control variables. The measurements of these variables are explained in detail below.

Board Characteristics:

- **Board independence:** Corporate governance is affected by the number of independent board directors in a firm who formulate strategies, policies, budgets, and the firm's social responsibilities (Khalid et al., 2022). As per UK's CG Code, it is essential that the FTSE firms have at least fifty percent of the board consisting of independent directors. The need for this is embedded in the agency theory which assumes that the conflict of interest between the principal and agent will decrease when independent directors are present as monitors (Dalton et al., 1999). Researchers (Ortas et al., 2017; Cucari et al., 2018; Khalid et al., 2022) found that there is a significant association between ESG disclosures and the percentage of independent directors on the board. According to the requirement of the Code and previous studies (Müller, 2014), this study measures board independence as the proportion of independent directors to the total number of board directors.

- **Board size:** The size of the board represents the number of directors with the BoD of a firm. Coles et al. (2008) argues that the size of the board is essential to board effectiveness due to the diverse expertise and knowledge that various individuals can add to the quality of decision-making. Several studies found that board size has a significant relationship with ESG disclosures (Khalid et al., 2022; Trisnawati et al. 2022). Tamimi and Sebastianelli (2017) suggested that firms with bigger board sizes generally tend to disclose more information regarding ESG data. In line with previous studies such as Müller (2014), and Bhatt and Bhattacharya (2015), board size is measured by total number of directors on the BoD of a firm.

- **CEO Duality:** CEO duality occurs when the CEO, who holds top management position, acts also as the chairperson of the board. This combined leadership structure provides CEO with decision-making power, also known as CEO structure power (Hu and Gan, 2017). Additionally, as per the agency theory, this concentrated decision-making power may constrain board independence and impair the board's oversight and governance roles including corporate disclosure policies (Davidson & Worrell, 1998). UK's Code as a result recommends that firms should separate the roles of the CEO and chairperson. This indicates that firms with existing CEO duality are more inclined to be associated with lesser levels of voluntary reporting because the board might be less effective in monitoring the management as well ensuring a higher level of transparency. Based on previous studies, lower levels of transparencies might be used to mask incompetence and fraud (Gul and Leung, 2004; Muttakin and Subramaniam, 2015). This study measures CEO Duality as (dummy variable: 1 if the CEO also chairs the board; and 0 otherwise).

Firm-specific Characteristics:

- **Firm size:** From the perspective of the socio-political theory, bigger firms are likely more visible to public and thus face more pressure from various groups of stakeholders, internal and external (Patten, 2002; Deegan, 2002). As such, bigger firms may be motivated to make more social disclosures to legitimize their actions and activities (Brammer and Pavelin, 2006). Considering the economics-based disclosure theory, Clarkson et al. (2008) claim that the majority of VD studies control for firm size as bigger firms experience economies of scale with respect to information production costs. Firm size is measured by the natural logarithm of total

assets, since firms are exposed to the scrutiny of the community as well as stakeholder pressure based on their sizes (Chithambo and Tauringana, 2014; Bowrin, 2018; Tingbani et al. 2020).

- **Leverage:** From an economics view, generating and publishing high quality objective disclosures involve costs. Leverage is controlled because firms experiencing high leverage have fewer chances to allocate funds for CSR activities and to report on them (Barnea and Rubin, 2010; Reverte, 2009). They suggest that firms with higher levels of total debts to total assets ratio may face increased pressure from creditors. This could lead to difficulty in raising money to invest in social activities as well as social reporting. However, Kent and Zunker (2017) found that highly leveraged companies disclose more information to reduce their cost of capital. They explain that agency costs of debt are higher for companies with higher debts in their capital structures as potential wealth is transferred from bondholders to shareholders and managers increase with leverage. Due to the fact that creditors can price-protect themselves through restricted debt covenants, managers might be enticed to increase reporting of information to reduce agency costs as well as the cost of debts (Richardson and Welker, 2001; Jindal and Kumar, 2012). This study measures as total debts divided by total assets (Ehnert et al., 2016; Gong et al., 2018; Le et al., 2018; Salvi et al, 2020).

- **Firm Age:** Owusu-Ansah (1998) found that the level of a firm's disclosure is influenced by its age. Owusu-Ansah (1998) believed that age is a measure for the firm's stage of development and growth. She provided the following three arguments in support of her finding. Firstly, younger firms may have to endure competitive disadvantage if they report certain items such as information on research and development expenditure, capital expenditure, and product development. Secondly, the ease and the cost involved in collecting, processing, and communicating the required information reduces with age of a firm. Thirdly, younger firms have minimal historical records to rely on for public disclosure and hence may have less information to report. Some studies took age as the number of years since inception of firms while others took age as the number of years of operation of the firm as a publicly listed firm (Jindal and Kumar, 2012). Because firms grow as private firms and become large enough over time to go public, being listed is a step in the development of a firm and not its birth (Owusu-

Ansah, 1998). Supporting this view, this study takes age of firm as the number of years of existence of the firm since its inception.

- **Shareholder concentration:** Ownership structure can impact the extent of voluntary disclosures as well as the level of monitoring. Shareholders are regarded as powerful stakeholders and are also increasingly concerned about a firm's responses to ESG issues (De Villiers and Van Staden, 2012; Kaur and Lodhia, 2014). Rooted in the agency theory, Fama and Jensen (1983) believe that dispersed share ownership increases the conflict of interest between principals and managers. Hence, firms increase voluntary reporting to reduce information asymmetry and prevent reduction in firm value. Therefore, the larger the proportion of strategic shareholdings, the lower the dispersion of shares. This also means lower information asymmetry between strategic shareholders and the firm, and hence likely lower the voluntary including employee-related disclosures (Whiting and Woodcock, 2011). Alternatively, Kent and Zunker (2017) argue that increased dispersion might lead to increased reporting of workforce-related disclosures. Shareholder concentration is a measure of shareholder power and is included as a measure associated with employee-related voluntary disclosures. It is controlled and estimated by shareholder concentration as the percentage of total shares in issue held by major or substantial shareholders and not available to ordinary shareholders (Kent and Zunker, 2017). Data on major shareholdings was collected from the annual reports of the sample firms and Refinitiv.

- **Profitability:** As mentioned above, from an economics viewpoint, the preparation, verification, and communication of voluntary ESG information involves costs, although if it will provide benefits to firms (Verrecchia, 1983; Qiu et al., 2016). Hence higher the firm profitability, higher the disclosures. Profitability is measured by ROA which is widely used in previous studies. ROA is calculated as the ratio of earnings before interest and taxes to total assets.

- **Industry and Year:** It is argued that industries play an important role in determining firms' social reporting. Firms within a peer group (e.g., industry) are affected by similar economic conditions related to demand, supply, labour availability, and input costs, among other things

(Roychowdhury et al., 2019); thus, leading to variation in disclosures across industries. Thus, the model includes industry and year fixed effects to control for time invariant factors (Ehnert et al., 2016).

5.4. Results and Discussion

5.4.1. Descriptive statistics

Table 5.3 provides the descriptive statistics for all the variables including the dependent, independent and control variables used in the analyses, while Table 5.7 provides the correlations among these variables. For a more detailed descriptive statistics by subsamples, (i.e., by year) see Appendix IV.

Table 5.3: Descriptive statistics

Variables	Median	Mean	S.D.	Min.	Max.
WDI	55.556	53.573	15.953	2.778	91.667
WVGM	25.000	25.126	20.489	0	75.000
WSP	63.64	60.7511	14.3741	18.182	100.000
BED	8.333	9.4127	12.096	0	72.727
BGD	30.769	32.214	8.675	0	58.333
BSE	18.182	13.109	19.532	0	77.778
CSR Com.	0.00	0.408	0.492	0	1
Firm Size (in £ Millions)	12349.72	104796.70	274538.40	98.15	2182618
Firm Age (years)	82.00	98.189	78.435	5	502.00
Leverage	0.24393	0.2456497	0.1625173	0.0025202	0.8368724
Profitability	0.062	0.080	0.139	-0.245	2.178
Share_Con.	24.990	30.093	18.469	0	97.770
Board Ind.	66.670	64.431	9.857	40	87.500
Board Size	11	10.615	1.898	5	17
Duality	0.00	0.008	0.087	0	1

Legend: *1 WDI denotes workforce disclosure index which includes workforce diversity disclosure, workforce welfare disclosure and workforce engagement disclosure; 2 WVGM denotes workforce voice governance mechanisms which include designated NED/ advisory panel/ worker representative/exiting alternative mechanisms ;3 WSP denotes workforce strategic policies; 4 BED denotes the percentage of board ethnic diversity; 5 BGD denotes the percentage of board gender diversity; 6 BSE denotes board sustainability experience; 7 CSR_Com denotes the presence of a CSR Committee; 8 denotes firm size measured as natural logarithm of total assets; Firm age denotes the number of years of existence of the firm since its inception; Leverage is defined as the ratio of total debt to total assets; Profit denotes return on assets; Share_Con refers to major or substantial shareholdings, and is measured as the percentage of total shares in issue held by major shareholders and not available to ordinary shareholders; Board_ind denotes the percentage of independent members on the board; Board size is defines as the total number of members on the board of directors; Duality is a dummy variable which measures whether the CEO simultaneously chairs the board of directors.*

Chapter three, section 3.5, presented the extent and trends of WDI including its components. To reiterate, Table 5.3 shows that the mean of WDI is 53.57%, with a minimum level of 2.778 % and a maximum level of 91.667 %. The minimum level of disclosure pertains to 2018, prior to the implementation of the revised Code. Upon further examination, the firm with the lowest disclosure level (2.778 %), reported only on workforce welfare items including employee benefits and remuneration, which covers the bare minimum of disclosure when compared to the other firms in the sample.

With regards to the workforce voice governance mechanisms, the results show a 25.12 % mean, indicating that on average firms are employing at least 1 out of 4 governance mechanisms to empower their employees and give them a voice. The minimum percentage of mechanisms employed is 0, and the maximum percentage is 75 %. This suggests that the highest number of mechanisms employed by the firms is 3 (3 out of the 4 mechanisms suggested by the revised Code).

Moreover, the table shows that firms have an overall level of 60.75 % workforce-related strategic policies in place as required by UK's Code and other regulatory frameworks such as the GRI and SASB which translates to having around 6 policies out of 11. The above table shows that in terms of workforce strategies, the minimum strategies employed by any firm was slightly less than 1 out of 11 (around 18%), while the maximum strategies employed was 100% that is having all 11 strategic policies.

In terms of board diversity, this study measured the percentage of ethnic diversity, gender diversity and sustainability experience on the board. The results indicate that on average 9 % of the board includes members of ethnic backgrounds, with a minimum of 0 ethnic board members and a maximum of 72.73 % of ethnic board members. Further analysis shows that in 2020, 20 firms had 0 board members of ethnic backgrounds, while in 2017, 56 firms had 0 ethnic diversity on their boards. This indicates that there is an improvement following the Parker Review (2017) requirements to increase ethnic diversity on the boards of the FTSE firms.

A gender diverse board is viewed as a resource pool based on the assumption that higher diversity brings greater knowledge, expertise, and skills. An examination of board gender diversity shows that the proportion of female directors to their male counterparts is 32.2 %. The minimum percentage of female directors is 0 %, while the maximum percentage of female directors is 58.3 %. In 2020, one-third (35 %) of all positions were held by women.

Furthermore, on average 13 % of the directors had sustainability experience, with a minimum percentage of 0 and a maximum percentage 77.78 % of directors with SE on the board. A closer look at the analysis shows that in 2017, the number of boards with no SE was 68 and in 2020 this number reduced by almost 50 %, with 35 members with no SE on the board. This shows that firms are increasingly becoming aware of the importance of sustainability in governance practices. Among other corporate governance attributes, the table indicates that on average 40 % of the firms had CSR committees. Evidence in this study indicates that few firms have a formal structure such as a CSR committee in place for social responsibility practices.

Table 5.3 also reports on the descriptive statistics of the control variables. The control variables include both firm characteristics and board characteristics. For firm size, which is measured as total assets, the analysis shows that the mean is GBP 104.8 billion with a minimum value of GBP 98.15 billion and maximum of GBP 2,182 billion. Firm age, meanwhile, ranges from 5 to 502 with a mean of 98.19. This illustrates that firm size and firm age have considerable variation. These have been treated using natural logarithm. The average leverage ratio is 25%, while average return on assets is 8%. Finally, shareholdings which represents the shares held by largest five shareholders have a mean of 30.09304, with a minimum value of 0 and a maximum value of 97.7 % shareholdings.

Among the control variables, the board characteristics (other governance-related variables) suggests an overall of 64.4307 % board independence, ranging from 40% to 87.5 % in line with the requirements of the Code. The mean of board size is 10.6 with the smallest board having 5 directors and the largest having 17 directors. Several of the FTSE 100 firms, however, have more than 15 members in the BoD (for instance in 2017 HSBC Holdings had 17 members and in 2018 Prudential had 17 members as well).

5.4.2. Workforce Voice and Engagement Trends

This section gives an overview of the workforce voice and engagement arrangements during the period of study (2017-2020) particularly in the light of the introduction of the requirements of the 2018 CG Code in terms of workforce voice governance mechanisms, whistleblowing arrangements, and the various workforce engagement activities as suggested by the Code and the Guidance on Board Effectiveness (2018). All the items listed in the table below have been obtained from the Code and the Guidance.

Table 5.4: Workforce Voice and Engagement Trends of FTSE 100 (2017-2020)		
Workforce Voice & Engagement Arrangements	**Year**	**% of Companies**
Worker Representative on the Board	2017	0
	2018	0
	2019	1
	2020	1
Formal Advisory Panel	2017	0
	2018	0
	2019	19
	2020	20
Designated Non-Executive Director	2017	0
	2018	6
	2019	45
	2020	51
Existing or Alternative Arrangements such as: Consultation Groups, Employee Forums, Work Council, Employee Platforms, Trade Unions	2017	41
	2018	54
	2019	79
	2020	81
Whistleblowing Hotline	2017	87
	2018	85
	2019	97
	2020	97
Employee AGMS and Staff Meetings	2017	16
	2018	26
	2019	66
	2020	74
Involvement of employees in Training	2017	16
	2018	25
	2019	48
	2020	65
Mentoring schemes	2017	43
	2018	58
	2019	74
	2020	83
Employee-Related ‘Voice’ Surveys	2017	79
	2018	85
	2019	92
	2020	95
Hosting Bespoke Events/ Town Halls	2017	20
	2018	34
	2019	75
	2020	79
Staff Appraisal and feedback on performance	2017	29
	2018	45
	2019	76
	2020	88
	2017	33

Site Visits (including virtual site visits during COVID-19)	2018	56
	2019	78
	2020	87
Succession planning related to employees	2017	44
	2018	57
	2019	84
	2020	85

The results show that of the three core options for workforce voice or workforce voice governance mechanisms in the revised 2018 Corporate Governance Code – a worker director, designated non-executive director (NED) and advisory panel – 45% of firms in the sample had appointed a designated NED, and 19% had established an advisory panel. Only one company was found to have appointed a worker director as it already involves a German-style supervisory board.

By far the largest proportion of the sample had chosen a designated NED (45 % in 2019) and (51 in 2021 %). When the FTSE firms were asked the reason for worker directors being the least popular option, firms raised concerns that worker representatives would be overly loyal to the CEO who appointed them, or else might become distrusted over time by the workforce. Other firms claimed that practically a worker director will lack the appropriate level of experience and technical background that directors need to have (FRC, 2021). Additionally, advisory panels were less popular than NEDs because according to Edmans (2017), although this option is the most suitable out of the three, panels are difficult to design. This is because the FTSE 100 consists of international firms with majority of employees overseas. He suggests more flexible approaches such as webinars. During the pandemic many of the sample companies used alternative online arrangements such as online site visits and forums to meet with their workers. Upon further examination, the analysis further showed that overall, 8 firms in 2019 and 6 firms in 2020 used a combination of a designated NED, an advisory panel, and other alternatives such as work councils. On the other hand, 8 firms in 2019 did not use any governance mechanisms and opted to use engagement activities such as surveys. Nevertheless, by 2020 all firms had at least one form of a workforce-governance mechanism in place.

However, whilst the Code suggests firms adopt one or more of three core options (designated NED, advisory panel, and worker director), it also enables firms to adopt a different approach, stating that if a board has not selected any of the recommended mechanisms, it should explain

what alternative arrangements are used instead. Therefore, in 2019, 79 % of the companies opted to choose a combination of alternative arrangements such as work councils, employee forums, employee platforms and consultation groups. Thus, after the introduction of reforms, companies chose to either adopt alternative arrangements, continue with their existing mechanisms, or opt for a combination of existing, alternative, or Code-recommended mechanisms. Based on the FRC (2021), a number of firms believed that no single mechanism is suitable for the entire workforce. Hence, instead they relied upon a combination of multiple existing engagement mechanisms Nonetheless, the results indicate that prior to the revision of the Code, 54 % of FTSE 100 firms, were using some kind of arrangement for workforce voice. Overall, most responses to the Code represent an evolution of existing arrangements rather than any radical revolution.

In addition to the workforce voice governance mechanisms, the Guidance (2018), recommended various workforce engagement activities for firms to supplement the three core approaches. Most FTSE 100 firms did not rely solely on a single channel of engagement, but employed at least two or more, usually including an employee engagement survey or pulse survey, and often site visits. In particular, as can be seen in table 5.4 it is striking how many firms, 92 % (2019) and 95 % (2020) in their annual report place a very heavy reliance on employee surveys as their primary tool for engagement with the workforce, accompanied with other workforce engagement arrangements such as whistleblowing, site visits, town halls, staff meetings or other occasional bespoke discussions with employees. It is interesting to note that much of this was done virtually in 2020 due to COVID-19 restrictions.

5.4.3. Regression Estimators, Normality and Correlations

It is important before moving to the regression analysis to check if the data, study models and regression estimators are suitable for investigating the study hypotheses.

Regression estimator test: Since this study used a combination of cross-sectional and longitudinal data, i.e., panel data, either fixed effects or random effects estimators need to be employed to test the hypotheses. The Hausman test is a widely used econometrics test in the context of panel data which gives an indication between fixed-effect and random-effect models as it tests for orthogonality of the common effects and the regressors (Greene, 2012; Hausman, 1978). The null

hypothesis of the Hausman test is that the preferred estimator is the random effects. Accordingly, the Hausman test was conducted, and the results reported that (chi square is 46.30 with a p-value <0.05). The null hypothesis is not rejected; thus, indicating that the fixed effect estimator is preferred over random-effect by accepting the presence of time-invariant effects (P-value < 0.05). Moreover, panel data models should be tested against the assumptions of (normality, multicollinearity, autocorrelation, and heteroscedasticity) (Gujarati, 2022). Each one of these assumptions will be discussed in this section.

Normality tests: The first stage in determining if the data sample is suitable for regression analysis is applying normal distribution test for the continuous variables. Commonly, normality of data is tested to make sure that data is normally distributed for reasons such as lowering the effect of omitted variables not included in the model. Based on Gujarati and Porter, (2009), in bigger samples drawn from time series, cross-sectional, and panel data (usually more than 100 observations), normality shall not be a detrimental issue. Since this study has 395 observations, normal distribution shall not be a detrimental problem to the researcher at this point. Nonetheless, this study used skewness, kurtosis and the Jarque Bera test to assess normality. Data is considered normally distributed when the skewness and kurtosis values are within -2 to +2 range (George and Mallery, 2010). The initial analysis revealed that variables including total assets (which measures firm size), firm age and shareholder concentration were not normally distributed. Dinga (2011) claims that the issue of non-normality can be resolved or reduced at least by transforming the data. This basically involves logarithmic transformations to make sure that the data are normally distributed. This is consistent with prior literature in workforce disclosure and ESG studies (Ehnert et al, 2016; Brahma et al., 2021). Accordingly, the data regarding firm size, firm age and shareholder concentration were transformed using natural logarithm to over overcome this issue, resulting in better normality.

