



**UNIVERSITY OF
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**The Impact of Human Resource Management Practice on Financial Performance:
Evidence from FTSE Firms in the UK**

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(HND, BSc, MSc)

**This thesis is submitted in partial fulfilment of the requirement of the Degree of
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ABSTRACT

Human Resource Management Practice (HRMP) is an area of concern to employees, organizations, as well as the government, and policymakers. Organizations, practitioners, and researchers are confused about whether HRMP is a cost burden to organizations, or positively influences financial performance because of different results obtained by researchers. The aim of this research is to empirically examine the relationship between HRMP disclosure in the UK and how it impacts financial performance (FP). In doing so, the individual categories of HRMP disclosures (financial reward, training and development, growth and promotion, recruitment and selection, working environment, and communication and engagement), as well as all the categories combine, were examined to establish their relationship with FP. With the application of Social Exchange; Stakeholder; and Ability, Motivation, and Opportunity (AMO) theories, the study further examined whether board size or board independence moderates the relationship between HRMP and FP and disproved the assumption that a linear relationship exists between HRMP and FP.

Content analysis of a sample of UK 335 Financial Time Stock Exchange (FTSE) firms' annual reports were used to investigate HRMP disclosure and their impact on FP proxy of ROA and market capitalization using data from 2016 to 2021. A well-defined checklist for the categories of HRMP was developed whereas HRMP disclosure indices were calculated. The FP measures were obtained from AMADEUS while the corporate governance variable was picked from the Refinitiv database. The relationship between HRMP and FP was modelled with GMM panel regression technique assisted by the panel regression model, OLS as a robustness test to check for the credibility of the results.

The results showed a positive significant relationship when HRMP are combined. However individual HRMP showed different results with the dominance of negative relationships. This supports the theoretical expectations of the AMO model which confirmed that for performance to be achieved there should be a bundle of HRMP comprising ability, motivation, and opportunity. It further proved that the relationship between HRMP and FP is not linear but rather an inverted U-shape relationship. This implies that moderate HRMP maximizes FP. In addition, it was found that board size is negative, and significantly moderates the relationship between HRMP and both FP measures (ROA and market capitalization). However, board independence had positive moderation effects on HRMP and FP (ROA and Market Capitalisation), while ROA was significant, market capitalization was not significant. The

study offers implications for theory, practitioners, pedagogy, policy, and offers opportunities for future researchers. The study shows that large board size is not good for FTSE firm. It was further suggested that organisation who want to increase their HRMP for it to increase FP should increase the percentage of their outside directors. It was further suggested that perpetual increase in HRMP may not bring constant financial benefit.

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DECLARATION

This thesis is submitted in partial fulfilment of the requirement of a PhD in human resources at the University of Derby, United Kingdom. I declare this thesis to be my independent work except for the citations and quotations which have been acknowledged accordingly in the reference. The thesis has not been previously submitted for any other qualification or degree at Derby or any other institution

Mercy Alice Boakye

December 2024

DEDICATION

This thesis is dedicated to my lovely family Dr. Jeff Boakye Danquah, Nana Ama Agyemang Boakye, Lyndsey Akua Boakye, and Shelly-Ann Afia Boakye.

LIST OF ABBREVIATIONS AND ACRONYMS

AMO	Ability, Motivation, and Opportunity
CSR	Corporate social responsibility
COG	Corporate Governances Variable
EPS	Earning Per Share
EU	European Union
FP	Financial Performance
FTSE	Financial Time Stock Exchange
GMM	General Method of moment
GRI	Global Reporting initiative
HR	Human Resource
HRM	Human Resource Management
HRMP	Human Resource Management Practice
HRMPs	Human Resource Management Practices
HPWP	High-Performance Work Practice
HRMPC	Composite of Human Resource Management Practice
HRMP2	The square terms of Human Resource Management Practices
HPWS	High performance work systems
Market Cap	Market capitalization
NED	Number of NON-Executive Directors
OLS	Ordinary Least Square
Prom	Promotion and Growth
RBV	Resource Base View
Recruit	Recruitment and Selection
ROA	Return on Asset
ROE	Return on equity
ROI	Return on investment
SET	Social Exchange Theory

SLR	Systematic Literature Review
UK	United Kingdom
US	United State
VIF	Varian Inflation Factor
WLB	Work-life Balance

CHAPTER ONE: RESEARCH BACKGROUND

1.1 Introduction

The contribution of Human Resource Management Practice (HRMP) towards the generation of revenue cannot be over-emphasized. An efficient human resource practice is an important factor to increasing an organization's share value and helping the organization sustain itself in the competitive business environment. Good management of people is needed for the success of organizations in terms of their survival, growth, and increasing their income, as well as ease confrontations with their competitors (Ali & Anwar, 2021). Malik & Lenka (2020) defined HRMP as a means through which an organisation seeks to influence its employees' attitude and behaviour to achieve the organisational goals. In the literature on HRM, scholars such as Soetjipto & Supriyanto (2020) and Mousa & Othman (2020) have identified several HRMPs as support to organizational success. For instance, Mousa & Othman (2020) indicated that employees' selections, training, participation, and compensation are indispensable for sustainability and organizational performance.

Human resources are therefore people in an organization who by their personal qualities and professionalism make it a reality for an organization to achieve its strategic objective (Terziev, 2018). Terziev (2018) identified HRM as a system of principles, methods, legal norms, policies, procedures, tools, rules, requirements, criteria, standards, plans, and programs for the formation and use of human resources (HR) in an organization, under its immediate interests and strategic objective. It is argued that human resource is the most precious resource of an organization, and to attain the full potential of human resources, the organization must give priority to human resource management. Good management of human capital is imperative in achieving organizational objectives. Mustafa & Vecchi (2016) revealed human capital to contribute to Asian economies performance. Thus, increasing the investment in HRMP should enhance a firm's economic performance (Meier et al., 2021). People are considered the most valuable asset of an organization therefore organizations should utilize their human resources to maximise the chances of business success by enhancing the individual and organizational performance, productivity, and well-being of the business (Chang et al., 2021). Human resources have various benefits for organisations. Mustafa and Jamil (2018) revealed that physical and human capital has positive impact on total labour productivity, factors of production and growth.

Paul & Anantharaman (2003) emphasized that the last two decades have seen a shift in HRM research from a micro-level perspective to a macro-analytical approach to recognize people as a strategic resource that can be relied on to develop a firm's competitive advantage and enhance profitability.

The strategic importance of HRM in enhancing a firm's profitability has been confirmed by many recent studies. Boakye et al. (2020) studied the alternative investment market in the UK and revealed how HRMP like compensation could influence financial performance (FP). Arguing from agency and tournament theories, they discovered that HRMPs such as performance-based incentives significantly enhance FP. Other studies that have also established the link between HRMP and FP include Pavlov et al. (2017), Zhu et al. (2013) and Chang et al. (2021). However, gaps exist in most of the recent studies on HRMPs and FP. Some of these gaps which the study intends to address have been highlighted below

1.2 Motivation for the Study

First, most studies that have established the interrelationship between HRMP and FP have demonstrated only one aspect of FP (Meier et al. 2021, Lee and Cugin 2022, Pavlov et al. 2017)). Meier et al. (2021) study which explored a curvilinear relationship between HRMP and FP for instance, employed only accounting measures of FP (ROA). Similarly, Pavlov et al. (2017) used only internal measures of FP such as Turnover, Profitability, and Profit Growth, thus, capturing only one aspect of FP which is accounting measures. Although Huselid (1995) ably employed both accounting-based measures and market base-measures, his study was limited to assessing the impacts of HRMP on turnover, CSR, and FP with the use of emailed questionnaires to collect HRMP. The current study, in addition to employing accounting and market-based measures (Return on Assets, Market Capitalization) of FP, considered Financial Time Stock Exchange (FTSE) 350 firms and the key HRMP such as financial reward, training and development, recruitment and selection, promotion and growth, working environment, and engagement/communication using content analysis to further establish minimum or maximum point of non-linear argument between HRMP and FP.

Second, analysis of the type of data used for the studies on HRMP and FP relationship reveals another gap. Most of the studies on the relationship between HRMP and FP used the survey questionnaire. Bryl (2018) for instance, used a survey questionnaire to analyse the impact of HRMP on FP. Many other studies have also used survey questionnaires to assess how HRMP impacts on FP (Chen, 2021: Acquah et al. 2020: Lai et al. 2017). However, studies based on a

questionnaire or perception-based study are considered problematic. This is because it has been argued that obtaining evidence based on an individual's perception is subjective and could be interpreted differently by different firms (Boakye et al., 2020) . It has also been argued that a perception-based study lacks reliability as information obtained from the participants may be false or overestimated (Boakye et al. 2020). Yoo et al. (2021) argued that the link between HRMP and firm performance was stronger in studies that used perceptual measures than in those that employed objective measures. This is corroborated by Guest et al. (2003) who established that subjective estimation of performance has a stronger relationship between HRMP and FP.

Aside the fact that the existing studies mostly employed survey questionnaires, they are mostly based on cross-sectional datasets, and only a few of them employed panel datasets which allow the researchers to deal with endogeneity problems (Saridakis et al. 2017). Cross-sectional data gives a short snapshot of the results. Bonenberger et al. (2014) proposed the use of panel data in the study of HRM and performance relationships to bring true causality in this relationship. This current study however employs audited annual reports and financial statements which have been subjected to independent review to obtain the data for both HRMP and FP variables. The dataset is also based on a panel or longitudinal data using a time frame from 2016 to 2021. This allowed the researcher to deal with issues of endogeneity and reverse causality, in addition to giving a broader overview of the problem statement. As indicated by Torres-Reyna (2007), the panel deals with omitted variable bias due to heterogeneity in data. However, Torres-Reyna (2007), suggested that some data collection issues such as coverage, sampling design, and non-respondent in the case of the micro panel may come along with it. Hsiao (2007) showed that the use of panel data presents many advantages over that of cross-sectional data. Panel data offers superior consistency, as well as illustrative control by considering many periods (Martínez-Ferrero & García-Sánchez, 2017). It gives a broader overview of the issues being investigated

Third, most studies of HRMP and FP relationships (e.g., Chen 2020; Bryl, 2018) are based on linear regression models. Chen (2020) revealed that HR development is positively and directly related to FP when studied with linear regression analysis. While employing a linear regression model to observe the direct relationship between HRMP and FP using a dataset from an employee relations survey in Britain, Lai et al (2017) also revealed that organizational commitment moderates the relationship between HRMP and FP. Similarly, Kaur & Kaur (2021) used a linear regression model to establish that a positive correlation exists between

HRMPs and operational, market, and FP. Their results suggest that continuous improvement of HRMP would impact positively on FP. Chadwick (2007) indicated that a simple linear relationship between HRMP and firm performance suggests that one increment in a unit of HRM variable would consistently be linked to the same magnitude in value of the dependent variable. However, a key assumption in analysing the performance of an organization is that the marginal utility of the investment in organizational assets declines after a certain point (Chadwick, 2007). Therefore, it is not expected that continuous investment in HRMP would impact FP in perpetuity. Based on the economic model, the law of diminishing returns, it is estimated that the relationship between HRMP and FP may only be effective up to a certain point, beyond which, it may no longer be sensible to continuously invest in certain HRMP (Yoo et al., 2021).

A few studies have employed the non-linear argument on the relationship between HRMPs and FP. Chadwick (2007) discovered departures from linearity that are statistically significant to key HRMPs. A more recent study that has also explored the curvature relationship between HRMPs and FP is Meier et al. (2021). Similar to Chadwick (2007), Meier et al. (2021) also established that a significant quadratic relationship exists between HRMP and FP and in addition, established the turning point. Meier et al. (2021) study was only grounded on accounting measure of FP (only ROA), neglecting market measures which are very important in assessing shareholders' value. Market capitalization illustrates the market price of a company shares multiple by outstanding shares. It shows the actual value of the organisation and therefore needs to be monitored in relation to HRMP to identify how it can be maximised. It measures company worth on the open market, assesses the prospects, and enhances shareholder value (Willmott, 2010). It is therefore essential to note how it can be maximised through proactive HRMP. Aside using only ROA, their sample included European firms from 17 countries evaluated by the European rating agency VIGEO that were publicly listed from 2008-2011. They used a 4-year panel data from 2008-2011 and the data only captured 25.7 % of the UK firm. However, due to sample composition, they reran their regression excluding major countries such as UK, France, and Germany to account for potential bias. Therefore, the result obtained is unlikely to be representative of the outcome from HRMP and FP relationship in the UK. As it was conducted in Europe, it was based purely on European labour law and practices and their results may not be applicable in the UK or are likely to be different from the UK. Some of these countries may be perceived and evaluated HRMP and its effect as being more important than others and the rules of the countries are believed to influence the dynamics and

HRMP within the working group. Given that the data and results are blanket European countries with each country having its unique characteristics and culture, it cannot be a generalization for a specific country such as Italy, Spain, or UK. It should also be noted that UK organizations are not simply scaled-down versions of the European organization, so it cannot simply be assumed that the concept and theories of HRMP and their effect in Europe are necessarily applicable to the UK. As this study employed UK data throughout and based on UK labour law and practices, it would provide results that are truly representative of how HRMP relates to FP in the UK. This study uses both accounting-based, as well as market-based measures of FP to establish the actual point (percentage level of investment) where it may no longer be beneficial for FTSE firms to continually invest in HRMP or where investment in HRMP begins (minimum point) to yield positive financial results by using integral calculus. To the best of my knowledge, no study has been able to establish the minimum or maximum point based on the non-linear argument on the relationship between HRMP (s) and FP using both market-based and accounting-based of FP.

Fourth, various arguments have been advanced that corporate governance impacts HRMP (Bretos et al., 2018). Other studies have also shown that corporate governance positively impacts FP (Bhagat & Bolton, 2019). However, existing studies have not established the link between HRMP, corporate governance, (board size and board independence), and FP. Triguero-Sánchez et al. (2013) studied the literature on HRMP and reiterated that there is a need for moderation variables between HRMP and FP. This has also been emphasized by O'Donohue & Torugsa (2016) in their analysis of HRMP and FP. They introduced proactive environmental practices as a moderating variable between HRMP and FP. Similarly, Pavlov et al. (2017) advanced argument for the need for moderation variables to enhance HRMP and FP. They consequently averred that HRMP on firm performance is better explained when interacting with performance management practices such as selection of organizational goal, review and evaluation, and other organisational practices. Therefore, it is argued that corporate governance could also be a link to HRMP and FP as some studies have shown that corporate governance has a positive correlation with HRMP (Bretos et al., 2018; Konzelmann et al., 2006), while others have also shown that corporate governance influences FP (Bhagat & Bolton, 2019). No known study has attempted to establish the link between HRMP, board size or board independence, and FP and therefore it is expected that this study would fill the gap by establishing whether corporate governance such as board independence and board size moderates the relationship between HRMP and FP.

1.3 Research Objectives

The study aims to examine the relationship between HRM practices and financial performance. It examines the extent to which HRM impact on financial performance in FTSE in the UK. The study outlined the following objectives to be achieved:

1. To determine the relationship between composite of HRM practices (HRMP) and financial performance (FP).

Although studies exist on the relationship between HRMP and FP, they are mostly focused on only internal measures of FP, notably return on equity (ROE) and return on assets (ROA). Such studies only present the impact of HRMP on only one aspect of FP and neglect other key measures of FP which is market-based measures such as Tobin's q, market capitalisation, and market price. Therefore, in line with the measurement of shareholder value, this study analyses how HRMP impact both internal and external measures of FP to ensure both dimensions are considered.

2. To analyse the various components of HRMP and FP. Investments have been made in various HRMP to enhance FP. However, existing studies have measured these variables by employing subjective assessments of the individual managers involved by asking managers to weigh out their FP and their HRMP without resorting to financial databases and actual data that spelt out their HRMP. To ensure that subjective assessment of individual managers is avoided, this study employs content analysis of the annual reports to measure HRMP and financial databases to select FP. Aside these measures being objective, it would also provide a different dimension in terms of the dataset that is used to obtain HRMP on studies on HRM practices and FP.
3. To establish the maximum or minimum point based on a non-linear relationship argument between HRMP and FP. While only a few studies have analysed whether a non-linear relationship exists between HRMP and FP (Chadwick, 2007; Meier et al., 2021), no study has established the maximum or minimum point using market-based measures of FP where it is no longer prudent to continue investment in HRMP. This study, however, intends to establish the level of investment of HRMP where it is no longer prudent (maximum point) or when investment in HRMP begins (minimum point) to yield positive financial results by employing both accounting-based and market-based measures to assess both dimensions.

4. To determine whether corporate governance elements (board size or board independence) moderates the relationship between HRMP and FP. Various empirical evidences have established that good corporate governance influences FP. Boakye et al. (2020) demonstrated that corporate governance mechanism such as executive compensation has a significant influence on FP. Similarly, other studies have also established that good corporate governance has a significant impact on HRMP (Bretos et al., 2018; Konzelmann et al., 2006). However, there are no studies that connect HRM practices, corporate governance (board size or board independence), and FP. This study, however, establishes whether corporate governance connects to HRMPs and FP by employing corporate governance such as Board size, which is the number of directors, and Board independence, which indicates the number of non-executive directors, as a moderator variable.

1.4. Research Questions

1. What is the relationship between HRMP (composite HRM practices) and FP?
2. How do different components of HRMP (financial reward, training and development, promotion and growth, recruitment and selection, working environment, and engagement/communication) impact FP?
3. What is the maximum or minimum point between the HRMP, and the FP of FTSE 350 firms based on non-linear argument?
4. How does corporate governance (board size and board independence) moderate the relationship between HRMP and FP?

1.5 Contribution to the knowledge

The study offers the following contribution to the knowledge.

First, the study links HRMPs to accounting and market-based measures of FP. Studies that have shown the relationship between HRMP and FP have only shown one aspect of FP with only a handful showing how HRMP impacts on both measures of FP. Meier et al. (2021) employed only accounting measures of FP (ROA), Pavlov et al. (2017) used only internal measures of FP. Sels et al. (2006), Garavan et al. (2021), Negahban et al. (2016) and Kim et al. (2017) studies were all based on only accounting-based measures of FP. Lu & Taylor (2016) confirmed that most researchers have used either market-based or accounting-based measures. Thus, both are rarely used. Though Huselid et al.(1997), who considered technical and strategic HRM practices in US firms employed both measures of FP with the used of senior

executive, HR manager and line-managers as their respondents for data collection, the study site was the US. However, this current study, unlike the existing studies, employs both accounting and market-based measures of FP and considers key HRMP (financial reward, training, and development, promotion and growth, recruitment and selection, working environment, and employees' engagement communication to provide a fair view of the problem statement.

Second, the study employs objective-based data to analyse the relationship between HRMP and FP unlike the prior studies, which mostly based on perception-based studies. Most studies on HRM practices and FP have used perception-based studies, mostly survey questionnaires to find the relationship between HRMP and FP (Lai et al. 2017; Kaur & Kaur, 2021; Bryl 2018; Acquah et al. 2020). Perception-based studies lack reliability as the information produced by participants may be false (Boakye et al. 2020) and may affect the results from the study. This study is based on objective-based evidence by using published annual reports and audited financial statements.

Third the study models HRMPs and FP by employing non-linear relationships as the existing studies have mainly focused on linear regression models. Most studies of HRMP and FP relationships are based on linear regression models (Idris et al. 2020, Lai et al. 2017, Kaur & Kaur 2021) which established that continuous improvement of HRMP would impact positively on FP. However, based on the law of diminishing returns, it is not expected that increasingly investing in HRMP would enhance FP in perpetuity and hence, the need to test whether a curvilinear relationship exists between HRMP and FP, contributing to the few studies that have established whether non-linear relationship exist between HRMP and FP.

Fourth, the study would be the first of its kind to establish the minimum or maximum point investment in HRMP and financial benefits for the adoption of proactive HRMP using both market-based, as well as accounting-based FP. While a few studies have established that a quadratic relationship exists between HRMP and FP (Chadwick 2007; Meier et al. 2021), they used only accounting-based measures which would be different from this current study. To the best of my knowledge, this has not been tested.

Fifth, the study adds to the existing knowledge on HRMP and FP by demonstrating whether corporate governance (board size or board independence) moderates the relationship between HRMP and FP. While numerous studies have either linked corporate governance with FP (Boakye et al. 2020) or corporate governance and HRMP (Bretos et al. 2018), these studies

have not established the link between HRMP, corporate governance, and FP. In this regard, this study is seminal, and it is expected to be the first to link HRMP, corporate governance (board size & board independence), and FP.

1.6 Summary of the Research Methodology

The sample selected for the study are 350 FTSE companies across various sectors in the UK. The HRMP which are the independent variables, were collected from the annual reports of the selected companies with the use of content analysis using 6 years data (2016 to 2021). Content analysis have been used to have access to panel data which has enable the research to analyse linear and non-linear relationship between HRMP and FP. The correspondent dependent variables which is FP (ROA, ROE, Market capitalisation and Tobin's q) were obtained from the financial database AMADEUS using correspondent six-year data (2016 to 2021). The above period was chosen because it offered the latest financial statements, and a lot of HRM interventions took place during the COVID 19 era. The data analysis covers the complete period (2016 – 2021), the pre-COVID period (2018 – 2019), and the COVID period (2020 – 2021). This helped in the analysis of whether COVID-19 impacted HRMP and FP. Other variables such as firm size, liquidity, and board gender diversity that could influence FP were controlled.

This study, aside from establishing whether a non-linear relationship exists between HRMP and FP gives additional evidence by establishing maximum or minimum levels where HRMP optimises FP. The essence of this is to identify whether there is a point where it is no longer beneficial to continue to invest in HRMP (maximum point) or the point where investment in HRMP begins to yield positive results (minimum point). To obtain a maximum or minimum point between a dependent variable and an independent variable, Boakye et al. (2020) employed a quadratic equation by using the square term of the independent variable in the regression model. In addition, Boakye et al. (2020) gave additional evidence by establishing maximum levels between environmental practices and FP (Accounting and market-based measure) by using the regression coefficient from the non-linear equation. Meier et al. (2021) used the same approach to establish the turning point of HRMP and ROA (Accounting based measure). However, their study was based on only one aspect of FP. Aside from using only ROA, they used European firms (from 17 countries) which cannot be used as a scaled-down version of the UK firm. Following Meier et al. (2021) and Boakye et al. (2020), this study uses integral calculus to establish the maximum or minimum points where it is no longer beneficial to engage in proactive HRMP or the minimum level where it is financially beneficial to engage

in proactive HRMP. It is also likely that the introduction of quality HRMP may take time to impact FP. Therefore, to test whether HRMP have a long-term impact on FP, lagged variables were used. Specifically, one year lagged and two years lagged were employed to determine how HRMP impacts FP in one-year time and two years. The study brings new evidence by moderating HRMP and FP relationship with board size and board independence.

The study draws various hypotheses on the relationship between HRMP and FP. It, therefore, takes a nomothetic view as it involves rigorous scientific testing of hypotheses and uses the econometric model to test several hypotheses on the relationship between HRMP and FP. The analysis of subjective information as proposed by the ideographic viewpoints is not implemented or incorporated in this study. The ontological view used in this study is objectivism as the research employs a collection of data from annual reports of FTSE and takes the position that social phenomenon and their meanings exist separate from the social actors. The feeling, perceptions, contributions, and experiences of individuals are not considered as the research is based on observable facts by using the audited annual report and financial data based. The study adopts a positivist perspective instead of anti-positivism because it involves using quantitative data such as ROA, ROE, and quantitatively articulated proactive HRMP to analyse and establish the relationship between HRMP and FP. This study is also purely a quantitative study because it is based on a lot of hypotheses testing using theories to clarify the hypotheses. It examines the relationship between HRMP and FP variables using numerical data. Positivism means objectivity and supports a quantitative approach to research and that is the research methodology this study adopts. The researcher is independent of the study, whereas there is no provision for human/researcher interest that influences the study.

Taking a positivist approach to the study implies that the researcher was independent of the study and that the entire research is objective. This study adopts an objectivity study approach to give a clear view of the problem under investigation.