Model diagnostics: In addition, two model diagnostic tests were conducted. These include the D-W statistic and the Cook-Weisberg test (which is an extension of the Breusch–Pagan test). To test the issue of autocorrelation between the residuals of the variables, the Durbin Watson test was conducted for the study models and as can be seen in table 5.5, the D-W statistic is greater than 1 and close to 1.5; hence, this study assumes there is no autocorrelation issue that might affect the results of the regression. A further robustness test is needed to confirm whether or not

heteroscedasticity exists. Hence, the present study uses the Cook-Weisberg test or the Breush-Pagan test. If the p-value is significant, then the null hypothesis, that the variance of the residuals is constant, would be rejected, suggesting the presence of heteroscedasticity. As can be seen from table 5.5, the p-value is insignificant at a *p value* less than 0. 0.8391. Therefore, the null hypothesis has to be accepted, indicating no presence of heteroscedasticity in the model.

Table 5.5: Model diagnostics of Autocorrelation and Heteroscedasticity tests		
Durbin Watson	**Cook-Weisberg**	**Probability > Chi^2**
1.4	Chi^2 0.04	0.8391

Multicollinearity tests: After the normality tests, multicollinearity diagnostics were conducted including both the variance inflation factor (VIF) and Pearson correlation test. According to Myers (1990), a VIF value of 10 or above is a good indication of the presence of multicollinearity among independent variables. Wooldridge (2002) and O'Brien (2007) believe that multicollinearity issues are likely to be relatively of no great concern if the tolerance factor (1/VIF) is greater than 0.10. The results presented in table 5.6 show that all the independent variables had a VIF value of less than 2. Therefore, both tests suggest the likelihood of multicollinearity is low among the variables. The results of the Pearson correlation coefficients are presented in section 5.4.3.1.

Table 5.6: Collinearity Statistics VIF and Tolerance tests		
Variable	**VIF**	**Tolerance**
Workforce voice Gov.	1.254	0.797
Workforce-related Stra.	1.316	0.760
Board ethnicity diversity	1.109	0.901
Board gender diversity	1.218	0.821
Board sustainability exp.	1.118	0.894
CSR Committee	1.165	0.858
Firm Size	1.891	0.529
Firm Age	1.075	0.931
Leverage	1.296	0.771
Profitability	1.272	0.786
Shareholder Con.	1.060	0.944
Board Independence	1.201	0.832
Board Size	1.454	0.688
CEO Duality	1.090	0.918

The Pearson correlations for testing hypotheses 1 and 2 are displayed in Table 5.7. The Pearson correlation coefficient is a measure of the relationship between the strength of two variables. Additionally, this test is performed to provide an early indication of any multicollinearity problems, which could pose a threat to the multivariate analysis (Tabachnick and Fidell, 2007). The table shows that most of the independent variables (WVGM, WSP, BED, BGD, BSE) are statistically significantly correlated with the dependent variable (WDI). This offers a basic insight into the proposition that the independent variables have an association with workforce disclosure. It is worth mentioning that the highest correlations are among workforce strategic policies (0.5088) and workforce voice governance mechanisms (0.4968) with the dependent variable, WDI. This is expected since the variables are highly interrelated whereby companies tend to disclose their workforce activities based on the posture of their strategies, policies, and governance mechanisms. Additionally, another higher (> 0.4) positive and significant correlation exists between the control variables firm size and board size, indicating that larger firms are inclined to have larger boards comprised largely of non-executives and independent directors.

The table further shows that none of the correlation coefficients among the independent variables included in the regression model exceed the threshold value of 0.80 (Gujarati, 2022; Ehnert et al, 2016), triggering a concern over the likely presence of multicollinearity. All correlation coefficients among independent variables are less than 0.60 indicating that multicollinearity is not an issue for the following regression analysis. This assumption is further supported by the VIF, and tolerance tests reported in table 5.6.

5.4.3.1.Correlations Matrix

Table 5.7: Pearson Correlation Matrix for Testing H1 and H2															
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
1. WDI	1.000														
2. WVGM	0.4968**	1.000													
3. WSP	0.5088**	0.3676**	1.000												
4. BED	0.1446**	0.0742	0.0557	1.000											
5. BGD	0.2307**	0.2164**	0.2546**	-0.1037*	1.000										
6. BSE	0.1153**	0.1964**	0.1585**	0.1207*	0.0676	1.000									
7. CSR_Com	0.0950	0.1333**	0.1675**	0.1937**	0.0405	0.1986**	1.000								
8. Firm Size	0.1425**	0.0213	0.1075*	-0.0230	-0.0081	-0.0038	0.1638**	1.000							
9. Firm Age	0.0338	0.0202	0.0045	-0.0735	0.0057	0.0176	0.0108	0.2084**	1.000						
10. Leverage	0.0883	0.0219	0.1477**	0.0104	0.1083*	0.0572	0.1318**	-0.3008**	-0.136**	1.000					
11. Profit	-0.0244	-0.0814	-0.0654	0.0737	0.1445**	-0.0056	-0.0807	-0.399**	-0.0847	0.0660	1.000				
12. Share Con.	-0.1028	0.0422	0.0340	-0.0187	-0.0772	-0.0155	-0.0095	-0.0657	-0.0142	-0.1570**	0.0176	1.000			
13. Board Ind.	0.1275*	0.0954	0.0436	-0.0668	0.1089*	0.1359**	0.0715	0.2592**	-0.0185	0.0706	-0.159**	-0.0690	1.000		
14. Board Size	0.0922	0.0501	0.0169	0.0987*	-0.1143*	0.0962	0.1331**	0.4881**	0.0840	-0.0891	-0.198**	-0.0621	0.2809**	1.000	
15. Duality	-0.0298	-0.0719	0.0541	0.0220	-0.1027*	-0.0588	-0.0729	-0.0784	-0.102*	-0.0918	-0.0413	0.0618	-0.0228	-0.1354**	1.00

Notes: **Correlation is significant at the 0.01 level (two-tailed), Correlation is significant at the 0.05 level (two-tailed)

Legend: *1 WDI denotes workforce disclosure index which includes workforce diversity disclosure, workforce welfare disclosure and workforce engagement disclosure; 2 WVGM denotes workforce voice governance mechanisms which include designated NED/ advisory panel/ worker representative/exiting alternative mechanisms ;3 WSP denotes workforce strategic policies; 4 BED denotes the percentage of board ethnic diversity; 5 BGD denotes the percentage of board gender diversity; 6 BSE denotes board sustainability experience; 7 CSR_Com denotes the presence of a CSR Committee; 8 denotes firm size measured as natural logarithm of total assets; Firm age denotes the number of years of existence of the firm since its inception; Leverage is defined as the ratio of total debt to total assets; Profit denotes return on assets; Share_Con refers to major or substantial shareholdings, and is measured as the percentage of total shares in issue held by major shareholders and not available to ordinary shareholders; Board_ind denotes the percentage of independent members on the board; Board size is defines as the total number of members on the board of directors; Duality is a dummy variable which measures whether the CEO simultaneously chairs the board of directors.*

5.4.4. Empirical Analysis and Discussion

Table 5.8: Fixed-effect panel regression results for WDI and its components WDD, WWD, WED								
	WDI		WDD		WWD		WED	
Variables	Coefficient beta	t-value	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Workforce Voice Gov.	0.3285***	9.76	.15167***	3.52	0.2971***	7.97	0.6193***	9.41
Workforce Strategic Policies	0.2214***	5.23	.03186	0.59	0.2039***	4.35	0.4958***	5.98
Board ethnicity diver.	0.2354***	3.20	.2816***	2.99	0.2105***	2.58	0.2346	1.63
Board gender divers	0.1350	1.60	.08977	0.81	0.1598*	1.68	0.1463	0.86
Board sustainability exp.	0.1492***	3.15	.1227**	2.02	0.1572***	2.99	0.1660*	1.79
CSR Committee	1.8314	1.16	-.9603	-0.48	2.2280	1.28	4.47151	1.45
Firm Size	9.3577***	2.92	2.4218	0.59	13.2448***	3.73	9.1108	1.45
Firm Age	-4.1235	-0.51	-6.9428	-0.66	-1.6426	-0.18	-6.1576	-0.39
Leverage	16.2676***	1.94	17.74196*	1.67	10.8240	1.17	25.7968	1.57
Profitability	-8.1431	-1.19	-11.7916	-1.34	-9.8555	-1.3	0.4880	0.04
Shareholder Con.	-0.5151	-0.13	6.01564	1.15	-6.2212	-1.38	4.1005	0.51
Board Independence	-.1454***	-2.03	-.17107*	-1.86	-0.1417*	-1.78	-0.1248	-0.89
Board Size	-.7306	-1.60	-.6010	-1.04	-0.8651*	-1.71	-0.5489	-0.61
Duality	17.9409*	1.66	22.1534	1.6	1.3631	0.11	50.0457**	2.37
Constant	4.5420	0.22			-0.13549	-0.01	-2.90	-0.56
Industry Fixed Effect	Yes		Yes		Yes		Yes	
Year Fixed Effect	Yes		Yes		Yes		Yes	
Regression F	37.57 ***		6.29***		27.72 ***		31.21 ***	
Adjusted R^2	66.75 %		25.15 %		59.70 %		62.51 %	
No. of observations	395		395		395		395	

***, **, * represent significance at the 1%, 5% and 10% levels, respectively.

Legend *:1 WDI denotes workforce disclosure index which includes workforce diversity disclosure, workforce welfare disclosure and workforce engagement disclosure; 2 WVGM denotes workforce voice governance mechanisms which include designated NED/ advisory panel/ worker representative/exiting alternative mechanisms ;3 WSP denotes workforce strategic policies; 4 BED denotes the percentage of board ethnic diversity; 5 BGD denotes the percentage of board gender diversity; 6 BSE denotes board sustainability experience; 7 CSR_Com denotes the presence of a CSR Committee; 8 denotes firm size measured as natural logarithm of total assets; Firm age denotes the number of years of existence of the firm since its inception; Leverage is defined as the ratio of total debt to total assets; Profit denotes return on assets; Share_Con refers to major or substantial shareholdings, and is measured as the percentage of total shares in issue held by major shareholders and not available to ordinary shareholders; Board_ind denotes the percentage of independent members on the board; Board size is defines as the total number of members on the board of directors; Duality is a dummy variable which measures whether the CEO simultaneously chairs the board of directors.*

Correlation analysis demonstrate significant relationship between dependent and independent variables. Thus, the relation of independent variables with a firm's workforce-related reporting practices has been studied further using regression analysis. Table 5.8 displays the results of testing H1 and H2, i.e., the determinants of workforce disclosure in terms of workforce voice governance mechanisms (H1) and workforce strategic posture (H2). The regression model F-Statistic is significant at $p = 0.00$ with an R^2 of 30 %.

With regards to H1, the findings indicate that there is a positive and significant association between workforce voice governance mechanisms and the extent of workforce disclosure index and all its components (WDD, WWD, and WED). This result shows that firms with higher workforce power or workforce governance mechanisms report more workforce-related disclosures than companies low workforce voice at the top. Economically, it means that 1 standard deviation in value of employee voice mechanisms is associated with 0.42 standard deviation into workforce disclosure. Meng et al (2013) found that social reporting is positively associated with the improvement of the strongest corporate governance mechanisms. This indicates that the improvement in the workforce voice governance mechanisms as recommended by the revised Code have led to the prominence of employees as influential stakeholders in the annual reports. From the perspective of the legitimacy theory, Beck et al. (2017) believe that firms use their compliance with regulations to show their legitimacy and to exert their authority by expressing social norms through disclosures.

Moreover, H2 is supported in the model in that workforce disclosure is positively and significantly related to the levels of workforce-related strategic policies, board ethnic diversity and board sustainability experience. These results suggest that workforce disclosures increase with strategic policies that acknowledge employees, ethnic diversity on the board and with sustainability experience on the board. This further indicates that workforce disclosures are increased as a strategic response to manage workers as a group. This supports the notion that sustainability disclosure is one of the more commonly used approaches to convey a firm's commitment to its stakeholders. Muttakin et al (2015) and Ben Farhat Toumi and Khemiri (2023) found that foreign and ethnic directorship have a positive relationship with sustainability disclosures. However, this study is the first of its kind to provide evidence that board ethnic diversity has a positive relationship with WDI specifically.

However, it is interesting to note that there is no significant relationship between board gender diversity with the extent of workforce reporting. This contradicts the study by Tejedo-Romero and Araujo (2018) and Issa and Fang (2019) who found a positive relationship between board gender diversity and human capital reporting and CSR disclosures respectively. Provasi and Harasheh (2021), Bowrin (2018), Dienes et al. (2016) and Amran et al. (2014) did not find any evidence for an association between board gender diversity and workforce or social reporting either. In line with Furlotti et al., (2019), evidence suggests that women empowerment is not always associated with higher level of social disclosures as women are sometimes appointed on the board to fill a certain gender quota which in the case of the UK is the Hampton-Alexander quota. On the other hand, Bowrin (2018) believes that female directors might seek more traditional financial goals, possibly to prove themselves to the male directors, and to enhance their board leadership credentials and prospects. Nonetheless, upon examining the components of WDI more closely, the findings show that there is a positive and significant relationship between board gender diversity and WWD. In this regard, it is interesting to note that this is the only significant relationship with BGD out of the three components of WDI. This suggests that female board members have more say in welfare issues rather than diversity hires or engagement activities. According to Boukattya and Omri (2021), women respond to CSR based on the social practice itself, i.e., gender-diverse boards might be more inclined to engage in social practices that induce greater empathy such as in this case: welfare.

In terms of CSR committees, this research finds no significant association between the availability of such a committee and the extent of workforce disclosure. Although previous studies found a positive between CSR committee and ESG reporting in general, the results suggests that the role of the CSR committees in relation to employees have been taken over by the workforce voice governance mechanisms such as employee forums and advisory panels.

The relations with respect to the control variables (firm size and leverage) are as expected and consistent with previous studies. There is a significant and positive relationship between firm size and workforce disclosure. This result is consistent with those of prior studies conducted by research in a variety of contexts employing a diverse range of theoretical frameworks (Kaur and Singhania, 2016; Ehnert et al., 2016; Bowrin, 2018; Raimo et al., 2020; Pham et al., 2022). It can be argued that larger firms are more closely scrutinized by regulators and the UK government.

Hence, larger FTSE 100 firms are compelled to disclose more information to reduce the pressure of such scrutiny. Additionally, larger firms can opt to disclose more workforce information because their cost of collecting and publishing such detailed information is relatively lesser as compared to smaller firms (Udayasankar, 2008). Baumann-Pauly et al. (2013) found that large firms tend to effectively communicate their commitments to social responsibilities by reporting their CSR activities, but smaller firms tend to put little emphasis on communicating their social activities to stakeholders. Leverage is also found to be positively and significantly related to workforce disclosure (Kent and Zunker, 2017; Aggarwal and Verma, 2020), indicating that potential wealth transfers from bondholders to shareholders and managers increase with leverage (Meek et al, 1995). Voluntary disclosures are a means for highly leveraged companies to reduce their cost of capital by improving their disclosure quantities.

Though contrary to expectations, the results show that board independence is significantly but negatively associated with the level of workforce disclosures – perhaps because as the analysis shows, there are now other board related mechanisms (e.g., employee voice) that have taken over the function of employee-related board decisions including employee related disclosures. In other words, board independent members may be more concerned about the importance of the control and monitoring function of the board in reducing agency costs, beyond creating stakeholder or employee value. In a similar vein, García-Sánchez and Martínez-Ferrero (2018) found that independent directors show an initial opposition to voluntary disclosure of more relevant and comparable social disclosures to constrain potential reputation risks. As workforce disclosure has started to gain traction in the UK, it is assumed that the independent directors are averting risks related to their workforce by reporting limited information about their employees until they test the market or deliberately 'brown washing' their performance (Kim and Lyon, 2015). This is supported by the Resource Based View theory which implies that competitors should not be able to imitate a firm's resources or strategies at least in the short term.

One way of averting such imitation or it is by publishing less information to competitors regarding the firm's employees. From an agency theory perspective, Bowrin (2018) argues that management and owners might have conceived other more cost-effective mechanisms to reduce information asymmetry. However, from a stakeholder theory perspective it could be argued that the

independent directors are yet to put a higher value on the workforce beyond the regulatory requirements of the Code.

Nonetheless, Trinarningsih et al. (2021) claim that increasing the presence of independent directors fosters the non-duality CEO that is in turn associated with greater CSR reporting. This this study found a positive and significant association between CEO duality and workforce disclosure. From the perspective of the legitimacy theory, this indicates that the interests of the CEOs align with the welfare and engagement of the workforce given the current regulatory environment. Supporters of CEO duality (Carver and Oliver, 2002; Samaha et al., 2015) believe that this could be due to the centralized focus in formulating and implementing strategies, which reduces conflicts and improves decision making. Furthermore, duality reduces information sharing costs between the CEO and non-CEO chairperson which lends itself to increased levels of disclosure. Nevertheless, this does not indicate whether a firm will be better governed when the CEO and chair are the same person.

As with the remaining control variables, this study found no association between shareholder concentration, firm age, board size, profitability, and workforce disclosure (Kent and Zunker, 2013; Kaur and Singhania, 2016; Alawi and Belfaqih, 2019; Cahaya and Hervina, 2019; Pham et al, 2022).

Table 5.9 presents the summary of the empirical analysis and shows the hypotheses which were supported or rejected in relation to the explanatory/independent Variable.

Table 5.9: Summary of Empirical Analysis

Hypothesis	**Explanatory Variable**	**Empirical Results**
H1	Workforce voice governance mechanisms	Supported
H2a	Workforce-related strategic policies	Supported
H2b	Board ethnicity diversity	Supported
H2c	Board gender diversity	Not supported
H2d	Board sustainability experience	Supported
H2e	CSR Committee	Not supported

5.5.Discussion and Conclusion

This chapter addresses research objective RO2. It identifies and examines the determinants of workforce-related disclosure by the FTSE 100 companies for the period 2017-2020. Moreover, the discussion in this chapter provides a contextualization of the findings in term of the social and regulatory environments in which the firms operated in during the study period. A general lack of empirical evidence on the effectiveness of workforce voice governance mechanisms (recommended by the 2018 UK CG Code) for improving workforce disclosures, leaves this question unanswered. This thesis examines the extent, trends, and content of workforce disclosures in the United Kingdom (UK) in the light of UK's current regulatory environment and the 2018 Corporate Governance Code in addition to international frameworks such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB) guideline and the United Nation's Global Compact. In this regard, the guiding theory used in this study is the stakeholder theory which implicitly supports the notion that the scope of corporate governance should be extended to include responsibility to stakeholders other than shareholders to achieve long-term sustainable success.

It is evident from the results that the workforce voice governance mechanisms (worker representative, advisory panel, or designated non-executive director) are significantly and positively related to the extent and content of workforce disclosure. Furthermore, the variable 'workforce-related strategic policies', which include for example diversity & inclusion and workforce engagement policies, has a significant relationship with the extent and content of workforce disclosure. Considering the context of the 2018 CG Code, this indicates that the policies proposed by the Code have increased the focus on the workforce practices of the FTSE 100 firms in terms of diversity, engagement, and welfare, which is reflected through the extent of workforce disclosures. Furthermore, this study finds that board ethnic diversity and board sustainability experience positively affect the level of workforce disclosure. As proponents of the agency theory and resource dependency theory suggest, a diversified board provides more resources, diversified views, and monitoring, which ultimately increase workforce-related disclosures; this study, hence illustrates board diversity and strategic posture on disclosures.

Prior studies tend to focus more on environmental and social aspects including intellectual capital; this study contributes and adds significance to workforce-related disclosures. Overall, the present

study concludes that the findings confirm the proposition of the stakeholder theory that the long-run survival and success of the firm requires the support of stakeholders, and social disclosure is often used as a tool of communication between the management and its stakeholders to win the necessary support. The next chapter examines in detail the consequences of workforce disclosure, mainly its link with the workforce outcomes (gender pay gaps) and financial performance (firm value and profitability).