1.7 The Outline of the Study

This research has six chapters. The first chapter discusses the aims of the study, the gaps that exist in the literature on HRMP and FP, as well as the contribution that this study offers in the field of HRMP and FP. Chapter two is the literature view of the study. It discusses the advantages, as well as disadvantages of traditional reviews, the reasons for choosing a systematic literature review, how a systematic literature review has been conducted, the findings and analysis of the systematically reviewed literature, and recommendations made on how future studies can be advanced. Chapter three is about theories and hypotheses

development. It captures some of the popular theories that have been employed in the studies of HRM practices, how they have been used, and their advantages and disadvantages. It further details the selected theories for this study (SET, AMO, stakeholder's theory) with justification and draws hypotheses based on empirical studies and selected theories with a conceptual framework linking the theories together. Chapter four describes the methodology. It captures the research philosophy by briefly differentiating between ontology, epistemology, and axiology. It further discusses various research paradigms such as positivism and anti-positivism and take a stand on where this research is positioned. It also explains two types of research methods: qualitative and quantitative and indicate which position this research stands. It also details the research strategy employed in this study as content analysis and explains why content analysis has been employed including the development of HRMP disclosure checklist. Chapter four further shows various variables (dependent variable, independent variables and control variable) by outlining all the variables employed. Chapter four is followed by Chapter five which presents the empirical findings. It shows the outcomes of ten testable hypotheses each from ROA and market capitalisation as well as the robustness of ROE and Tobin's q. It further gives empirical and theoretical findings of the results from GMM model as well as OLS model. Chapter six, the last chapter, comprises the summary and conclusions of the study. It summarises the main points of the study, the outcomes of the research, gives the policy/practical implications, and illustrates the main contributions as well as limitations of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

A review of literature discusses published information in a particular subject area, and sometimes information in a particular subject area within a certain period (Ramdhani et al 2014). Shaffril et al (2021) defined literature review as a process of analysing, interpreting, and critically evaluating an existing body of knowledge. They posited that the process allows the researcher to discover the patterns of past results, comprehend the depth and details of the existing knowledge, and identify gaps for further investigation. Undertaking a vigorous review of literature enables the researcher to grip the variabilities in the previous studies' outcomes and the reason relating to the outcomes. Undertaking a literature review on HRMP and FP has helped in the discovery of what has been done in the area, gather more information on the topic, identify the pattern of the results, and more importantly establish the gaps so that the current research would be placed in the right context.

Over the years, various types/methods of literature reviews have emerged including the traditional method. However, it has been argued that the traditional method of literature review comes with various problems (Grant & Booth, 2009). Although the traditional methods of literature review may have some benefits, they are not scientifically vigorous. Traditional literature review gives a comprehensive overview of the topic under research without a clear methodology approach. Information is collected anyhow with no layout rules to follow. Snyder, (2019) stated that traditional literature reviews lack thoroughness and rigor and are conducted ad hocly, instead of following a specific methodology therefore questions can be raised about the quality and trustworthiness of the review. Thus, traditional literature reviews are more prone to bias as the researcher can handpick studies that support their view and ignore those that do not (Briner, 2014). Grant and Booth (2009) emphasised that traditional literature reviews are unreliable, they lack validity and they increase the biases in research as far as the production of evidence-based knowledge is concerned. Given this, it is highly likely for researchers to develop their work on inaccurate, erroneous, and wrong assumptions and the result can be detrimental to researchers and policymakers. As results of these criticisms, scholars and researchers have advanced and develop dissimilar approaches to the traditional literature review which are more vigorous which includes the systematic review. The systematic review however omits these problems stated in the traditional literature review. This study began with the reading of the related literature on the topic through traditional methods of reviewing literature. From the reading of the literature through the traditional approach, it

was revealed that there are diverse methods of reviewing related literature including narrative, critical, descriptive, and systematic review. Having examined all the types of literature reviews identified, a systematic literature review was selected as it afforded the research trustworthy. A systematic review differs from the traditional literature review by adopting a replicable, scientific and transparent process (Tranfield, 2003). Grant and Booth, (2009) identified different ways/methods of reviewing literature and certified systematic review as the best-known type of review that seeks to systematically search for, appraise, and synthesize research evidence, often adhering to the guidelines on the conduct of a review. A systematic literature review is developed to reduce biases towards literature review by improving its quality and making it transparent (Tranfield et al.2003). It aims to find all the empirical studies on the topic under investigation so that there is no omission.

This study employs the systematic review because of the benefit identified by many authors (e.g Grant and Booth, 2009 Tranfield et al.2003). Snyder (2019), for instance, stated that the systematic review identifies all empirical evidence that fits the pre-specified inclusion criteria and answers a particular research question. Using the systematic approach to review the articles ensured that bias was reduced providing reliable and truthful findings from which conclusions has been drawn. Systematic review is different from other literature reviews because articles to be included in the study follow a strict search strategy before selection, and are therefore effective in analysing and synthesising a particular question and producing quality and liable results for practice and policy-making (Snyder, 2019). It produces a search that is high in quality, effective, and free from biased. A systematic literature review follows a strict search strategy before the selection of articles, and it is therefore effective in analysing and synthesising a particular question, as well as producing quality and liable results (Kamal & Irani, 2014). Over the years, the studies of HRMP and FP have increased. However, not much if any, have used vigorous literature selection methods in undertaking the review of articles on the study of HRMPs and FP relationships.

Human Resource Management Practice (HRMP) has been gaining attention in the past two decades (Easa & Orra, 2021). Despite how important HRMP is, in relation to FP, there is little research, if any, that systematically reviews articles on how HRMP impacts FP. Though SLR on HRMP are increasing, considerations have been focused on innovation, employee engagement, and other employee-related outcomes. However, no review has been conducted on how HRMP impacts FP using SLR method. This study addresses this gap through a

systematic literature review of HRMP and its impacts on FP. The application of SLR presents an understanding of the research area and highlights the gaps that still needs to be addressed.

Previous studies on effects of HRMP on FP relationships are fragmented (Sels, 2006). Literature reviews of such studies are based on the traditional approach to reviewing articles which is not scientifically vigorous. In most cases, research on HRMP and FP relationship do not exhibit thoroughness because information is collected ad hoc with no clear methodology. Grant and Booth (2009) suggested that traditional literature reviews are not reliable as they lack validity and increase the biases in research. Given this, it is highly possible for researchers to develop their work on erroneous presumptions and the effect can be detrimental to results, which can bring negative implications. Consequently, the application of SLR, which has a well-defined methodology, replicable, and follows a transparent process has been employed to identify all the articles that are required for analysis for identification of the real research gaps. Although some studies of HRMP have employed SLR to analyse different aspects of outcomes (Easa & Orra, 2021), none have systematically reviewed their literature on HRMP on FP relationship. Therefore, there exists a gap in this area that needs to be addressed. This study aims to grasp the theoretical interpretation of HRMP by systematising the fragmented research on HRMP's impacts on FP through a systematic literature search to enable the researchers to comprehend the area more holistically. During the review process, the selected papers were examined to enable the researcher to analyse the relationship between HRMP and FP comprehensively and to identify the research gaps.

SLR follows a strict search strategy and therefore it is effective in analysing and synthesising a particular question, as well as producing quality and reliable results (Kamal & Irani, 2014). Over the years, the studies of HRMP and FP have increased. However, the literature approach has been criticised (Briner, 2014; Snyder, 2019). According to Massaro et al. (2016), connecting new research with the past is necessary for knowledge development, and therefore the need for a new study is not as great as the need for existing studies to be integrated. The systematic approach employed has enabled the present researcher to adequately identify the existing knowledge, the areas that have been covered, and those that need further investigation to avoid duplication.

This study therefore used a comprehensive approach to select the papers on the relationship between HRMP and FP published in ABDC journals, to identify study trends, and offer future direction to the researcher. As emphasised by Petticrew and Roberts (2006), setting questions

for a systematic review is crucial. This systematic review, therefore, aimed to address the following research questions:

Q1) How has the research exploring the impact of HRMP on FP developed?

Q2) Which areas should future research investigating the impact of HRMP on FP focus on?

To answer these two questions, the following eight (8) sub-questions were further derived from Research Question 1:

Q1a. In which geographical area has the impact of HRMP, and FP been investigated?

Q1b. What is the trend (years) of the study of the HRMP and FP relationship?

Q1c. What research methods have been employed in the study of HRMP and FP?

Q1d. Which journals have published HRMP and FP relationship studies?

Q1e. What journal ranking is used in the study of HRMP and FP?

Q1f. What are the main themes of the studies on HRMP and FP?

Q1g. What theories have been applied in the studies of HRMP and FP?

Q1h. What are the findings (results) of the studies of HRMP and FP?

2.2 Systematic review methodology

The research followed the methodology proposed by Tranfield et al. (2003) to review previous theoretical and empirical research publications on HRMP's impact on FP. The quality of this methodology has been confirmed by many researchers such as Kamal and Irani (2014) and Natalicchio et al. (2017). This method ensures that biases in picking articles can be checked, therefore reducing bias in article selection. As the area has been widely researched, it is necessary to follow a strict criterion for selection to obtain appropriate and relevant articles to enable the research to properly highlight the gaps and offer contributions to the research area. A research protocol for this study was developed around the two main objectives outlined in the introduction by ensuring a rigid and strict approach. As the literature review was focused on identifying published papers on HRMP's impact on FP, both conceptual and empirical studies in this area were considered.

2.2.1 Systematic Literature Review Search

The search was conducted on the Scopus database and Google Scholar. Scopus was chosen to extract articles for this study because it has been successfully used by leading academics, government institutions, and businesses (Pahlevan-Sharif, 2019; Kamal and Irani, 2014) to find superior-quality journal articles. It has a larger dataset for more articles and journals. Scopus

has a renowned independent and transparent selection process to determine the journals listed and registered (indexed) on its platform. Google Scholar on the other hand allows researchers to search for the widest variety of material on the platform. It is therefore possible to identify quality materials published on HRMP and its impacts on FP on these platforms. Searching both platforms reduced the risk of missing any key publications on the topic.

Keywords inputted into the research engine were “human resource”, “HRM”, “high-performance work practices”, “HR policy”, “HR practice”, AND “financial performance” in the title, keywords, and abstract. Massaro (2016) emphasised keyword search as a powerful tool to identify relevant studies that extend existing topics in a particular field and stated that keywords need careful consideration to select words that would produce the required data.

These keywords have been chosen to find articles that focus more on HRMP and FP. The search resulted in 530 document types, as shown in Appendix 2.

For the 530 papers, criteria were set in advance regarding what to include and exclude. In order not to miss important articles, no limitation was set for the year. Subject areas were limited to: (1) Business, Management, and Accounting, (2) Economics, Econometrics, and Finance, and (3) Social Science. These subject areas were chosen as they are relevant to the topic area. To ensure high-quality search, only journal articles published in peer-reviewed journals were considered. Finally, only articles in English were considered. This process resulted in 374 articles.

To find out if all the 374 articles were relevant to the topic, the author read through all the abstracts. Where the information in the abstract was found not to be relevant, the article was further examined by reading the hypothesis, variables, or results, and, in some instances, the whole article was read to make sure that the article was irrelevant before omitted. After these steps, 272 articles were found to be relevant to the study through abstract examination. The quality assessment matrix implemented by Pittaway et al. (2014) was employed to scan the 272 papers for empirical and conceptual studies that provided information on how HRM variables are associated with FP. Of the 272 articles, 200 were found to be very useful (linked HRMP and FP), 49 were not focused on the literature, and 23 were not available (could not be assessed).

The 200 articles were further filtered according to the quality of the journal. To ensure the highest-quality search, only articles from the Australian Business Deans Council (ABDC) were considered. A search was done in the ABDC Ranking Guide 2019 and articles that were not

found there were excluded. This is because ABDC is more comprehensive compared to other journal ranking lists such as the Social Science Citation Index (SSCI) and the Association of Business School (ABS) (Pahlevan-Sharif, 2019). ABDC is not limited to Australia: scholars around the world contribute to ABDC-listed journals. The choice of ABDC was consistent with Pahlevan-Sharif's (2019) study. Out of the 200 journals, 151 were identified in the ABDC journal list. In order not to miss important articles, the researcher also searched Google Scholar. This resulted in the same articles as appeared in the Scopus database search. In the end, 17 additional articles were added from

Google Scholar. In total, 168 articles that achieved the inclusion criteria were used for the analysis.

2.3 The Findings of the Systematic Review of the Impact of HRMP on FP

The findings from the literature review are discussed under different headings such as data collection method, year of publication, country of origin, journal types, ABDC ranking, results, and theory applied. These are very important to enable future researchers to grasp the total trend of the study and identify where there is a gap to know where future studies should focus. Thus, the findings of the literature review are based on the research questions outlined in the introduction as discussed below.

Q1a. In which geographical area has the impact of HRM practices and financial performance been investigated?

The geographical location is where a study is conducted. This needs to be analysed to identify areas that are more investigated, less investigated, or have not been investigated to direct future studies to tap these areas that have fewer or no studies to find out if the results would be the same. This section shows studies that were conducted in developed countries, developing countries, individual countries, cross-countries, and unknown countries (articles that did not disclose study location). Developing countries in this sense are countries with relatively low living standards, undeveloped industrial bases, and a moderate-to-low-human development index score and per capita income (Gaillard, 2010). Dedrick et al. (2013) stressed that while developed countries generate the major advanced technologies and benefit from paid innovators, developing countries are generally users of technologies created elsewhere. Developed countries are countries that have very high human capital (Ikerd, 2014).

It was identified that 14 studies, representing approximately 8%, did not disclose the study location. The 168 articles originated from 37 different countries around the world and were selected from 1984 to December 2022. The investigation showed a strong dominance of the

US, which implies that the literature is concentrated on one country, disregarding other geographical locations. A single-dominated geographical area's (US) research is good as it offers a broad and detailed analysis. However, it gives little understanding of how culture, legal laws, and regulatory bodies impact HRM.

Eighty-eight articles, representing 52.3% of the studies, were conducted in developed countries while 55, representing 31.5%, were conducted in developing countries. The upward trend in HRM and its impact on FP study in developed countries such as the US shows that researchers have used developed countries to contribute to this research area far more than developing countries. This could be because these industrialised countries can pay for the luxury of having many research centres and research institutes, which may be different for developing countries.

Knowledge obtained in structured and regulated countries where HRMP has legal backing would not be automatically applicable to developing countries where this is not the case. It is therefore essential for researchers to concentrate more on developing countries, to even out the large number of differences between developed and developing countries. Appendix 3 shows the geographical location where HRMP and FP relation has been conducted.

Q1b. What is the trend (years) of the study of HRM practices and financial performance relationship?

During the early years of the study of HRMP and its impact on FP, the number of publications was limited, zero papers were recorded in some of the years (1985 to 1991). The concept was new and scholars were only publishing studies of HRMP and performance at the individual levels, such as employee satisfaction, employee motivation, and organisational citizenship behaviour (Tabiu & Nura, 2013). However, researchers' attention in this area has increased since 2013 and the trend is positive. Though there have been upward and downward slopes (trends) in the study of HRMP's impact on FP, the publications still look encouraging. Scholars and practitioners have realised that the impact of HRM at an individual level does not always relate to FP. Giardini and Kabst (2008) found that work-family practices were negatively impacted by absenteeism but unrelated to FP.

Appendix 4 shows the trend of the increasing number of articles published on the HRMP and FP relationship, with the year 2021 recording the largest number of articles (19). This increase in publications indicates awareness of the importance of this research area among scholars. It could also be attributed to the spur in research on the impact of COVID-19 on different business and management issues including the impact of HRMP on FP. This is because many HRM

activities such as working from home, flexible hours, health and safety, engaging with people, and training were done. Appendix 4 shows that 19 different years recorded either zero or a paper. It should, however, be noted that this area of research is vital to every profit-making organisation; therefore, an extension of research is still needed. It has also been identified that the credit crunch impacted negatively on this research area as there was a rapid reduction in the number of articles published in 2007/2008.

Q1c. What research methods have been employed in the study of HRM practices and financial performance?

Various research methods have been employed to collect data on HRMP's impact on FP. Interestingly, more than half of the studies employed questionnaires as a data collection method to obtain information from employees, managers, HR professionals, and CEOs for several reasons among which may include the lack of information online, and questionnaires being less costly and more flexible as they can be conducted in various ways through mobile/telephones, online, and emails. This study recorded 91 (54.2%) articles that used only questionnaires to obtain both HRMP and FP information. Vijfvinkel et al. (2011) argued that obtaining evidence-based data on individuals' perceptions is subjective and can be interpreted differently by different firms. It has also been argued that perception-based studies lack reliability as information produced by participants may be false (Boakye et al., 2020). Yoo et al. (2021) maintained that the link between HRMP and FP was stronger in studies that used individuals' perceptions than in those that employed objective measures. Beside the fact that studies that use questionnaires record individuals' perceptions, they are mostly cross-sectional datasets that give only a snapshot of the results (Bonenberger et al., 2014). Bonenberger et al. (2014) identified the importance of longitudinal studies and called for longitudinal studies to bring true causality in such relationships. It is consequently imperative for research to employ data collection methods that are free from individual perception and allow longitudinal data to bring true causality.

In total, 40 (23.8%) studies used mixed methods to collect their data, as shown in Appendix 5. In most instances, questionnaires were used to collect information about HRMP while the other supplementary method was aimed to gather FP information. A mixed methods approach can answer more complete range and broader research questions (Migiro & Magangi, 2011). As stated by Migiro and Magangi (2011), the strength of one method can be used to cover the weaknesses of other methods. It is, therefore, essential for future researchers to focus on the use of mixed method as it offers a lot of benefits.

Only three (1.79%) studies' data was collected through content analysis. Even though content analysis has been claimed by many authors to be reliable (Hillman 1999), it is the least used method, as the literature revealed. Content analysis is free from individual perception. Unlike a questionnaire, it can easily be used to carry out longitudinal studies as it gives access to different types of text over extended periods. Longitudinal data brings true causality to research (Bonenberger et al., 2014), however, the use of content analysis other than questionnaires could be difficult as researchers may find it difficult to analyse different texts to make inferences from words, sentences, or photographs.

Meanwhile, only five studies used interviews. Phellas et al. (2011) emphasised that interviews are costly and could limit the geographical coverage and sample size. They posited that questionnaires can easily be used without such limitations (Phellas et al., 2011) and researchers have taken this advantage. However, body language and facial expression during an interview add to the respondent's verbal answer. This indicates that gaps exist in the data collection method in this research area which need to be addressed. The appendix 5 show data collection methods. It was also revealed that, all most all the studies of HRMP and FP are based on linear regression with only handful using non-linear. Triguero-Sánchez et al. (2013) stated that the literature pays little attention to the non-linear model. It is therefore essential to reveal the true relationship between HRMP and FP. This study therefore employed linear regression method to established the optimal investment level as illustrated in objective 3 and hypothesis 2

Q1d. Which journals have published HRM practices and financial performance studies?

This section shows the journal distribution of the study of HRMP's effect on FP from the year 1984 to December 2022. These are very important as they enable future researchers in this study area to identify the frequency with which certain journals accept this type of study on their platforms. Considering the above, the data analysis showed that the 168 articles used for the study were published in 72 different journals. Thirty (17.9%) were published in *The International Journal of Human Resources Management*. A further 12 (7.1%) were published in *Human Resource Management*. Next is the *International Journal of Manpower*, which recorded 10 articles (about 6%) of the total selected. Personnel reviews recorded eight (5%) papers. *Academy Management Journal* and *Journal of Management* recorded five (3%) and four (2.4%), respectively. The remaining 99 were published in 66 different journals. The above also shows that four journals accounted for 35.71% (60) of the publications. This also offers an opportunity for future researchers to consider where they can submit their work in this subject area, targeting high-quality and impactful journals.

Q1e. How has each journal been ranked in the ABDC ranking?

Out of the 168 papers found in the ABDC, 33 of them were rated as A*, 84 were rated as A, 30 were rated as B, and 21 were rated as C. Though the number of studies accepted as A* and A in the ABDC is less than those ranked B and C, this is juxtaposed in this study, where A* and A are more prevalent (121 out of 168 were graded as higher as A* and A), as seen in Appendix 6. This implies that the protocol adopted has produced high-quality and high-impact academic journals, with quality and high impact making this study more reliable. This also offers an opportunity for future researchers to consider the process if the aim is to use high-ranking journals.

Q1f. What are the main themes of the studies on HRM practices and financial performance?

To identify the research themes, critical analysis was done on the research questions, the hypothesis, and, more importantly, the results to comprehend what each study focused attention on. Consequently, eight themes were identified, as indicated in Appendix 7. The most investigated theme for this study is “HRMP” and “performance” in general, emanating from 73 (43.4%) out of the total papers sampled. These are studies that generally discussed how HRMP impacts FP, as well as studies that discussed various aspects of performance including FP. HRMP and performance as a theme has been exploited in research works covering many geographical areas: they are mostly studied in the UK, US, China, and South Korea. Though HRMP and performance theme dominated the other themes, they are mostly based on questionnaires and therefore the use of more cross-sectional data. Cross-sectional data has fewer data points and gives a short snapshot of the issue under investigation compared to panel data, which offers a broad overview of the problem statement.

None of the 73 studies identified HRMP and performance as a theme showed a negative relationship between the variables. Whereas 64 had a direct positive relationship between the variables, four needed intervention variables to establish this relationship, and five showed both positive and negative relationships (some of the variables had positive and some negative). According to Saridakis et al. (2017), a large majority of published papers give empirical evidence of how HRMP impacts positively on FP, and emphasised that it is difficult to prove a causal link. This may be due to a methodology problem.

The second most researched theme is “high-performance work practices” (HPWP), which is defined as a bundle of HRMPs rather than individual HRMPs (Saridakis et al., 2017). Twenty-six articles were identified under this theme. Elements of HPWP include training, recruitment, compensation, communication, and flexible working (Choi, 2014; Vlachos, 2009). This type

of study was mainly conducted in the US, Asia, and the UK. It was also identified that all the studies of HPWP resulted in a direct and positive relationship with FP, except two, which needed an intervention variable to achieve performance. These HPWP studies suggested that using combined HRMP brings better FP. Though many theories have been used to guide the HPWP as a theme, the universalistic perspective was the most frequently used. As perceived by this theory, some sets of HRMP are best and they can be used universally to achieve performance regardless of the environment or nature of the unique aspect of the firm (Loo-See & Leap-Han, 2013). However, most researchers are against the universal approach, arguing that one-size-fits-all is not the best approach. Snell and Youndt (1995) emphasised that HPWP has a better impact only in certain environment contingencies. The result obtained from HPWP entails that it is the best approach for an organisation as it offers a better financial outcome.

Therefore, it would have been recommended that HPWP should be used if the organisations have the resources to accomplish that. However, some of the studies on the HPWP theme did not indicate specifically that HPWP leads to higher FP, while other individual HRMPs have proved to have better FP. Zhai and Tian (2020) illustrated from their findings that HPWP works to increase operational performance in value creation and tends to bring long-lasting financial gain. They stressed that HPWP works better on operational performance than on FP. These points are not different from the study of Yoo et al. (2021), who established a positive link between individual HRMP (training) and FP. Many other studies have used individual HRMP and still established better FP (Blazovich et al., 2018, Akter et al., 2021), and it can therefore be concluded that there is no strong argument that HPWP results in better FP as individual HRMP can also bring better FP, depending on the context in which they are used or heterogeneity. Blazovich et al.'s (2018) findings support the view that mother-friendly firms (work-life balance) experience better FP. Akter et al.'s (2021) study revealed that work-life balance (individual HRM) impacts better on big organisations. Zhai and Tian (2020) established that HPWP fits better in advanced countries and has a more positive impact on performance. These point out that HRMP's impact on FP is based on how (contingency) and not a set of HRMPs. Thus, the manner and the context of the application of HRMP are essential for better outcomes. Many scholars have shown how better FP can be achieved without mentioning HPWP. Chew and Sharma (2005) also found that a high-level profile value of elite or leadership with SHRM effectiveness brings better FP. As such, it can be deduced that the achievement of better FP depends on how HRMPs are applied rather than generally undertaking HPWP or individual HRM practices. This is linked with research objectives 1 and

2 and hypothesis 1, and hypothesis 1a to 1f which also bundle HRMP and disaggregate HRMP to find out how they impact on FP. However, this study does not consider any heterogeneity or contingency and the results is based purely on bundle and individual HRMP.

Fourteen (14) studies were identified under “Strategic human resource management” (SHRM). SHRM is a pattern of planned HR development and activities that aim to help an organisation achieve its goal (Ngo et al. 2014). SHRM ensures that the whole organisation works together to attain the organisational goal (Wang, 2015; Ngo et al. 2014). This means that SHRM practices are very important for organisational success.

Eleven (11) studies were identified under “human capital investment”, which has been identified by Simpson et al. (2002) as any incident that either targets career, on-the-job training or participation, or anything that aims for job enhancement. Human capital is seen as intangible assets difficult to measure (Mustafa and Jamil 2018). Heckman (2005) maintained that human capital investment is productive as it impacts increasing skills. Giving examples, he posited that training an employee to be a better accountant will raise that employee's accounting performance.