Chapter 6

Workforce-Related Disclosure and its Relationship with Workforce Outcomes and Corporate Performance of the FTSE 100 Firms

6. Introduction

Within the current climate of increasing interest in ESG on the part of investors, firms will need metrics and KPIs that go beyond and above financial information, but which also reflect employee wellbeing, welfare, and interests (FRC, 2021). While previous studies investigate stakeholder pressures on firms to increase transparency and prove their broader accountability through general ESG disclosures, there is a lack of studies examining whether and how stakeholder pressures influence transparency, accountability and reporting practices related to the workforce. As explained in chapter three, the Workforce Disclosure Index developed for this study uses various categories of disclosures pertaining to a firm's workforce diversity, workforce welfare and workforce engagement. The previous chapter examined the relationship between various workforce related governance mechanisms, structures, and strategies and workforce disclosures. There is also an expectation underlying regulation that promotes any type of disclosures, that the improved disclosures requirements will eventually get reflected in improved real performance in the related area. This expectation also applies to employee related disclosures. Accordingly, in this chapter investigates the association between employee related disclosures and real employee-related outcomes as well as firm financial outcomes.

6.1. Theoretical Motivation and Hypotheses Development

6.1.1. Consequence 1: Workforce Disclosure and Workforce Outcomes

As discussed in the literature review chapter, employee rights include equality, respect, liberty, and safety at the workplace, and right to meaningful work. Firms can provide benefits to employees as part of CSR that includes meeting their employment demands, superior wages to incentivize, equal pay, diversity, improved health care facilities, and training and development, which will ultimately improve employee morale, job satisfaction, and employee productivity (Edmans 2011, Ouimet and Simintzi, 2021). Considering the stakeholder and legitimacy theories, firms can

demonstrate their transparency, accountability, and social responsibility towards their employees by reporting information about their workforce-related practices, policies, and outcomes.

Many studies suggest that managers, through impression management practices, use ESG disclosures opportunistically to influence users' perceptions of corporate achievement rather than to provide useful information for predicting future ESG performance (Arena et al., 2015; Letsela, 2019). Within the context of corporate reporting, impression management is considered as the attempt to control and manipulate the impression of accounting information conveyed to stakeholders (Brennan and Merkl-Davies, 2013; Letsela, 2019). It is important to recognize that social reporting, in this case workforce disclosure, can reflect various motives beyond the obvious wish to emphasize firm strengths and play down weaknesses. Disclosure may be used to explain changes in workforce policies. Alternatively, it may be a mere façade or "cheap talk" (Fatemi et al., 2018, p. 48). Though many firms want to make opportunistic disclosures, not all firms can achieve this goal especially when they are required to disclose verifiable ESG performance indicators or outcomes.

From an accountability theory viewpoint, regulations and frameworks mandating sustainability reports are perceived as necessary to assure the reliability and credibility of reporting (Deegan et al., 2006; Haider and Kokubu, 2015). As argued by Gray (2007) and Unerman and O'Dwyer (2007), in the absence of regulations mandating sustainability reporting it is difficult to enhance the quality of reporting. Whenever sustainability reporting is a voluntary practice, firms will not take serious actions related to accountability and will disclose soft claims which cannot be easily verified. From this perspective, scholars argue that ESG performance is poor and that it is likely to remain poor in the absence of regulation (Gray, 2007; Comyns and Figge, 2015). On the other hand, when firms are mandated to disclose hard data, they are obliged to improve ESG outcomes to avoid criticism from the public. Accountability is defined by Gray et al., (1996, p. 38) as "the duty to provide an account or reckoning of those actions for which one is held responsible" and that is available to all stakeholders who have an opportunity to make criticism. Therefore, the current study assumes that when the FTSE 100 firms are mandated by the UK Government to report workforce data such as gender pay gaps, they will be held more accountable by stakeholders and the public. This in turn will result in firms improving these workforce outcomes or performance indicators to prove their accountability and legitimacy.

In considering the stakeholder theory, Kim and Nofsinger (2007) argue that CG is the mechanism that makes sure firms take accountability for managing and controlling their activities in a manner that is fair to all groups of stakeholders. According to Filbeck and Preece (2003), employees demand accurate workforce-related information. Multinational firms hire thousands of workers from around the world who can easily recognize any discrepancy between disclosed labour-related practices and real ones. In the case that such discrepancies occur firms will face negative outcomes and be blamed, such as in the example of Sprint. Sprint which is an American telecommunication firm was placed on "Working Mother's" list. Workers at the firm however were not satisfied because much of the reported practices were not true. Subsequently, the firm was not even considered in later surveys which caused the firm much humiliation (Filbeck and Preece, 2003). This case demonstrates the negative consequences of mis-disclosure, omitting information or discrepancies in practice and disclosure on employee satisfaction. This in turn negatively affects the reputation and legitimacy of the firm in the eyes of the public. This supports the critical accounting theory that views disclosure as a tool that firms may use to misinform their stakeholders including employees in order to further their own agendas. However, in this day and age, employees are gaining more voice, and it is becoming more difficult for firms to avoid full and accurate disclosure. Clarkson et al. (2008) describe these types of disclosures as hard data which are objective, in that a firm could face litigation exposure if it is caught lying by informed stakeholders such as employees in its corporate narratives or web-related disclosures.

As literature on the link between social disclosures and social performance is relatively scarce, and particularly so in the case of employee-related disclosures and performance, this research aims to address this gap by focusing on workforce disclosures and workforce outcomes. As explained in Chapter three, under the Government Equalities Office (2020), all UK registered companies with more than 250 employees are mandated under law to report their gender pay gap starting 2017 to the Office. Due to the availability of this data, gender pay gaps were used as measures for workforce outcomes.

6.1.1.1.Why Gender Pay Gaps?

The gender pay gap is defined as the difference between male and female earnings. It is one of the most critical aspects of inequality in the modern day (Blundell, 2021; Equality Trust Report, 2022).

In the UK, women face a variety of structural disadvantages in the labour market and one of the main disadvantages is the pay difference between men and women (Equality Trust Report, 2022). The report further claims that the gender pay gap represents a key social and economic justice issue in the United Kingdom. Consequently, this study selected this very important workforce outcome as a measure of employee-related social outcome.

It is argued that gaps result from men and women having different tastes or intrinsic advantages for different jobs. Nonetheless, many would instead believe that the pay gap stems from discrimination, limited opportunities or differences in bargaining power and have argued for additional interventions in the labour market (Card et al, 2016; Blundell, 2021). Faced with increasing public pressure, regulators are contemplating policies to deal with the pay gap. A number of these policies are focused on enhancing wage transparency and holding firms accountable. A policy that has recently received increased attention relates to pay transparency legislation, whereby firms are required to provide information on pay differences between the genders. Advocates of transparency argue that the lack of information on pay gaps will lead to a continuation of the gender gap while enhanced transparency increases the awareness of women and helps them to stand against discriminatory pay schedules (Gulyas et al., 2021). For example, the European Commission writes in the Factsheet on Pay Transparency (2019): "[...] the effective enforcement of the right to equal pay [...] for women and men remains a major challenge, partly because of a lack of information on pay."

A recent study by Baker et al. (2019) focuses on the effect of transparency on the gender pay gap. It examined the relation of public sector salary disclosure laws with university faculty salaries in Canada. The authors present robust evidence that transparency laws reduced the gender pay gap, driven primarily by institutions where the faculty are unionized. These findings support the general finding in Blundell (2021) that the gender pay gap reporting regulations have had a narrowing effect on the gender pay gap. However, a study conducted by Gulyas et al., (2021) found no relationship between the two, explaining that the reason for such a result is incomplete implementation and unawareness of employees, rendering the policy as ineffective.

Based on the above theoretical and empirical arguments, it is posited that with higher level of disclosures, firms face litigation exposure for poor workforce outcomes, and will be hence held

accountable to improve workforce outcomes. It is interesting to examine this relationship in the light of UK regulatory reforms towards employees, which Blundell (2021) did not consider in their study. This study thus hypothesizes:

H1. There is a negative relationship between workforce disclosure and gender pay gaps.

6.1.2. Consequence 2: Workforce Disclosure and Corporate Performance

According to the instrumental stakeholder theory (Donaldson and Preston, 1995), to maximize a firm's market value, managers must satisfy and get the support of all corporate stakeholders (Jensen, 2002). This argument appeals to a mainstream-held belief that considers firms as largely faceless entities. It can seem unfair to emphasize dispersed shareholder interests when the firm's employees are more directly invested in the firm's operations and success (Karpoff, 2021). This indicates that firms need to meet the needs of their employees to assure the long-term sustainability of the firm. Furthermore, managers with sufficient appreciation of organizational human capital can make informed decisions to better leverage the knowledge, skills, and abilities of employees to attain competitive advantage and improve financial performance (Beattie and Smith, 2010; Lin et al., 2012). It is difficult to manage what cannot be measured and disclosed. Therefore, disclosures could lead to better measurement and management of human capital, and eventually better corporate performance.

From an agency theory perspective, the problem of information asymmetry exists among various stakeholders, both internal and external (Healy and Palepu, 2001). To avoid or reduce the problem, those who own or have access to the needed information can communicate the relevant information to stakeholders (Connelly et al., 2011). This voluntary disclosure of information improves the information transparency and assists all parties involved to form common understanding. For instance, Cormier et al. (2011) using disclosure ratings of assigning higher weight to hard disclosure items, found evidence that ESG disclosures help reduce information asymmetry between the firm and its investors (measured by share price volatility and bid ask spread). With respect to workforce disclosure, firms can disseminate relevant information to various stakeholders, which in this case include shareholders, investors, employees, and regulators. Specifically, from an external stakeholders' view, firms can communicate to shareholders with key labour-related information so that the shareholders and investors can properly evaluate the profit-

generating potential of the knowledge competence within company employees (Curado et al., 2011). Heal (2005) argues that reporting responsible socially behavior can help reduce the perceived social risks of the firm, with associated positive link with its market value. That is, viewed from a legitimacy theory perspective, social risks if not managed appropriately have the potential to cause severe damage to the firm's reputation. However, it is important to reiterate the point that workforce disclosures have received little attention to date in the literature; therefore, the empirical studies discussed in this section focus on ESG, social and IC disclosure studies rather than specific workforce-related disclosure research. Nonetheless, in early contributions, it was mostly taken as a given that environmental investments or social responsibility activities including disclosures would entail additional costs and would thus reduce firm value (Friedman, 1970).

Based on the argument that ESG disclosures can have significant financial implications, several previous studies have examined the link between social disclosures and firm performance measured by profitability. The literature identifies several ways in which disclosure influences firm value. Essentially, these mechanisms boil down to the ability of information, to improve profitability and expected future cash flows and to reduce the cost of equity capital (Plumlee et al., 2015). This means that ESG disclosures reduce the market's perception that a firm will be forced to endure future costs and, as a result, leads to an increase in expected future net cash flows impounded in the firm's share price (Bachoo et al., 2013). These views are supported by Bidhari et al.'s (2013) study which indicated that the amount of CSR information has a positive relation with firm value. Similarly, Li et al. (2018) found that information related to ESG positively affect firm value. Consistent with such arguments, Qiu et al. (2016) found that firms which make extensive and environmental and social disclosures tend to enjoy higher expected growth rates of their cash flows. The mechanisms identified in the literature through which disclosure improves a firm's profitability and market value can also be extended to workforce-related information.

In relation to IC disclosure studies, Salvi et al. (2021) found a positive relationship between human capital disclosure and firm value. As a result, they urge companies to disclose more information about their employee characteristics, new hires, training activities, incentive policies, benefits, health, and safety policies as well as top management's education and professional experience. These social aspects of reporting could facilitate the understanding of the value creation processes and improve the decision-making of investors. Another study by Orens et al. (2009) report that

intangible elements (including human capital) information disclosed through corporate websites positively affects firm value. This was confirmed by Salvi et al. (2020) who observed a positive impact of workforce disclosures as part of integrated reporting and firm value. In terms of profitability, Lin et al., (2012) analyzed the impact of human disclosure of 660 listed Taiwanese companies. The study used employee-related keywords and counted their frequency. The employee-related keywords, a part of a bigger IC index, included the terms "training, employee welfare, retirement program, employee behavior, ethics, safety, work environment" (p.1793). They observed that human capital disclosure positively impacts firm performance such as market value and operational performance (measured as return on assets). They argue that shareholders as the external stakeholders make effective evaluations of their stock holdings, hence affecting firm value. Moreover, employees as the internal stakeholders are engaged and motivated to contribute their capabilities towards achieving operational efficiency and improving return on assets (ROA).

The positive impact workforce reporting has on firms has been highlighted earlier in the literature by Craig and Hussey (1982) and Frederiksen and Westphalen (1998). Craig and Hussey (1982) argued that employee-related reporting improves employees' performance. Frederiksen and Westphalen (1998) found that employee-related disclosures aid in attracting and retaining individuals. Similarly, according to Beattie and Smith (2010) workforce disclosure is a valuable recruitment tool. However, bearing the RBV theory in mind, giving away information which may harm competitive advantage is a serious concern. Therefore, it can be argued that a strong reputation in the social arena, as reflected by social disclosures, can help a firm attract and retain skilled employees (Cormier et al., 2011), and enhance their satisfaction and hence productivity (Siegel, 2009). From an internal stakeholders' view, firms who disclose more workforce-related information can shape common understanding between the employer and the employees and garner employees' commitment and efforts (Meyer et al., 2004) to increase production efficiency or to better serve customers (Lin et al., 2012). In this sense, Polymetal International (2020), a FTSE 100 listed firm, stated in their Annual Report that disclosing information about their workforce is a form of employee engagement activity, aiming to communicate with employees. It is assumed that this form of communication with employees increases the engagement and productivity of employees. Perrini et al. (2009) supports this notion and argues that higher and better social disclosures can increase the credibility of a firm and strengthen its relationships with

its stakeholders, particularly its employees leading to increased employee satisfaction. This in turn can decrease transaction costs and so lead to financial gain (e.g., decreased employee turnover, more eager and engaged talent pool, and increased productivity).

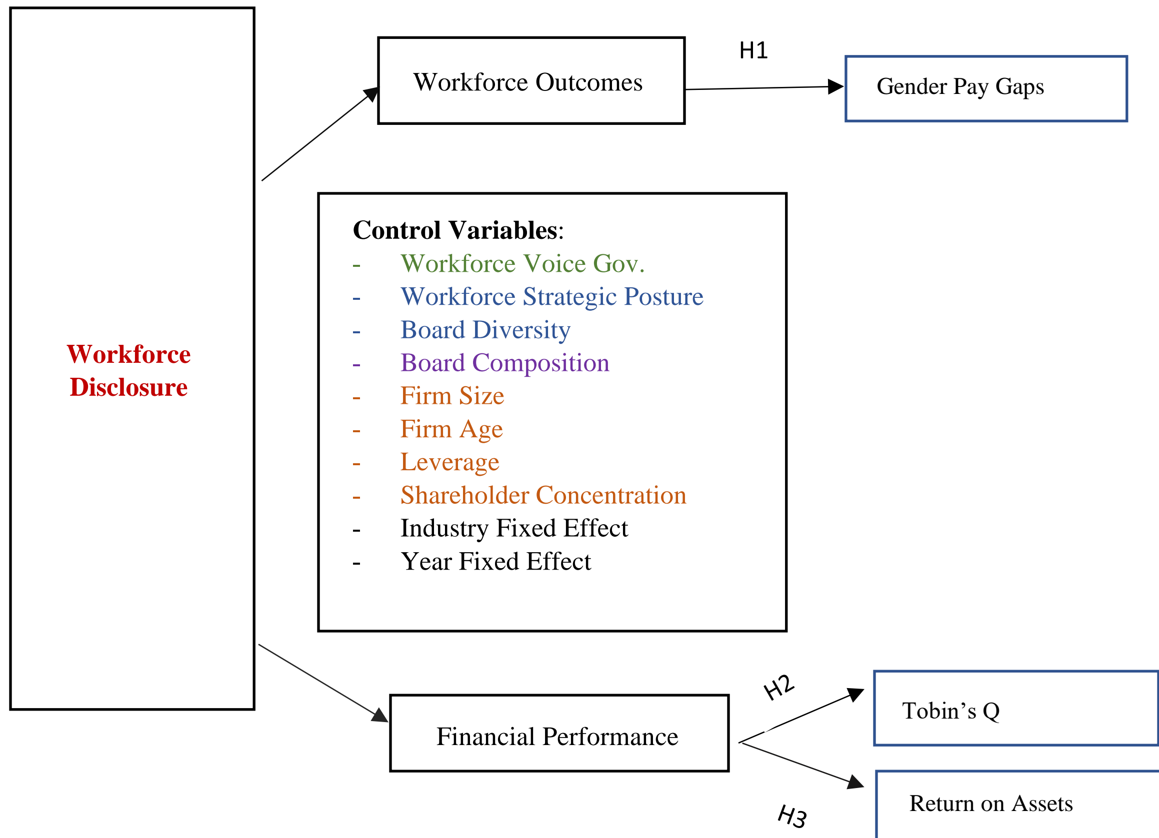
Based on the preceding arguments, this chapter extends on the analysis of IC and social disclosure studies, by analyzing the impact of workforce disclosures on corporate performance (firm value, profitability, and employee productivity). Therefore, it is hypothesized that:

H2. There is a positive relationship between workforce disclosure and firm value.

H3. There is a positive relationship between workforce disclosure and profitability.

6.2.Conceptual Model for Consequences of Workforce Disclosure

Figure 6.1: Conceptual Model 2 - Consequences of Workforce Disclosure



6.2.1. Models, Variables and Measures

The following models are developed to test the above-mentioned hypotheses (H1-H3). These models test the consequences of workforce disclosures of the FTSE 100 firms on their performance, both socially (H1) and financially (H2 and H3). To test HI, that is the link between workforce outcomes or indicators (dependent variable) and workforce disclosure score (independent variable), the following regression models are developed.

Hourly Gender Pay Gap i,t = β0 + β1 Workforce Disclosure + β2 Workforce Voice Gov. i,t + β3Board Ethnicity Diversity i,t + β4Board Gender Diversity i,t + β5Board Sustainability Experience i,t + β6 Workforce Strategic Policies i,t + β7 CSR Committee i,t + β8 Board Size i,t + β9 Board Independence i,t + β10 CEO Duality i,t + β11 Leverage i,t + β12 Firm Size i,t + β13 Firm Age i,t + β14 Shareholder Concentration i,t + [Industry Dummies] + [Year Dummies] + ε i,t **Equation 6-1**

Bonus Gender Pay Gap i,t = β0 + β1 Workforce Disclosure + β2 Workforce Voice Gov. i,t + β3Board Ethnicity Diversity i,t + β4Board Gender Diversity i,t + β5Board Sustainability Experience i,t + β6 Workforce Strategic Policies i,t + β7 CSR Committee i,t + β8 Board Size i,t + β9 Board Independence i,t + β10 CEO Duality i,t + β11 Leverage i,t + β12 Firm Size i,t + β13 Firm Age i,t + β14 Shareholder Concentration i,t + [Industry Dummies] + [Year Dummies] + ε i,t **Equation 6-2**

In equations (6-1) and (6-2), the dependent variables are gender pay gaps which are measures for workforce outcomes and are considered as hard data which indicates the firms' actual social performance towards their employees. It is assumed that the higher the extent of workforce disclosure (transparency), the higher the accountability of firms towards their stakeholders and the lower the gaps between the hourly wages and bonuses between women and men. Since 2017, UK Government's Equalities Office made the reporting of the gender pay gap mandatory for firms with an employee headcount of 250 and above. Therefore, FTSE listed firms with 250 or more employees are required to report the hourly and bonus gender pay gaps to the Equalities Office, (though reporting in corporate reports is voluntary). This study accordingly collected the hard data

regarding the gender pay gaps from the Gender Pay Gap Service offered by the GOV.UK website. It also included in its disclosure index whether the company reported this data in its corporate narratives.

As per the Equalities Office website, the gender pay gap is the difference between the average (mean or median) earnings of men and women across a workforce. This study uses the mean hourly and bonus pay gaps as reported by the companies to the Equalities Office. The hourly pay gap is measured as the average mean % of comparison of the average hourly pay for a woman and the average hourly pay for a man. The bonus pay gap is measured as the average mean % of comparison of the average bonus pay for a woman and the average bonus pay for a man. To understand the difference between the two indicators, Blundell (2021) explains that for the bonus pay indicator, the relevant period is the 12 months ending with the date of reporting. This entails that Christmas bonuses, which is common in the UK, will be included in the bonus pay indicator but not the hourly pay indicator. It is worthy to note that a positive percentage shows that overall women employees have lower pay or bonuses than their men counterparts. A negative percentage figure indicates otherwise, while a zero-percentage figure indicates equal pay. Therefore, it is predicted that with higher levels of disclosure, the gap will reduce and the expected relationship in this case is a negative one.

Based on previous studies, the current research includes various control variables. According to Khan et al. (2022), who conducted a bibliometric and meta-analysis review, there are research streams in the literature to examine the determinants of ESG performance: (a) firm characteristics and ESG performance, and (b) corporate governance and ESG performance. Hence, this study controls for firm characteristics (such as firm size and leverage). These are the most common used control variables in ESG indicators related studies and have a statistically significant and positive relationship with ESG indicators. Literature indicates that these variables are the characteristics of larger companies. Larger firms have higher debt to total asset ratios (Gaio and Henriques, 2018). This study also controls for firm age and shareholder concentration. Regarding corporate governance, this study controls for board diversity, workforce governance mechanisms, strategic posture, and board characteristics as measures of corporate governance.

To test H2 and H3, the following regression models were developed:

$$TQ_{i,t+1} = \beta0 + \beta1 \text{ Workforce Disclosure} + \beta2 \text{ Workforce Voice Gov. }_{i,t} + \beta3\text{Board Ethnicity Diversity }_{i,t} + \beta4\text{Board Gender Diversity }_{i,t} + \beta5\text{Board Sustainability Experience }_{i,t} + \beta6 \text{ Workforce Strategic Policies }_{i,t} + \beta7 \text{ CSR Committee }_{i,t} + \beta8 \text{ Board Size }_{i,t} + \beta9 \text{ Board Independence }_{i,t} + \beta10 \text{ CEO Duality }_{i,t} + \beta11 \text{ Leverage }_{i,t} + \beta12 \text{ Firm Size }_{i,t} + \beta13 \text{ Firm Age }_{i,t} + \beta14 \text{ ROA }_{i,} \text{ [Industry Dummies] + [Year Dummies]} + \varepsilon_{i,t}$$

Equation 6-3

$$ROA_{i,t+1} = \beta0 + \beta1 \text{ Workforce Disclosure} + \beta2 \text{ Workforce Voice Gov. }_{i,t} + \beta3\text{Board Ethnicity Diversity }_{i,t} + \beta4\text{Board Gender Diversity }_{i,t} + \beta5\text{Board Sustainability Experience }_{i,t} + \beta6 \text{ Workforce Strategic Policies }_{i,t} + \beta7 \text{ CSR Committee }_{i,t} + \beta8 \text{ Board Size }_{i,t} + \beta9 \text{ Board Independence }_{i,t} + \beta10 \text{ CEO Duality }_{i,t} + \beta11 \text{ Leverage }_{i,t} + \beta12 \text{ Firm Size }_{i,t} + \beta13 \text{ Firm Age }_{i,t} + \text{ [Industry Dummies] + [Year Dummies]} + \varepsilon_{i,t}$$

Equation 6-4

In equation (6-3), the dependent variable is market value measured by Tobin's Q. Scholars (Weir et al., 2002) argue that TQ measures the degree of alignment of shareholder and manager interests. They state greater the value of TQ, the more effective the CG mechanisms and the better the market considers the firm's performance. More recently, Qiu et al. (2016) and Li et al., (2018) have also used Tobin's Q as a measure of firm's market value in their disclosure related studies. Therefore, this paper selects, TQ to measure market value of a firm. TQ is measured as the ratio of total assets plus market value of equity minus book value of equity to total assets. Thomson Reuters was used to collect data on TQ. The independent variable is workforce disclosure score.

Based on prior evidence, this study controls for firm characteristics, and corporate governance variables. As per previous researchers, ROA (6-4) is positively and significantly related to TQ (Clarkson et al., 2011; Qiu et al., 2016; Fatemi et al., 2018). Other control variables include board diversity, workforce governance mechanisms (given lack of prior empirical evidence, no directional predictions are made in this regard), strategic posture (Fatemi et al., 2018) and board

characteristics. In equation (6-4), on the other hand, the dependent variable is profitability measured by return on assets (ROA). ROA denotes the ratio of net income over total assets.

Industry and time fixed effects are controlled in Equations (6-1 to 6-4). See Appendix 1 for definition and measurement for each dependent, independent and control variable.

Table 6.1: Variables and Expected Relationships

Variable	**TQ**		**ROA**	
	Expected Sign	**Previous Research**	**Expected Sign**	**Previous Research**
Independent Variable:				
Workforce Disclosure	Positive	Salvi et al., 2021; Bidhari et al.,2013; Lin et al., 2012; Li et al., 2018; Buallay, 2018	Positive	Lin et al., 2012; Alfraih, 2018; Buallay, 2018
Control Variables:				
Workforce Voice Governance	Due to lack of previous empirical evidence, no predictions are made here.			
Board Ethnicity Diversity	Positive	Ujunwa et al., 2012; Chuah & Hooy, 2018; Gyapong et al., 2016	Mixed	Carter et al., 2010; Scholtz & Kieviet, 2018
Board Gender Diversity	Positive	Bear et al., 2010; Zahid et al., 2020; Pucheta-Martínez & Gallego-Álvarez, 2020; Lawrence & Raithatha, 2023	Mixed	Adams and Ferreira, 2009; Simionescu et al, 2021; Gharbi and Othmani, 2022; Carmo et al., 2022
Board Sustainability Experience	Positive	Kim & Sul, 2021; Drobetz et al., 2014; Agustia et al., 2022	Positive	Hasan et al., 2019
Workforce Strategic Policies	Due to lack of previous empirical evidence, no predictions are made here.			
CSR Committee	Positive	Kuzey et al., 2021	Positive	Carter et al., 2010

Board Size	Mixed	Nguyen & Faff, 2007; Walls et al., 2012; Scholtz & Kieviet, 2018; Endrikat et al. 2021;	Mixed	Gill & Mathur, 2011; Walls et al., 2012; Endrikat et al. 2021; Ersoy, & Aydın, 2022
Board Independence	Positive	Muttakin and Ullah, 2012; Rostami et al., 2016; Mishra & Kapil, 2018; Saidat et al., 2019; Pucheta-Martínez & Gallego-Álvarez, 2020	Positive	Rostami et al., 2016; Saidat et al., 2019; Scholtz & Kieviet, 2018
CEO Duality	Positive	Rostami et al., 2016; Mishra & Kapil, 2018; Pucheta-Martínez & Gallego-Álvarez, 2020	Positive	Rostami et al., 2016; Mititean, 2022
Leverage	Mixed	Cheng and Tzeng, 2011; Sharma, 2006; Kaviani et al, 2012; Buallay, 2018	Negative	Dogan, 2013; Rajkumar, 2014; Buallay, 2018; Alim et al., 2022
Firm Size	Mixed	Dhaliwal et al., 2011; Manoppo & Arie, 2016; Qiu et al., 2016; Salvi et al. 2021	Mixed	Lin et al., 2012; Dogan, 2013; Buallay et al., 2019; Rahman et al., 2021
Firm Age	Negative	Rahman et al., 2022	Negative	Dogan, 2013; Rahman et al., 2021

Note: The predictions made regarding the workforce disclosure relationship studies cited above are related to Intellectual Capital disclosure and other ESG disclosure studies. This is due to the scant literature on workforce disclosure and performance.

6.3. Results and Discussion

6.3.1. Trends in Gender Pay Gaps of the FTSE 100 from 2017-2020

Table 6.2 illustrates the descriptive statistics of the gender pay gaps, both hourly and bonus, by the FTSE 100 for the period 2017-2020. The mean score represents the overall average difference in earnings between female and male workers during the period. The results suggest that the overall

gender pay gaps are decreasing each year. The overall pay gap, however, still remains high in comparison to its international peers, i.e., the 38 nations of the OECD (Azzolini et al., 2022). Figure 6.2 show the trends in the gender pay gaps by year.

Table 6.2: Extent and Trends of Gender Pay Gaps of the FTSE 100 (2017-2020)						
Variable	**Year**	**Median**	**Mean**	**S.D.**	**Min.**	**Max.**
Hourly Gender Pay Gap	**Overall**	**18.15 %**	**19.76 %**	**14.12 %**	**-11.00 %**	**59.00 %**
	2017	20.65	21.53	13.71	-9.40	59.00
	2018	18.60	19.88	14.33	-9.70	54.10
	2019	18.70	19.99	14.34	-8.10	54.70
	2020	16.70	17.75	14.07	-11.00	54.00
Bonus Pay Gap	**Overall**	**50.00 %**	**43.90 %**	**28.160 %**	**-57.1 %**	**95.5 %**
	2017	49.90	45.29	27.90	-54.70	86.30
	2018	53.00	44.96	29.23	-50.00	95.50
	2019	50.00	44.38	27.52	-38.80	84.60
	2020	45.80	41.10	28.25	-57.10	82.00

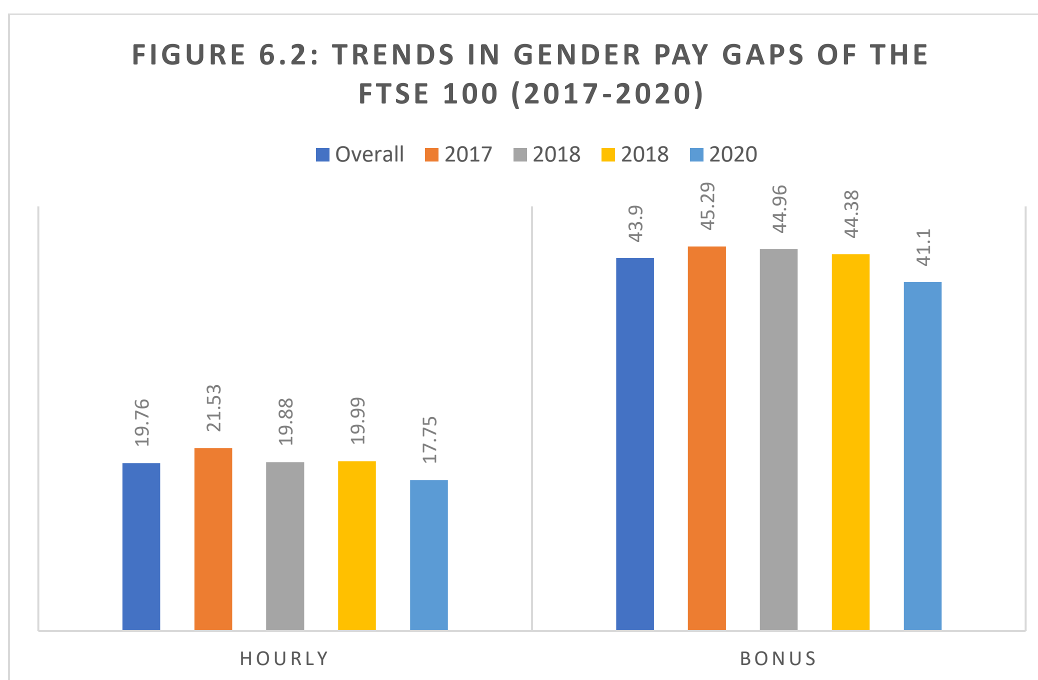


Table 6.3: Year on year change in the Gender Pay Gaps of the FTSE100			
Index Component	**Mean Difference 2018-2017**	**Mean Difference 2019-2018**	**Mean Difference 2020-2019**
Hourly Gender Pay Gap	-1.65	0.11	-2.24
Bonus Pay Gap	-0.33	-0.58	-3.28

A closer examination of the year-on-year trends of the ender pay gaps shows an overall reduction of 1.65 % in the hourly pay gaps in 2018, followed by a slight increase of 0.11 % in 2019, and a reduction of 2.24 % again in 2020. With regards to the bonus pay gaps, the results show a consistent reduction in 2018, 2019 and 2020 respectively. The increase in 2019, as per table 6.4, is due to the number of firms that increased the gaps, i.e., 32 firms when compared to 24 firms in 2018 and 19 firms in 2020. These results are consistent with the findings of the Equality Trust Report (2020). However, it is important to note here that gender pay gap reporting to the UK's Equalities and Human Rights Commission was made voluntary for the 2019/2020 year, and where employee furloughs were not taken into consideration. Differences between the years were not statistically significant for hourly and bonus pay gaps.

Table 6.4: Year by Year change in the behavior of companies' gender pay gaps (2017-2020)

Disclosure	**Trend**	**(2017-2018)**	**(2018-2019)**	**(2019-2020)**
		Number of Firms (%)	**Number of Firms (%)**	**Number of Firms (%)**
Hourly Gender Pay Gap	Increasing	24 (29.63)	32 (38.55)	19 (22.09)
	Decreasing	52 (64.20)	50 (60.24)	66 (76.74)
	Stable	5 (6.17)	1 (1.20)	1 (1.16)
Bonus Pay Gap	Increasing	35 (43.21)	35 (43.21)	25 (29.41)
	Decreasing	45 (55.56)	46 (56.79)	56 (65.88)
	Stable	1 (1.23)	0 (0)	4 (4.71)

While the overall trend among FTSE 100 employers reporting their gender pay gap is a slight narrowing of their gender pay gap, it is worth highlighting that aggregate measures of progress can mask substantial variation at the level of sectors. As shown in table 6.5 the Financials and Basic Materials had the highest pay gaps in the first year of reporting, i.e., 2017. Financial continued to have the highest pay gaps, with a slight increase of 0.57 % in 2018 and reductions of 0.51 % and 0.78 % in 2019 and 2020 respectively. Overall, from 2017 to 2020, Financials had the least percentage of reduction in the hourly pay gap, with a 0.72 % reduction only. However, in terms of bonus pay gaps, it performed better than some of the other sectors including Basic materials and Consumer Goods. Based on the Equality Trust Report (2022), this significant variation in progress along sectoral lines is not surprising. Especially in the financial sector which has a long-established issue with gender parity to this day, which resulted in the Treasury establishing the voluntary Women in Finance Charter in 2016.

The largest reductions in the hourly pay gap over the period occurred in the Basic Materials and Healthcare sectors, with a 7.36 % and 6.36 % respectively. Nonetheless, they are a small proportion of the FTSE 100. In terms of the bonus pay gaps, Healthcare and Telecommunications had the largest reductions.

Table 6.5: Sectoral Trends in Gender Pay Gaps of the FTSE 100 (2017-2020)

Industry	**Gap**	**2017**	**2018-17**	**2018**	**2019**	**2019-18**	**2020**	**2020-19**	**Overall 2020-17**
Oil and Gas	Hourly	22.33	-1.93	20.4	19.67	-0.73	19.53	-0.14	-2.8
	Bonus	49.97	-2.5	47.47	45.33	-2.14	48.93	3.6	-1.04
Basic Materials	Hourly	24.73	-5.85	18.88	23.32	4.44	17.37	-5.95	-7.36
	Bonus	40.97	-3.76	37.21	47.13	9.92	45.21	-1.92	4.24
Industrials	Hourly	14.63	-1.35	13.28	14.23	0.95	12.44	-1.79	-2.19
	Bonus	42.61	-1.83	40.78	42.11	1.33	36.61	-5.5	-6
Consumer Goods	Hourly	14.62	-2.24	12.38	11.69	-0.69	9.3	-2.39	-5.32
	Bonus	17.38	13.28	30.66	28.36	-2.3	25.14	-3.22	7.76
Consumer Services	Hourly	22.15	-2.47	19.68	20.16	0.48	17.62	-2.54	-4.53
	Bonus	52.76	-1.95	50.81	56.25	5.44	48.78	-7.47	-3.98
Healthcare	Hourly	18.03	0.12	18.15	14.38	-3.77	11.67	-2.71	-6.36
	Bonus	44.71	-8.36	36.35	29.03	-7.32	25.75	-3.28	-18.96
Telecom.	Hourly	12.05	0.55	12.6	9.25	-3.35	8.85	-0.4	-3.2
	Bonus	32.6	-12.55	20.05	21.2	1.15	15.8	-5.4	-16.8
Utilities	Hourly	10.78	0.14	10.92	10.34	-0.58	9.05	-1.29	-1.73
	Bonus	11.68	-3.76	7.92	10.78	2.86	7.42	-3.36	-4.26
Financials	Hourly	31.84	0.57	32.41	31.9	-0.51	31.12	-0.78	-0.72
	Bonus	65.13	0.44	65.57	58.56	-7.01	59.14	0.58	-5.99
Technology	Hourly	17.45	3.85	21.3	17.5	-3.8	16.23	-1.27	-1.22
	Bonus	39.65	11.85	51.5	28.53	-22.97	40.77	12.24	1.12

6.3.2. Descriptive statistics

Table 6.6 provides the descriptive statistics for the variables included in the study model including the dependent variables. The remaining variables (independent and control) have been shown and explained in chapter five. Tables (6.7, 6.8 and 6.9) provide the correlations among the dependent, independent and control variables.

Table 6.6: Descriptive statistics (over period 2017-2020, for ROA and Tobin's Q for 2017-2021)					
Variables	**Median**	**Mean**	**S.D.**	**Min.**	**Max.**
Hourly Pay Gap	18.150	19.760	14.122	-11.00	59.00
Bonus Pay Gap	50.00	43.90	28.160	-57.1	95.5
ROA	0.060	0.074	0.137	-0.245	2.10
TQ	1.227	1.845	2.590	0.324	38.182

Legend: Hourly Pay Gap: % difference between mean hourly earnings for men and women in the United Kingdom, Bonus pay gap: % difference between mean bonus earnings for men and women in the United Kingdom; ROA denotes return on assets as the ratio of net income to total assets; TQ denotes Tobin's Q and is measured as the ratio of total assets plus market value of equity minus book value of equity to total assets.

It is important to state here that according to previous literature ESG will not immediately lead to better financial performance (Choi and Wang, 2009). Similarly, Porter and Kramer (2006) argued that sustainability reporting is a strategic concept, thus financial effects do not occur immediately (i.e., in the same year) but rather in the following period. The same can be applied to workforce strategic posture and governance mechanisms which are strategic concepts. Thus, we compare the disclosure scores and governance mechanisms of the current year, with financial performance in the following year t+1*. This mitigates the problem of endogeneity (Shaukat and Trojanowski, 2018).

As many variables are described in the 'descriptive statistics' section in Chapter five and section 6.3.1, they are not discussed here. Table 6.6 shows that the mean value of Tobin's Q is 1.8449. As TQ ratio is greater than 1, it suggests that on average the FTSE 100 firms are worth more than the costs of their assets indicating as per Tobin's premise that they are overvalued. The mean of the ROA ratio is 0.07396, with a minimum of -0.2454 and a maximum 2.1017.

6.3.3. Regression Estimators, Normality and Correlations

As explained in chapter five, the Hausman (1978) test was used to select between random and fixed effects. The 'hausman fixed' test, which showed (p-values <0.05), preferred the fixed effect estimator over random effects by accepting the presence of time-variant effects for testing the hypotheses.