The study of SHRM (Wang, 2015), human capital investment (Heckman 2005), and organisational performance has attracted much attention and the results indicate a positive effect on a high level of organisational performance. The first study that was done on HRMP and its impact on FP in 1984 was identified under SHRM whereas the last study was seen in 2022. This shows how important SHRM was and still is.

Surprisingly, despite how important these two themes are, little research has been conducted in advanced countries. Though 88 articles (52.3%) of the total sampled articles were done in advanced countries such as the US, UK, and Germany, only five each were under the themes SHRM and human capital investment. Alzaabi and Al-Dhaafri (2018) emphasised the importance of SHRM and underscored that the concept of SHRM assumes that employees work towards the organisational goals by aligning HRMP to these goals. The importance of these two themes (human capital investment and SHRM) has been confirmed by this systematic review.

All 11 studies under human capital investment showed a positive and direct relationship with FP. This shows how profitable investing in human capital is. Human capital investment has no bounds concerning culture, organisation, industries, and nation, and it is successful in all

contexts as all the studies were conducted in different settlements but produced the same line of results. This has been confirmed by Mustafa & Vecchi (2016) who stated that, the importance of human capital differs across boarder of countries, its existence has positive impact. The most frequently used theory in human capital is the resource-based view (RBV) theory, which implies that investing in employees can lead to competitive advantage (Zhai & Tian, 2020; Giardini & Kabst, 2008).

The results from the SHRM theme were not very different from human capital investment. All the 14 studies identified under SHRM had a positive relationship with FP, with one that needed an intervention variable to create this relationship. However, the mediation variable was a specified HRMP (managers' social network which is part of the working relation). Seeing these two themes as essential in businesses, it is recommended that authors and practitioners from different geographical locations incorporate them in their roles, especially in the US and the UK, where the study of HRM practices has been advanced.

One of the important themes to be discussed is work-life balance (WLB). Even though only six studies focused on WLB, they were all conducted in advanced countries. WLB is defined as regulating the pattern of work to help employees combine work with their responsibilities (Mendis & Weerakkody, 2018). Henry (2009) indicated that WLB practices aim at attracting better employees and reducing conflict in work and to increase organisational performance. However, although WLB has been identified as essential by many scholars (Madison et al. 2018; Henry, 2009), none of the studies on WLB were conducted outside advanced countries. This could be because most employees in developing countries need to balance their time with their work but the organisations in these countries cannot afford to offer such opportunities, and thus they are either not practised or rarely practise (Bhalla & Kaur 2010). As stated by Bhalla and Kaur (2010), emerging economies are slow in picking up this trend (WLB) because of the large gendered distribution of work and family roles.

In terms of the study's outcome, five out of six papers on WLB showed that there is a direct and positive relationship between WLB and FP, while one study indicated both positive and negative relationships on FP. The first study on WLB was done in 2013 and the rest were between 2018 and 2021. This indicates the importance of such research in today's competitive environment where organisations are trying to keep their talented individuals. Saxena and Dixit, (2023) showed that mental peace is a key to performance. It is therefore expected that

this type of research can be extended to other geographical areas to establish if WLB's positive impacts on FP can be used for idea generalisation.

Innovation HR appears nine times. Innovation HR is about applying new ideas, technologies, and approaches to meet the ever-evolving condition of the workforce and the organisation (Sharma & Venkateswaran, 2021). Better HR innovation assists organisations in moving through the innovation cycle. Xiu et al. (2017) indicated that innovative HR practices are related positively to organisational performance. Organisations that stress strategic flexibility adopt staffing activities and training oriented towards personal growth, which enables them to have the right people at the right place at the right time to prepare their employees to meet the rapidly changing environments (Xiu et al., 2017). Only two studies of the nine used theories to analyse and explain how innovative HRMP impacts FP. This shows that seven were conducted without any explanation of the possible cause of either a positive or negative relationship between innovation HRMP and FP. Khan et al. (2021) postulated that theories are the most essential tools that help to understand both the background ideas and the likely outcome. It is recommended that future studies of HR innovation employ theory and, if possible, use multiple theories to explain the possible outcomes to provide a better understanding of the research area.

HR innovation was mostly studied in developing countries, with only three studies conducted in developed countries (the US, UK, and Finland). It is expected that future studies would employ more samples from developed countries. Like many other themes, only one study found a negative correlation between innovation HRMP and FP. This shows that it is important for HRM to always adopt policies, practices, and activities to suit the changing environmental situations. Other identified themes were CSR (7 papers) and environmental management (4 papers), whilst 18 of the studies focused on more than one area. Appendix 7 shows the distribution of the research themes.

Q1.g. *What theories have been applied in the studies of HRMP and FP?*

This section discusses the theories that have been employed to guide the study of HRMP and FP. It is important to know which theories have been used in the study of this relationship, and why those theories were popular. Out of the total sampled studies, 63 did not use any theory. However, some of the studies used two or more theories to predict their results. Truss (2001), for instance, used four theories (human capital theory, RBV, contingency theory, and configurational perspective) to explain his findings and justified the need for these theories. The RBV has been the most frequently used theory, being employed by 41 different studies.

RBV theory states that human resources must be rare, immutable, and non-substitutable to create a competitive advantage (Ubeda-García et al., 2013).

RBV theory has been used mainly in developing countries, mostly in China. Chapman et al. (2007) found that companies in China are developing new approaches to achieve competitive advantage and posited that a comparison of RBV strategy theory from Western studies was identified in China's business strategies. Liu et al. (2019) study of Chinese high-tech companies intensified the academic value of RBV by giving a practical indication of the impact of the valuable intangible resources on innovation in firm performance. Chinese organisations that mostly use SHRM and are also striving to be industrialised need to develop their HR in such a way that they would be difficult to copy, rare, and non-substitutable to put them in a competitive advantage, hence the use of RBV theory by their scholars.

Contingency theory has also been frequently employed, as identified by the literature review. The theory claims that the choice of HR practices must be determined by the situation within which they are applied (Clinton & Guest, 2013). Contingency theory has been in the field of HRMP to explain how internal and external fits enhance an organisation's ability to achieve its objective.

Apart from these two theories that are dominant in this research area, a scattering of other theories has been applied to explain how HRMP impacts FP. For example, AMO theory has been used by Panagopoulos et al. (2020) and Agyabeng-Mensah et al. (2020) to explain how ability, motivation, and opportunity impact performance. Thus, the most dominant theories found were RBV, contingency theory, and AMO theory. This suggests that these three theories are well known in the field of HRMP and FP. This has created a gap for future researchers in this area. Knowing which theories have been employed in the study of HRMP would enable future researchers to identify numerous types of theories that have been used, how they were applied, and how they have guided the studies to help them adopt such strategies in their research work.

Q1h. What are the findings of HRM practices and financial performance?

This section shows the results of how HRMP impacts FP. The outcome is categorised into positive relationship, negative relationship, no relationship, mediation relationship, and both negative and positive relationships, as seen in Appendix 8.

The studies that are considered to show positive relationships are those that show direct positive impact of HRMP on FP and those studies where HRMP acts as a mediator. This is because the

focus of the analysis is on HRMP and FP. The studies that come under mediation relation are those that have no direct relation between HRMP and FP but need intervention variables to create such a relationship. Both negative and positive relations are those in which some of the HRM variables show positive and some show negative.

A total of 118 articles, representing 70.2%, showed that investing in HRMP brings positive FP. Ten (10) articles showed that investing in HRMP brings negative returns. This suggests that the majority of the studies have positive relationships. Sabiu et al. (2019) maintained that most studies are in favour of the positive relation between HRMP and organisational outcomes. However, individual perception (questionnaire) could have led to false results. As emphasised by Yoo et al. (2021), the link between HRMP and FP was stronger in studies that used individuals' perceptions than in those that employed objective measures. Perception-based study may be untrue and biased as participants may provide false information based on their feelings at the time.

Ninety-one (91) out of the 168 articles were based on only questionnaires while 25 used mixed methods with the use of questionnaires. This means that the results were based on individual opinions and there may be limitations in using them as facts to generalise ideas. Wright et al. (2005) agreed with the above, and suggested that this type of work does not have sufficient methodological rigor to prove the true causal relationship between HRMP and FP. They cautioned that such studies should be drawn with extreme reflection.

Ten (10) papers found a negative relation between HRMP and FP. The analysis also revealed that 16 of the articles showed that HRMP on its own does not impact FP. However, they needed intervention variables. This indicates that HRM has an indirect relation to FP (Paul & Anantharaman, 2003). Most of the studies that reveal mediation relations between HRMP, and FP were done outside the advanced countries. Of the 10 studies showing an indirect relation between HRMP and FP, only two were conducted in developed countries (Italy and France), although developed countries now dominate this research area. The other eight were scattered around developing countries. This implies that culture may influence the application of HRMP. As stated by Vogus and Wellbourne (2015), HRMPs that impact on FP do not apply in all contexts. Taking countries like China, India, and Ghana where high power distance is functional (Yeh, 1988; Dash et al., 2009; Ansah, 2015), the application of HRMP may not have a direct impact on FP. Power distance is the degree to which an individual, organisation, society, or country accepts inequality in power, wealth, and status (Ming-Yi Wu, 2006).

Schuler and Rogovsky (1998) found that performance was higher in a lower power-distance culture where employees are given the chance to participate in the decision-making process. This implies that culture might have impacted these results. For instance, decisions are made for employees in higher power-distance cultures to act upon. They are not part of the decision-making process and may not understand the implementation of some of the decisions that are meant to achieve FP. In this instance, HRM on its own may not impact FP; rather, mediation variables like organisational effectiveness are needed to bring about this relationship. This requires managers, more importantly, managers from MNCs, to understand the national cultural value, and to know the most effective means of implementing HRMP if the intention is to increase profitability. The researcher also needs to understand why the application of similar HRM practices yields different results in a different cultural setting to offer the best recommendation.

2.4. Q2. How can future research advance the study of HRMP and FP?

To provide an answer to Q2, there is a need to analyse what has been observed throughout these studies. Over the years, many academics have established the relationship between HRMP and FP (Patiar & Wang, 2020; Garengo et al., 2021; Pavlov et al. 2017). Bowen & Ostroff, (2004) suggested that advanced theoretical models that summarise the understanding of multi-level phenomena can aid in the opening of the so-called black box. They proposed that HRMP at the organisational level impacts the attitude and behaviour of employees and impacts organisational-level performance. However, the literature review shows that there are issues in the study of HRMP and FP relationship which future studies need to address.

24.1. Organisational sustainability competitiveness

Sustainable competitiveness is vital in today's competitive and changing market as it is built around the wider goals of organisations not just FP. Thus, sustainable HRM pursues the accomplishment of positive social, economic, and environmental outcomes at the same time (Kramar, 2022). The sustainability development goal established (Agenda 2030) for sustainable development offers HR practitioners strategies, activities, goals, and management practices to increase sustainability outcomes (Kramar, 2022). It is therefore important for future researchers to conduct studies on how HRMP would impact sustainable competitiveness by emphasising economic competitiveness as a driver of success, as well as long-term progress, considering social and environmental concerns. The principle of sustainability performance should be integrated into the study of HRMP to analyse how all the components are influenced by HRMP.

2.4.2. Applications of other HRM theories

Theories are essential in every research work as they explain the underlying causes of the observed studies and their results. It was observed that only a few of the studies linked their results to the theory that guided their research by explaining why their selected theories supported their findings. For example, the positive results on work-life balance's effect on FP support the social exchange theory (Akter et al., 2020). After their finding, Akter et al. (2020) explained how and why their theory supported work life-balance by linking their research objective, hypothesis, findings, and theories. They specified that their results had theoretical implications and explained that the work-life balance's impact on FP strongly supported the social exchange theory. Akter et al. (2020) supported the social exchange claim that work-life balance offers an opportunity to ease employees' problem of balancing their work with life outside work and, as a result, employees feel an obligation to repay this with positive actions such as organisational citizen behaviour and commitment: this leads to better FP (Akter et al., 2020). They emphasised that social exchange happens through a work-life balance between the organisation and the employees, and both parties' benefit. Such explanations are lacking in the results section of most of the papers selected. The theory is there to explain expected outcomes and it should always link with the result in any direction that the result goes, as opined by Akter et al. (2020). The quality of the study can be improved if the researcher makes a theoretical contribution. It is therefore imperative and recommended that future researchers connect empirical results to the theoretical perspective, as illustrated by Akter et al. (2020). It should also be noted that each theory has its limitations. Ružić (2015) demonstrated clear setbacks of RBV, AMO theory, contingency theory, universalistic perspective, and configuration approach, and consequently applied many theories to provide a broad perspective of his research hypothesis. Bolourian et al. (2021) used SET, AMO theory, and Stakeholders theory to support the use of multiple theories, as a single theory may not be enough when using multiple variables. It is therefore important for future researchers to use multiple theories and analyse each of them based on their findings, as this has been lacking.

The literature revealed that the relationship of HRMP and FP is based on three main theories (RBV, AMO, and contingency theory). Paauwe (2009) has established that the most common theories in the field of HRM are RBV, AMO, and contingency theory. Ružić (2015) employed all the three theories, Ogunyomi and Bruning (2016) used RBV and AMO theories, while Vela-Jiménez et al. (2014) used RBV and contingency theory. Herzberg's two factors, Maslow's hierarchy of needs, and McClelland's motivational theory were used once each in the 168

studies. It is therefore recommended that theories like social exchange theory and other motivational theories could assist in the explanation of how HRMP impacts FP or should complement these three theories (RBV, AMO, contingency).

2.4.3. HPWP and contingency approach

It has been revealed by many scholars that a bundle of HRMPs has stringer effect in FP than using only one HRMP (Choi, 2014; Vlachos, 2009; Bae et al., 2003). It appears that the HRMP bundle which supports AMO theory and the universalistic approach meets individual needs as it addresses the different needs of employees. Different HRMPs address individual differences to collectively achieve FP. Future research should embrace the bundles of HRMP idea rather than employing individual separate sustainable HRMPs such as training and development. To this end, the AMO model perspective to develop sustainable HRMP is recommended as it is among the most accepted ways to increase performance. HPWP is recommended and more emphasis should be placed on contingency by applying bundles of HRMPs to suit the situation. It should be noted that HPWP should not be applied universally as one-size-fits-all may not be applicable in all cultural backgrounds, all organisations, or for individual employees.

2.4.4. Cross-sectional studies of countries and industries

It was observed from the current study that cross-sectional studies and studies from developing countries are lacking, and several reasons account for that deficit. Most researchers find it easy to gather data from one country as they want to do away with differences in legal, time-zone, cultural, economic, and political systems, as well as HRMPs around the world. Many researchers also find it unrealistic or difficult to obtain data from developing countries due to the small number of annual reports written in English (Nguyen et al., 2020). Also, it is difficult for researchers and respondents to understand each other's viewpoints due to language barriers. However, some companies are now publishing their annual report in English (Nguyen et al., 2020), outlining some of their HRMPs. Future researchers are encouraged to use available annual reports. Moreover, face-to-face interviews which restrict cross-national studies can be done using Teams, Zoom, and video conferences with prior notice to the respondents if the idea is to identify a non-verbal expression. Future researchers in this area are encouraged to undertake studies using more countries while focusing further attention on developing countries.

This literature review also showed that most of the studies were dedicated to understanding a national background. This is recommendable as it provides broad and detailed knowledge. However, it would be better to conduct a larger cross-sectional study of countries to analyse

the various cultural backgrounds, HRM laws, legal and regulatory bodies in the countries, paying more attention to these when analysing the outcomes by showing why results may differ across countries and why more HRMPs are performed in one country than in others. However, it would be pointless if a cross-sectional study was conducted without detailing such an analysis.

The analysis also shows that most of the studies were done in single industries or a few firms such as manufacturing industries, hospitality industries, and hospitals. Cross-industry studies are therefore suggested for future studies with a detailed analysis of the laws and regulations relating to HRMP in those firms and industries involved. This would help readers, scholars, and other organisations to establish if HRMP in industries or firms is based on social exchange (reciprocal) or just an obligation and if this impacts FP.

2.4.5. Bidirectional relationship between HRM and FP

The bidirectional relationship between HRM and FP should also be considered as only one study out of the 168 discussed the bidirectional relationship. The study indicated that HRMP impacts FP while FP also impacts HRMP (Yoo al., 2021). Saridakis et al. (2017) emphasised the need for panel data and longitudinal research to observe causality or reverse causality. It should also be noted that FP can also impact HRM practice, but it is not always the reverse. Bidirectional relationship has not been studied in this area of research and therefore future researchers can fill this gap.

2.4.6. Methodology problems of the impact of HRM practices and financial performance

The literature review shows a lack of scientific rigor to trust if there is an actual causal relationship. Most of the studies were based on cross-sectional data. This is due to data collection approach. Cross-sectional studies limit the ability to infer causality (Gignac & Ooi 2021; Gerhart, 2008) and also provide snapshot results at only one point in time. It is therefore essential for future HRMP researchers to adopt panel data that would give a better overview of the problem statement to prove true causality between these two variables. Additionally, the literature revealed that advanced methodologies such as mixed methods were not greatly considered in this area. Mixed methods research develops the exhaustiveness of the problem statement rather than using a single research method (Kamal & Irani, 2014). It combines qualitative and quantitative data collection and analysis and therefore gives in-depth findings of the problem under investigation. It is recommended that mixed methods should be used in future studies to avoid ambiguity in the findings. It is also essential to use real data such as

annual reports and financial data, if available, to provide results about what exists rather than relying on individuals' views.

2.4.7. Work-life Balance and Employee Well-being

The study of HRMP and its impact on FP should focus on the needs of employees and their families. WLB has been studied less, as revealed by the systematic review. Despite the essentiality of WLB, no related studies have been conducted in developing countries. The HRMP should focus more on WLB to provide comprehensive knowledge in the area. Babin Dhas (2015) underscored that WLB is about helping employees in balancing the work with their responsibilities and increasing loyalty and productivity. The absence of WLB has problems not only for employees but also for the organisation and the nation at large. Making employers, organisations, and HR practitioners aware through research of the cost implications of the absence of WLB such as absenteeism, lateness, commitment, high turnover rate, cost of recruiting new staff, and many others which future research could reveal, would enable them to weigh the pros and cons from each side and decide which best interest their organisations. As emphasised by Babin Dhas (2015), WLB increases productivity. Higher productivity provides funding to expand the organisation. Nakamura et al. (2018) indicated that labour productivity is a source of medium-long-term economic growth. Krugman (1994) likewise endorsed that productivity is a crucial source of economic growth and competitiveness. As the benefit of WLB go from the individual level to the national level, it is expected that future researchers extend the research on WLB to developing countries such as China, India, as well as Africa, where none of the samples were from, to establish if the impact would be the same. Overall, WLB has not been studied in enough depth and more studies are needed. The Appendix 1: shows all the Publications included in the literature review

2.5. Limitations of the systematic review

Like any other study, this literature has its limitations, and it is recommended that other researchers can identify these and fill in the gaps. The study used articles from the Scopus database and Google Scholar only, neglecting other search engines such as the Web of Science. However, as Scopus and Google Scholar provide sufficient literature for any study, any additional search engine is unlikely to change the results. Also, selection criteria were used to reject some of the articles. The selection criteria used in selecting the articles can also contribute to the missing of useful articles. For example, only articles from ABDC were used to ensure quality research. This is done to ensure quality papers are used to draw well-founded

conclusions in the research. The use of keywords can also limit the number of articles. As such, future researchers could use additional keywords in conducting their systematic literature review on related topic.

2.6. Summary of the Chapter

The chapter provides the systematic review of HRMP and FP relationship using Scopus and Google Scholar. A protocol was planned for what to include in or exclude from the study. Using Tranfied et al.'s (2003) proposed approach of a systematic review and ABDC journals, 168 articles were finally sampled for the study. These 168 papers were analysed based on research themes, results from the studies, geographical location, the method employed to collect data, theories applied, ABDC ranking of the papers used, number of papers published in each year, as well as the journals in which the studies were published. The study showed that during the early years of the study of HRMP and FP, the number of publications was limited as the concept was new and scholars were only publishing HRMP and performance at the individual level. Researchers' attention has increased in this area since 2013 and the trend is still positive. Though there have been upward and downward trends in the study of HRMP and FP, the results of the publications still look encouraging.

It was also revealed that the number of studies conducted in developed countries is greater than that in developing countries. The US had the most dominant studies, followed by China and the UK. It is therefore suggested that further studies should be focused more on developing countries. The study also observed that most of the literature has employed three theories (RBV, AMO, and contingency theory) with only a few of the studies linking their results to their theories to support their findings. It was additionally found that there is a methodology problem that also needs to be addressed. Most of the studies have employed questionnaires for several reasons such as them being less costly, easy to use, and accessible. The literature review further points out that the studies that needed mediation variables between HRMP and FP were conducted in developing countries. This implies that culture might have impacted these results. A recommendation has therefore been made on how and where future research should be advanced.

CHAPTER THREE: THEORIES AND HYOTHESES DEVELOPMENT

3.1 Introduction

The theoretical framework is very essential in every research work as it explains the underlying causes of the observed studies and their results. It provides the support and structure for the justification of the research, the purpose, the problem statement, as well as the research question (Grant & Osanloo 2014). As stated by Khan et al. (2021) theories are the most essential tools that help in understanding the background philosophies and assist to comprehend the expected outcome. It helps to organize the thoughts, create and deliver a meaningful clarification for the relationship and interrelationship between variables and offer directions to prediction an expectation from the study (Khan et al. 2021). In a nutshell, a theory is a guide to the research.

Prior studies of HRMP and performance have employed different theories such as resource-based view theory (RBV) (Akter et al., 2020, Lee et al., 2005), Contingency Theory (Aragón-Correa et al., 2013, Delery & Doty, 1996, López et al., 2019), Social Exchange Theory (SET) (Gould-Williams and Davies, 2005, Nunkoo, 2016, Faeq et al., 2021, Frieder, 2018, Zhang & Jia 2010), Ability, Motivation and Opportunity theory (AMO) (Mohamed AL-Mottahar, 2021, Renwick et al Maguire, 2013, Armstrong and Brown, 2019), human capital theory (Wright et al., 1999, Chang et al., 2021, Truss, 2001), Agency theory (Delery & Doty, 1996, Colombo et al., 2021, Bučiuniene & Kazlauskaite, 2012) and Universalistic Approach, (Delery & Doty, 1996 Panayotopoulou & Papalexandris, 2004, Ružić, 2015) and these have frequently been used to explain HRMPs and performance outcomes.

The rest of this chapter reviews the theories that have frequently been used to explain how HRMP impacts on FP, selected theories for this study as well as the hypotheses development. 3.1 briefly discussed theories in general, 3.1.1 to 3.1.7 briefly discussed the theories that have popularly been used in the study of HRMP and FP, how the theories have been applied, their advantages and limitations. 3.2 discussed the theories selected for this study and justify why those theories have been selected. 3.3 is about developing of hypotheses with logical and coherent theoretical and empirical backing to justify the side taking to predict the various outcomes based on the research question. 3.4 is based on the conceptual framework that links all the variable (HRM practices, corporate governance variables and financial performance) together. And 3.5 is based on the summary of the chapter.

3.2 Popular Theories in the Field of HRMP and FP

3.2.1 The Resource-based view theory (RBV)

RBV is the most popular theory that has been used to explain how HRMP impact FP (Saridakis et al., 2017). RBV indicates that valuable organisational resources that are difficult to imitate, rare, and non-substitutable put the organisation for long-term success and these resources can be used to obtain a sustainable competitive advantage. The argument is that human resources should be unique in their competitive environment. For instance, unique training that cannot be unlearned by competitors would give an organisation a competitive edge over its competitors. RBV theory in HRM highlight that employees' characteristics add value to the organisation (Saridakis et al., 2017). HRMPs that are considered as organisational proficiency plays a vital role in the knowledge build process, skill building and producing relevant behaviour and responses, and therefore making employees effective and efficient to achieve organisational goals and putting them heads off their competitors. The use of RBV theory helps researchers, practitioners, and organisations to understand conditions under which HR becomes unique, valuable, and difficult to imitate. However, obtaining a sustainable competitive advantage by using HRM practices as suggested by RBV is not realistic as HRM practices can easily be copied by another organisation (Kraaijenbrink et al, 2010). Perpetuation competitive advantage as claimed by the theory is not deserving. Barney et al. (2001) stated that research that uses secondary data and alternative variables is not successful in justifying the management process of how resources are considered valuable. To achieve a competitive advantage the organisational environment is very essential. An organisation needs to know its threat, or opportunity to grow which RBV has neglected (Truijens, 2003). Environmental analysis is very helpful to position an organisation in a competitive advantage. AMO has been complemented to SET to investigate whether an organisation needs to offer all three elements of AMO to employees before they can reciprocate for better performance. AMO and SET agreed that HRMP can bring a competitive advantage, but not sustainable competitive advantage as rigidly stressed by RBV. The sustainable competitive advantage stresses by RBV is not realistic (kraaijenbrink et al, 2010).