To test for multicollinearity, the Pearson correlation test was used for all the variables in H1, H2, and H3. It can be observed from the correlation analysis in table 6.7 that hour pays gap and bonus pay gap are highly correlated (0.654). However, it should be noted that they will not be included in the model and will be tested separately as dependent variables. From table 6.8 it can also be observed that the highest correlation is between Tobin's Q and ROA (0.5510), which might be expected of the performance indicators. They are however less closely associated with the other variables. Nonetheless, the results as per tables (6.7, 6.8, 6.9) show that multicollinearity is not likely to be an issue for testing the any of the hypotheses.

To add more confidence in the robustness of the models adopted, a VIF test is used to check for multicollinearity issues in the regression models. Table 5.6 illustrate the findings of the VIF and tolerance coefficients of each independent variable within the H1, H2, and H3 frameworks. The findings suggest that VIFs and tolerance figures are within the acceptable ranges and give confidence in the limited effect of multicollinearity between the independent variables within the adopted regression models.

6.3.3.1. Correlations Matrices

Table 6.7: Pearson Correlation Matrix for Testing H1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1															
2	0.6540**	1														
3	0.0070	-0.055	1													
4	-0.0686	-0.020	0.4968**	1												
5	0.1120*	-0.087	0.5088**	0.3676**	1											
6	0.0540	0.055	0.1446**	0.0742	0.0557	1										
7	-0.199**	-0.148**	0.2307**	0.2164**	0.2546**	-0.1037*	1									
8	-0.2040	-0.132*	0.1153**	0.1964**	0.1585**	0.1207*	0.0676	1								
9	-0.0795	-0.134*	0.095	0.1333**	0.1675**	0.1937**	0.0405	0.1986**	1							
10	0.2725**	0.111	0.1425**	0.0213	0.1075*	-0.023	-0.0081	-0.0038	0.1638**	1						
11	0.1520**	0.123*	0.0338	0.0202	0.0045	-0.0735	0.0057	0.0176	0.0108	0.2084**	1					
12	-0.214**	-0.202**	0.0883	0.0219	0.1477**	0.0104	0.1083*	0.0572	0.1318**	-0.3008**	-0.136**	1				
13	0.0570	0.141**	-0.1028	0.0422	0.034	-0.0187	-0.0772	-0.0155	-0.0095	-0.0657	-0.0142	-0.1570**	1			
14	0.1030	0.0096	0.1275*	0.0954	0.0436	-0.0668	0.1089*	0.1359**	0.0715	0.2592**	-0.0185	0.0706	-0.069	1		
15	0.239**	0.176**	0.0922	0.0501	0.0169	0.0987*	-0.1143*	0.0962	0.1331**	0.4881**	0.084	-0.0891	-0.062	0.2809**	1	
16	-0.0598	0.0322	-0.0298	-0.0719	0.0541	0.022	-0.1027*	-0.0588	-0.0729	-0.0784	-0.102*	-0.0918	0.0618	-0.0228	-0.135**	1

Notes: **Correlation is significant at the 0.01 level (two-tailed), Correlation is significant at the 0.05 level (two-tailed)

***Legend**: 1 HPG denotes the hourly pay gap which represents the average of the mean % of pay gaps of the FTSE 100 firms for 2017-2020; 2 BPG denotes the bonus pay gap as the average of the mean % of bonus pay gaps of the FTSE 100 firms for 2017-2020; 3 WDI denotes workforce disclosure index; 4 WVGM denotes workforce voice governance mechanisms;5 WSP denotes workforce strategic policies; 6 BED denotes the percentage of board ethnic diversity; 7 BGD denotes the percentage of board gender diversity; 8 BSE denotes board sustainability experience; 9 CSR_Com denotes the presence of a CSR Committee; 10 denotes firm size measured as natural logarithm of total assets; 11 Firm age; 12 Leverage is defined as the ratio of total debt to total assets;13 Share_Con refers to major or substantial shareholdings, and is measured as the percentage of total shares in issue held by major shareholders and not available to ordinary shareholders; 14 Board_ind denotes the percentage of independent members on the board; 15 Board size is defines as the total number of members on the board of directors; 16 Duality is a dummy variable which measures whether the CEO simultaneously chairs the board of directors.*

Table 6.8: Pearson Correlation Matrix for Testing H2 – Tobin's Q															
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
1	1														
2	0.045	1													
3	-0.019	0.4968**	1												
4	-0.003	0.5088**	0.3676**	1											
5	0.141**	0.1446**	0.0742	0.0557	1										
6	0.198**	0.2307**	0.2164**	0.2546**	-0.1037*	1									
7	0.0320	0.1153**	0.1964**	0.1585**	0.1207*	0.0676	1								
8	-0.1175*	0.095	0.1333**	0.1675**	0.1937**	0.0405	0.1986**	1							
9	-0.403**	0.123*	-0.0110	0.120*	0.0186	-0.042	0.0040	0.161**	1						
10	-0.1299*	0.042	0.018	-0.0174	-0.0631	-0.0272	0.0240	0.022	0.226**	1					
11	0.1144*	0.027	0.0208	0.0650	0.0820	0.113*	0.0510	0.144**	-0.267**	-0.140**	1				
12	0.5510**	0.030	-0.0541	-0.0059	0.1374*	0.167**	0.010	-0.1002	-0.378**	-0.076	0.019	1			
13	-0.070	0.1275*	0.0954	0.0436	-0.0668	0.1089*	0.1359**	0.0715	0.211**	-0.0140	-0.033	-0.094	1		
14	-0.146**	0.0922	0.0501	0.0169	0.102*	-0.1143*	0.0962	0.1331**	0.460**	0.096	-0.121*	-0.192**	0.2809**	1	
15	-0.0103	-0.0298	-0.0719	0.0541	0.022	-0.1027*	-0.0588	-0.0729	-0.037	-0.102*	-0.030	-0.045	-0.0228	-0.135**	1

*Notes: **Correlation is significant at the 0.01 level (two-tailed), Correlation is significant at the 0.05 level (two-tailed)*

***Legend**:1 TQ denotes Tobin's Q and is measured as the ratio of total assets plus market value of equity minus book value of equity to total assets ; 2 WDI denotes workforce disclosure index; 3 WVGM denotes workforce voice governance mechanisms ;4 WSP denotes workforce strategic policies; 5 BED denotes board ethnic diversity; 6 BGD denotes board gender diversity; 7 BSE denotes board sustainability experience; 8 CSR Committee; 9 natural logarithm of total assets representing firm size; 10 Firm age; 11 Leverage;12 ROA denotes return on assets as the ratio of net income to total assets; 13 Board independence; 14 Board size; 15 CEO Duality .*

Table 6.9: Pearson Correlation Matrix for Testing H3 – ROA

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1													
2	0.030	1												
3	-0.050	0.4968**	1											
4	-0.003	0.5088**	0.3676**	1										
5	0.114*	0.1446**	0.0742	0.0557	1									
6	0.162**	0.2307**	0.2164**	0.2546**	-0.1037*	1								
7	0.010	0.1153**	0.1964**	0.1585**	0.1207*	0.0676	1							
8	-0.089	0.095	0.1333**	0.1675**	0.1937**	0.0405	0.1986**	1						
9	-0.378**	0.123*	-0.0110	0.120*	0.0186	-0.042	0.0040	0.161**	1					
10	-0.076	0.042	0.018	-0.0174	-0.0631	-0.0272	0.0240	0.022	0.226**	1				
11	0.019	0.027	0.0208	0.0650	0.0820	0.113*	0.0510	0.144**	-0.267**	-0.140**	1			
12	-0.094	0.1275*	0.0954	0.0436	-0.0668	0.1089*	0.1359**	0.0715	0.211**	-0.0140	-0.033	1		
13	-0.192**	0.0922	0.0501	0.0169	0.0987*	-0.1143*	0.0962	0.1331**	0.460**	0.096	-0.121*	0.2809**	1	
14	-0.045	-0.0298	-0.0719	0.0541	0.022	-0.1027*	-0.0588	-0.0729	-0.037	-0.102*	-0.030	-0.0228	-0.135**	1

*Notes: **Correlation is significant at the 0.01 level (two-tailed), Correlation is significant at the 0.05 level (two-tailed)*

Legend*:1 ROA denotes return on assets as the ratio of net income to total assets; 2 WDI denotes workforce disclosure index; 3 WVGM denotes workforce voice governance mechanisms ;4 WSP denotes workforce strategic policies; 5 BED denotes board ethnic diversity; 6 BGD denotes board gender diversity; 7 BSE denotes board sustainability experience; 8 CSR Committee; 9 natural logarithm of total assets measuring firm size; 10 Firm age; 11 Leverage; 12 Board independence; 13 Board Size; 14 CEO Duality .*

6.3.4. Empirical Analysis for testing H1 – Gender Pay Gaps

Table 6.10: Fixed-effect panel regression results for Gender Pay Gaps (H1)				
Variables	**Hourly Pay Gaps**		**Bonus Pay Gaps**	
	Coefficient	**t-value**	**Coefficient**	**t-value**
Workforce Disclosure	-.1204	-3.19***	-.2296	-2.40**
Workforce voice governance	.0221	0.95	.0206	0.35
Workforce-related strategic Pol.	.0111	0.41	.0555	0.82
Board ethnicity diversity	1.0303	1.29	2.0462	1.01
Board gender diversity	-.0652	-1.25	.14322	1.07
Board sustainability exp.	-.2011	-0.60	.6202	0.73
CSR Committee	.8830	0.92	-1.6815	-0.69
Firm Size	-3.5712	-1.65	-5.4743	-0.97
Firm Age	3.9900	1.84*	-.03641	-0.11
Leverage	-8.8166	-1.73*	1.1937	0.10
Shareholder Concentration	-2.1460	-1.93*	-5.3369	-1.90
Board Independence	-.0014	-0.13	-.2492	-2.33**
Board Size	-.3295	-1.13	1.7655	2.38**
CEO Duality	1.0441	0.16	3.7163	0.23
Constant	36.5328	2.96***	82.1158	2.60**
Industry Fixed Effect	Yes		Yes	
Year Fixed Effect	Yes		Yes	
Regression F	3.09 ***		3.00 **	
Adjusted R^2	15.00 %		13.03 %	
No. of observations	360		354	

***, **, * represent significance at the 1%, 5% and 10% levels, respectively.

Legend: *1 HPG denotes the hourly pay gap which represents the average of the mean % of pay gaps of the FTSE 100 firms for 2017-2020; 2 BPG denotes the bonus pay gap as the average of the mean % of bonus pay gaps of the FTSE 100 firms for 2017-2020; 3 WDI denotes workforce disclosure index; 4 WVGM denotes workforce voice governance mechanisms;5 WSP denotes workforce strategic policies; 6 BED denotes the percentage of board ethnic diversity; 7 BGD denotes the percentage of board gender diversity; 8 BSE denotes board sustainability experience; 9 CSR_Com denotes the presence of a CSR Committee; 10 denotes firm size measured as natural logarithm of total assets; 11 Firm age; 12 Leverage is defined as the ratio of total debt to total assets;13 Share_Con refers to major or substantial shareholdings, and is measured as the percentage of total shares in issue held by major shareholders and not available to ordinary shareholders; 14 Board_ind denotes the percentage of independent members on the board; 15 Board size is defines as the total number of members on the board of directors; 16 Duality is a dummy variable which measures whether the CEO simultaneously chairs the board of directors.*

Table 6.10 sets out the findings relating to hypothesis 1. The findings reveal that there is a negative and highly significant relationship between the workforce outcomes, hourly gender pay gap and bonus gender pay gap, and the extent of workforce disclosure. This outcome suggests that when the level of disclosure increases, the gaps in the earnings between female and male workers reduces. This finding supports the notion of mandatory reporting of hard disclosures, whereby firms have better sustainability or 'workforce-related' outcomes when they are required to report them to the public (Gray, 2007; Wong and Millington, 2014; Alon and Vidovic, 2015; Gillet-Monjarret, 2015). This is consistent with the accountability and legitimacy theories which argue that when faced with public and societal pressures, firms signal their accountability and legitimacy through better ESG performance. Moreover, this is similar to previous empirical studies such as the study by Baker et al (2019) who found that regulations improved the gender pay gaps. By improving their gender pay gaps, the FTSE 100 firms are conveying their commitment to their workers through disclosures and improved performance.

From table 6.10, it can be observed that the only significant explanatory variable is the level of disclosure, indicating that the hourly gender pay gaps are not influenced by governance mechanisms or characteristics. It can therefore be identified as one of the main reasons for the narrowing of the gender pay gaps. The result of this study suggests that board gender diversity has a negative impact on the hourly pay gaps, although the impact is not significant. However, this also indicates that appointment of women on firms' board has not led to any negative effect on the hourly pay gaps. The insignificant relationships (hourly and bonus) point to the fact that board gender diversity is a mere token exercise. Clearly, the ratio of women is less to influence workforce outcomes and social responsibility activities. According to Issa and Fang (2019), gender discrimination and stereotyping challenge is one of the major reasons why women have not been able to make full contribution towards the corporate strategy & leadership positions in their firms.

Interestingly, the results distinguish between the interests and *priorities* of the majority shareholders and the board. While the majority shareholders focus on improving the hourly pay gaps, the independent board directors focus on improving the bonus pay gaps. The findings show a negative and significant relationship between shareholder concentration and *hourly pay gaps*, and a negative and significant relationship between board independence and *bonus pay gaps*. This basically means that larger institutional shareholders now care about reducing the overall pervasive

inequalities between male and female pay. On the other hand, the higher the board independence the lower the bonus pay gaps between female and male workers. This suggests that directors focus more on immediate bonuses than on pervasive inequalities (indicative of a more shorter-term perspective). From an agency perspective, outside or independent directors are better monitors of managers. Furthermore, from a resource dependence perspective, the number of non-executive directors should relate positively to social performance because they are more likely to have, and provide, access to alternative sources of ESG-related knowledge and networks, than executives who are associated with the firm. This is consistent with the findings of Ortas et al. (2017) which indicate that board independence can lead to improved social outcomes.

A closer examination of the control variables, show that firm age and leverage have significant relationships with hourly pay gaps. The results suggest that older firms tend to have higher hourly pay gaps. Moreover, firms with higher leverage have better workforce outcomes particularly in relation to hourly gaps. It could be that creditors now demand that firms improve their social performance as reflected in gender pay gaps. Furthermore, this study found an insignificant relationship between firm size and gender pay gaps. Based on Acabado et al. (2020), whose study categorized social performance – environment, employees, and governance, firm size significantly impacts a firm's environmental performance but has no significant relationship with employee-related outcomes.

In terms of board characteristics, board size and board independence influence the bonus pay gaps. The findings also show that large-sized boards have higher bonus pay gaps. Literature suggests that larger boards are necessary to guarantee board effectiveness (Endrikat et al. 2021). The result of the current study indicates otherwise. One reason for this is that increasing board size may lead to inefficiency, more time to react to decisions that need quick action and a lesser inclination to take a personal interest in monitoring the activities of firms expecting this from other board members (Yermack, 1996; Walls et al., 2012).

6.3.5. Empirical Analysis for testing H2 and H3

Table 6.11: Fixed-effect panel regression results for TQ – H2		
Variables	**Coefficient**	**t-value**
WDI	-.0007	-0.17
WVGM	-.0052	-1.98**
WSP	.0020	0.70
Board ethnicity diversity	.0088	1.78 *
Board gender diversity	.0112	1.91 *
Board sustainability exp.	.0008	0.25
CSR Committee	0.1374	1.31
Firm Size	-1.5261	-4.82***
Firm Age	.0086	1.24
Leverage	.8329	1.69*
Profitability (ROA)	6.3512	12.4 ***
Board Independence	-.0027	-0.58
Board Size	-.02171	-0.69
CEO Duality	1.7927	2.49***
Constant	6.5935	4.81***
Industry Fixed Effect	Yes	
Year Fixed Effect	Yes	
Regression F	15.23***	
Adjusted R^2	47.36 %	
No. of observations	384	

***, **, * represent significance at the 1%, 5% and 10% levels, respectively. All the regressors are lagged one year, i.e., firm value in year t + 1 is modelled as a function of independent variables as measured in year t (Shaukat and Trojanowski, 2018). Reverse causality here is less a problem.

Legend:*1 TQ denotes Tobin's Q and is measured as the ratio of total assets plus market value of equity minus book value of equity to total assets ; 2 WDI denotes workforce disclosure index; 3 WVGM denotes workforce voice governance mechanisms ;4 WSP denotes workforce strategic policies; 5 BED denotes board ethnic diversity; 6 BGD denotes board gender diversity; 7 BSE denotes board sustainability experience; 8 CSR Committee; 9 natural logarithm of total assets representing firm size; 10 Firm age; 11 Leverage;12 ROA denotes return on assets as the ratio of net income to total assets; 13 Board independence; 14 Board size; 15 CEO Duality .*

Table 6.11 demonstrates the empirical findings for H3, testing the relationship between workforce disclosure and market value – Tobin's Q. The findings indicate that there is a negative and insignificant relationship between workforce disclosure and market value. According to Friede et al., (2015) a firm's focus on different ESG pillars may differ according to management's preferences. The current finding shows that the effect of workforce related governance structures

is much stronger than that of workforce disclosure on the market performance of a firm. This finding is consistent with Paolone et al. (2022) who finds that corporate governance (board structure) has a positive relation with firm value while social disclosures have no such effect. Similarly, Almeyda and Darmansya (2019) found out that while environmental disclosures have a positive relationship with firm value, social and governance disclosures have an insignificant relationship with Tobin's Q. An extensive study (La Torre et al., 2020) of the Euro Stoxx 50 index covering 9 years, focuses on market value, confirming the absence of a relationship between companies' market value and their ESG efforts. Each ESG pillar may impact the firm in a different way and with a different intensity. Another study by Buallay et al., (2020) found a negative and *statistically* significant relationship between social disclosures and firm value/market performance. The negative and insignificant result of this study demonstrates the degree to which a firm's social performance is valued by investors. Within the context of the CG reforms, the current study illustrates the priorities of the investors and their expectations regarding the importance of workforce to a firm. This is an important finding, as it can explain the mixed results of prior empirical studies on the value-relevance of ESG performance (Buallay et al., 2020). From a theoretical perspective, the insignificant and negative relationship is explained by looking at Friedman (1962) who argued that the main purpose of a firm is to solely maximize the wealth of its stakeholders, and any other non-financial objectives will make the firm less effective. Porter (1991) assumed that sustainable firms are expected to have more costs in relation to social-related regulations. This is explained further and supported by the finding in terms of hypothesis 3 of the current study (see table 6.12).

Additionally, the analysis indicates that there is a negative and significant relationship between workforce governance mechanisms and firm value bringing us back to Friedman's (1962, 1970) argument that investors should believe that the main objective of firms is to prioritize shareholders, because non-financial goals lead to ineffective decision-making. One issue for lower firm performance, Dennis (2016) argues, is that stakeholder governance fails to determine a clear criterion to make trade-offs between the different types of stakeholders, as there will be many opinions as there are parties (stakeholders). At the end of the day, stakeholder governance does not give a definitive answer of whose opinion, shareholders vs. employees, matters the most. This has root in the shareholder vs. stakeholder theory, i.e., while value maximization provides

managers with only one objective, stakeholder theory directs managers to serve more than one party leading to firms becoming less effective as proponents of the shareholder theory assert. Simply cited by Jensen (2010), when there is more than one principal (stakeholder) involved, everyone ends up being short-changed. Freeman (2001) agrees with this concept but adds another layer to the argument by claiming that it is the duty of the management to keep the relationship among stakeholders in balance. Edmans (2017) proposes another solution of change, where he suggests that firms need to focus on a holistic culture change all throughout the firm, instead of workforce representations which he deems shallow solutions. He believes that some firms have a culture of treating workers well despite no worker representative.

One of the most detrimental governance issues currently facing BoDs, managers and shareholders of the FTSE 100 is diversity with respect to the gender, cultural and ethnic composition of the board of directors. Therefore, in terms of board diversity there was a significant and positive relationship between board gender diversity, board ethnic diversity and Tobin's Q, supporting the notion that increased board diversity and ethnic representation on boards are perceived as positive changes by investors as reflected in higher market values. This is consistent with studies (Bear et al., 2010; Zahid et al., 2020) which found that females on boards impact firms' value because they are better monitors and have a positive effect on a firm's reputation. It can further be concluded that both gender and ethnic diversity on the board positively influence the reputation of firms, hence increasing firm value. A study conducted by Brahma et al. (2021) covering the period 2005-2016 found that there is a positive and significant relationship between board gender diversity and firm value, concluding that the Hampton Alexander report which calls for increase of female representation on board of FTSE100 companies to 33% are steps in the right direction. Carter et al. (2003) postulate that board diversity promotes a better understanding of the marketplace by matching board diversity to the diversity of the firm's potential customers and suppliers and thus increases the ability to penetrate markets (Carter et al, 2003, p.36). Board diversity further promotes more effective global relationships and cultural sensitivity. Nonetheless, it is interesting to note that while board gender and ethnicity diversity influence firm value, only board ethnic diversity effects the level of workforce disclosure (chapter five).

In relation to firm characteristics, the findings suggest a positive and significant relationship between leverage and firm value. This is similar to the findings of Cheng and Tzeng (2011),

Sharma (2006), Isidro and Sobral (2015) and Wahyudi and Sholahuddin (2022) who explain that the greater the leverage value, the greater the investment risk that can affect the value of the firm. According to Shleifer and Vishny (1997), leverage is an important governance mechanism that forces managers to generate enough cash flow in order to pay the interest and the principal. This will then mitigate agency conflicts resulting from cash flow resulting in a negative relationship between leverage and firm value (Dang et al, 2020). In addition, the current findings suggest that the relationship between firm size and firm value is significantly negative. This is similar to the finding by Zahid et al., (2020) and Uyar et al. (2021). Larger firms are associated with higher agency costs including costs of monitoring because they are more complex to lead (Dang et al., 2020). The findings of the current study are thus consistent with the existing literature and show a negative relationship between firm size and firm value (e.g., Adams and Ferreira, 2009; Isidro and Sobral, 2015).

Table 6.12: Fixed-effect panel regression results for ROA – H3

Variables	**Coefficient**	**t-value**
WDI	-.0008	-2.19**
WVGM	.0003	1.09
WSP	.0002	0.71
Board ethnicity diversity	.0006	1.30
Board gender diversity	-.0002	-0.43
Board sustainability exp.	-.0002	-0.60
CSR Committee	-.0071	-0.75
Firm Size	.0648	2.28**
Firm Age	-.0012	-1.96*
Leverage	-.2098	-5.14***
Board Independence	.00038	0.91
Board Size	-.0016	-0.57
CEO Duality	-.0132	-0.20
Constant	-.2354	-1.77*
Industry Fixed Effect	Yes	
Year Fixed Effect	Yes	
Regression F	4.97 ***	
Adjusted R^2	25.48 %	
No. of observations	388	

***, **, * represent significance at the 1%, 5% and 10% levels, respectively. All the regressors are lagged one year, i.e., performance in year t + 1 is modelled as a function of independent variables as measured in year t (Shaukat and Trojanowski, 2018). Reverse causality here is less a problem.

Legend:*1 ROA denotes return on assets as the ratio of net income to total assets; 2 WDI denotes workforce disclosure index; 3 WVGM denotes workforce voice governance mechanisms ;4 WSP denotes workforce strategic policies; 5 BED denotes board ethnic diversity; 6 BGD denotes board gender diversity; 7 BSE denotes board sustainability experience; 8 CSR Committee; 9 natural logarithm of total assets measuring firm size; 10 Firm age; 11 Leverage; 12 Board independence; 13 Board Size; 14 CEO Duality .*

Table 6.12 illustrates the empirical analysis for H3 which tests the relationship between workforce disclosure and return on assets (ROA). The results show a negative and significant relationship between the dependent and independent variable, indicating that higher levels of workforce disclosure are associated with lower returns on assets. This is contrary to the finding by Lin et al. (2012) who found a positive relationship between human capital related reporting and return on assets. It could be that human capital reporting is seen as an asset whereas employee welfare, diversity and engagement activities are seen merely seen as a cost and thus have a negative relation with profitability. There are of course also more costs related to collecting workforce data, having economic consequences, and resulting in lower profitability. This argument is supported by the empirical results of Buallay et al. (2020) and Xue et al, (2023). A study by Chen et al. (2018) found that social disclosures, especially related to disclosures based on regulations, comes at a cost to performance. They also found that firms suffer a more negative stock market reaction following social-related disclosure regulations. It is possible that the FTSE 100 firms have incurred higher data collection, preparation, and reporting costs as some of the information has been collected for the first time, particularly diversity-related data which are not readably available and require considerable time, effort, and cost to compile. Along similar lines, Buallay (2018) found that the relationship between ESG disclosures vary if categorized; whereby there is a positive relationship between environmental disclosures and Tobin's Q and ROA. While social disclosures were found to have a negative relationship with Tobin's Q and ROA. Buallay (2018) elaborates that in the case of social responsibility, executive management and boards of directors work in social policies for their own benefit. Accordingly, these social policies result in costs to the firms; costs which are in turn borne by stakeholders lowering market value (TQ), as well as the efficiency of assets (ROA).

It is also important to note that profitability and market value are only one measure of firm outcomes. An important reason for bringing in regulation relevant to employees is to allow for a fairer and more equitable distribution of firm resources. Hence, it is reasonable and in fact perfectly logical to find that as employees get paid better (as seen in reduced gender pay gaps), and reflected in workforce disclosures, there should be less available for distribution to shareholders in the form

of profits. It is also important to note that accounting profits do not capture many intangible benefits that a firm would reap from better treatment of its employees such as employee loyalty, satisfaction, employee and family and community welfare, wellbeing etc.

Table 6.12 illustrates that there is a negative yet insignificant relationship between board gender diversity and return on assets. This is inconsistent with the findings of Adams and Ferreira (2009) who found that firms with women on their boards tend to have better performance in terms of ROA, and worse performance in terms of Tobin's Q. The current study on the other hand found that women on boards lead to better firm value (see table 6.11) and an insignificant and negative association with profitability. This shows that while board gender diversity positively influences the reputation of firms, it has no significant influence on profitability. Therefore, although considering the legitimacy theory, board gender diversity reflects a positive image to the public, it deters internal mechanisms which might lead to conflicting views in the board and lengthen the time for taking decisions. The negative relationship however could be explained by looking further into previous studies. According to Carter et al (2003), diversity leads to problem-solving through heterogeneity and carefully exploring the consequences of the varied alternatives proposed by different board members. This might cause inefficiency where decision-making would be slower and minorities could exert lesser pressure due to board dynamics (cited by Brahma et al., 2021; Campbell and Minguez-Vera, 2008; and Williams and O'Reilly, 1998).

In addition, the findings showed the relationship between CSR committees and ROA yielded an insignificant result. Rodrigue et al. (2013) argues that the function of CSR committees is more symbolic rather than operational since they commonly lack decision-making power and are not involved in the implementation of social activities. CSR committees are hence limited to recommendation-making. On the other hand, García-Sánchez et al., (2019) believe that the success of CSR committees depends on whether committee members are able to identify the actions needed to increase the firm's visibility and position, to monitor its behavior, reliability, and the quality of information communicated on the firms' social commitments. Hence, the FTSE 100 do not support Mishra and Suar (2010)'s argument that a firm's favorable CSR behavior satisfies the primary stakeholders in providing cost advantages and efficiency gains, which eventually increases profitability (Kuzey et al., 2021). Moreover, the current research found no statistically

significant relationship between board sustainability experience, board size, board independence and profitability.

In terms of firm characteristics, the current study found a negative and significant relationship between leverage and ROA. According to Rajkumar (2014), higher interest payments appear when there is a high degree of financial leverage leading to lower profitability. Furthermore, as per table 6.12, firm size has a positive and significant association with return on assets, while firm age has a negative and significant association with ROA, suggesting that older firms are less profitable.

Table 6.13: Summary of Empirical Analysis

Hypothesis	**Dependent Variable**	**Empirical Results**
H1	Workforce Outcomes – Gender Pay Gaps	Supported
H2	Financial Performance – Tobin's Q	Not supported
H3	Financial Performance – Return on Assets	Supported

6.4. Discussion and Conclusion

This chapter addresses research objectives RO3 and RO4. It provides empirical findings on workforce disclosures and their link with workforce outcomes and financial performance of FTSE 100 companies. First it gives a brief background on the trends in UK's gender pay gaps, since 2017, when firms were mandated to report their gender gaps. The descriptive statistics describe the nature of gender pay gaps – workforce outcomes and the financial performance of the FTSE 100. Based on the Hausman test, analysis using panel data and fixed-effect regressions are presented for both the workforce outcomes and financial performance models.

Similar to the previous chapter's discussion, this section contextualizes the findings and considers the theoretical, regulatory, and social perspectives. The descriptive results suggest that the overall gender pay gaps are decreasing each year, consistent with the views of Blundell (2021) and Duchini et al. (2020). This gap is still considered high when compared to the 38 nations of the OECD (Azzolini et al., 2022). Advocates of the accountability theory and legitimacy theory suggest that firms improve their ESG outcomes or performance indicators to prove their accountability, transparency and legitimacy to their investors and the public. By mandating

reporting and providing evidence to UK's Equalities and Human Rights Commission, the burden of proof has been shifted to the employer rather than the employee. The current study found a positive and significant relationship between workforce disclosure and workforce outcomes (hourly and bonus pay gaps), indicating that when firms disclose their non-financial activities, they improve their social performance to look better. Nonetheless, according to the Equality Trust Report (2022), the UK has a long way to go to close the gap. There is then a need to assess and reflect on the regulations as they currently stand, and to recommend ways the gap can be resolved. For example, in addition to mandatory reporting and wage bargaining, Iceland's gender pay gap law (2018) prohibits firms to pay men more than women, thus reducing the gap significantly (Wagner, 2021). According to the Global Gender Gap Report 2022, Iceland has closed the gap by approximately 91 %. It can be noticed that although Iceland introduced their gender pay gap law in 2018, after UK's pay gap regulation, they have narrowed their gender pay gap significantly. Following Iceland as an example, it can hence be concluded that workforce-related reporting is not enough without the law making it illegal to pay men more than women.

An important caveat to the discussion on gender pay gaps should be noted due to the COVID-19 pandemic. Statistician, Marriot (2022), has highlighted that employers who did not report their gender pay gap for the year 2020 were 16% less likely to narrow their pay gap in the coming years than those that did; even when controlling for confounding variables such as initial pay gap, firm size, and likelihood of high furlough usage. This finding suggests that COVID-19 may well have resulted in the de-prioritization of the gender pay gap at a number of employers, with significant underlying effects on the gender pay gap. This indicates that strengthening enforcement around the regulations, not unlike Iceland's zero-tolerance law, is necessary to close the gap. Moreover, to enhance sectoral initiatives such as the Women in Finance, it is critical to include mandatory targets for employers in the high pay gap sectors and joint approaches between firms to reduce the gender pay gap in those sectors including the financial sector.

This study finds that while workforce disclosure and profitability are negatively related, these have no relation with firm value of the FTSE 100 firms. Nonetheless, it is shown that workforce voice governance mechanisms have a negative relationship with firm value. From a regulatory perspective, this demonstrates the priorities of investors and the degree to which they value the workforce friendly mechanisms and initiatives recommended by the 2018 Code. According to

Friedman (1970) when firms spend on CSR, and if this reduces the return to shareholders, this means that firms are using the shareholders money. This leads to a lower market performance as investors primarily want to invest their money to generate more money. Based on the shareholder theory, when firms focus on more than one stakeholder and non-financial goals, they become ineffective; thus, this reduces their value. This notion is supported by Jensen (2010), Dennis (2016), Buallay et al. (2020).

Of the three workforce governance options suggested by the 2018 Code, Edmans (2017) opposes the designated NED and worker representative. He claims that by appointing a designated NED this could absolve other directors of their responsibilities towards stakeholders. Moreover, he believes that mandating such mechanisms sends the wrong message to the market as it suggests that "consulting stakeholders is bad for firm value, so we must pass a law to achieve it" (Edmans, 2017, p.4). He supports reporting about workforce practices rather than mandating the workforce voice mechanisms. This paper finds that as of now there is no significant impact of the workforce mechanisms on firm value. Furthermore, these mechanisms have positively and significantly impacted workforce disclosures and transparency on how firms are taking into account their workers.

UK has for years, followed a shareholder primacy model of corporate governance and is known to have a positive approach towards the notion of shareholder sovereignty (Ali, 2015). Thus, it is safe to assume that it will take some more time for the market to react positively to regulatory reforms which are shifting towards stakeholder friendly governance. This is a significant finding as it supports the idea that shareholders and investors are short-term oriented rather than focusing on the long-term sustainable success of their firms. This is one of the main reasons that the 2018 Code made reforms, where firms are encouraged to be responsive to the views of workers. The 2018 Code states that firms need to build and maintain successful relationships with a wide range of stakeholders to succeed in the long-term. Appreciating and building good relations with employees and improving their work outcomes creates sustainable businesses and business practices. Kuhn and Shiver (1991) and Ali (2015) recommend the use of the term "constituents" as opposed to "stakeholders". They believe it shares a somewhat similar position to shareholders. Thus, workers as constituents "because of their own existence, interests, concerns, and activities are – whether recognized by managers or not – an inescapable, necessary part or element of the business

corporation" (Kuhn and Shriver, 1991, p. 75). This view of considering workers as constituents, i.e., more than merely stakeholders, contributes to their sustainability and might improve market performance in the long run. As this research has been conducted at the outset of the reforms, future research is needed as results may change over time.

Consistent with previous empirical findings, this study finds a positive and statistically significant relationship between board gender diversity (Zahid et al., 2020; Lawrence & Raithatha, 2023) and board ethnic diversity (Gyapong et al., 2016) with firm value respectively. From a regulatory perspective, the Hampton-Alexander (for gender diversity) and Parker Review (for ethnic diversity) recommendations have a positive link with the market performance of firms. Branco and Rodrigues (2008) explain that diverse board appointments help improve firm image and reputation which is reflected in firm value. Gul et al. (2011) argue that board diversity improves share price informativeness, by increasing public disclosure through better monitoring, and can partially substitute for weaker boards. They further elaborate that board diversity could affect stock price informativeness by (i) strengthening the oversight over the managers which reduces information asymmetry and by (ii) changing the quality and dynamics of board discussions that encourage board members to focus more on the consequences of their decisions.

Furthermore, in addressing RO4, this research finds a negative and significant relationship between workforce disclosures and return on assets, in line with the findings of Marsat and Williams (2014), Chen et al. (2018), Buallay et al. (2020), and Xue et al., (2023). This negative relationship is contrary to the finding by Lin et al. (2012) who found that human capital disclosure as part of intellectual capital has a positive and significant relationship with profitability. From a theoretical viewpoint, Donaldson and Preston (1995) and Chen et al. (2018) argue that social-related activities such as in this case workforce disclosures result in firms incurring higher costs (preparation, certification, verification, dissemination) which lead to lower financial performance. Chen et al. (2018) particularly found that firms experience a decrease in ROA subsequently to regulatory reforms and social requirements. It can be argued that the cost of collecting workforce-related information, such as diversity data, especially for the first time can be high. Researchers (Chen et al., 2018; Grewal et al., 2019) also found that regulatory reforms lead to a decrease in shareholder wealth, investment, and firm value in the short-term. This insight supports this study's finding that there is a negative relationship with TQ. However, as mentioned earlier, the result is

not statistically significant. It is worthy to note that the context of the COVID-19 pandemic introduces a unique situation, whereby the operational performance of firms was severely and negatively impacted by operational costs, impairment charges, staff turnover and furlough. Hence, it is possible that workforce disclosure and its relationship with firm financial performance may vary post-pandemic. It is recommended that future empirical research is conducted to examine these relationships.

In the following chapter - the key research questions and findings of the current study are summarized, and the implications of these findings for theory, policy and practice are discussed.

Chapter 7

Conclusions, Discussion, and Implications

7.1. Summary of Research Findings

The primary purpose guiding this entire research is to examine the extent and trends of workforce disclosures in the UK and whether these disclosures matter for the workforce and financial outcomes of firms. To meet this aim, four research objectives were developed: first, to determine the recent extent and trends of workforce disclosures of the FTSE 100 firms particularly in the light of the UK CG reforms introduced in 2018; second, to identify the determinants of workforce disclosure of the FTSE 100 firms, especially the relevance of UK governance reforms; third, to examine the relationship between workforce disclosures and the *workforce-related outcomes* of the FTSE 100 and finally, to examine the relationship between workforce disclosures and the *financial performance* of the FTSE 100 firms in terms of profitability and firm market value.

While previous studies have studied aspects of my research, I build on the previous work in the following ways. This study develops a novel and comprehensive index of workforce disclosures based on the recommendations of various regulatory frameworks including reforms recommended by the latest UK's CG Code (2018). This study extends prior work by including disclosure items that are understudied in the literature such as workforce welfare and engagement activities. Moreover, most of the previous research on workforce disclosure were determinant studies. This study revisits this relation but uses a much broader set of explanatory variables including variables related to workforce voice governance mechanisms. Furthermore, many of the studies in the literature investigated the relationship between human capital disclosure and firm financial performance. This study investigates the association between workforce-related disclosures from a worker's perspective in terms of their welfare, wellbeing, and engagement and links them with real workforce outcomes such as gender pay gaps as well as with firm financial outcomes.

To investigate the extent and content of disclosures (objective or RO1), the current researcher developed a unique and comprehensive workforce disclosure index based on disclosure guidance of UK and international regulatory frameworks such as the Code 2018, FRC's Guidance on Board Effectiveness 2018, Global Reporting Initiative Standards and the SASB Guideline. In addition, disclosure items related to workforce practices were also adapted from previous studies (e.g., Vithana et al., 2021; Pham et al., 2022). The index was then used to capture data from corporate narratives such as the annual reports, sustainability reports, and ESG data books. This technique of content analysis is used to convert qualitative data into quantitative data (Collis and Hussey, 2014) is a widely used research method in financial accounting and disclosure research (Brennan & Merkl-Davies, 2018).

The following sections provide summary of the research findings, research implications, future research, and research limitations.

Accordingly, in chapter three (which addresses RO1), the researcher examines the recent trends and extent of workforce disclosure of the FTSE 100 companies for the period 2017-2020. It is found that the workforce disclosure index (WDI) including each of its components: workforce diversity (WDD), workforce welfare (WWD) and workforce engagement (WED) are increasing each year. The WED score had the highest level of disclosure with an average score of 87.5 % for the period 2017-2020, while the WDD score had the lowest level of disclosure with an average score of 50 %. The lower extent of WDD could be due to the higher cost of compiling, preparing, and certifying diversity information or simply the non-availability of it as many employees may not want to provide this personal information. It could also be due to lower performance of the firms in terms of diversity when compared to welfare practices and engagement activities. The results further indicate that following the introduction of corporate governance reforms there is a jump in the extent of WDI in 2019, with the highest jump being a 12.62 % increase in the WED score. From a regulatory view, a reason for such an increase could be the emphasis of the 2018 Code on the workforce engagement.

Since their introduction in the CG Code, for the first time, this research examines the workforce voice and engagement mechanism adoption trends of the FTSE 100 companies. The findings show that of the three core options for workforce mechanisms recommended in the 2018 Code, 45% of

firms in the sample had appointed a designated non-executive director, and 19% used an advisory panel, while one company was found to have appointed a worker director on the board. The least popular option has been the worker director because the firms, according to the FRC (2021), believe that an appointed worker on the BoD would be distrusted overtime by other workers. This view is supported by Edmans (2017) who argues that it is difficult for a worker representative to represent all workers as workers comprise of different pay grades and locations, where decisions might benefit one group of workers at the expense of the others. Therefore, a worker director will not be accepted by all. He suggests that a more effective method of promoting communication with workers and favourable worker outcomes is by increasing transparency through reporting on stakeholder/workforce-related hard performance measures. In 2019, 79 % of the sample companies chose alternative arrangements such as work councils and employee forums. Moreover, as shown in this research they increased the extent of their disclosure levels.