3.2.2 Social Exchange Theory (SET)

The SET has given researchers and organisations a powerful basis for explaining behaviours at work (Cropanzano & Mitchell, 2005). According to the theory, if a party gives another party a valued item, an obligation is created to give back valuable resources (Cropanzano & Mitchell, 2005). Such exchanges, as emphasised by Berkery et al. (2020), tend to create a high-quality

relationship because of the bidirectional nature of transactions in the workplace. Researchers have used this theory to find out if organisations that offer HRMP get good financial outcomes. Despite supporting arguments by many empirical studies, SET faces some criticisms. Scholars have stressed the importance of trust in SET (Young-Ybarra & Wiersema, 1999). Gould-Williams and Davies (2005) explained that trust is seen as a critical issue underpinning SET in that the process of initiating social exchange relationships requires the initiator to trust that the receiver/recipient will reciprocate in kind. Hass & Deseran (1981) view trust as problematic in social exchange because of the unclear nature of the reciprocal requirement and often the time taken between receiving the favour and paying it back. Hass & Deseran (1981) stressed that as an official contract would undermine social exchange, parties to exchange must convince each other of honesty, which may of necessity take some time.

Carnevale and Wechsler (1992) however indicated that building trust in an organisation is a vital element as the absence of trust lead to dysfunctional outcomes such as low motivation, lack of confidence between the parties, and low level of commitment (Gould-Williams & Davies, 2005). Accordingly, Nyhan (2000) suggested that managers should work hard to develop trust where employees are required to share in cooperative working practices or deal directly with service users. Asencio (2016) stated that trust building in the organisation is among one most important duties of organisation leaders. The need to trust is therefore essential in building and growing an organisation and therefore should not be used as a ground to criticize the theory.

3.2.3 Agency Theory

Agency theory focused on a two-party relationship where one party delegates authority to the other party to decide on his behave. The principal (owners) delegate to the agent (manager, employee). This brings separation of ownership from control and leading to an agency problem as the agents may want to maximise their interest and therefore make decisions for their benefit. The principal may pay for the actions of the agent through a reward system so that the agent may act in the interest of the principal. The theory has been applied in HRM to clarify the alternative method to control the attitude of employees toward the organisation to ease conflict of interest that certainly comes between principal, and their employees. Agency theory has been used by many scholars to explain that giving employees what they desire would entice them to work in the interest of the organisation/owners and do away with any bad attitude (Franco-Santos et al., 2017). Agency theorists indicate that the type of approach that seeks to control the opportunistic behaviour of the agent by the principal is beneficial for both the agent

and principal well-being as it takes into account individuals' preferences (Franco-Santos et al., 2017). Alignment of interest of organisational stakeholders can bring better performance as each group of stakeholders works towards the interest of the organisation. Delery & Doty (1996) mentioned that in terms of agency theory, the agent's (employees) interests are aligned with principal (owners) and emphasised that an organisation that works hard to align these interests would obtain better performance outcomes.

The Agency Theory, however, has been criticised for many reasons including the simple economic model applied which ignores the people's preferences but assumes that everyone is self-interested (Heath, 2009). Control mechanisms like the rewards system proposed by Agency theory is not only expensive (Welbourne & Cyr, 1996), but also economically ineffective as it may hinder the realization of strategic decisions and distort the overall goal. As stated by Welbourne & Cyr (1996), apart from the direct cost of monitoring agents, there is nonalignment of goals and information asymmetry. Also, the bureaucratic way of monitoring leads to employees behaving in a compliant manner as it is their interest to do what they are only asked to do to get benefit out of it. Compliant behaviour as argued by Welbourne & Cyr (1996), may be disadvantageous to the performance of an organisation. Similarly, employees may have information that may not be available to the employer as a bureaucratic system does not support sharing of the information with the employers (Welbourne & Cyr, 1996): this calls for AMO and SET. Thus, AMO theory has been complemented by SET to address the above issues. AMO theory is based on a bundle of HRM practices which include allowing employees to participate (opportunity) and employees' views are accounted for as a performance contributor. When employees are allowed to participate, they share every little information with their employers including information from their customers. SET is based on trust-building and trust building is the most important in organisation building (Asencio, 2016) as it helps to get free information from employees. Both AMO and SET permit the free flow of information. Free flow of information is very essential for organisational building (Adu-Oppong & Agyin-Birikorang, 2014), but this is absent in Agency theory.

3.2.4 Universalistic Approach

Another popular theory in the field of HRM is the universalistic approach. The universalistic approach maintains that certain HRM practices are the best and should be applied universally regardless of the organisational size, industry, business strategy and cultural background of the organisation. A universalistic approach has developed to support the broad term HPWP and AMO model (Saridakis et al., 2017). As posited by Saridakis et al. (2017), HPWP is developed

not only to enhance skill, knowledge and ability, but also to motivate and encourage effort. A universalistic perspective, therefore, provides employees with all the necessary best practices to perform to achieve performance. Syed & Jamal, (2012) emphasised that best practices will always bring better organisational effectiveness. Best practices are expected to produce the best results. However, this theory has faced a lot of criticism with the argument that one-size-fits-all is not the best approach so HRM practices should be adapted to suit the situation. Snell & Youndt (1995) argued that a particular set or bundle of HRM practices cannot best be practised universally for all organisations. A certain set of HRM practices cannot be applied universally as presented by the universalistic approach. This has a different view from SET. As stated by SET, reciprocated response depends on the type of treatment given to employees so if an individual gets a negative treatment, the person would reciprocate in kind with negative rewarding action, but would provide positive results if the individual received a positive treatment (Frieder, 2018). Gould-Williams and Davies (2005) argued on how best to use SET and emphasised that employees usually interpret HRM practices in unintended and idiosyncratic ways given an instance that the same HRM practices can have different results depending on the employee's predisposition. For this reason, basing their argument on SET also emphasised that it is essential to collect employees' opinions on HRMP rather than relying on the directive of HRM policy, but this is absent in universalistic approach as the same HRM practices are applied universally regardless of individual needs. Thus, employees' views on what seems a good reward can be applied in SET, and this cannot be done when using the universal approach of one size-fit-all system.

3.2.5 Contingency Theory

The conceptual foundation of contingency theory is that effectiveness in implementing intended strategies is heavily dependent on the existence of a match between strategy, organisation and environment (Balkin & Gomez - Mejia, 1987). As claimed by contingency theory, there is no one way of designing and managing people, however this is opposed to the universalistic approach. The contingency theory argument is that there is no one or single best method of managing employees so HRM practices should be tailored towards the organisation, environment, and members' needs (Boxall & Purcell 2011). Contingency theory claims that the selection of HRMP should be based on the context in which they are applied, and this calls for internal or external fit (Boxall & Purcell 2011). The internal environment as emphasized by Saridakis et al. (2017) consists of organisational structure, processes, as well as employees' behaviour while the external environment comprises economic, political, institutional and

technical influence. Miles & Snow (1984) emphasised internal fit and posits that for the organisation to be effective, HRM practices should be aligned with the organisational strategies. Many authors have shown the importance of strategy fitting HRM practices into the context of the organization. Lengnick-Hall & Lengnick-Hall (1988) for instance stressed the need to fit strategy and HRM and observed that in an unstable environment, achieving fit involves constantly changing targets. Thus, there is a need to change HRM practices to suit the changing situation of the organisation. The internal fit however suggests that HRM practices should fit with organizational culture, strategic priorities and human capital decisions (Katou & Budhwar, 2010). The argument of contingency theory supports strategic differences of HRM notion that investing in certain HRM practices is worthwhile or are more effective for some employees than others (Huselid & Becker, 2011). Contingency theory is the best approach as it considers individual, departmental, and organizational needs. Contingency theory is tailored towards the needs of individuals, organisation, environment, and addresses them in the way that it deems. McGrandle (2017) cited that motivating employees in organisations vary in terms of the needs of the employees. He further established that employees who get satisfaction from other rewards like the job itself do not value a pay increase as much as employees who receive satisfaction directly from monetary incentives. Investing in certain HRM practices is worthwhile for some employees than others as emphasised by Huselid and Becker, (2011). Thus, contingency theory addresses the needs instead of blanketly applying HRM practices without considering the need or doing need analysis.

Contingency theory, however, has faced critiques from many researchers (Ramirez & Fornerino, 2007). Hellriegel & Slocum, (1973) classified the critics of contingency into two: the concept not being clear, and the concept is not adequately specified. Contingency theory is based on achieving fit. Achieving fit may be hard due to varying opinions that the fit sought. It has also been argued that the contingency approach is based on leadership styles more than a certain set of actions or practices. The use of different changing styles at different times may increase the question of credibility in the mind of employees on the part of management. There is a lack of clarity in contingency theory due to the ambiguous character of the theoretical statement. As espoused by the contingency theory, a particular structure should be suitable for a certain environment and the organisations are profitable when a fit is achieved (Schoonhoven, 1981). SET is clear as it is a simple give and take. AMO theory also specifies that in offering SET to employees, all three elements of AMO should be present. Very clear and simple to comprehend.

3.2.6 Ability, Motivation and Opportunity (AMO) Theory

Ability, Motivation and Opportunity has been abbreviated as **AMO** (Armstrong & Brown, 2019). AMO theory specifies that organisational interest is the greatest provided for by a system that joins or focuses on the three components of AMO (Demortier et al., 2014). Thus, the three elements must be present for performance to be achieved.

This theory seems to ignore the importance and the necessity to adopt a contingent approach to develop and leverage adequate human resources (Demortier et al., 2014). As specified by the contingency approach “choice of Human resource practices must be determined by the situation within which they are applied” (Clinton & Guest, 2013). Dastmalchian et al. (2020) showed that the success of high-performance work practices (HPWP) in different societal cultures varies across AMO bundles. For example, based on the outcome of their study, they mention that power distance may increase the successfulness of opportunity-enhancing practices while individual collectivism may reduce the successfulness of motivation-enhancing practices. However, institutional collectivism appears to increase the effectiveness of motivation-enhancing practices (Dastmalchian et al., 2020). The issue here is that the AMO framework is only empirically independently validated from a universalistic viewpoint. One-size-fit-all does not work in all organizational context as the universalistic approach proposed that a set of HRM practices works for all organization regardless of the context. However, many other authors still consider the effect of universalistic and global HRM practices scales (Loo-See & Leap-Han, 2013). The recent research of Nor and Abdullah (2020) requires the focus on a bundle of HRM practices as a means to achieve better performance. It should however be noted that the presence of various HRM practices can be used specifically to influence different individual employees' characteristics to achieve better performance. Applying a multitude of HRM practices means that everyone would acquire what meets their needs and subsequently entice each one to contribute to performance. AMO theory has been universally accepted, the framework is developed theoretically, and has frequently been active in empirical studies.

3.2.7 Stakeholders Theory

Stakeholder Theory posits that organisations have a wide range of stakeholder groups (customers, investors, employees, community, shareholders, creditors) within the organisation and each group's interest should be considered (Hill & Jones, 1992). The theory considers the broader interest of all stakeholders (Hill & Jones, 1992) as against the agency theory which aims at focusing on the interest of shareholders alone. Stakeholder theory recognises that the

organisation's success depends on meeting the interest of all its stakeholders. There should therefore be effective strategies to meet the needs of stakeholders as presented by the stakeholders' Theory (Benn et al. 2016). When the board is large as suggested by stakeholder theory, there is more possibility of having different skills, different levels of experience, and different knowledge and ability making it possible to have all round and relevant information to make the best decisions that interest different groups of stakeholders (Nguyen & Thanh, 2021). Thus, when different groups of stakeholders' interests are met, they will reciprocate by acting in the interest of the organisation for better performance outcomes. Board independence also enhance HRMP hence performance of the organisation as independent directors work in the interest of all stakeholders and organisational interest as their activities are not influenced by shareholders or management (Nguyen & Thanh, 2021). Nguyen and Thanh (2021) mention that non-executive directors are responsible and accountable to the entire stakeholders and are more objective to resist managers' and shareholders' pressure. Independent directors examines the decision of the managers to eliminate their objectives, eliminate only shareholder interest (Nguyen & Thanh, 2021) and work toward the interest of all to get support from each member of the stakeholders' group for the betterment of the organisation. Large board size and independency are believed to increase organisational outcomes as illustrated by stakeholders theory.

As to how greatly stakeholder theory has contributed to the growth of management literature, the theory faces a lot of criticisms. As argued by scholars such as Key (1999) the theory pays no attention to dissimilar interests within members of sub-group categorised of stakeholders. Winn (2001) opined that participants within the stakeholder groups and the sub-groups may have different roles and interests. However, the stakeholder theory believes that a broad range of stakeholders in a group or sub-group have a common interest and categorizes them together in a group but these groups or sub-groups have different objectives. These groups have the highest tendency of conflicting interests and may chase different plans or agendas.

Benn et al. (2016) also believe that while stakeholders theory permits an organisation to consider the interests of all the groups of stakeholders, little has been concerning reciprocating in these types of relationships. This has also been emphasised by Mitchell et al. (1997) who argue that stakeholders theory needs give-and-take which is missing in “stake”. It is also suggested that stakeholder theory gives dishonest management good ground to act in their interest that is beneficial to them and this resurrects the agency problem that the owner/shareholders aim to crucify. The management can act in their interest claiming that their activities are in the interest of some stakeholder groups (Phillips et al., 2017). This would no

doubt serve the interest of other stakeholder groups and work against others and managers will be able to justify their interest as other stakeholders benefit from it (Jensen, 2000). The theory, therefore, destroys accountability in business (Jensen, 2000). However, the stakeholder's theory serves the interest of some members and every group can meet their interests in turns as compared to agency theory which serves only the owner's (principal) interest. Even though the theory does not underscore give-and-take or reciprocate, SET has been complemented by stakeholders theory and AMO theory. The presence of SET in this piece of work is to emphasise give-and-take. These three theories have been selected to complement each other, and more importantly, to offset the disadvantage each has.

Table 1: Summary of most used Theories of HRMP and FP relationship

Theories	Uses	Advantages	Limitations	Counter by AMO and SET
Resource-based view	The RBV argued that HR should be unique in their competitive environment for the organization to obtain a sustainable competitive advantage and researchers search for that uniqueness' to establish if they offer a sustainable competitive advantage	A unique HRMP will take more resources to copy (Saridakis et al. 2017), and this helps to develop a competitive advantage	Sustainable competitive advantage by using HRMP is not realistic as HRMPs can easily be copied by another organization. Barney et al. (2001) stated that research that uses secondary data is not successful in justifying the management process of how resources are considered valuable.	AMO has been complemented to SET to investigate whether an organization needs to offer all three elements of AMO to achieve better performance and these theories can be used in any type of research in the field of HRMP.
Social exchange theory (SET)	The researchers have used SET to analysis if organizations that offer HRMP to their employees get good outcomes.	Trust building as claimed by SET brings a free flow of communication for the betterment of organizations (Asencio 2016) and it enhances relationships which is good for	Gould-Williams and Davies, (2005), trust is seen as a critical issue in SET in that, in the process of initiating social exchange requires the initiator to trust that the receiver will reciprocate.	AMO theory has been complemented by SET to address any issue that SET has

organizational building (Luo 2002)

Agency theory	Agency theory has been used by HR scholars to explain that giving employees a reward system will entice them to work in the interest of the organization and do away with their interests.	Alignment of interest of owners and employees can bring better performance as both work towards one direction Delery & Doty (1996)	Control mechanisms used by the principal are economically ineffective as they may hinder strategic decisions and distort the overall goal Welbourne & Cyr, (1996). Bureaucratic way of monitoring leads to employees behaving in a compliant manner as it is in their interest to do what they are asked to do to get benefits which is harmful to the performance Welbourne & Cyr, (1996). The bureaucratic system does not support sharing of the information (Welbourne & Cyr, 1996).	AMO gives opportunities to employees to participate bringing employees views on board, and information can flow. SET brings trust between the organization and its employees and this helps free flow of customer information from employees. This is not common in the Agent and principal relationship because of Bureaucracy.
Universalist approach	This approach contends that certain HRM practices are the best and should be applied universally and all organizations can use them (Miles & Snow 1984) The theory is applied by testing if the same HRM practices bring similar outcomes	A universalistic approach provides employees with all the necessary best practices to perform to achieve performance. Syed & Jamal, (2012) emphasized that best practices will always bring better	One size fits all is not the best approach and HRMP should be adapted to suit the situation. (Snell & Youndt 1995)	Gould-Williams and Davies, (2005), argued on how best to use SET and gave an instance that, the same HRMP can have different results depending on the employee' interpreter. Basing their argument on SET they claimed that it is essential to collect employees' opinions rather than relying on the

in a different environment.

organisational effectiveness.

directive of HRM policy and this is absent in universalistic approach as the same HRMP are applied universally in respective of individual need.

AMO Theory

The theory proposed that there are three different workplace element's ability, motivation, and opportunity, and all must be present before performance can be achieved (Demortier et al., 2014). To test the AMO, researchers search to check whether all three components are in existence and compare it to performance.

AMO theory is based on bundles of HRMP. Various HRMP can be used to influence different employees' characteristics to achieve better performance. Applying a multitude of HRMP means that everyone will acquire what meets their needs and subsequently entice each one to contribute to performance.

AMO seems to ignore the importance and the necessity of adopting a contingent approach (Demortier et al. 2014). As specified by the contingency perspective "choice of HRMP must be determined by the situation within which they are applied" (Clinton & Guest, 2013). AMO ignores this approach

The presence of various HRMPs can be used specifically to influence different individual employees' characteristics to achieve better performance. AMO has been universally accepted, the framework is developed theoretically and has been frequently active in empirical studies. It has therefore been joined to SET to produce a better theoretical guide to the study.

Contingency Theory

Contingency theory, claims that, there is no one best method of managing employees and that HRMP should be tailored towards the organisation needs (Boxall & Purcell 2011). Different setting are used with a

Contingency theory is best approach as it consider different needs. As claimed by McGrandle (2017), organisations are built and raised in a different environment and that the contingency approach is the

There is a lack of clarity in contingency theory due to the ambiguous character of the theoretical statement (Schoonhoven, 1981). As suggested by Schoonhoven, (1981) this theory need great precision than it is given as it fit and alignment to environment and

SET is clear as it is simple give and take. AMO theory also specifies that in offering SET to employees, all three elements of AMO should be present.

	certain HRMP to identify if they all produce similar result (Gerhart, 2016).	best method to manage employees.	structure is ambiguous statement.	
Stakeholder theory	The theory has been applied in the broader interest of the stakeholders by looking at the governance variable such as board size, board independence and CEO compensation and how they link to performance.	It serves the needs and the interest of every stakeholder group.	Stakeholders theory is missing “give-and-take”. Give and take between organisation and it employees is very vital as it develop relationship and brings trust in workplace. Trust building is essential for the growth of organisation (Asencio (2016)	Stakeholders theory which lack reciprocate of exchange has been added to SET to predict how employees behaviour change (reciprocate) when their interest are met for by their organisation

3.2.8 Justification for the Selected Theories

The current study used all the elements of AMO therefore, it was imperative to test the theory in the study by adding the SET, and Stakeholder’s Theory as each work from a different perspective. SET, as argued above, employs contingency approach while AMO is a universalistic approach (Demortier et al, 2014). These theories have been used to complement each other to offset the disadvantages each of these theories possesses. Stakeholder theory has also been added to explain how board size and board independence moderate the relationship between HRMP and FP.

Mellahi et al. (2016) recognized the necessity for a multi-theoretical framework to justify and explain comprehensively the relationship between HRMP and firm performance. Bolourian et al. (2021) argued for the move towards multi-theory and illustrated that it is a positive step for better understanding the research area. Three relevant theories (SET, AMO Theory and stakeholder’s Theory) have been used to support all the claims made about the relationship between HRMP and FP as a single theory cannot cover all elements of HRMP and FP relationship. Many authors have blended AMO and SET to explain how HRMP impact FP (e.g., Saridakis et al. 2017 and Pham et al.2019). These two theories (AMO and SET) provide a complementary framework on how HRMP impact FP while the Stakeholder’s Theory

explains how board size and board independence moderate the relationship between HRMP and FP.

This study opted for SET because it sought to analyse the results organisations obtain when they offer some benefits and comfortability at the workplace to their employees. SET is applied in this research as a framework to predict four financial outcomes (ROA, ROE, Tobin’s q, and market capitalization) from HRM practices. This theory has been broadly and successfully used by many scholars (Nunkoo, 2016, Frieder, 2018) in the field of HRM to explain how obligation is created at work.

AMO theory enabled the researcher to justify whether ability, motivation and opportunity must all be present or work together to enhance performance. As indicated by AMO theory, the presence of ability, motivation and opportunity enhances employees' characteristics and the success of the organisation, and all must be in existence (Almutawa et al. 2016). This study that employs all the elements of AMO tests if ability, motivation, and opportunity must all be present before performance can be achieved. The review of the literature for this study has revealed the following AMO elements in the Table 2

Table 2: Categories of the HRMP Variables under AMO Theory

Ability (Al-Mottahar (2021),(Nor & Abdullah, 2020)	Motivation (Wiersma , 1992), (Tran et al., 2020), (Almutawa et al., 2016)	Opportunity (Bos-Nehles, (2013), Marin-Garcia & Tomas, (2016)
Training & development	Financial Reward (Share-option, profit sharing, bonus)	Communication/engagement (Meeting, engagement)
Recruitment & selection	Growth and Development (Advance Opportunity, Career Advancement)	
Performance appraisal	Working Environment (physical working environment, health & safety)	

However, stakeholder theory has also been used to explain how corporate governance variables: board size and board independence, moderate the relationship between HRMP and FP.

3.3 Selected Theories

This section provides an analysis of the theories that guide and explain the reasons for the positive or negative relationship between HRM practices (HRMP) and FP. It explains and justifies the selected theories for the study.

3.3.1 Social Exchange Theory (SET)

SET gives scholars a framework to explain the behaviour of employees' commitment and motivation which is essential to understanding how trust is developed in a working environment. This theory was developed by an American sociologist George Homans and had its first appearance in 1958 in his essay "Social behaviour as exchange". SET is one of the most powerful theoretical paradigms for understanding behaviours in the workplace (Homans, 1958). Nunkoo, (2016) stated that SET has been popular in psychology and sociology, and it is viewed as the oldest theory of social behaviour. He emphasised that SET involves two parties, each of whom offers some benefit to the other, and it is contingent upon rewards from the other (Nunkoo, 2016). It is based on giving and taking. The theory implies that an organisation that offers rewards such as bonuses, salary increments, employees' benefit, training, and good working conditions to their employees would benefit as the employees would reciprocate via increasing their productivity, retention, and organisational citizenship behaviour, and subsequently affects FP.

Nunkoo, (2016) stated that SET considers exchange as a basis for the behaviour of humans. Gould-Williams and Davies (2005) stressed SET as voluntary activities that may be introduced by an organisation to treat its employees with the expectation that such treatment will eventually be reciprocated. The theory simplifies social behaviour as the result of exchange processes and the purpose of the exchange is to make the most (maximize) benefits and reduce (minimise) costs (Lawler, 2008).

Frieder (2018) cited that reciprocated response is contingent upon the type of treatment received by individuals, and if an individual received negative treatment, s/he would reciprocate in kind with a negative rewarding action. He also emphasised that where individuals receive positive treatment, they would reciprocate with rewarding positive action (Frieder, 2018). The theory clarifies that the relationship between the organisation and its

employees develops into trust, loyalty, and commitment over time if the parties perceived a certain rule of the exchange (Cropanzano & Mitchell, 2005, 2005; Ali, 2021).

Cropanzano and Mitchell (2005) reported that reciprocity in kind is the best type of exchange rule. The reciprocal relationship tends to come about as a result of a successful series of relations and interactions between the two parties involved. Cropanzano and Mitchell (2005) indicated the importance of reciprocal exchange in the literature on the social exchange by stressing that it involves interpersonal transactions whereby activity by one party entices the other to respond. In other words, if one party (organization) provides a benefit, the receiving party (employees) would reply. Thus, providing employees with rewards or benefits such as bonuses, good working relations, a good physical working environment, opportunity to advance in their job and remuneration progression would entice employees to respond in kind.