The second objective (RO2) is addressed in chapter five. The chapter identifies and examines the drivers or determinants of workforce disclosure by the FTSE 100 for the period 2017-2020. It is found that WDI has a strong positive relation with workforce voice governance mechanisms and workforce strategic posture (workforce-related policies, board ethnic diversity, board sustainability or CSR experience). As the 2018 Code recommends firms to use a combination of mechanisms or even alternative arrangements to listen to the workforce, workers have multiple approaches to make their voice heard. Considering the stakeholder perspective, this finding highlights the point that a stakeholder-oriented regulatory framework increases the focus on workers, and transparency of measures used, and by implication perhaps the legitimacy of firms in ways visible to all workers and other stakeholders.

Chapter six (RO3) investigates the association between WDI and workforce outcomes (hourly and gender pay gaps). It is found that the higher the extent of disclosure the lower the gender pay gaps, indicating improved workforce outcomes. This supports the accountability theory, as discussed in chapter six, that states that firms improve their social performance when they are required to disclose such information (Deegan et al., 2006; Haider and Kokubu, 2015). Nonetheless, the study found no association between the workforce governance mechanisms and gender pay gaps. Nonetheless, the findings imply that progress in narrowing the gender pay gap has been extremely slow over the four years, i.e., 2017-2020. The Equality Trust Report (2022) claims that at the

current rate, it would take the standard FTSE 100 firm just shy of 48 years to close the gender pay gap. Hence, as suggested in the conclusion section of chapter six, requiring firms to report their gender pay gaps is not enough to improve gender parity, neither are the workforce governance mechanisms or board diversity. Reporting of gender pay gaps remains a potentially powerful tool to reduce pay inequality. Nonetheless, the UK government should revise the current regulations and introduce a stricter system to strengthen enforcement around regulations, not unlike Iceland which has narrowed their gender pay gaps by approximately 99 %. Iceland's gender pay gap law (2018) prohibits firms to pay men more than women, thus reducing the gap significantly (Wagner, 2021).

In chapter six, RO4 is also addressed. It examines the link between WDI and corporate financial performance (firm value -TQ and profitability - ROA). It is found that while there is a negative and significant relation between WDI and profitability, there is no relation between WDI and firm value. The results are consistent with the predictions of Verrecchia (1983) who suggests that despite bearing costs, firms are willing to provide relevant information to the market if the expected benefits of such disclosures are higher than the associated costs. Such benefits likely include good corporate image, reputation, and legitimacy in the eyes of the public (consistent with predictions of stakeholder theory rather than agency theory). The context of the COVID-19 pandemic and lower than usual profits during the period, could be a possible reason for negative relation between workforce related disclosures and financial performance of firms. It is therefore important that future research examines the financial relevance of post-pandemic disclosures.

7.2. Research Implications

7.2.1. Policy Implications

The findings of these chapters provide several implications. From a regulatory perspective, the findings imply that if higher transparency and focus on a firm's stakeholders (other than shareholders) are desirable, then a combination of workforce voice mechanisms, workforce-related strategic policies and engagement activities need to be implemented through regulatory requirements and reforms. This indicates that a country's regulatory framework needs to be underpinned by insights derived from theories other than agency theory e.g., the stakeholder theory

in order to develop a more inclusive and stakeholder sensitive corporate governance system of a country. To achieve transparency, responsibility and accountability, a country needs appropriate regulatory frameworks to monitor industry activities and how these impact key business stakeholders such as employees as well as the society, more broadly. The requirement for such regulation is indicated by a positive and significant relationship between workforce voice governance mechanisms, workforce strategic posture and extent of workforce disclosure.

A new and significant finding of the current research implies that although UK's CG Code reform and other regulations such as the Hampton-Alexander review are steps in the right direction, there is a lot to be desired in terms of hard verifiable disclosures. The importance of having proper and comprehensive disclosure of work-related activities and practices is observed. This research calls for further attention from policy makers to encourage the reporting of hard disclosures (similar to the requirements of the gender pay gaps). Although some FTSE 100 firms following the GRI and SASB frameworks report on hard data such as cost of training, average training hours per worker, % of staff turnover, many do not. The sample of this study mostly disclosed soft data that does not convey the actual social performance of the business. It was the intention of this study to use also these other worker outcomes as workforce performance measures, but the researcher was unable to do so because of lack of data availability as these hard measures were not reported by many firms. The current study could only collect hard disclosures in the form of gender pay gaps due to their availability from 2017 onwards due to government mandates. Other hard disclosures such as total expenditure on employee training, or average training hours provided per worker were minimally addressed in the corporate narratives of the FTSE 100. Therefore, to increase their transparency and accountability towards their workers further and more rigorously, it is important that firms publish verifiable hard data in their annual reports, i.e., they need to demonstrate that they walk the walk and not just talk the talk.

In terms of narrowing the gender pay gaps, particularly in the UK, it can be concluded that although reporting increases accountability and thereby helps in reducing the gap, it is not enough to close it within the coming years. The gap is still too big despite the regulations (Equality Trust Report, 2022). This research thus has implications in terms of how disclosures truly affect accountability of firms towards improving their social behaviours, albeit only within mandatory disclosure requirements set by the regulations as explained by Dye (1985). To elaborate, it can further be

argued that disclosure of gender pay gaps is not completely optimal as managers are disclosing only what is mandatory by regulations. Therefore, regulations related to the extent and content of disclosure needs to be revised and made more stringent. As per the Equality Trust Report (2022, p.16), it is also important for FTSE firms to identify and report whether the gap exists due to an "equal pay problem" (which they explain as difference in payment for doing the same job) or a "progression problem" (due to not enough women being in higher paid positions). By reporting this information, first firms will be accountable to solve the problem, and second regulators will be able to identify the root of the problem and introduce more nuanced regulations that help address the fundamental issues. There is therefore room for policy to require companies (1) to establish and explain the reasons for their gender pay gaps and (2) produce actionable plans to close their gaps.

7.2.2. Business Practice Implications

The findings of this research have implications for the FTSE 100 and industry in general. For the industry, the findings of the current research imply that firms with the combinations of workforce voice governance mechanisms, workforce-related policies and diverse people on the board are likely to be equipped in dealing with the current social and regulatory environment, and in meeting workforce challenges. Furthermore, considering investors, the findings imply that increasing board diversity has positive impacts on disclosure and firm value. This finding is in line with current business climate where reporting regulation is well underway to promote socially and environmentally sustainable business practices and the reporting thereof. This finding also suggests that board diversity now matters perhaps more to investors than board independence (reflective perhaps of a shift in focus from having independent directors that 'represent' shareholders to having directors that 'represent' the various types of social diversity (including age, gender, and ethnicity) that characterizes the wider societal stakeholders.

My findings also suggest that to improve transparency, credibility and relevance of their disclosures, firms should also provide hard disclosures such as total expenditure on employee training, or average training hours provided per worker were minimally addressed in the corporate narratives of the FTSE 100. Therefore, to increase their transparency and accountability towards

their workers further and more rigorously, it is important that firms publish verifiable hard data in their annual reports, i.e., they need to demonstrate that they walk the talk and not just talk the talk.

In terms of the relation between workforce disclosures-workforce governance mechanisms and firm value, it is recommended that researchers investigate these relationships further down the road that is after a few years have passed since the CG reforms, giving more time for investors and the market to understand the implications of these changes for business performance. It is also important to examine how these links emerge in the post pandemic era. In this regard, it is also important that firms review how workforce governance mechanisms, policies, and disclosures are understood by the public and other key stakeholders (employees) to ensure that the information generated from the disclosure process are understandable and actionable. The findings of this research, thus has implications for future research as discussed in the section below. From the broader CG research perspective, the conceptual approach and 'Workforce Disclosure' index developed in this study, can be adapted to any study of the associations between the various aspects of workforce disclosure, workforce voice governance mechanisms, board diversity, and firm performance, both in terms of workforce outcomes and financial performance.

7.3. Limitations and Suggestions for Future Research

Like all research, this study also has its limitations, but they do not detract from the analysis; rather they bring to the fore some issues for possible future research studies. One notable limitation is that this study relates only to the FTSE 100, that is the largest listed firms in the UK. Workforce disclosures are important for smaller firms as well and especially so as smaller firms are likely to face greater employee recruitment and retention issues. Future research could include smaller firms to investigate the determinants of WD, extent of WD and to examine the link between WD and employee and financial outcomes.

This study used the fixed effects estimator which deals with some causes of endogeneity. Moreover, the current study utilized the lead-lag structure to address issues in endogeneity, but endogeneity may still remain as the analysis techniques used may not completely address the issue.

Research could also investigate the links between these variables in other contexts or countries. This research is limited to a single country. Hence, future research could also investigate, compare,

and contrast findings based on different regulatory frameworks. It could extend analysis to compare different countries in different contexts. For example, a comparative study between countries following shareholder dominated model of governance vs. a stakeholder dominated model could also be conducted. Another comparative study could be conducted between countries such as Germany (which has two-tier board systems) with others. Future studies could use and adapt the 'Workforce Disclosure' index developed for the current research as it is quite comprehensive and covers a range of workforce-related disclosure items and components.

Another important limitation to consider is the time period of the study. First, it was conducted in the light of regulatory reforms, and the results might change over time because it takes time for firms and their investors to respond to recommendations. Second, a longer time period would enhance understanding of the impact on business of the stakeholder orientation of the CG Code in the long run. Third, this study included the unique period of the COVID-19 pandemic, where many firms were newly adapting to social distancing and lockdowns, and suffered impairment charges, higher operating costs, unusual staff turnover, remote working environment, and in some cases lower profits as demonstrated by the descriptive statistics of this study. It is thus important that future research pays attention to post-pandemic workforce friendly disclosures, their determinants including workforce friendly governance mechanisms, and workforce and financial outcomes of firms.

Due to incomplete and limited availability of workforce-related hard data in corporate narratives as well as Refinitiv, this study hand collected workforce data as binary variables. Hard data are not widely disclosed because they are voluntary in nature and firms are not legally obligated to disclose them. Only gender pay gaps were collected as hard data items representing workforce outcomes because they are mandatory by the UK Government. This data was also collected not from corporate reports but from the GOV.UK website. Companies should be encouraged to provide this data in their corporate reports along with other hard data items including employee training expenditure and hours, employee turnover, employee absenteeism, CEO/average worker pay ratio. This will help enhance our understanding of how companies actually perform on their workforce key performance indicators. Moreover, some variables which could be useful such as employee satisfaction can be captured in a more comprehensive way, i.e., through employee satisfaction surveys, which could then be linked to the workforce voice mechanisms to investigate

whether employee representation at the top has impact on employee satisfaction and how. To sum, a range of future research is feasible if hard employee-related key performance indicators were available. Future research can also investigate the causes and reasons for gender pay gaps in more detail and suggest how these can be reduced in UK and countries around the world.

Furthermore, future research can also examine the levels and content of workforce disclosure and the motivation of companies to provide these through case studies and surveys. More qualitative research could provide richer and deeper insights on worker friendly behavior of firms and their directors. From a CG Code perspective, future research could examine corporate disclosures about other stakeholders mentioned in the Code such as customers and suppliers and conduct a comparative study to understand how firms address their responsibilities towards each stakeholder and what are their priorities related to each. Finally, future research could also examine the perceptions of financial analysts on workforce disclosures as well as the response of other market participants to such disclosures.

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Appendix I: Variable Definitions, Measures and Sources of Data

Category	Definition/Measurement	Data Type	Source of data collection
Workforce Disclosure Index Components: (Data collected from corporate narratives only)			
Workforce disclosure index score (A + B + C)	Total of workforce diversity disclosure, workforce welfare disclosure, and workforce engagement activities disclosure/total number of items in the index	Float	Annual Report/ Sustainability Report/ GRI Databook
Workforce diversity disclosure score - A	Total of workforce diversity disclosure, /total number of items in the index	Float	Annual Report/ Sustainability Report/ GRI Databook
Workforce welfare disclosure score - B	Total workforce welfare disclosure /total number of items in the index	Float	Annual Report/ Sustainability Report/ GRI Databook
Workforce engagement disclosure score – C	Total workforce engagement activities disclosure/total number of items in the index	Float	Annual Report/ Sustainability Report/ GRI Databook
Workforce Diversity Disclosure Index			
Number of employees, breakdown by gender diversity	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Employee Age Distribution Profile	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Employee Nationality or Ethnic Diversity Profile	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Employee Disability Profile	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Employee Sexual Orientation Profile	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook

Employee Discrimination Cases reported	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Ethnicity Pay Gap /Hourly Pay	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report
Ethnicity Pay Gap /Bonus Pay	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report
Gender Pay Gap /Hourly Pay	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report
Gender Pay Gap /Bonus Pay	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report
Workforce Welfare Disclosure (WWD)			
Employee Benefits including share purchase schemes and remuneration	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Recruitment/ No. of Recruits / No. of Hires	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Employee Appreciation and Rewards	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Whistleblowing cases raised during the year	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Whistleblowing cases closed or solved during the year	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook

Confidentiality in raising concerns (whistleblowing)	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
CEO to Employee Pay Ratio	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report
No. of Training and development Courses	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
No. of Employees Trained	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Money invested in training	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Training Hours or days per employee	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report /GRI Databook/
Career Planning	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Family Benefits including support for daycare at workplace, maternity, paternity leaves, holidays and vacations	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Occupational Health & Safety	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Consultation and Participation of Employees in H & S	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook

Health and Safety Training	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Promotion of Health and Wellbeing of Employees including gyms, insurance, health days.	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report/ Sustainability Report/ GRI Databook
Workforce Engagement Activities: These are recommended by the Corporate Governance Code, and companies can choose and report any of the engagement approaches listed in the Guidance on Board Effectiveness			
Involvement of employees in Training	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Staff General Meetings	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Employee-related Surveys	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Staff Appraisal and feedback on performance	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Mentoring, Apprenticeship, Sponsorships	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Hosting and Bespoke Events/ Town Halls	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Site Visits	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook

Succession Planning of Talent & Employees	Binary, 0 = Disclosed, 1= Disclosed	Binary	Annual Report /Sustainability Report/ GRI Databook
Workforce Strategic Posture			
Workforce-related Strategic Policies: Total of workforce policies disclosure/total number of items in the index			
Policy on Workforce Diversity & Inclusion	Comply or explain Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Policy on Non-Discrimination	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Policy on Workforce Engagement	Comply or explain Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Policy on Whistleblowing	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Policy on Workforce Skills Training and development	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Policy on Workforce Career Development	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Policy on Health & Safety of Workforce	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Policy on Forced Labour	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv

Policy on Board Diversity	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Sustainable Development Goal 5 - Gender equality and women's empowerment	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Sustainable Development Goal 8 - Full and productive employment and decent work for all	Binary, 0 = if there is no policy disclosed, 1= if there is a policy disclosed	Binary	Annual Report/Sustainability Report/ Refinitiv
Board Diversity			
Ethnic Diversity	No. of BAME Directors on the Board	Integer	Annual Report/ GRI Databook/Refinitiv
Proportion of Ethnicity Diversity % (WFGM)	% of BAME directors to total board size	Float	Computed by the researcher
Gender Diversity: Female Directors on the Board (WFGM)	No. of Female Directors on the Board	Integer	Annual Report/ GRI Databook/Refinitiv
Gender Diversity: Proportion of Female Directors on the Board % (WFGM)	% of female directors from the total number of directors on the Board	Float	Computed by the researcher
Sustainability Experience Diversity (WFGM)	No. of board members with social or sustainability experience and background	Integer	Annual Report/ GRI Databook/Refinitiv
Proportion of directors with sustainability experience % (WFGM)	% of board members with social or sustainability experience and background to total board size	Float	Computed by the researcher
CSR Committee			

CSR Committee	Binary, 0 = if firm does not have a CSR committee, 1= if firm has a CSR committee	Binary	Annual Report
Workforce Voice Governance Mechanisms			
Employee voice mechanisms score	Total of employee voice mechanisms /total number of items in the index	Binary	Annual Report
Breakdown of items in employee voice mechanisms: one or a combination of the following methods should be used. If the board has not chosen one or more of these methods, it should explain what alternative arrangements are in place.			
Workforce Board Representative	Binary, 0 = if firm has no employee voice mechanism in place, 1= if firm has a voice mechanism in place	Binary	Annual Report
Advisory Panel	Binary, 0 = if firm has no employee voice mechanism in place, 1= if firm has a voice mechanism in place	Binary	Annual Report
Designated Non-executive board of directors	Binary, 0 = if firm has no employee voice mechanism in place, 1= if firm has a voice mechanism in place	Binary	Annual Report
Any other mechanism such as employee forums/ unions	Binary, 0 = if firm has no employee voice mechanism in place, 1= if firm has a voice mechanism in place	Binary	Annual Report
Workforce (social) outcomes			
Gender Pay Gap / Hourly Pay	Mean % of comparison of the average hourly pay for a woman and the average hourly pay for a man.	Float	Annual Report /Sustainability Report/ UK's Gender Pay Gap Service
Gender Pay Gap / Bonus Pay	Mean % of comparison of the average bonus pay for a woman and the average bonus pay for a man.	Float	Annual Report /Sustainability Report/ UK's Gender Pay Gap Service

Appendix II: List of companies in the sample for 2017-2020

2017	2018	2019	2020
3i Group	3i Group	3i Group	3i Group
Admiral Group	Admiral Group	Admiral Group	Admiral Group
Anglo American	Anglo American	Anglo American	Anglo American
Antofagasta	Antofagasta	Antofagasta	Antofagasta
Ashtead Group	Ashtead Group	Ashtead Group	Ashtead Group
Associated British Foods	Associated British Foods	Associated British Foods	Associated British Foods
AstraZeneca	AstraZeneca	AstraZeneca	AstraZeneca
Aviva	Aviva	Auto Trader Group	Auto Trader Group
Babcock International Group	BAE Systems	Aviva	Aveva Group
BAE Systems	Barclays	BAE Systems	Aviva
Barclays	Barratt Developments	Barclays	BAE Systems
Barratt Developments	Berkeley Group Holdings	Barratt Developments	Barclays
BHP Billiton	BHP Billiton	Berkeley Group Holdings	Barratt Developments
BP	BP	BHP Group Plc	Berkeley Group Holdings
British American Tobacco	British American Tobacco	BP	BHP Group Plc
British Land Co	British Land Co	British American Tobacco	BP
BT Group	BT Group	British Land Co	British American Tobacco
Bunzl	Bunzl	BT Group	British Land Co
Burberry Group	Burberry Group	Bunzl	BT Group
Carnival	Carnival	Burberry Group	Bunzl
Centrica	Centrica	Carnival	Burberry Group
Coca-Cola HBC AG	Coca-Cola HBC AG	Centrica	Carnival
Compass Group	Compass Group	Coca-Cola HBC AG	Centrica
ConvaTec Group	CRH	Compass Group	Coca-Cola HBC AG
CRH	Croda International	CRH	Compass Group
Croda International	DCC	Croda International	CRH
DCC	Diageo	DCC	Croda International
Diageo	Direct Line Insurance Group	Diageo	DCC
Direct Line Insurance Group	Easyjet	Direct Line Insurance Group	Diageo