Cropanzano and Mitchell (2005) emphasized that reciprocity brings a better work relationship. It also allows individuals to be trusted and committed to one another. It is therefore important for FTSE firms to give, offer and assist their employees voluntarily without any assigned arrangement of what is to be exchanged for, and in this instance, employees would reciprocate in kind via increasing their commitment, productivity, organization citizenship behaviour, retention, and subsequently FP. FTSE firms investing in HRMP such as employee reward, training and development, and good working conditions can lead to employees being obligated to recompense the FTSE firms through high productivity, good attitude, and behaviour that enhance FP. This indicates that in the context of the organizational setting, HR practices are important agents in SET. Employees are thought to exchange positive and good attitudes and productive work behaviour in response to HR managers investing in them (Frieder, 2018).

3.3.2 Ability, Motivation, and Opportunity Theory (AMO)

AMO theory was originally formulated by Boxall & Purcell (2003) to link HRM practices to performance (Armstrong & Brown, 2019). The theory states that performance is based on the Ability, Motivation of an individual, and the Opportunity to perform (Al-Mottahar, 2021). The theory specifies that these three elements shape employees to contribute to organizational success (Luan, 2020; Al-Mottahar, 2021). A missing of any of these three characteristics is likely to prevent the performance of the organization but if all these three characteristics are present, performance is likely to be enhanced (Al-Mottahar, 2021). Boxall & Purcell (2003) formulated the theory as $A.M.O.=P$ and clarified that employees perform when they have the ability (required skill, knowledge, and aptitude to do the job), the motivation (they feel they

must do the job or they just want to do the job), and the opportunity (the necessary support and chance to express)(Armstrong & Brown, 2019).

According to the AMO, all three domains connect to enhance employee performance. As stated by Demortier et al. (2014), HRM practices that develop employees' characteristics are classified into three domains Ability, Motivation, and Opportunity. AMO model is an essential tool that is useful and comprehensive (Al-Mottahar 2021). The theory is one of the most commonly used conceptualizations of the impact of human resource practices on organizational performance (Renwick et al., 2013). Al-Mottahar (2021) stated that the Ability elements in the AMO are explained by many concepts such as recruitment and selection, training and development, and performance evaluation. It also indicates human characteristics such as knowledge, attitudes, experience, and skill (Al-Mottahar 2021). Nor and Abdullah, (2020) also opined that the three components of ability include recruitment and selection, training and development, and performance evaluation. Bos-Nehles et al.(2013) defined ability in AMO as HRM capabilities required or necessary to execute work on the work floor. It is also a natural and acquired capacity that enables an employee to do their work successfully (Bos-Nehles et al., 2013). They clarified that training and development, recruitment and selection as well as skill, and the knowledge that contributes to an employee's performance are essential components of Ability (Bos-Nehles et al., 2013).

Bos-Nehles et al.(2013) defined motivation as the willingness to perform tasks. It is the degree to which an individual chooses to engage in specified behaviours. Wiersma (1992) confirmed two motivational factors as intrinsic and extrinsic and claimed that employees are intrinsically motivated when they carry out any activity with no evident reward except for the activity itself. Wiersma (1992) sees intrinsic motivation in an employment context as the effort that is made in employees' jobs to accomplish growth needs such as competence, achievement, and self-actualization. Intrinsic motivation involves a willingness to perform, motivation to learn, among other (Legault, 2020). Benabou and Tirole (2003), however defined extrinsic motivation as behaviour driven by external reward. Extrinsic motivation is based solely on an outside reward. It includes recognition, job security, and internal promotion pay for performance (Wiersma, 1992, Tran et al. 2020, Almutawa et al. 2016). Intrinsic reward is an individual desire to perform his/her task for his/her own sake while extrinsic motivation is based on contingent rewards.

Bos-Nehles, (2013) specified that opportunities in AMO include using teams' suggestion systems to contribute to the performance of an organization. Marin-Garcia & Tomas, (2016) stressed that opportunity in AMO also consists of knowledge sharing, involvement, increase in autonomy practices, and participation. As confirmed by Bos-Nehles (2013) employees' behaviour in the workplace is determined by ability, motivation, and opportunity. As the theory suggests, organizational interests are best provided by a system that addresses employees' ability, motivation, and opportunity (Yong et al., 2020). In a nutshell, the AMO theory implies that performance is a function of ability, motivation, and opportunity (Yu et al. 2020). The theory is built on the premise that an organization can positively improve its FP by ensuring employees have the ability and motivation to do their jobs as well as the opportunity to contribute (Pak et al. 2019). These three components affect the performance of employees (Yu et al. 2020). This theory would be used to test whether all three components of AMO (ability, motivation, and opportunity) must be present in FTSE before performance can be achieved.

3.3.3 Stakeholders Theory

An organizational stakeholder is an individual or group who is affected by the success or by the activities of the organization (Benn et al. 2016). Stakeholders gain from useful and effective contributions from the organization and are affected by the negative activities of the organization. They have a stake in the affairs of the organization. Benn et al. (2016) clarified that those who have no effect and are not affected by the organization have no stake. Hillman et al. (2001) also saw stakeholders as individuals or groups who impact or are impacted by the attainment of an organization and classified different stakeholder groups as the customers, suppliers, shareholders, employees, as well as community numbers. Hill & Jones, (1992) cited stakeholders as groups of constituents who possess a legitimate stake in the organization. In the view of Stakeholder Theory, the organization should have a broader perception of who its stakeholders are. The theory posits that there are different individual groups within the organizations which include customers, employees, shareholders, investors, suppliers, and the community, and their interests should be provided for (Hill & Jones, 1992) as against the Agency theory which focuses on the interest of shareholders alone. Many organizations in recent times have moved from the traditional organizational objective of merely maximizing profit as directed by shareholders into different strategies in fulfilling all the needs and interests of relevant stakeholders which are believed to also impact the performance of the organisation. Organisational success depends on meeting the demand and the need of its stakeholders. Thus, there should be effective strategies to meet the needs of stakeholders as stakeholders theory

considers this as important in the organisation. Benn et al. (2016) mentioned that the attention of the organization should not be on customers alone but on the entire stakeholders and emphasized that organizations should concentrate on the satisfaction of all stakeholders and create strategies that acknowledge the importance of the entire group of legitimate stakeholders. When all stakeholder groups are happy or their interest are provided for, they reciprocate by working towards the success of the business collectively for better performance than only meeting the need of one stakeholder group.

This, however, brings out the importance of the board of directors' presence in an organization. The Board of directors is the definitive decision-maker in an organization (Hendry & Kiel, 2004). They take the responsibility to observe, monitor, and regulate the behavior of managers to establish a good relationship between the organization and its stakeholders as well as generate abundance and value for the stakeholders. It is therefore essential for the board to be designed with adequate members with the appropriate proficiency and experience as well as for the board to be independent to align the interest of stakeholders to the interest of the organization to improve performance.

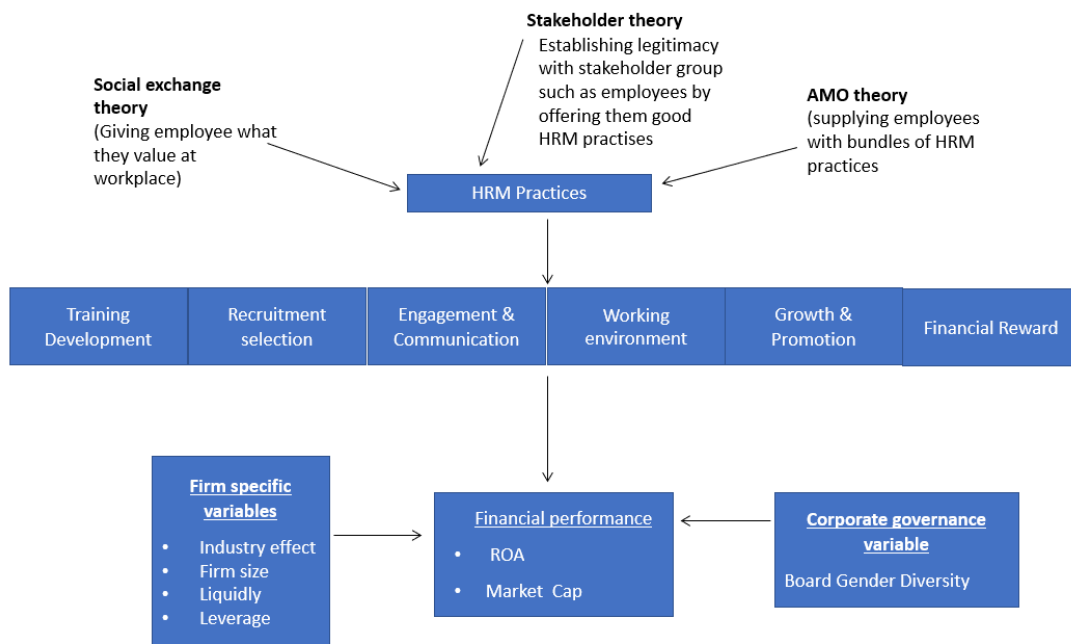
This study considered board size and board independence as corporate governance variables that enhance financial performance with the use of HRM practices. While Nguyen & Thanh (2021) defined board size as the number of directors on a board, they defined board independence as the proportion of independent directors. Board size is the total number of directors while board independence is related to non-executive numbers on the board. From the stakeholder theory standpoint, a larger board size makes sure that the organization accomplishes the interest of all stakeholders as a larger board has more directors with expertise, knowledge, skills, and experience to influence the decision of the board positively, provide a lot of information and bring creative thoughts to impact financial performance (Nguyen & Thanh 2021). When the board is large, it is more likely to include different people with different skills, different levels of experience, and different knowledge and abilities making it possible to have all round and relevant information to make the best decisions for the organization (Nguyen & Thanh, 2021). Large board size is likely to come from different backgrounds, have different interests, and support different groups of interest. Having a large board size brings a lot of argument towards different directions, different interests and at least each different group interest would most likely be met. This is seen as a better option than relying on only one group (shareholder) interest. It may also be hard to influence the board if the board is big. Siyanbola (2015) also established that large board sizes are more likely to report higher ROA as compared

to organizations with small board sizes. This is because a large board size works towards the interest of all stakeholder groups (customers, suppliers, shareholders, employees, and investors) as they have diverse ideas regarding the various interests. Thus, board size has various expertise to put effective strategies to meet the needs of shareholders and other Stakeholders. Arguing from stakeholders theory point of view, Nguyen & Thanh (2021) presented that a large board size is illustrative of diverse interests that transport objectives and balance decision-making.

With the board's independence, Nguyen and Thanh (2021) establish that non-executive directors are responsible and accountable not only to shareholders but to a broader range of stakeholders and are more objective to resist managers' and shareholders' pressure. Board of directors are legitimately in charge of advising and monitoring the plan, initiative, and programs of managers and offer effective advice to the managers (Nguyen & Thanh, 2021) and therefore, consider the needs of the stakeholder group for better performance.

As independent directors have more power over managers and are not dependent on managers, as cited by Nguyen & Thanh (2021), the larger number of their existence on the board would enhance the effectiveness of the board's task, thus, improving the performance of the firm and consequently FP. The external directors, as suggested by Stakeholder Theory, (non-executive number on the board) are more objective in examining the shareholders and managers as they get more pressure from other stakeholder groups for they respond to the wider groups and provide higher transparency to protect their reputation. They, therefore, act on the best interest of different stakeholders and work in the interest of the organization to achieve stakeholders' interests include employees for better performance (Hussain et al. 2018). The Theory is therefore used to assist, defend, and guide how board size and board independence moderate HRMPs and FP.

Figure 1: The Conceptual Model of the Study



Source: The framework was developed by the author

The conceptual mode in the figure 1 predicts that organizations can create legitimacy with their employees by putting quality HRM such as financial reward, recruitment and selection, training and development, working environment, growth and development, and communication and engagement to create performance. Taking HRMP seriously in an organization would create wealth for the organization. As stated by Tarigan et al. (2022) and Ali & Anwar (2021), quality HRMP bring a positive outcome. Similar SET, AMO and Stakeholder Theory illustrated in the model above predict that organizations that put good strategies to meet employees' needs would benefit, as employees would act back. Therefore, for FTSE to improve its FP and remain competitive in its competitive environment, good HRMP should be in existence. The model also illustrates that corporate governance and firm specific variable influence performance, and this has been controlled to obtain a complete outcome or full outcome of how HRMPs impact on FP of FTSE

3.4 Hypothesis Development

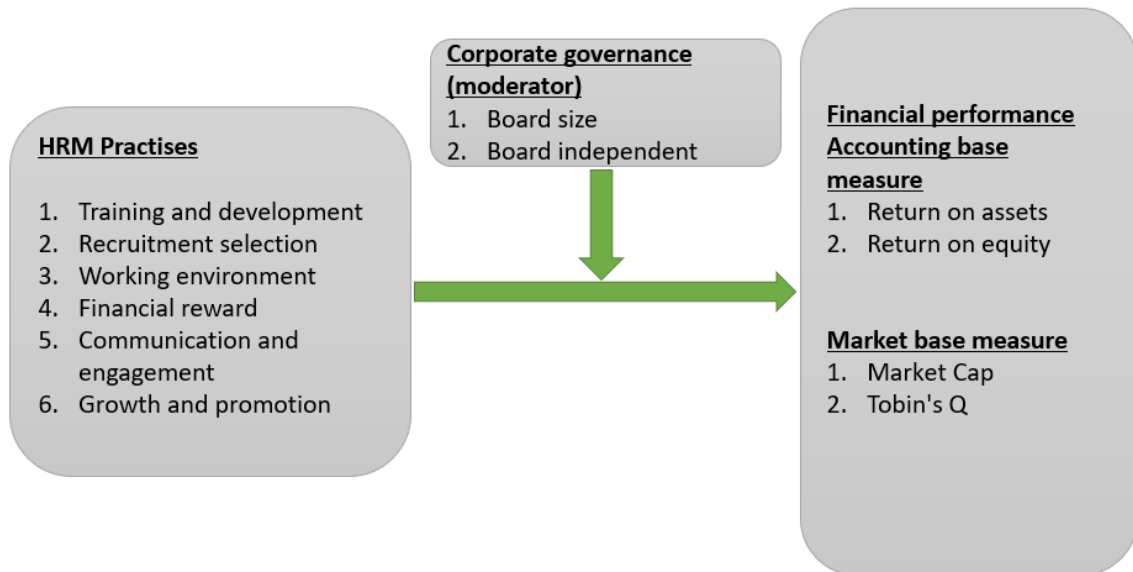
Prior studies have presented associations between HRMP and FP. The relationship predicts that quality HRMP impact FP and offer the organization a competitive advantage. Like the

previous studies, some identifiable HRMP that have the potential to impact FP are assessed via the development of testable hypotheses.

The hypothesis for research is the basis upon which the research is built and it is vital for the overall success of the research work (Toledo et al., 2011). Bulajic (2012) showed that a research hypothesis is both an assumption and an assertion. The research hypothesis is required for well-developed and sound research. Binoy, (2019) defined a research hypothesis as a specific statement of prediction and posited that it is primarily an explanation by researchers of what they predict the outcome of the research would be. The purpose of hypothesis as outlined by Binoy (2019) includes an explanation for the links between a variable that can be tested empirically, to prove that the researcher has enough knowledge to enable the researcher make a recommendation for the extension of the existing knowledge, offer direction to research and also it is a powerful instrument in the process of research to achieve dependable knowledge.

The human resource variables that have been used in the analysis of HRMP and FP are training and development, recruitment and selection, financial rewards, working environment, communication and engagement, promotion and growth with corporate governance (board size and board independence) as a moderation to enhance the relationship between HRMP and FP. Thus, this section presents the reason underlying the anticipated relationship between HRMP and FP and how these relationships are moderated. The relationship between HRMP, corporate governance, and FP as predicted, has been illustrated diagrammatically below.

Figure 2: The relationship between HRMP and Corporate Governances and FP



Source: The framework (the diagram) was developed by the author

3.4.1 Composite of HRMP

Good management of human resource practices is essential for organizations to survive, grow, increase their income, and provide them access to compete with their competitors (Ali & Anwar, 2021). Providing employees with training and appraisal for performance for instance directs employees towards the organizational goal and hence work toward that direction. In HRM literature, many scholars (Katou, 2008, Meier et al., 2021, and Patiar & Wang, 2020) have identified several HRM practices as successful elements for organizations to attain their goals, increase performance, compete well and obtain a competitive advantage. For instance, Mousa & Othman (2020) showed that employees' selections, training, participation, and compensation are essential for sustainability and organizational performance.

Several empirical studies have established the positive impact that HRMPs have on various organizational outcomes. Huynh et al. (2020) researched HRMP and their effect on banking FP and found a positive and significant relationship between HRMP and FP. Thus, the results provide statistical evidence on the underlying links of HRMP to banking FP. As indicated by Burgess & Williams, (2009), implementing commitment-based HR strategies leads to long-term and quality engagement of employees and impacts positively on FP. Gould-Williams and Davies (2005) reiterated that high commitment HRMP such as empowerment and involvement

in decision-making, extensive communication programs of performance, training program that offers employees the opportunities to acquire task-related skills, teamwork, adequate reward packages, low power distance between employees and management, and techniques capable of identifying suitable applicant enhance performance

Bello-Pintado (2015) posited that an effective HRM strategy needs the development of three elements in a bundle of ability, motivation, and opportunity. He explained that ability is associated with practices like training, and recruitment/selection. Motivation considers that employees need to be motivated to put in more effort. These practices include compensation, incentives, promotion, job stability, and performance management (Bello-Pintado, 2015). Employees also need to be given opportunities such as autonomy or teamwork reflection, and information sharing. Organizational performance as emphasized by Bello-Pintado, (2015) depends on an effective combination of HRMP. The bundle of HRMP is held to bring significantly greater outcomes than individual HRMP (Gooderham et al., 2008). Delaney & Huselid (1996) used seven practices to provide a reasonable broad reflection of the progressive HRMP that has been identified in the literature. Innocenti et al. (2011) combined HRMP with AMO approach and affirmed that for practices to be effective on organization outcomes, they should first increase the skill and ability of employees, give them some sort of motivation to encourage them to use their skill and create opportunity for them to do so. The strategic view of HRM has emphasizes the positive contribution of (bundle) of HRMP than individual practice (Bello-Pintado 2015). Saridakis et al. (2017) disclosed that a set of combined, mutually reinforcing HRMP takes a stronger impact on organizational performance than individual HRMP. Guerrero & Barraud-Didie (2004) also used three different performance outcomes and examined them in relation to individual HRMP as well as bundle (joint effect). They mention a stronger effect of the bundle of HRMP on organizational outcomes. Studies have shown that combining HRMP effectively explains performance (Mohamed AL-Mottahar 2021, Demortier et al. 2014) and even better performance outcomes as indicated by Saridakis et al. (2017). The above studies indicate that unquestionable investment in various HRMP is an appropriate technique for an organization to gain a positive impact on FP.

Despite all these arguments and empirical findings that HRMP impacts FP, contrasting views and studies have established that HRMP impact negatively or have no relation to organizational performance. Delaney & Huselid (1996) suggested that the widespread use of progressive HRMP may have a strong negative impact on the organizational outcome. Acquah et al. (2021) stated that green HRMP are financially costly and negatively impact FP. Nguyen et al. (2020)

indicated no link between improving motivation, improving ability, improving opportunity, and job suitability with FP. Ho & Kuvaas (2019) indicated that a higher level of using HRMP shows less positive and turns to negative eventually if HRMP continues to increase. Almutawa et al (2015) were of the view that having an HRM system in place does not guarantee a positive effect on employees' ability, motivation, and opportunity to perform. However, an organization acting as a social unit with employees working together to achieve specific objectives increases employee performance (Almutawa, et al. (2015).

However, the AMO theory provides the extent to which different HRMP (ability, motivation, and opportunity) enhance FP. AMO theory suggests that for performance to be achieved, different components of HRMP need to be present to enhance employees' ability, motivate employees, and allow them to participate. This implies that performance will be zero in the absence of these HRMP. A bundle of HRMP is needed to enhance employees' abilities, motivate employees, and allow them to participate to establish FP. The theory indicates that various HRMP that enhance employee ability (training and development, recruitment and selection, performance appraisal), motivate employees (financial rewards, good working environment), and offer them opportunities (communication and engagement) must all be present before performance can be achieved. This implies that HRM practices take effect as a whole and need to be bundled to achieve better FP.

Uyargil and Ozcelik (2015) posited that there should be interactive results or effects from these elements (A.M.O) for achieving better outcomes. Uyargil and Ozcelik (2015) indicated that neither ability, motivation nor opportunity can produce performance by themselves alone. Each should be in existence to some extent, indicating that performance would be zero if one is absent. Basing more theoretical arguments on AMO, Marin-Garcia and Tomas (2016) indicated in their study that the AMO framework is an excellent and structured model that gives a better understanding of how HRMPs impact performance. They showed that a well-trained and skilled individual performs better, and a motivated individual would go the extra length. They emphasized that if the work environment does not give individuals adequate opportunity to perform, both ability and motivation would become useless.

Application of SET implies that giving employees what they desire would create reciprocated acts. As suggested by SET, when an organization offers rewards to employees, their obligation would be created, and employees would be obligated to reciprocate in kind. Identifying how social exchange can impact HRM practices and FP, Faeq et al.(2021), in line with SET and

other empirical evidence documented that frontline employees felt more obligated to recompense the organization by showing a high job embodiment, since they identified that their organization invested in total quality management. Their relationship with the organization changed to loyalty, trust, and a high-quality relationship which is believed to impact workplace performance and subsequently improve profitability (Faeq et al., 2021). Based on empirical pieces of evidence and the theoretical underpinnings, the following hypothesis has been established.

H1: The Composite of HRM practices has a positive and significant impact on financial performance.

3.4.2 Training and Development

Aguinis & Kraiger (2009) defined training as a systemic approach impacting or influencing an individual's skill, attitude, and knowledge to improve individual, organization, and team efficiency, whereas development was defined as a systematic approach impacting individual skills or knowledge with the aim of personal growth or future work roles (Aguinis & Kraiger, 2009). Training and development programs however are activities of developing work-related expertise and knowledge in the workforce to improve performance (Germain & Ruiz, 2009). As defined by Salas et al. (2012), it is education in an organization designed to enhance the job performance of an individual or group. It is done to develop or improve employees' skill sets and knowledge, and to impart greater motivation to improve performance. Training and development programmes help an organization compete, excel, adapt, produce, save, innovate, and attain the organizational goals (Salas et al., 2012). Salas et al. (2012) stressed that investing in employee training brings a competitive advantage and yields greater organizational results.

Huynh et al. (2020) showed that training and development played the most essential role in FP and their studies found that training and development impact positively on organizational performance. Marin-Garcia and Tomas, (2016) indicated that well-trained employees perform better as training improves employees' skills, abilities, and knowledge leading to a good organizational outcome. They indicated that performance is the function of training. Training increases employees' knowledge on the job, gives them the confidence to do their work, and offers them the needed support to learn to meet the changing trends in their organization's competitive environment. As emphasized by Knies et al. (2021), employees can only do their job when they possess the required skills and knowledge and training and development provide those skills. Thus, without training and development, employees' skills and knowledge would

remain stagnant and cannot meet the changing demands of their environment. Examples: Primark made zero sales during the Corvid 19 lockdown in 2020 because they did not have an online sale that their customers could patronize. After the lockdown, a lesson was learnt, and the online sale was set up for their customers. Employees therefore needed training before this could be operationalised. Training therefore is very essential as it provide refreshing course for employees, bring new ideas to employees, help organisation to meet their customers changing needs and helping to eliminate accident at work. All these help the organisation to enhance their FP. Meeting customers' changing needs for instances make them happy, increase their purchasing with the organisation, resulting in increased FP. Thus, employees need to obtain knowledge, refresh their knowledge and upgrade their knowledge to meet the changings of their environment, especially, the need of their clients - training and development provide answers for these. Liao et al. (2011) studies confirmed that investment in employee training produces economic benefits beyond the current period.

Despite the empirical research and a lot of arguments that support that training and development impact positively on FP, a research work by Longoni et al. (2018) indicated that training and development activities affect FP negatively in emerging firms. Acquah et al. (2021) found that training and development impact negatively on FP. Their finding suggested that training and education are financially costly and may affect FP negatively. These studies imply that training and development are of no use as it does not bring returns to either the employees or the organization. Yoo et al. (2021) presented different views about training and development as they established that excessive training can bring a negative impact on financial performance.