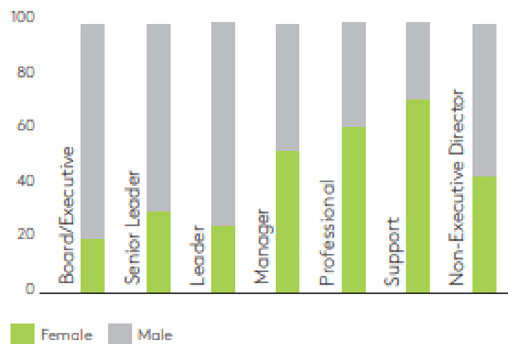
Easyjet	Evraz	Easyjet	Easyjet
Experian	Experian	Evraz	Evraz
Ferguson	Ferguson	Experian	Experian
Fresnillo	Fresnillo	Ferguson	Ferguson
GlaxoSmithKline	G4S	Fresnillo	Fresnillo
Glencore	GlaxoSmithKline	GlaxoSmithKline	GlaxoSmithKline
Hammerson	Glencore	Glencore	Glencore
Hargreaves Lansdown	Halma	Halma	Halma
Hikma Pharmaceuticals	Hargreaves Lansdown	Hargreaves Lansdown	Hargreaves Lansdown
HSBC Hldgs	HSBC Hldgs	Hikma Pharmaceuticals	Hikma Pharmaceuticals
Imperial Brands	Imperial Brands	Hiscox	HSBC Hldgs
Informa	Informa	HSBC Hldgs	Imperial Brands
InterContinental Hotels Group	InterContinental Hotels Group	Imperial Brands	Informa
International Consolidated Airlines Group	International Consolidated Airlines Group	Informa	InterContinental Hotels Group
Intertek Group	Intertek Group	InterContinental Hotels Group	Intermediate Capital Group
Intu Properties	ITV	International Consolidated Airlines Group	International Consolidated Airlines Group
ITV	Johnson Matthey	Intertek Group	Intertek Group
Johnson Matthey	Just Eat	ITV	ITV
Kingfisher	Kingfisher	Johnson Matthey	JD Sports Fashion
Land Securities Group	Land Securities Group	Just Eat	Johnson Matthey
Legal & General Group	Legal & General Group	Kingfisher	Just Eat Takeaway.com
Lloyds Banking Group	Lloyds Banking Group	Land Securities Group	Land Securities Group
London Stock Exchange Group	London Stock Exchange Group	Legal & General Group	Legal & General Group
Marks & Spencer Group	Marks & Spencer Group	Lloyds Banking Group	Lloyds Banking Group
Mediclinic International plc	Mediclinic International	London Stock Exchange Group	London Stock Exchange Group
Melrose Industries	Melrose Industries	Marks & Spencer Group	M&G
Merlin Entertainments	Micro Focus International	Melrose Industries	Meggitt
Micro Focus International	Mondi	Micro Focus International	Melrose Industries

Mondi	Morrison (Wm) Supermarkets	Mondi	Mondi
Morrison (Wm) Supermarkets	National Grid	Morrison (Wm) Supermarkets	Morrison (Wm) Supermarkets
National Grid	Next	National Grid	National Grid
Next	Old Mutual	Next	Next
Old Mutual	Paddy Power Betfair	Ocado Group	Ocado Group
Paddy Power Betfair	Pearson	Paddy Power Betfair	Paddy Power Betfair
Pearson	Persimmon	Pearson	Pearson
Persimmon	Prudential	Persimmon	Pennon Group
Provident Financial	Randgold Resources	Phoenix Group Holdings	Persimmon
Prudential	Reckitt Benckiser Group	Prudential	Phoenix Group Holdings
Randgold Resources	RELX	Reckitt Benckiser Group	Polymetal International
Reckitt Benckiser Group	Rentokil Initial	RELX	Prudential
RELX	Rio Tinto	Rentokil Initial	Reckitt Benckiser Group
Rentokil Initial	Rolls-Royce Holdings	Rightmove	RELX
Rio Tinto	Royal Bank Of Scotland Group	Rio Tinto	Rentokil Initial
Rolls-Royce Holdings	Royal Dutch Shell A	Rolls-Royce Holdings	Rightmove
Royal Bank Of Scotland Group	Royal Dutch Shell B	Royal Bank of Scotland Group	Rio Tinto
Royal Dutch Shell A	Royal Mail	Royal Dutch Shell A	Rolls-Royce Holdings
Royal Dutch Shell B	RSA Insurance Group	Royal Dutch Shell B	Royal Bank of Scotland Group
Royal Mail	Sage Group	RSA Insurance Group	Royal Dutch Shell A
RSA Insurance Group	Sainsbury (J)	Sage Group	Royal Dutch Shell B
Sage Group	Schroders	Sainsbury (J)	RSA Insurance Group
Sainsbury (J)	Segro	Schroders	Sage Group
Schroders	Severn Trent	Segro	Sainsbury (J)
Severn Trent	Shire	Severn Trent	Schroders
Shire	Sky	Smith & Nephew	Segro
Sky	Smith & Nephew	Smith (DS)	Severn Trent
Smith & Nephew	Smith (DS)	Smiths Group	Smith & Nephew
Smiths Group	Smiths Group	Smurfit Kappa Group	Smith (DS)
Smurfit Kappa Group	Smurfit Kappa Group	Spirax-Sarco Engineering	Smiths Group
SSE	SSE	SSE	Smurfit Kappa Group

St. James's Place	St. James's Place	St. James's Place	Spirax-Sarco Engineering
Standard Chartered	Standard Chartered	Standard Chartered	SSE
Standard Life	Standard Life Aberdeen	Standard Life Aberdeen	St. James's Place
Taylor Wimpey	Taylor Wimpey	Taylor Wimpey	Standard Chartered
Tesco	Tesco	Tesco	Standard Life Aberdeen
TUI AG	TUI AG	TUI AG	Taylor Wimpey
Unilever	Unilever	Unilever	Tesco
United Utilities Group	United Utilities Group	United Utilities Group	Unilever
Vodafone Group	Vodafone Group	Vodafone Group	United Utilities Group
Whitbread	Whitbread	Whitbread	Vodafone Group
WPP	WPP	WPP	Whitbread
			WPP

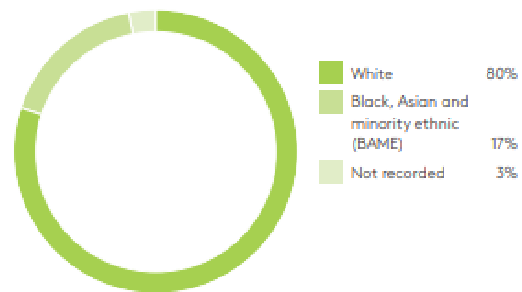
Appendix III: Snapshots of Workforce Related-Disclosures from Corporate Narratives

Gender by level Chart 22



We have good female representation at all levels of our organisation except at Leader and Senior Leader level. We are moving in the right direction at Leader level however, we are now at 24%, up from 19.5% last year.

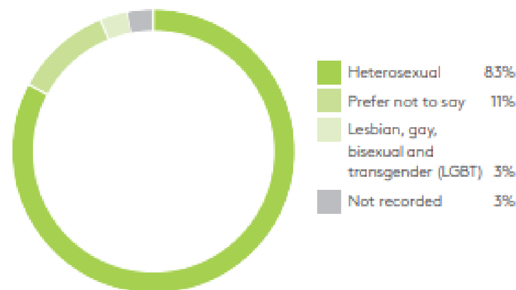
Whole organisation by ethnicity Chart 23



17%

17% of our employees disclose themselves to be from BAME ethnicity backgrounds. This compares favourably to the UK benchmark of 14% as a whole according to the 2011 UK census data. However, this reduces to 11% for Executive Committee, Senior Leader and Leader levels.

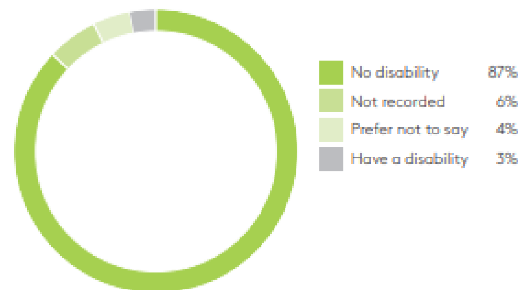
Whole organisation by sexual orientation Chart 24



3%

of Landsec employees have disclosed that they are LGBT. 11% of our employees prefer not to say, a figure that has reduced from 15% last year.

Whole organisation by disability Chart 25



3%

of Landsec employees have disclosed that they have a disability. However, 10% have not recorded their details or prefer not to say.

Source: Landsec Annual Report 2020 – Illustrating Employee Diversity Profile

Composition

The Board currently comprises the Chairman, Mike Rogers, three executive directors and five independent non-executive directors, including the Deputy Chairman, George Rose. Mike Rogers succeeded Don Robert as Chairman with effect from 24 July 2019, and Paul Walker stepped down on that date as a non-executive director of the Company. Also on that date, Mike Rogers became Chairman of the Nomination and Corporate Governance Committee, and George Rose became Chairman of the Remuneration Committee.

Board composition

As at the date of approval of the Annual Report

Balance of executive and non-executive directors

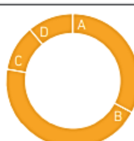
A. Chairman	11%
B. Executive	33%
C. Independent non-executive	56%

Length of tenure of directors

A. 1 to <3 years	22%
B. 3 to <6 years	45%
C. 6 to <9 years	33%

Ethnic heritage

A. North American	33%
B. European	45%
C. Middle Eastern	11%
D. South American	11%

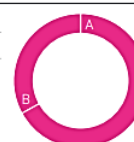


Non-executive director skills

A. Financial services	17%
B. Consumer	17%
C. Technology/Information	17%
D. Consumer packaged goods	7%
E. Manufacturing/ Large projects	8%
F. Financial qualifications	17%
G. Serving listed company executive	17%

Balance of male and female directors

A. Male	67%
B. Female	33%



Source: Experian Annual Report 2020 – Illustrating Board Ethnic Diversity and Board Independence

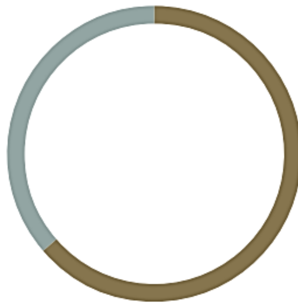
Board skills matrix

Director	Independence	CEO experience	Mining industry experience	Mining operations experience	Board governance	Financial	Legal	Executive compensation	Latin American experience	UK market	Project management	Sustainability	Energy experience	Government relations	Communication
Jean-Paul Luksic		✓	✓		✓	✓		✓	✓	✓	✓			✓	
Ollie Oliveira	✓	✓	✓		✓	✓		✓	✓	✓	✓			✓	✓
Ramón Jara			✓		✓	✓	✓		✓			✓	✓	✓	✓
Juan Claro		✓			✓			✓	✓			✓	✓	✓	✓
Andrónico Luksic C		✓			✓	✓		✓	✓					✓	✓
Vivianne Blanlot	✓				✓			✓	✓			✓	✓	✓	✓
Jorge Bande	✓	✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓
Francisca Castro	✓		✓		✓	✓		✓	✓		✓		✓	✓	
Michael Anglin	✓	✓	✓	✓	✓			✓	✓		✓	✓	✓		
Tony Jensen	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓

Source: Antofagasta plc Annual Report 2020 – Illustrating Board Sustainability Experience and Board Independence

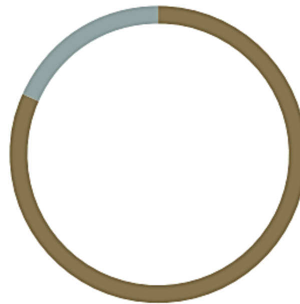
Board composition 2020

Gender split[1]



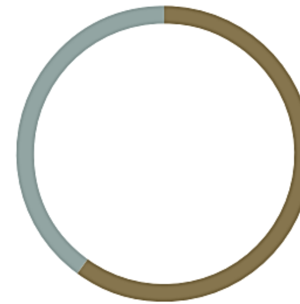
- Male – 7 (2019: 9)
- Female – 4 (2019: 3)

Ethnic origin[1]



- Latin America – 9 (2019: 10)
- Europe – 2 (2019: 2)

Independence (including the Chairman)[1 2]



- Independent – 6 (2019: 6)
- Non-independent – 5 (2019: 6)

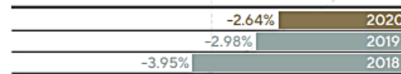
1 As at 31 December 2020, there were 11 Directors on the Board following the passing of Luis Robles on 19 November 2020.
2 Excluding the Chairman, there were six independent and four non-independent Directors at the end of the year. There were seven independent Directors prior to Luis Robles passing away.

Source: Fresnillo Annual Report 2020 – Illustrating Board Diversity

Gender pay gap
Based on salary scales, we have policies in place to mitigate the gender pay gap. In 2020, the gender pay gap for non-unionised, non-executive employees was 2.64% compared to 2.98% in 2019. The gap is calculated using the weighted average salary per hierarchical level.

The head count per hierarchical level and business unit is used to determine the weights in the overall average gap calculation.

OVERALL GENDER PAY GAP



	Open pit Operations	Underground Operations	Projects	Explorations	Support and administrative staff	Average gap per hierarchical level
First level 'Senior Engineer'	(0.22)%	(5.85)%	(14.78)%	(1.45)%	(9.92)%	(5.73)%
Second level 'Junior Engineer'	(0.34)%	(2.43)%	(2.32)%	12.66%	1.29%	0.13%
Third level 'Assistant'	14.25%	(14.68)%	(28.29)%	(6.59)%	14.31%	(4.93)%
					Overall average gap 2020	(2.64)%
					Overall average gap 2019	(2.98)%
					Overall average gap 2018	(3.95)%

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ANNUAL REPORT AND ACCOUNTS 2020

Source: Fresnillo Annual Report 2020 – Illustrating Gender Pay Gap Reporting

Our inclusion and diversity data

		2020	2019
Gender			
Board members	Male	**8**	9
	Female	**4**	4
GEC and GEC direct reports	Male	**86**	111
	Female	**41**	50
Senior managers	Male	**4,540**	4,539
	Female	**2,670**	2,647
Colleagues	Male	**28,948**	29,522
	Female	**39,817**	41,033
Ethnicity			
% of Board members from an ethnic minority background		**8.3%**	NR
% of Senior managers from an ethnic minority background*		**7.7%**	6.7%
% of Colleagues from an ethnic minority background*		**10.6%**	10.2%
Disability			
% of colleagues who disclose that they have a disability		**3.2%**	2.8%
Gender identity and sexual orientation			
% of colleagues who disclose that they are lesbian, gay, bisexual or transgender		**2.3%**	2.2%

Lloyds Annual Report 2020 – Illustrating Employee Diversity Profile for 2019 and 2020

Gender pay

While we have further reduced the mean pay gap this year to 30.5 per cent from 32.8 per cent in 2017 the pay gaps are still larger than we would like.

Our ambitious goal of women comprising 40 per cent of our senior management by the end of 2020 has seen us advance from 27 per cent in 2014 to 37 per cent at the end of 2019. This demonstrates the significant progress we have made, and it would not have happened without the goal and all the measures we put into place. Further information is available at https://www.lloydsbankinggroup.com/assets/pdfs/who-we-are/responsible-business/downloads/lbg-gender-pay-gap-report-2019-20.pdf/lloydsbankinggroup.com)

Mean pay gap
%

Mean bonus gap
%

Ethnicity pay

While there is currently no legal requirement to publish Ethnicity Pay Data in the UK, we are publishing this data not only because it is the right thing to do, but it also holds us to account for the goals we have set.

On average, and at all grades within Lloyds Banking Group, our Black, Asian and Minority Ethnic colleagues are not paid less than White colleagues. Instead our Ethnicity pay and bonus gaps reflect our organisational makeup. Further information is available at https://www.lloydsbankinggroup.com/who-we-are/responsible-business/inclusion-and-diversity/ethnicity/ethnicity-pay-gap-report.html

Mean pay gap
%

Mean bonus gap
%

Lloyds Annual Report 2020 – Illustrating Gender and Ethnicity Pay Gaps for 2019 and 2020

Appendix IV: Descriptive statistics by subsamples (per year)					
Variables	**Median**	**Mean**	**S.D.**	**Min.**	**Max.**
WVGM	25.000	25.126	20.489	0	75.000
2017	0.000	10.606	12.923	0	50.000
2018	25.000	15.657	15.369	0	75.000
2019	25.000	36.111	19.306	0	75.000
2020	50.000	38.000	17.936	0	75.000
WSP	63.640	60.7511	14.3741	18.182	100.000
2017	54.545	50.597	13.318	18.182	81.818
2018	54.545	55.464	11.058	27.272	81.818
2019	63.636	63.820	11.170	36.364	90.909
2020	72.727	73.000	10.691	45.454	100.000
BED	8.333	9.4127	12.096	0	72.727
2017	0.000	6.7883	11.5882	0	72.727
2018	5.882	8.2798	12.6854	0	72.727
2019	8.333	9.537	11.694	0	63.636
2020	9.090	13.009	11.667	0	60.000
BGD	30.769	32.214	8.675	0	58.333
2017	28.571	29.364	8.501	10.000	50.000
2018	30.000	30.702	8.9072	0	50.000
2019	33.333	32.721	7.877	11.111	54.545
2020	36.039	36.030	8.011	20.000	58.333
BSE	18.182	13.109	19.532	0	77.778
2017	0.000	7.854	15.635	0	66.667
2018	0.000	10.29	17.228	0	66.667
2019	8.333	15.65	20.931	0	77.778
2020	10.00	18.58	22.005	0	77.778
CSR Com.	0.00	0.408	0.492	0	1
2017	0.00	0.313	0.4661	0	1
2018	0.00	0.364	0.483	0	1
2019	0.00	0.455	0.5005	0	1
2020	0.500	0.500	0.502	0	1
Firm Size (in £ Millions)	12349.72	104796.70	274538.40	98.15	2182618
2017	12424.00	102161.473	260065.70	741.5	1844423
2018	12825.25	100740.182	265634.58	169.30	1871011
2019	11848.00	103557.836	273811.16	98.15	1985862
2020	11694.69	112607.52	300532.39	160.44	2182618
Firm Age (in years)	82.00	98.189	78.435	5	502.00
2017	81.00	99.212	83.9152	5	501.00

2018	82.00	99.414	84.146	6.0	502.00
2019	84.00	97.586	73.101	7.0	329.00
2020	80.00	96.560	73.028	9.0	330.00
Leverage	0.2439	0.2456	0.16251	0.00252	0.8369
2017	0.2287	0.2265	0.14835	0.00263	0.6708
2018	0.2322	0.2275	0.1464	0.00261	0.6084
2019	0.2434	0.2385	0.1551	0.00282	0.7231
2020	0.2906	0.2846	0.1911	0.00252	0.8369
Profitability	0.062	0.080	0.139	-0.245	2.178
2017	0.067	0.079	0.0767	-0.2205	0.3521
2018	0.070	0.084	0.0741	-0.0509	0.3762
2019	0.061	0.096	0.2263	-0.0813	2.178
2020	0.051	0.0622	0.1204	-0.245	0.8423
Share_Con.	24.990	30.093	18.469	0	97.770
2017	23.990	30.073	20.262	0	97.770
2018	24.600	29.750	19.048	0	97.770
2019	25.300	29.76	17.574	0	87.770
2020	26.300	30.27	17.284	0	87.770
Board Ind.	66.670	64.431	9.857	40	87.500
2017	66.670	64.239	12.5896	40	87.500
2018	63.636	62.955	11.485	40	84.615
2019	64.026	64.027	9.478	42.85	83.33
2020	66.667	65.272	8.999	44.44	83.33
Board Size	11	10.615	1.898	5	17
2017	11	10.566	2.032	5	17
2018	11	10.615	2.044	5	17
2019	11	10.566	1.745	6	16
2020	11	10.670	1.798	7	16
Duality	0.00	0.008	0.087	0	1
2017	0.00	0.000	0.000	0	1
2018	0.00	0.000	0.000	0	1
2019	0.00	0.010	0.1005	0	1
2020	0.00	0.020	0.1407	0	1