However, there is a theoretical argument that supports the empirical studies that training impact positively on FP. SET supports the view that when an organization invests in developing its employees, the employees would behave positively for the well-being of their organization (Cropanzano & Mitchell, 2005). SET suggests that an exchange is reciprocated and providing employees with a continuous training programme would improve their skills, knowledge, and abilities which enhance FP. Thus, when employees' skills and knowledge are enhanced through training and development, reciprocation occurs as employees would use those skills and knowledge to contribute to the organizational performance. The organizational performance or financial performance are social exchange outcome and manifests the excellence of the exchange as the planned training and development intervention shape employees' knowledge

and skill to work confidently and efficiently in the organization and at the end, employees are more willing to work using their ability and in turn achieve the organizational goal.

Theoretically, the AMO theory proposes HRM practices that enhance an organization's human capital through human capabilities translate into performance outcomes such as high productivity, reduced waste, high quality, and profitability (Renwick et al., 2013). AL-Mottahar (2021) stated that the ability of AMO that enhance employees' skills, knowledge, attitude, and capability includes training and development. Subramanian (2016) argued that training and development which develops employees' ability is an essential step because acquired competence has a stronger connection with employees' behaviour while employees' behaviour also impacts organizational performance. Alba, et al.(2021), basing their argument on AMO theory, argued that only ability has an independent, direct, and positive correlation with scientific performance and the effect can be positive or negative depending on motivation and opportunity. Many types of research based on the AMO theory confirmed that training has a vital role in formatting employees' skills, abilities, and knowledge thereby leading to many beneficial outcomes (Renwick et al., 2013), (Alba et al., 2021). It can therefore be concluded that training is not an option but a must if the organization aims to achieve better financial performance. Though Yoo et al. (2021) confirmed that excessive use of training may bring a negative return, good training needs analysis can lead to better performance. Based on the above literature and theoretical evidence the hypothesis below is drawn.

H1a: Training and development have a positive and significant impact on financial performance.

3.4.3 Financial Rewards

Reward is an essential component of exchange relations between organizations and their employees and it is used to guide employees' performance to make them satisfied and motivate them (Gil & Mataveli, 2016). Reward systems are composed of both financial and non-financial rewards (Qaiser Danish et al., 2015). Yousaf et al. (2014) also categorized rewards into intrinsic and extrinsic rewards and indicated that financial rewards are extrinsic while intrinsic are non-financial rewards. Kumar et al (2015) state that extrinsic rewards include salaries and wages, commissions, bonuses, profit-sharing, individual/group incentives, and stock options. Osibanjo et al (2014) have stated that the use of monetary rewards has become crucial in stimulating employee performance therefore, pay, bonuses, profit-sharing, and compensation play a vital role in motivating employees to achieve performance.

Many empirical studies have established that financial rewards act as motivation to achieve organizational performance. Musenze (2013) indicated that monetary rewards positively impact the organization's performance. Similarly, Boachie-Mensah & Delali Dogbe (2011), found that employees' compensations have a positive impact on FP. Siwale et al. (2020) averred that rewards and other incentives offered to employees increase commitment, productivity, and performance. A study conducted by Ali Shah et al. (2010) showed that a direct relationship exists between financial reward and performance. Muogbo (2013) similarly found that extrinsic rewards administered to the organization's employees had significance in employees' performance. Sadq & Sadq (2015) studies revealed a significant positive but weak relationship between merit pay, salaries, benefits, and employee performance. Darwish et al. (2013) similarly reveal that reward is positively related to FP. These studies showed that giving money in the form of infringed benefit, compensation, and other financial incentives to employees is not a financial loss to the organization as the company over a period, retrieves that money. It is therefore essential for an organization to align compensation management with the organization's mission, vision, and objectives to obtain good and positive outcomes.

Many other studies such as Patiar & Wang (2020) have also confirmed a positive relationship between financial rewards and FP. Patiar & Wang's (2020) study focused on the role of compensation and benefits on the financial, non-financial, and sustainability performance of four and five-star hotels in Australia and obtained positive results. An attractive reward is essential in building an organisational reputation, reduces turnover for high KSA (knowledge, skills, and abilities) and impacts on performance of an organisation positively (Liu et al. 2014).

Despite the foregoing arguments, some researchers believe that financial rewards are not beneficial as they negatively impact organizational outcomes. As stated by Haider et al. (2015), other studies have revealed that a negative relationship exists between employees' compensation (financial rewards). This confirmed Sadq & Sadq (2015) study which revealed that there is a negative relationship between bonuses, incentives, and employees' performance. Similarly, Guerrero & Barraud-Didier (2007) found no significant correlation identified between compensation and profitability.

Though some studies suggest that financial rewards harm FP, it is one of the most important motivators that compel and stimulate employees to work to achieve performance. Jenkins et al. (1998) considered financial incentives as the most potent influence on employees' performance and desired behaviours. From the theoretical point of view as suggested by SET, an

organization that offers rewards such as bonuses, salary increments, employee benefits, and share-option would entice the employees to become indebted to their organization and they would therefore benefit from it as the employees would reciprocate via increasing their productivity, retention, organizational citizenship behaviour, and subsequently affecting FP. Cropanzano and Mitchell (2005) averred that failure to release economic obligation is a betrayal that can lead to psychological injury and permanent damage to the relationship and this may affect performance. Siwale et al. (2020) reported that most employees are opportunists and are always motivated via monetary (financial) rewards. Siwale et al. (2020) argument supports SET as employees receiving financial rewards would be motivated to produce reciprocity action and enhance the impact on employee's performance and organizational performance. Per AMO theory, the presence of motivation (which has been defined to include bonuses, incentives, benefits, pay for performance, and other monetary incentives (Kim et al. 2015, Hughes et al. 2007) is essential to achieving performance (Marin-Garcia and Tomas, 2016, Knies et al. 2021, Irani and Kilic, 2022). It should however be noted that ability on its own cannot achieve FP as underscored by AMO. Financial incentives that motivate employees should also be present before performance can be achieved (Mohamed AL-Mottahar, 2021), (Luan, 2020) and (Nor and Abdullah, 2020). Koh & Neo (2000) stated that incentive offers the greatest benefit. From the above argument based on prior studies and theoretical stands, it has been suggested that financial rewards impact positively on FP, and the following hypothesis is formulated.

H1b: There is a positive and significant relationship between financial rewards and financial performance.

3.4.4 Communication and Engagement

Communication is essential for achieving organizational goals. Adu-Oppong & Agyin-Birikorang (2014) defined communication as a process of information transmission and common understanding from one person to another. They established that workplace communication is essential to create and maintain quality workplace relationships. It is the process of exchanging ideas, thoughts, feelings, emotions, and understanding between the sender and the receiver (Adu-Oppong & Agyin-Birikorang, 2014). It offers the parties (employees and employers) varying and various levels of awareness to be acted on. Communication gives rich feedback. Adu-Oppong & Agyin-Birikorang (2014) outlined the importance of workplace communication to include less conflict, better personal relationships, creation of satisfaction, proper use of resources, and increased productivity. Workplace

communication includes meetings, employees' feedback, appraisal, engagement, and recognition (Rajhans, 2009, Da Costa & Loureiro, 2019). Employee engagement, however, is a high level of motivation to do the work, together with a passion for the work, and the feeling of a person connected to the organization (Marrelli, 2011). The major force of employee engagement identified by Marrelli (2011) includes communication, performance management, and support by managers. Hess et al. (1986) also emphasized drivers of engagement as communication, and the opportunity for employees to bring their views. Thus, communication and relationships in the workplace bring engagement.

Anitha (2014) stated that employee engagement has a significant impact on their performance. Da Costa & Loureiro (2019) discussed that creating an event to get employees together, power of recognition, and feeling part of the organization is vital in creating happiness at work and retaining talent. In their study: "the importance of employees' engagement in organizational success", they stated that when employees are happy in the workplace, they take ownership of the organisation, become more focused leading to a high-quality standard achievement. Communication binds employees together. As cited by Adu-Oppong & Agyin-Birikorang (2014), communication is an act and must be effectively practiced in the workplace to achieve better output and successful organizational goals.

Parker et al. (2001) viewed high-quality communication as a factor that enables employees to finish their work more effectively. It is a means by which organizational aims can be achieved. This is because the organizational goal cannot be achieved without communicating how and when these objectives need to be achieved. Darling & Dannels (2003) also supported the importance of communication at the workplace and posited that communication skills are very essential in an organization. López et al. (2020) stated that having prescribed and proper appraisal (communication) for performance contributes to the financial outcome of established firms. They emphasized that the results obtained from performance appraisal (communication) are essential for competitive advantage as they communicate expected performance levels and highlight desired behaviour that is expected. Marrelli (2011) indicated that employees who are engaged regularly put on their best at all times, put the organization's interests first, offer new suggestions and ideas, and are eager to contribute to achieving organizational goals. Marrelli' (2011), broader research showed that frequent open communication between employees and management is important in generating trust and organizational performance. They cited that an organization that obtains the "best company to work for award" easily engage their employees through communication and personal relationships as these leaders communicate

openly, honestly, and directly with their employees; are easily available to employees; and give them strong direction to follow. Employee communication is seen as a vital chain that links individual employees, teams, and departments to the higher level of employees (CEO, owners' managers, HRM, supervisors).

Communication and engagement have established a positive link with performance. Rajhans, (2009) study revealed that the company used for his study followed its communication plan in the form of regular meetings with the employees, assistance and guidance to the employees in their work and progress, offers of praises for good work, and recommendations for career development programs (appraisal) through regular departmental meeting. His study found that these communication and engagement strategies employed had a great impact on organizational performance. Delery & Doty (1996) likewise study tested and find out that performance appraisal and employees' voices are positively linked with ROE and ROA. López et al (2020) similarly discovered that communication contributes to sales and market shares. Lee & Kim, (2020) disclose that HR practices such as multiple feedback and empowerment demonstrate their potential to contribute to effective working relationships across a diverse workforce and their effect on FP. Longoni et al. (2018) results suggest that adopting formal performance appraisal contributes positively to established firms' FP. All these show that team members can perform their roles and respond effectively when information is available to them and this information can only be achieved through effective communication. Effective communication reduces conflict, converting potential arguments into a productive discussion, and can bring benefit to the organization.

However, despite these arguments, some empirical evidence supports that there is a negative effect of communication at work, on performance. Flamholtz & Kannan-Narasimhan' (2005) study for instance indicated that all other culture models used in their studies were directly correlated with FP except communication and other HR practices. UribeTxabarria et al. (2021) found no relationship between employees' participation and productivity. Ahmad et al. (2020) link many other HRMP, including appraisal, with three organizational performance outcomes. Their studies found that all other HRMP have at least a positive link with one of the three performance outcomes. However, appraisal (communication) had no relationship with the three performance outcomes. These imply that employee input, feedback, and appraisal that communicate employee's performance level and give them direction to achieve their required level of performance are not necessary or are of adverse impact on the organization. This does not concede with the SET and AMO theory.

Theoretically, SET suggests that when employees are made to contribute to the running of the organization through their feedback, engagement, suggestion, and any form of communication, they feel valued and obliged, and they become indebted as they see themselves as part and parcel of the organization. They are therefore compelled to contribute to the organisational success by putting in more effort. Having continuous communication, suggestions, and feedback from employees create some interpersonal relationships with the management/organization making employees free to put their ideas and knowledge on board. Getting employees' ideas on board means that they are part of the decision-making processes and would therefore work hard to achieve their set objectives, bringing reciprocal relationships. Reciprocal relationship develops because of successful series of relations and interactions between the two parties. De Clercq et al (2010) however found that the ability of a firm to leverage its entrepreneurial orientation depends on an internal social exchange process that facilitates knowledge flows across the functional department, and this is based on an effective communication system. Supporting the linkage between communication and trust, Young-Ybarra and Wiersema (1999) found communication and shared value as significant factors that influence trust at work. Ohemeng et al. (2019) viewed trust as behaviour, as well as a psychological condition, that can be caused by action, and emphasize that leaders have a vital role to play in developing trust and they need good strategies to achieve that. It is therefore essential for managers to strategize their actions by employing more communication variables such as quality meetings, feedback, performance appraisal, engagement, participation, and other forms of formal and informal communication to develop trust between managers, organizations, and employees for a better performance outcome, hence profitability. Various communication and workplace engagement strategies believed to create trust, which is obtained from SET and as a result, enhances performance as suggested by SET.

As suggested by AMO theory, employee participation (opportunity) is an essential element that enhances performance. Opportunities in AMO include team suggestions, involvement, knowledge sharing, autonomy, and participation (Bos-Nehles et al., 2013, Saifudin et al., 2020). Marin-Garcia and Tomas, (2016) emphasized that if the work environment does not give individuals adequate opportunity to perform, both ability and motivation would become useless. The AMO theory affirmed that performance is based on ability, motivation, and opportunity to do the work. Opportunities such as employee feedback, communication, suggestions, appraisal, and engagement are important elements that support performance and they work with ability and motivation for performance to be achieved. Mitchell et al. (2013),

guided by AMO theory, related that investing in HRMP such as Job analysis, communication, participation, and performance management is an appropriate strategy to gain a competitive advantage as it enhances FP.

The foregoing argument supports the stance that there is a positive relationship between communication and engagement, and FP. Though Flamholtz & Kannan-Narasimhan's (2005) study revealed that communication is not related to an organization's financial outcomes, they clearly stated that communication had a significant impact on other culture models such as customer focus, performance standards, identification with the company, and corporate citizenship, which were believed to impact FP. From the above argument, it has been hypothesised that:

H1C. Significantly, communication and engagement impact positively on financial performance.

3.4.5 Promotion and Growth

Employees tend to put in more effort toward their organization if they perceive enough promotion and growth opportunities available for advancement. Malhotra et al (2007) posited that when employees perceived promotional opportunities in the workplace, they become committed to the organization. Promotion on a job is where employees are raised to a higher position, rank, or role in the organization and these normally come with expanded responsibility (Trevor et al.,1996). Employee growth is the process of developing employees' existing knowledge and skills for them to better perform in their jobs and this normally does not come with a pay increase. It grants professional growth and gives or increases the chance to acquire new skills, undertake training in new methods, and achieve new professional knowledge (Ruthankoon & Ogunlana, 2003, Lundberg et al., 2009). Promotion and growth such as advancement opportunities, promotional opportunities, career development, remuneration progression, and professional progression at the workplace offer employees the perception that they can gain any skill, or knowledge to take the next ranking position within the organization and work their way to reach any position they want to gain by exhibiting a high level of performance.

Many scholars have discussed how promotion and growth are good in every organization. Ibidunni et al. (2016) indicated that most studies showed that employees work hard through motivation when they receive constant promotions in the work environment. They argued that factors such as career advancement, promotion, and training give employees greater

opportunities that would directly or indirectly affect their job satisfaction (Ibidunni et al., 2016) and as argued by Hyun & Oh (2011) and Bakotić (2016), job satisfaction leads to organizational performance. Dartey-Baah (2011) demonstrated that factors that motivate employees are mostly found in achievement and personal growth among others. Adekola (2011) emphasized that the benefit of career planning is not only to individual employees but also to the organization at large, and further explained that a proper career advancement programme empowers organizations to utilize their in-house wealth talent for staffing and promotion by matching experience, skill, and aspiration of the employees to the organizational needs. Patrick & Kuma (2011) maintained that a lack of career planning for promotion brings massive personal and financial suffering to individuals and the organization

Empirical studies support the view that there is a positive relationship between employees' growth and development. Ibidunni et al. (2016) studies revealed a positive relationship between employees' promotion and commitment which is also believed to impact FP. Adekola (2011) found that career development has direct and positive impact on the achievement of job satisfaction. Nkechi & Dialoke's (2017) study also pointed out that career growth and its influence on the performance and motivation of employees cannot be succinctly expressed. They therefore suggested that management should not abandon or mitigate spending on career development but rather offer ample opportunities for advancement, structured learning, self-development, fund career development programmes, and consider of offering incentives to those who take up career advancement as these can lead to outstanding performance. Career development is an excellent technique to increase employees' confidence, boost employees' self-esteem beyond the workplace to extend to every aspect of their life and develop a stronger sense of self. These push employees to work hard when they perceive that there are career growth and opportunities at the workplace. Employees' growth and career progression give a sense of purpose. Nothing beats the employees' feeling of accomplishing something great, thus, employees would strive to feel great (self-esteem employees) by going through all the requirements (working hard to meet target) to gain the position they want.

Carlos Bou & Beltrán (2005) confirmed that employees work hard to be promoted to higher levels. Carlos Bou & Beltrán (2005) studied various HRMP and their impact on FP. They found that the promotion of employees is among various HRMP that contribute to FP. Chang et al. (2013) found that employee promotion moderates the relationship between CRS (HRM) and FP. They indicated that performance is better when there is a promotion in the workplace. Darwish et al. (2013) research disclosed that career opportunity and reward influence ROE and

ROA. Delery & Doty (1996) also showed that the career ladder is positively correlated with ROE and ROA.

Bučioniene & Kazlauskaitė (2012) however took a broader view and argued that HRM plays an essential role in enhancing CSR, which also contributes to the improvement of social and economic goals and organizational performance. Choosing their sample from 119 private and public companies, they established that job rotation and career progression play a better role in developing CSR policies that impact FP outcomes such as productivity and profitability. Van De Voorde et al. (2010) comparably confirmed that employee development has a part to play in achieving productivity and high profitability. Likewise, Aburumman et al. (2020) also found promotion to be positively related to job satisfaction

As postulated by SET, when employees perceive that their activities with the organization are being recognized by giving them a chance to move to the next ladder or move to a job that would enable them to use their skill set to achieve their career aspirations, they would be motivated to work hard. They would therefore try to work beyond expected standards as they have realised that their effort could push them ahead and subsequently affect the organisational performance. Promotion and growth in the workplace should be based on fairness as the absence of this would bring dysfunctional outcomes such as low motivation, lack of confidence between the parties, and low level of commitment (Gould-Williams & Davies, 2005), thus, a well-deserved promotion carried throughout the organization boosts performance.

AMO complements SET by indicating that growth and opportunity are motivators for the organization to excel. As presented by many other authors Uyargil & Ozcelik (2015), Hughes et al. (2007), Sobaih et al. (2020), and Kim et al. (2015), promotion and growth impact positively on performance. Kim et al. (2015) using AMO theory indicated that internal promotion pays for performance. From the above theoretical and empirical findings, the following hypothesis is therefore developed:

H1d: Promotion and growth are positively and significantly related to financial performance.

3.4.6 Working Environments

Everyone feels happy to see themselves in a safe environment where they can freely interact with others. When employees find themselves in a good working environment, they feel happy and enjoy their work and as a result, performance would be enhanced as they get all the necessary comfortability and resources to do their job. Riyanto et al. (2017) described the working environment to consist of physical and non-physical environments that cannot be

separated from the business development of employees' performance. These include factors that can influence relationships in the workplace, collaboration, and feelings of workplace relationships. Raziq & Maulabakhsh (2015) noted that the working environment includes job-related issues such as working hours, relationships at work, and communication between employees and management. Sivagama & Priya (2020) classified the working environment into a dimension of the physical and social environment. Raziq & Maulabakhsh (2015) in their study "The Impact of Working Environment on Employees' Satisfaction in the City of Quetta in Pakistan" used a conceptual model that involved working hours, relationships with co-workers, job safety and security, and top management relationships and these were argued to impact on FP. As mentioned by Greef et al. (2004), the quality of the working environment has a solid impact on profitability and productivity. Riyanto et al. (2017) suggested that a good working environment brings employees motivation that enhances performance. Sivagama & Priya (2020) emphasized that a better working environment guarantees a great output. Almutawa et al (2015), are of the view that an organisation with employees working together to achieve specific goal increase performance. This indicates that a workplace with all sorts of HRM practices without a good social network does not secure results. As emphasised by Mitchell et al. (2013), employees perform better to contribute to organizational goals when they have a working environment that gives them the necessary support and opportunity to perform.

Research work by Manzoor et al. (2011) showed that a good working environment increases employees' output. Lamm et al. (2006) from their studies, stressed that there is convincing evidence that health and safety (physical working environment) at work have the potential to enhance employee productivity and company profitability. A quality working environment impacts employees' morale, engagement, and productivity and this impacts performance. Quality physical working environments such as good layout, good health and safety, good lighting, and good working equipment give employees eagerness to work, prevent accidents at work, and make employees work effectively, and these enhance the FP

Hayne (2008) investigated the impact of working physical environments (office layout and comfortability) on perceived productivity and found a positive link between these variables. Riyanto et al. (2017) found that the working environment is positively related to performance with the dimension of the physical environment showing the most positive relation. Sivagama & Priya (2020) also found that the working environment satisfies employees and this has helped to achieve organizational goals. Johnston et al. (2016) findings also demonstrated that

perception of the working environment varies across employees from the clinical sector, but a high level of teamwork and autonomy overshadow stresses, workload, and high pressure at work. The working environment is like home during working hours and it should be designed to suit employees, to be comfortable and convenient for employees in performing their roles for an effective result.

As revealed by Mosadeghrad & Afshari (2020), quality management of employees including working conditions and work nature increased productivity and therefore affected FP. Buc̃iũniene & Kazlauskaite (2012) found that flexible working hours, employee health and well-being play a vital role in contributing to better FP. Schmutz et al. (2019) established that teamwork is related to performance. Siassakos et al. (2011) revealed that the capability to finish clinical intervention on time is strongly linked to the ability to coordinate and work as a team.

Nevertheless, some researchers have shown the negative impacts that the working environment has on performance. Giardini & Kab (2008) found that wider use of working family practices is unrelated to perceived FP. Brunetto et al. (2013) studies did not confirm the fact that teamwork impacts positively on organizational commitment.

However, there is theoretical evidence that supports that HRM practices have positive employee and organisational outcomes. Based on the social exchange theory where exchange is reciprocal (Lai, 2017), employees provided with good resources, a good physical environment, as well a social network (teamwork, good working relations) would surely recompensate their employers in a good way. Such employees feel free and happy to ask for clarification of roles from either their co-workers or management and can perform their work as expected therefore increasing their performance which subsequently affects the FP. Based on the trust in SET, as cited by Gould-Williams and Davies (2005), they quoted so many instances in which the SET model may be used to enhance the relationship between HRMP and FP through trust. They quoted that teamwork is a powerful predictor of commitment and this is consistent with the social exchange theory. They explained that individuals working in a team are more likely to be empowered to undertake defined action (empowerment). In this instance, the organization is initiating exchange relations with members of the team, in the hope that they will reciprocate in kind (Gould-Williams and Davies 2005). Management relationships with employees can also bring trust which is the basis of SET. It makes the work enjoyable, creates trust and honesty, supports effective communication, better employee engagement, intention to stay on the job, and subsequently higher performance outcomes. Good

working conditions are therefore exchanged for good organizational outcomes as supported by SET. Based on this argument the following hypothesis is drawn:

H1e: There is a positive significant relationship between the working environment and financial performance.

3.4.7 Recruitment and Selection

Hamza et al. (2021) defined recruitment as the procedure of finding an appropriate candidate to fill a job position in an organization. Selection however involves assessing and interviewing a potential applicant for a job and choosing the right candidate for the right position. Recruitment and selection include finding candidates through an advert or any other technique and method, screening potential candidates through testing and/or interviews, choosing a candidate based on the outcomes from the interview and test, and on-bounding to guarantee that the selected candidates can fulfil their role effectively (Ekwoaba et al. 2015). It is the process to attract qualified individuals for a job role either internal or external of an organisation by hiring employees from a shortlist and offering them job opportunity in the organization. The overall aim of recruitment according to Ekwoaba et al. (2015) is to supply the organisation with a pool of quality candidates for a job, thus, getting the right candidate for the right role. As cited by Ekwoaba et al. (2015), available evidence suggests that there is a positive and significant relationship between recruitment and selection, and organizational performance. Mudashiru et al. (2013) found that there is a significant positive relationship between recruitment and selection and organizational performance.

Many empirical studies are in favour of recruitment and selection impact on organizational performance. Ahmad et al. (2020) found that recruitment and selection are associated with high productivity, and high FP. Cook and Rice's (2006) study supported that recruiting the best working mother, the best of black, and the best of diversity are all significant and positively related to FP. Greer et al. (2001) also confirmed that hiring key professionals during a downturn has positive FP after two years. Gamage, (2014) likewise found a strong positive relationship between recruitment and selection, and organizational practices and performance. He, therefore, indicated that recruitment and selection are essential elements of HRM for any business type. This has also been emphasized by Sunday et al. (2012) who indicated that recruitment and selection are important processes for organizational success as having the right employees enhances and sustains the performance of the organization as revealed by their studies. They emphasized that the effect of the organization's system of selection impacts the

organizational bottom-line results like productivity and FP which are the ultimate aims of every profit-making organization. Saddam & Mansor (2015), like other researchers, found a strong relationship between recruitment and selection and organization performance outcomes.

However, some researchers found that recruitment and selection may have a negative effect on organizational performance. Karia et al. (2016) suggested that recruitment and selection impact positively on firm performance. That notwithstanding, their study established that there is a negative relationship between recruitment and performance. Their finding exposed that recruitment and selection were politically based. This supports the position that people without requisite skill and knowledge, as required by AMO as an essential element for performance, are not selected which may negatively impact performance outcomes.

Advancing arguments based on the AMO theory, Al-Mottahar (2021) maintained that recruitment and selection are from ability, which is the main prerequisite for performance, as claimed by many researchers. As cited by Al-Mottahar (2021), human characteristics such as attitude, knowledge, skills, and experience are the major components of the ability that recruitment and selection process is aimed at. Recruiting the right people with the right attitude, experience, knowledge, and skills for the right job indicates that the recruits possess the ability to perform their job and hence impacts positively on performance. Kim et al. (2015) defined ability in AMO theory as the natural and acquired capacity that enables an employee to perform their task successfully. They maintain that recruitment and selection, as well as skill and the knowledge that contributes to an employee's performance, are essential components of ability.

Many scholars have demonstrated that wrong recruitment and selection are those that lead to a negative outcome, however, following the right process, selecting a candidate on merit for the right role leads to a positive outcome (Karia et al., 2016), (Abbasi et al., 2022), (Guest 1997). As indicated by Guest (1997), it is not the implementation of HRM practices that matters, it is the distinctive approach to the selection of employees and training them to do their work which is essential. Abbasi et al. (2022) showed that the overall process of recruitment and selection is to get the right person for the post, and this impacts positively on FP (Sunday et al., 2012). From the above arguments, the hypothesis below is formulated.

H1f: Recruitment and selection have significant positive impact on financial performance.

3.4.8 The non-linear Relationship between HRM Practices and Financial Performance

Many types of research have demonstrated that continuously increasing HRMP would continuously impact FP. Lee et al. (2005) indicated that constant investment in human resources leads to a higher level of sales revenue and profitability. De Lourdes Machado et al. (2011) concluded that a highly positive linear relationship exists between motivation and productivity. Ondiba et al. (2021) established that improvement in employee training had a positive impact on FP in 42 commercial banks in Kenya. Their results indicated that continuous improvement of HRMP would increase FP. This shows that continuing increases in HRMP would impact performance in perpetuation. However, this is not expected to be so according to the economic model "the law of diminishing returns", (Meier et al. 2021) which suggests that after some optimal capacity is achieved, any additional factor of production would bring minimal increase in output (Blum & Holling, 2017). Blum & Holling (2017) opined that, all factors being equal, if the total input of the production process keeps on increasing, the output growth would eventually decrease. This shows that return (gain) diminishes at a certain level as a result of increase in the volume of input (Blum & Holling, 2017). Many authors, both economists and non-economists, have established the existence of diminishing returns. Meier et al. (2021) suggested and supplied evidence that HRMP is subjected to diminishing marginal returns.

It is, therefore, possible that the relationship between HRMP and FP may only be efficient up to a certain point beyond which it may no longer be profitable to keep improving certain HRMP. This indicates that the relationship between HRMP and FP may not be linear as claimed by many authors. Meier et al. (2021) stated that the inconsistency in the literature of past studies indicates the existence of a non-linear relationship between HRMP and FP. The unclear pattern of the relationship between HRMP and FP may be due to the non-linearity of this relationship.

De Winne et al. (2019) study confirmed that there is a non-linear relationship between employees' productivity and turnover as their study revealed that employees' productivity increases when turnover is low and starts decreasing after turnover reaches its peak in a negative diminished manner. Roca-Puig et al. (2012) research result also supports the non-linear relationship that exists between an organization's commitment to employees and employee productivity. Nollet et al.(1997) likewise proved that the relationship between corporate social performance and accounting-based measures of FP is non-linear with a U-shaped relationship. They explained that long-term use of corporate social performance impacts positively FP. Their result indicates that the initial introduction of corporate social

performance may not impact FP as it needs to research a certain level before performance can be achieved. Offering explanations for this model, Nollet et al. (1997) stated that they used a period between 2007 - 2011 (longitudinal data) to allow for both linear and non-linear relationships.

Chen et al. (2022) confirmed that overused HRMP are bad and may result in a non-linear relationship and their study similarly confirmed that there is a non-linear relationship between a high-commitment work system and performance. Similarly, Meier et al. (2021) result demonstrated a significant quadratic relationship (inverted U shape) between HRMP and FP. In the argument of a potential inverted U-shaped relationship, they also argued for the application of the law of diminishing returns in the presence of HRMP and FP. Another recent study by Yoo et al. (2021) established an inverted U-shaped relationship between training investment and FP. Chang et al. (2021) indicated that there is a positive relationship between employee relations and FP but they also confirmed that increasing investment in employee relations beyond a certain threshold reduces the marginal return and therefore would be no benefit to continuing to invest at a certain level. This explains the presence of either diminishing returns or a non-linear relationship between HRMP and FP. These imply that excessive use of ability, motivation, and opportunity may reduce the marginal cost of returns and subsequently affect FP. Give and take, as suggested by SET works but giving too much or too little may reduce the expected outcome or may not impact the organisational outcomes. Investing too much in training and development, as confirmed by Yoo et al. (2021), giving too many bonuses, incentives, and benefits as well as offering frequent meetings, more autonomy, recognition, and engagement of employees would decline the marginal cost of returns as suggested by the law of diminishing returns (Meier et al., 2021).

As posited by Ho & Kuvaas (2019), the traditional wisdom of “more is better” does not apply to HRMP that are expected to impact FP. Giving more explanation based on the outcome from the study (curvilinear relationship), they highlighted that initial investment in HRMP will increase the expected benefit of investing in HRM, continuing increase in HRMP, however, would eventually lead to a reduction in expected benefits. Hitt et al. (2001) also provided support for non-linear relationships between human capital strategy and firm performance.

Triguero-Sánchez et al. (2013) study found that human capital elements like education level, length of services, and functional specialization affect organizational performance. They stated that the literature pays little attention to the non-linear model. It is therefore convincing from

the above argument that there may be a non-linear relationship between HRMP and FP. Following this argument, a hypothesis has been established.

H2: There is a non-linear relationship between HRM practices and financial performance.

3.4.9 The link between HRM Practice, Board Size, board independence and FP

It has been argued that the implementation of good and effective HRM on its own does not lead to better performance outcomes (Jaiswal & Kumar, 2020). Sabiu et al. (2015) were of the view that the study of HRM practices has a mixed outcome and therefore suggested a moderation variable. Suhadak et al. (2019) and Pavlov et al. (2017) argued strongly for the need for a moderation variable. Studies have also confirmed the existence of moderation variables that enhance performance. Innocenti et al. (2011) for instance studied HRMP and employees' attitudes using trust as a moderation variable and found that when trust is aligned with HRMP and employees' attitude, better performance is obtained. Like Innocenti et al. (2011), Alfes et al. (2012) also examined the relationship between HRMP and performance with trust as a moderation variable and found positive results. Pavlov et al. (2017), argued for the need for a moderation variable to enhance HRMP and FP and in their study, found a better relationship between performance management and FP when interpreted with other HRMP.

Arunprasad (2017) examined various HRMP and their impact on FP and found that knowledge management positively moderates the relationship between HRMP and FP. Chang et al. (2021) similarly showed that the availability of organizational resources moderates the relationship between HRMP and FP. Urbini et al. (2021) study also displayed that adaptability moderates the relationship between HRMP and work engagement. Kakar et al. (2019) similarly showed that job opportunities moderate the relationship between person-organization fit and intention to quit. Abujudeh (2019) equally indicated that HRMP positively impact employee commitment and satisfaction and that role might be maximized if the HRMP is aligned correctly with leadership style and organizational culture.

However, Garavan et al. (2019) investigated the moderating effects of quality against quantity of training in the relationship between training and FP. Their studies found that training is directly and positively related to the performance of an organisation with no statistically significant difference between measures of training quality and quantity. Ho & Kuvaas (2019) explored the link between the HR system, employee well-being, and organizational FP. It was confirmed that the opportunity bundle has a positive effect on FP. However, when integrated

with skill and motivation bundles, negative results are obtained showing the dis-synergy of aligning the HRM bundle.

Various empirical evidences have established that corporate governance influences FP (Nguyen & Thanh, 2021). Similarly, other studies have also established that corporate governance has a significant impact on HRMP (Bretos et al., 2018; Konzelmann et al., 2006). There could be a possible link between these three variables (HRM practices, board size, and board independence)

As illustrated by Stakeholder Theory, external directors are more objective and work in the interest of all stakeholder groups (Nguyen & Thanh, 2021) including employees by meeting their interests in terms of salary increases, benefits, and a good working environment. When employee interests are met, they work towards the interest of the organization to achieve performance. Many scholars have argued for the need to include high numbers of outside board members who do not have a material relationship with the organization (Galbreath, 2010) as it improves performance. Their arguments are based on their expertise (Coles et al., 2008), their independence (Nguyen & Thanh, 2021), fighting against shareholder interest only (Hussain et al., 2018), and their objectivity and effectiveness in decision-making (Nguyen & Thanh, 2021) for all stakeholders groups and the organization at large. It is therefore worthwhile to increase their number on the board as they may monitor and take decisions independently for all to benefit employees as well.

Other scholars however view small board sizes as effective for FP. Guest (2009) studies showed that large board size negatively impacts organizational performance due to communication problems and the extent depends on the size of the firm. Eisenberg et al. (1998) cited that two main problems of large board size are increased communication problems and coordination and indicated that this reduces the board's ability to monitor and control management leading to the agency problem. It has also been observed by studies such as Fuzi et al. (2016) that board independence was not effective as their dominance on the board did not assure performance. Fauzi & Locke (2012) studies in Zealand also revealed that board independence is negatively related to the performance of the organization. The presence of independent board of directors as emphasized by Fuzi et al. (2016) is to maximize shareholder value. They maximize shareholder wealth by meeting all the stakeholder's interests rather than meeting one stakeholder group's interests to achieve the same outcome. It is therefore fair and ethical for independent directors to be present to monitor the affairs of the organisation to meet

all groups' needs for better performance outcomes. The strength of HRM practices and FP relationship may depend on corporate governance variables (board size and board independence). From the above discussion, the following hypotheses have been developed.

H3a: Board size moderates the relationship between HRM practices and financial performance significantly.

H3b: Board independence moderates the relationship between HRM practices and financial performance significantly.

3.5 Conceptual Framework

This section is centered on the development scale of interconnected and mutually reinforcing HRMPs that would produce excellent results. Based on a vigorous, rigorous, and intensive literature review of the independent variables and dependent variables, a moderation variable has been further proposed and used to moderate the relationship between HRMP and FP. The moderation variable that has been used to enhance this relationship are corporate governance variables which are board-size and board independence. The relationship of the variables has been tested based on the hypothesis of the study.

The conceptual framework established shows organisation such as FTSE firms can provide for employees needs to achieve performance. AMO, SET and stakeholder theories have been employed to explain this relationship. AMO theory implies that for performance to be achieved there should be a bundle of HRMP which complies Ability, Motivation and Opportunity. SET also stresses on the necessity of reciprocate when employees are treated fairly. Thus, when employees' needs are met, they will pay the organisation back by putting much effort to achieve the objectives of the organisation. To use HRMP to achieve the need of the organisation, there should be bundle of HRMP with all the element of AMO present to some extent. Stakeholder theory has been employed to suggest that HRMP relationship could be moderated by having board independence who can work independently or effective size of board who can argue effectively and efficiently to achieve all the stakeholders interest including employees instead of satisfying only shareholder needs. The three theories have been connected to implies that in giving employees HRMP for them to payback (SET), there should be effective management activities (effective board) including performance based HRMP from the board of directors to effective bundle HRMP (AMO) to achieve FP. The framework further illustrates that aside, HRMP, other variables can also influence the relationship between HRMP, and FP and these variables have been controlled to capture the full impact HRMPs have on FP of FTSE. These variables include firm specific and corporate governance variable.

3.6 Summary of the Chapter

Chapter 3 has discussed how a composite of HRM practices and components of HRM practices (H1, H1a, H1b, H1c, H1d, H1e, H1f) can have an impact on financial performance (FP). It is also assumed that there is a non-linear relationship between HRMP and FP (H2) as HRMP are expected to decline FP at a certain point (inverted U shape) beyond which it would not be fruitful to invest more in HRMP. HRMP can be also fruitful but at a certain point below which it would not be advisable for an organization to invest (U shape) as investing below that level will not bring returns or would bring negative returns. In addition, board size and board independence are hypothesized to be a moderator (H3a and 3b) between HRMP and FP. Apart from the empirical argument to build hypotheses, the study is also based on three main theories (SET, AMO theory, and stakeholder theory). The three theories are connected to imply that in given employees HRMP, for them to reciprocate (SET), there should be effective, proactive, and intensive initiation and or implementation of management activities including performance based HRMP, from the board of directors (Stakeholders theory) to bundle HRMP (AMO) to achieve performance.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction

This chapter discusses the research methodology, the plan, and the process to achieve the research objectives. The discussed research methodology and research philosophy summarise different types of philosophical assumptions such as ontology, epistemology, and axiology, and specify where this research stands. It also examines research paradigms by distinguishing between positivism and anti-positivism, as well as critical realism, postmodernism, and pragmatism. The chapter also clarifies the differences between quantitative and qualitative research methods and takes a stand that this research is a quantitative research method. The section describes the data collection source, the sample size for the study, as well as the research strategy (content analysis) and defines all the variables used in the study.

4.2 Research Methodology/Philosophy

Research methodology is how a research is systematically designed to ensure reliable results that address the objectives of the research. Ingwenagu (2016) identified research methodology as a set of systematic approaches used in research as a means to guide the research, and how it is conducted. Gounder (2012) also defined research methodology as a science of analysis of how research is to be done. An effective and good research methodology follows a process and procedure of research called the research onion (Saunders et al. 2019). Alturk (2021) outlined the six layers of the research onion as philosophy, approaches, time horizon, strategies, techniques and procedure and research choice. It is expected that the foundation of any good research would be based on the selection of the layer.

4.2.1 Research Philosophy

Research philosophy is defined by Kirongo & Odoyo (2020) as a bundle of beliefs about the nature of reality under investigation and clarified that the selection or choice of research philosophy depends on the knowledge under investigation. It illustrates the various assumptions created by researchers to support the research strategy (Saunders et al. 2015). Bahari (2012) indicated that research philosophy is very essential in every research work, therefore failure to consider this in a research work affects the research itself. As explained by Saunders et al.(2015), at each stage of the research, several assumptions would be made and these include epistemological assumption (assumption about human knowledge), ontological assumption (realities encountered in your research), and axiological assumption (the extent and how your knowledge influences the process of the research). Research philosophy is critical in every research because it is the basis for the research strategy as it reflects the important

assumption of the researcher (Saunders et al., 2015). It is therefore imperative for a researcher to clearly define the philosophical assumptions underlying their research. As emphasized by Mkansi & Acheampong (2012) the main model that defines the research philosophical assumptions are epistemology, axiology, and ontology. Schroeder (2015) likewise confirmed that a set of philosophical assumptions constitutes a paradigm as epistemology, axiology, ontology, and methodology and noted ontology and epistemology as the most prevalent assumption in the research. Other philosophical assumptions added by Burrell (1979) are human nature and methodology.

The axiological assumption is related to the nature of the ethical principles of beneficence, respect, and justice (Schroeder, 2015). The interpretation of these principles brings ethical processes like confidentiality, informed consent, and doing away with force (Schroeder, 2015). The methodological assumption echoes the use of scientific methods that enable the evaluator to determine laws concerning human behaviour via empirical observation, prioritizing the use of experimental designs in the form of randomized control trials, which need random subject selection and random assignment to intervention conditions (Schroeder, 2015).

Ontology, as stated by Grix (2002), is the beginning point of every research. The Ontological philosophy is about the nature of reality and draws the difference between reality, perception of reality, and how this affects everything surrounding us (Kironko & Odoyo, 2020). Hiller, (2012) identified two different views held by ontology to include realism and idealist. Realism has the assumption that the world exists independently of people's perception and that certain nature-fixed laws that give the relationship between phenomena are a permanent fixture of that reality (Hiller, 2012). Idealist ontology believes that humans construct experiences of reality in human minds through thoughts and ideas, individually and/or collectively such that reality is subjected to all types of interpretation and thus, there is no permanence on how reality may be or how it may be experienced (Hiller, 2012). Dudovskiy (2014), Ontology is based on whether social entities need to be seen as objective or subjective and classified ontology as objectivism or subjectivism. Objectivism accepts the position that social entities exist in reality external to social actors concerned with their existence (Saunders et al., 2015). It is ontological position that asserts the existence of social entities and their meanings independent of social actors (Bryman 2004). Subjectivism, on the other hand, is based on the premise that social phenomena emerge from the perceptions and actions of social actors concerned with their existence. The ontological view employed in this study is objectivism. This research looks at a set of annual reports of FTSE firms and takes the position that social phenomenon and their

meanings exist independent of the social actors. Individual feelings, perceptions, contributions, and experiences were not considered as the research was built on observable facts by using audited annual reports and financial data.

Epistemology assumption is defined by Becker & Niehaves (2007) as the science of studying how human beings understand knowledge about what is perceived to be in existence. It answers the question of how one can arrive at true cognition (Becker & Niehaves, 2007). Epistemology is how we come to know what we know (Grix, 2002). The sense of knowledge validity and reliability of the knowledge source is subject to opinions. For this reason, researchers ought to identify, explain, and justify their epistemological stance (Crotty, 1998). Bahari (2012) gave two contrasting views of epistemology as interpretivism and positivism.

Another philosophical assumption added by Burrell (1979) is a methodology, which is the methods employed to examine the social world. The methodology identified by Burrell (1979) has two contrasting views. The two opposing views of methodology acknowledged by Burrell (1979) are ideographic and nomothetic. Nomothetic view proposes rigorous and scientific hypothesis testing as a perfect research method, the ideographic takes a subjective view and recommends that one can only comprehend the social world through participating and involved in the situation. This current research is based on a nomothetic view because it involves rigorous scientific testing of hypotheses and use the econometric model to test several hypotheses on the relationship between HRMP and FP.

4.2.2 Research Paradigm

Johnson & Onwuegbuzie (2004) defined a research paradigm as a set of values, beliefs, and assumptions that is common in a community of researchers with regard to the nature and conduct of research. Rehman & Alharthi (2016) looked at different approaches to educational research, thus, interpretivism, positivism and critical theory, and suggested that it is essential to look deep into claims made by a researcher who adhere to different research paradigms. The primary philosophical reinforcements of research paradigms in business studies identified by Saunders & Lewis (2019) were Positivism, anti-positivism, critical realism, pragmatism, and postmodernism.

4.2.2.1 Positivism

Positivism relates to the philosophical viewpoint of the natural scientist and involves working with an observable social reality to produce law-like generalizations (Saunders & Lewis 2019). As assumed by positivism, reality exists independently of humans (Rehman & Alharthi 2016).

It is built on the scientific method of research which employs an experimental process to examine for cause and effect relationships in nature (Kivunja & Kuyini 2017). The role of the researcher in the positivist approach is limited to data collection and interpretation through an objective approach and the findings of the researcher are normally observable and quantifiable (Dudovskiy 2014). As stated by Alharahsheh & Pius (2020), if researchers employ extreme positivist view, it would bring the following: (1) the researcher would see the organization and all other social entities as real as the same view of physical objects as well as natural phenomena. (2) with epistemology, the research would aim or concentrate on finding facts that are observable and measurable and the phenomena to be observed and measured should bring the development of credibility and meaningfulness to the data. (3) the positivists focus strictly on scientific empiricist methods designed to provide pure data and facts unadulterated by human interpretation.

The purpose of positivism is to focus on measurable results to get predictions and deliver explanations. Positivism involves objectivity and maintains a quantitative approach to research methods. They investigate large data (Wahyuni 2017). Taking a positivist approach to a study indicates that the researcher is independent of the study and that the research can be entirely objective.

4.2.2.2 Anti-positivism (Constructivism/Interpretivism)

Interpretivism is built through the evaluation of positivism with a subjective perspective (Alharahsheh & Pius, 2020). The constructivist ontology underpins interpretivism (Irshaidat, 2022). The constructionist believes that the social world is created and imposed by humans through social interaction rather than being given to them (Irshaidat, 2022). Interpretivism regards humans as distinct from physical phenomena as they generate greater depth in meaning on the notion that human beings cannot be explored the same manner as physical phenomena (Alharahsheh & Pius 2020). Interpretivism believes and considers differences in circumstance, culture, and time leading to the development of different social realities. As stated by Alharahsheh & Pius (2020), interpretivism differs from positivism because it aims to incorporate richness in the insight gathered and provide definite and universal laws that can be generalized and be applicable to all irrespective of some key factors and variables. Interpretivism researchers interpret the behaviours of their objects by employing their own subjective framework. Their research questions and problems are built on the researcher's interest, involvement and commitment which lead to the researcher having thorough individual experience. it is normally associated with qualitative method of data collection.

The study takes a positivist perspective as the study involves using quantitative data like FP measures such as ROA and ROE, and quantitatively articulated proactive HRM practices. The study employs a large sample size of 350 FTSE firms from the UK. The large sample size used in the study is also a strong feature of the positivist perspective (Wahyuni 2017). The study is also based on a lot of hypothesis testing using theories to justify the developed hypotheses. Positivist perspective has been adopted in this study to provide objective based studies unlike the existing of HRMP which are based on individual view (Chen, 2020; Acquah et al., 2020; Lai et al., 2017). The researcher in this stance is limited to data collection and interpretation through an objective approach (Dudovskiy 2014) without individual influence or opinion and that objective results could be obtained. Large sample associated with positivist assumption also enables the research to provide detail analysis and to avoid small snapshot of the results.

4.2.2.3 Critical Realism

Critical Realism suggests that reality is not based on only what can be observed empirically (De Souza 2014). Critical blends the perspective of interpretivism and positivism. Critical realism is different from the majority point of view in proposing that natural and social objects have underlying structures that are real and have causal mechanisms that create or produce events (De Souza 2014). Critical realists methodologically use a retroduction research strategy (The Rameses II Project, 2017). Critical realism provides sound methodological justification for combining an empirically based description of what is, an exploration of the “real”, and reasoned conclusions about how practices should be implemented (The Rameses II Project, 2017). Critical realism understands reality as external and independent, which are not directly obtained by our observation and knowledge of it but rather what we experience is the “empirical” (Saunders et al., 2015). As cited by Saunders et al. (2015), if a researcher believes that there is a need to look at the bigger picture of what we see in only a small part, that researcher may be applying the critical realist philosophy. As emphasized by Saunders et al. (2015), most of the researches from critical realists come in the form of in-depth historical analysis of social and organizational structures. Realism posits that causality is not synonymous with the association between discrete events (Reed 2005).

4.2.2.4 Postmodernism

Postmodernism highlights the role of language and power relations in challenging for the accepted ways of thinking, and giving voice to marginalized views (Saunders et al., 2015). In their critique of positivism and objectivism, postmodernists go extra than interpretivism to emphasize the role of language even more (Saunders et al., 2015). Postmodernists believe that

any sense of order is provisional and based on nothing more than language and also believe that language is always not complete and not sufficient (Saunders et al., 2015). Postmodernism researchers are open to analysis of any type of data which includes text, voice, conversations, and others. Postmodernists are related more to subjective researchers with qualitative non-generalisable results (Kilduff & Mehra, 1997). As stated by Kilduff and Mehra (1997) postmodernism researchers indulge in a comprehensive study or investigation of a few cases to deliver as vivid and detailed information as possible (Kilduff and Mehra, 1997). They are more associated with subjective researchers who produce quality, non-generalizable results (Kilduff and Mehra, 1997).

4.2.2.5 Pragmatism

Pragmatism suggests that the choice of the research method is contingent on the purpose of the research (Kivunja & Kuyini, 2017). Pragmatism aims to select the best combination of research methods to offer relevant answers to the research questions. This paradigm seeks to jointly adopt both objectivism and subjectivism (Saunders, et al, 2019). To answer the research questions successfully, a pragmatic researcher would collect data using multiple data collection methods, employ quantitative and qualitative assumptions (Creswell & Creswell, 2018).

4.3 The Research Approach

Deductive reasoning which is the research approach adopted in this study is when the conclusion is logically developed from the set of premises (Saunders et al., 2015). With the deductive approach, the research starts with a theory, usually developed from the academic literature reading, and designs a research strategy to test the theory (Saunders et al. 2015) The outcomes from the deductive approach are more generalized (Gregory & Muntermann, 2011). To make it more generalized as indicated by Saunders et al. (2015), the sample should be carefully selected and the size should be sufficient. Other contradicting view of research approach to deductive view is inductive (Saunders et al., 2015). The inductive approach frequently employs qualitative research methods (Gregory & Muntermann, 2011).

The current study which discusses the relationship between HRMP, and FP is based on a deductive approach. It involves the causal relationship between variables. The current research methodology employs both a linear regression model and a non-linear relationship to test this relationship. Based on the outcomes obtained from the regression models, the conclusion has been drawn on whether the relationship between HRMP and FP are positively or negatively related and make recommendations based on the outcome.

4.4 The Research Method

The choice of the research method is very crucial as it is the root to answer the intended outcome. The research method can be qualitative or quantitative (Almeida et al., 2017).

4.4.1 Quantitative Research

Quantitative research, which this study employed, is centred on objectivity and it is appropriate when compiling quantifiable measures of variables from a population sample for interpretation. It uses organized processes and formal instruments to collect data and the data are systematically and objectively collected (Almeida et al., 2017). The data is analysed numerically through a statistical process. This type of research as emphasized by Creswell & Creswell (2018), supports the assumption of positivism. Most quantitative researches begin with hypothesis (Creswell & Creswell, 2018). The researcher investigates the problems among variables and presents this in the form of questions and hypotheses (Creswell & Creswell, 2018).

4.4.2 Qualitative Research

Qualitative research is related to the aspect of reality that cannot be quantified and it is based on the understanding and description of the dynamics of social relations (Almeida et al., 2017). Creswell & Creswell (2018) explained qualitative research as a way of investigating and comprehending the inference groups or individual's attribute to a social or human problem. There is no standard test in qualitative research and normally the nature of the study is defined and designed by the research itself (Winter 2000). The researchers of the qualitative approach seek to grip the participant by visiting the environment and personally collecting information (Creswell & Creswell 2018). With qualitative study, the researcher employs observation, interviews, and interacts closely with participants to obtain data for the study. Qualitative research is based on inductive reasoning with the researcher making meaning of the data collected (Creswell & Creswell 2018).

The study tested objective theories by assessing the relationship between variables (HRMP and FP) and uses rigorous scientific testing of its hypothesis. It therefore employed quantitative method to its enquiry. It tested the relationship between variables using numerical data and it is based on numerical value by linking HRMP to various FP measures.

4.4.3 Research Design

Creswell and Creswell (2018) defined research design as a systematic strategy that the researcher employs to collect, analyse, and interpret data. It is an overall strategy choice to

integrate the different components of the study logically to ensure effective addressing of the problem of the research. Wahyuni (2017) supported the view that research aims and questions indicate the starting points to build research design as they give the important clues of what the researcher is aiming to investigate. According to Dudovskiy (2014), identifying the ontology at the beginning of a research is very essential because it determines the research design. For example, selecting objectivism ontology, would likely lead to positivist epistemology, which would result in deductive research approach and quantitative research. Likewise, selecting subjectivity ontology results in using interpretivist epistemology which will require inductive approach and subsequently qualitative method of research. Quantitative research design is seen as process of study that takes quantitative methods. Quantitative research data can be collected in different design such as cross-sectional, longitudinal design and case study design. This study adopted the longitudinal design as it would give chance to the researcher to investigate how HRMP impacts FP for six years using 6 years annual reports and related 6 years financial data to avoid snap short information for the results.

4.4.4 Data Collection Sources and Sampling

The study targeted 350 FTSE firms in the UK out of over 2000 firms in the FTSE as at 2021 November. In total, 335 were used as some of the companies did not reveal their annual report. Data on HRM practices and their corresponding FP were collected for six years from 2016 to 2021. The above period was selected as it would give the latest financial statement available. Also, during this period, due to the Brexit and COVID-19 crisis, many HR interventions such as working from home and upward adjustment of salaries were introduced. The six-year period adopted is also consistent with some studies on HRM and FP which employed longitudinal studies (Boakye et al., 2020, Piva & Vivarelli 2009). Additionally, it was during this period that the living wage which involves consistent adjustment of minimum wages was implemented in the UK. The FP measures was obtained from Amadeus database while all the corporate governance elements were selected from Refinitiv database (Asset4). The selection of this data source offers objective studies that are seen as factual, impartial, unbiased, trustworthy, reliable and fair judgment of the problem under investigation. Thus, the data collection source was free from perception. It has been argued that perception-based studies lack reliability as information produced by participants may be untrue (Darnall and Ytherthus 2005). This data collection method provided objective evidence of the problem investigated.

The six-years data was used to give a broad overview of the problem under investigation, as well as to analyse the linear and non-linear relationship between HRMP and FP which this study proposed to achieve. UK companies were selected as most of the existing studies on HRMP and FP relationships were done outside the UK (Obeidat et al., 2021; Huselid 1995). The study targeted FTSE 350 companies as large companies are more likely to implement comprehensive HRMP than small and medium-sized firms. Also, large companies are required to normally disclose detailed staff compensation as well as other employee-related issues as part of reporting on their Corporate Social Responsibility (CSR). FTSE firms represent 98% of the UK market capitalisation, captures large range of business activities, and all most of the economic output of the UK (Aburaya 2012).

Many observations were chosen to lower the estimation variance for better predictive performance. The use of panel data enabled the researcher to ensure the precision of the results to offer better recommendations. As stated by Hsiao (2007), panel data is recommended for numerous advantages over that of cross-sectional. Martínez-Ferrero & García-Sánchez (2017) confirmed that panel data gives better consistency and illustrative power by examining several periods. Bonenberger et al. (2014) also agreed on the use of panel data and recommended its use because panel data brings true causality to a relationship. The use of panel data in this research is to observe the linear and non-linear relationships between the variables and to give a more detailed analysis of the problem statement as studies have not dealt with detailed analysis because of the methodology (questionnaires and interview) normally adopted. The independent variables were selected from the annual reports using content analysis. The survey could be less appropriate as the accuracy of the investigated results would depend on the respondent's (employees, manager, HRM manager, owner, CEO) ability and willingness to provide information, and at times they may give wrong information. Content analysis was chosen for the longitudinal studies as it gives access to different types of text over extended periods. As indicated by Kabanoff & Daly (2000), it is appropriate for carrying out longitudinal research. Since the study aims to analyse the pattern of HRMP and FP relation within a six-year period, content analysis was employed because it makes it easy to have different types of text over an extended period as most studies of HRMP and FP relation have been conducted using cross-sectional data (Saridakis et al., 2017, Bonenberger et al. 2014).

Some of the companies from the FTSE 350 firms could not/did not publish any of their annual reports so these companies were excluded resulting in the final sample of 335 FTSE firms. However, the industries were grouped under four economic sectors.

Industry sector for the sampled companies

Table 3: Sectors and Industries of the Selected Companies

Primary	Number	Percentage
Mining	19	5.67%
Total	19	5.67%
Secondary -Manufacturing		
Manufacturing	43	12.84%
Construction	3	0.90%
Energy	11	3.28%
Food Production	1	0.30%
Pharmaceutical	3	0.90%
Property Development	24	7.16%
Total	85	25.37%
Tertiary Sector -Services		
Commercial Services	7	2.09%
Distribution	8	2.39%
Finance	14	4.18%
Food Retail	7	2.09%
Healthcare	11	3.28%
Hospitality	4	1.19%
Insurance	4	1.19%
Investment	67	20.00%
Retail	20	5.97%
Service	12	3.58%
Support Services	14	4.18%
Telecommunication	8	2.39%
Transportation	10	2.99%
Waste Services	3	0.90%
Property investment company.	2	0.60%
Security Services	3	0.90%
Educational Services	2	0.60%
Marketing	3	0.90%
Real Estate	3	0.90%
Recruitment Services	3	0.90%
Events and Publishing	1	0.30%
Postal Services	1	0.30%
Total	207	61.79%
Quaternary services		
Engineering Services	9	2.69%
Gaming Services	3	0.90%
Information Technology	12	3.58%
Total	24	7.16%
Grand Total	335	100.00%

According to the Office of National Statistics, there are 27 industries in the UK. However, for this study, the companies have been grouped according to the economic sector. The four economic sectors as outlined by Cooke et al. (2019) are used in this study.

Primary sector - materials: This is the economic sector that is involved in the extraction and production of raw materials such as agriculture, farming, mining, and quarrying (Hirawan 2008). Activities in this sector include livestock, forestry, fisheries, petroleum, mining, and natural gas (Hirawan, 2008, Gasparatos et al., 2009).

Secondary sector - manufacturing: The secondary sector involves manufacturing. Activities of the manufacturing sector centres on construction, assemble, food and beverage, fabricated metal products, medical and other industries, clothing manufacturing, publishing, and printing, (Cole et al., 2011, Hussin & Yoke Yik, 2012, Thornton et al., 2013, Gasparatos et al., 2009)

Tertiary sector - services sector: The tertiary sector involves services and retailing activities which include real estate, health, retailing, education, hospital, financial services, social services, commercial transport, healthcare, retail sale, sports, warehouse, hotel/catering, and leisure. (Hussin & Yoke Yik, 2012, Gasparatos et al., 2009).

Quaternary services: Quaternary services provide information services such as information technology, knowledge-based services, consultancy, information generation and sharing, information and communication technologies, Research development (Cooke et al., 2019)

4.4.5 Measurement of Variables

4.4.5.1 Dependent Variable (Financial Performance)

Financial performance is the dependent variable which is the effect of the causal in this research. Fatihudin et al. (2018) defined FP as the successfulness or attainment of an organizational financial position for a period involving the collection and allocation of finance measured by liquidity, capital adequacy, efficiency, solvency, leverage, and profitability. FP is categorized into two, namely, accounting-based FP and market-based FP (Hamdan 2018). Many studies of HRM practices and FP have concentrated on only one aspect of FP (Accounting-based measures). Even though Ubeda-García et al. (2013) employed accounting-base measure (ROA), Pavlov et al. (2017) employed only internal measures of FP, and Ngo et al. (2014) employed a lot of FP (ROA, ROI, capital liquidity, net profit, market share measures) none include any of the market-based measures. Lu & Taylor (2016) stated that most researchers have either used market-based or accounting-based measures. This implies that the

two are rarely considered in a study. The complete version that combines accounting-based and market-based measures is the most excellent choice as both complements each other (Trujillo-Ponce et al., 2014). As indicated by Trujillo-Ponce et al. (2014), accounting-based measures are more suitable for measuring risk. However, Trujillo-Ponce et al. (2014) did not reject the fact that accounting-based measures have faced a lot of criticism and have problems. Trujillo-Ponce et al. (2014) stated that to avoid problems with accounting-based measures, some researchers have used market-based measures of performance and stated that it has more advantages than accounting-based measures. Citing examples, they mention that market-based measures are less susceptible to differential accounting processes and management control. Trujillo-Ponce et al. (2014) weighing the two FP measures, also recognized the fact that market-based measures have their problems. Arguing for the proper way of measuring FP, they used both accounting and market-based measures. Huselid et al. (1997) highlighted the essence of using both accounting and market-based FP and operationalized these in their studies. Following the work of Huselid et al. (1997) and Trujillo-Ponce et al. (2014), this study employed both accounting-based and market-based measures of FP. Thus, organization performance was operationalised using the two dimensions of FP.

As stated by Huselid et al. (1997), accounting-based measures are subjected to various biases that are not present in market-based measures which are mostly provides more accurate evidence of organizational health. However, accounting-based measures of a firm's profit give information not contained in market-based measures (Huselid et al., 1997). Accounting data are often the focus of HR managers who allocate scarce resources (Huselid et al., 1997). While accounting measures capture the historical aspects of FP, and are therefore backward-looking, market-based measures (market capitalization) show the ability of a firm to generate earnings in the future and it is therefore forward-looking which can be considered as a proxy for growth opportunities (Cavaco & Crifo 2014). Cavaco & Crifo (2014) employed both accounting and market-based measures of FP and indicated that the use of both measures denotes different views on the value of FP.

The key accounting-based measure employed in this study is Return on Assets (ROA), which is calculated as net income divided by the total assets (Chang et al., 2013). Parkinson & Taggar, (2000) consider ROA as a summary measure of organisational performance. Darwish et al. (2013), in all FP measures, identified ROA and ROE as the two essential outcome variables considered in the literature as FP indicators. Chang et al. (2013) indicated that the most common FP indicator used in corporate social performance is ROA. Baer & Frese (2003)

presented that ROA is important for operating efficiency as it reflects the organization's long-term financial strength. They indicated that ROA is most frequently used to assess organizational profitability. Lo & Liao (2021) first included ROA in their study as an accounting-based measure of FP and indicated that ROA is the first indicator of FP measure, which has frequently been employed in research work. Thus, most studies of HRMP and FP have either used ROA alone or together with other FP indicators (Meier et al., 2021, Zhai & Tian, 2020, Jaakson et al., 2019, Xiu et al., 2017).

ROA is mostly found in the literature on HRMP. The benefit of using ROA is its capability to explain how effectively a firm is converting its investment - available money into income, which is essential information for shareholders (Choi & Lee, 2013). ROA has been confirmed by many researchers of HRM as the most frequently used accounting-based measure of FP in the field of HRM (Baer & Frese 2003, Lo & Liao 2021) and also very essential FP indicator (Darwish et al. 2013, Parkinson & Taggar, 2000). Based on evidences from prior studies, this study employed ROA as the key FP indicator to establish the relationship between HRMP and FP.

Singh's (2003) research on strategic management recommended the use of multiple FP measures. Acquah et al. (2021) emphasized that to evaluate the true interpretation of a firm resources to achieve its objectives, there is a need to examine each measurement of the dimension of performance as it enables firms to identify the strength of their available resources in acquiring distinctive goal rather than holistic goal where inefficiency of resource for attaining certain goals may be hidden. Apart from using ROA as a key accounting-based FP indicator, an alternative accounting-based measure used in this study is ROE to help identify the strength of HRMP.

However, to depict other forms of FP (market-based measure) exhibits in shareholder value analysis, market capitalization has been employed as a key market-based measure to give additional information on the risk faced by owners/shareholders as it identifies the number of shares possessed by a firm by the value/price per share. Though Abdolmohammadi (2005) used market capitalization as a financial indicator which is hypothesized to be influenced by intellectual capital, it is rarely used in HR studies. Abdolmohammadi (2005) found a highly significant impact on the disclosure of intellectual capital on market capitalization. Aggarwal (2022) used market capitalization as a performance measure and indicated that market capitalization is essential for a firm as it indicates the company size, as well as investors interest. Almost all HR studies that employed market-based FP used Tobin q. It is therefore an

opportunity to fill the gap by analysing HRMP in relation to market capitalisation. Market capitalization is the total value of the company share and it shows the actual value of the organization and therefore needs to be monitored in relation to HRMP to identify how it can be maximized. It measures company worth on the open market, assesses the prospects, and enhances shareholder value (Willmott 2010). Tobin's q has been employed in most of the HRM studies that measure shareholders' value (Zhai & Tian, 2020, Nawaz, 2019, Choi & Lee, 2013, Chang et al. 2021). Chang et al. (2021) indicated that Tobin's q is a market-based FP that has widely been used in prior studies. Lo & Liao (2021) mentioned Tobin's q as the most frequently used indicator to show the true economic condition of a firm. Tobin's q as emphasized by Lo & Liao (2021) is a performance measure that reflects the future performance of an organization and also the expectation by investors concerning the value of the firm related to asset replacement cost. It is the market value of a firm divided by its assets (Fu et al., 2017).

Tobin's q has been the most frequently used market-based measure to indicate firm FP. This study employed Tobin's q as an alternative market-based measure of FP and gave an extension on how Tobin's q interacts with HRMP by using the objective-based study as many measures of performance in the HRM study are based on perception. Akter et al. (2020) defined perceived organizational performance as the perception of organizational performance reported by the manager and maintained that this is mostly used in the field of HRM research. Delaney & Huselid, (1996) also revealed that HRM studies are related to the perception of organizational performance, however, this takes a different view.

4.4.5.2 Independent Variable (HRMP)

Subramony (2009) shows that the high-performance work systems (HPWS) used in most studies typically covers ability, motivation, and opportunity. In his investigation "Meta-analytic of the relationship between a bundle of HRM and organizational performance", using the AMO framework to outline the list of practices in the three elements of the bundle, he mentioned the list of the practices as selection, training for ability, incentives (financial rewards), internal promotion for motivation, working environment element as involvement/participation. These practices are commonly used in most HR studies as confirmed by (Correia 2015). Correia (2015) noted that within HR and performance-related discussions, there is no agreement on the actual list of HRM practices that are included in the bundle or HPWP. Though Subramony (2009) identified the HRM bundle to cover all elements of AMO outlined above, Wood et al. (2012) observed that the opportunity element is mostly

not considered in studies. In confirming this, most studies as stated by Correia (2015), adopt a selected group of practices from the large collection of all practices with HPWP. He confirmed that practices that are essential to the organization(s) under investigation may be overlooked.

Theriou & Chatzoglou (2014), in reviewing the field of HRMP research, mentioned that a list of effective practices has emerged: selective hiring, employment security, job description and harmonization, teamwork and decentralization, internal career opportunity, compensation and incentives, training, and employee involvement. They mentioned that all these HRM practices that facilitate the success of an organization have been given different names by different authors such as best practices, high-performance work practices, high commitment practices, high involvement practices, high productivity, and quality practices. Guest et al. (2003) stated that, the right combination of these practices is more important than the definition given to them. Effective implementation of HRMP depends on the application of a distinctive combination of practices (Guest et al. 2003). The Bundle of HRMP as put forward by Guest (1997) focuses on 'internal fit' or the use of a consistent set of practices.

Delery (1998) explained that HRMPs have been different across studies as some of the most commonly mentioned HRMPs are used to generate different role behaviours under different circumstances. Theriou & Chatzoglou (2014) stated that the index of effective HRMP related to performance differs in each research. Taking prior studies into consideration, Theriou & Chatzoglou (2014) concluded that the examination of the proposed framework should be sufficient with the integration of the following practices: compensation and incentive (financial rewards), training, selective hiring (recruitment), involvement and internal communication (engagement and communication), internal career opportunity (growth and promotion), and teamwork, harmonization, employees security, decentralization, (working environment). They mention that thinking outside the square a set of practices may stimulate creative new thinking about best practices. Using AMO theory, this study employed HRMP proposed by Theriou & Chatzoglou (2014) as best practices which have also been previously outlined by Subramony (2009) as practices that enhance employee ability, motivate the employee, and offer them involvement opportunity. These elements/practices are believed to enhance performance when integrated (Theriou & Chatzoglou 2014, Kim et al 2015, Subramony 2009).

The researcher initially read through some of the annual reports of the FTSE firms as this is the source of data for HRM variables. As the results of reading some of the reports and further

literature, a few of the HRMP variables were reworded and compressed to suit the methodology and data collection source as well as make them consistent with some of the HR studies (Raziq & Maulabakhsh, 2015, Almutawa et al 2015). Also, since it was more likely to find engagement in the annual report than involvement, and recruitment than hiring, hence the use of the following words. These variables (salary increase, training and development, working environment, recruitment and selection, employee engagement, and growth and promotion) were based on Theriou & Chatzoglou's (2014) best practices. They were also integrated from different studies (Syed & Jamal 2012, Ibidunni et al., 2016) to bring volatility to this study.

Most HRMP studies have used six variables to measure different performance outcomes. The use of six HRM variables is in line with other HRM studies (Vanhala & Ahteela., 2011, Zhu et al., 2013, Chand 2010, Vlachos 2009). Each of the HRM variables has 5 items (sub-dimension) as in the checklist. However, these items were selected after having an intensive examination of HRM literature, the HRMP checklist developed by scholars, and the examination of the annual report. To measure HPWP Peláez-León & Sánchez-Marín (2022) chose 18 items and categorized them among three AMO elements. Mousa & Othman, (2020) studied how HRMP impacts three performance measures. Using 22 items under three HRM variables, their items were obtained from several prior research studies. The five (5) sub-items under each HRMP were selected through the rigorous development of a checklist based on past studies that have used the HRMP disclosure checklist, exhaustive reading of HRM literature, and examination of the annual report. The use of six HRMPs with five items is also in line with other HRM studies such as Jaiswal & Kumar (2020).

On a whole, Delaney & Huselid (1996) used seven practices to provide a reasonable broad reflection of the progressive HRMP that has been identified in the literature. In Jaiswal & Kumar (2020), the literature suggested that HRMP takes effect as a whole and regards HRMP as a single dimension and examines it in relation to other variables. Guerrero & Barraud-Didie (2004) also used three different performance outcomes and examined them in relation to individual HRMP as well as bundle (joint effect) of HRMP from 180 firms with the use of structural equation model and discussed their results in relation to individual effect and joint effect. Delaney & Huselid (1996) used multiple regression analysis to examine the joint effect and individual effect of HRM practices. Jaiswal & Kumar (2020) similarly used multiple regression analysis to examine HPWP (combined effect) and individual HRMP (individual effect). Following Guerrero & Barraud-Didie (2004), Delaney & Huselid (1996) and Jaiswal

& Kumar (2020), this study employed multiple panel regression analysis to examine the composite (joint effect) and component (individual effect) of HRMP in relation to FP.

4.4.5.2.1 Compliance/Regulations (HRMP laws and regulations)

Regulations have a major role to play in how people are managed in the various workplaces in the UK. This is how organizations, including FTSE, try to meet the requirements the government in the UK has put in place for employee management. In response to concerns about employers' or organizations' conduct towards their employees, the UK government passes rules, laws, and regulations aimed at bringing standard, transparent, and fair internal control to the organization. The legal and regulatory HRMP should be known by examining and analysing the information to resolve issues that may impose problems on the organization (Audit, 2021). Thus, there is a standard applied to the planning, delivering, and management of human resource activities in the UK which every employer must comply. Government rules and regulations impact countless activities of the organization from environment, health and safety, diversity, employees' laws, among others. Changes in regulations may affect how such businesses should operate and react accordingly. A failure to comply with such rules (existing or changing) may result in a bad reputation, fines, prosecution and even closure of the business. All these rules are done to protect employees. Given this, many industrial, national, regional, and international frameworks have been founded to force organizations to comply with some activities in managing employees, and at the same time improve the performance of organizations: to the bottom line of profitability which every organization aims at. There are many laws which are enacted by the EU to govern employees in its member states. Even though the UK is not a member of the EU, such laws are still in practice since they suit the country. Some of the HRM-related laws are discussed below.

Numerous studies have highlighted the positive relationship between financial reward systems and FP (Aguinis et al. 2013) . Financial incentives, according to Yousaf et al. (2014) are the most effective instruments in achieving the organizational objectives. The National Minimum Wage Act (1998) establishes the “bed wage rate” to ensure a fair level pay for employees. In support of this, Edirisooriya (2014)) found that organizations that effectively link financial rewards with performance experienced higher level of employees performance.

Financial compensation includes pay, salaries, and wages and this comes with legal regulations in the UK. In July 1998, National Minimum Wage Act came into force through National Minimum Wage Act. It declared the minimum hourly wage that employees are entitled to subjected to review in every financial year and this also depends on the age of the employees.

Every organisation in the UK is to pay at least the minimum wage and refusal to comply is a breach of the law. To ensure compliance with the Minimum Wage, Employees' Contracts includes how many hours they are contracted to work as well as their holiday entitlement. If employees are paid based on salary, they must declare how many hours they are working to determine if they are not cheated or if the organization is not breaking the law by offering them lower than the minimum wage. Minimum wage applies to all groups of employees being full-time, part-time, casual, temporary, or permanent. When the minimum wage is increased by the government, companies are obliged to increase their wage/salary if they are paying below the new rate. On 1st April 2023, the UK government increased the minimum wage for different categories of age groups. For example, the 23+ wage was increased from £9.50 to £10.42. This implies that any company already paying the old minimum wage or any company paying below the new minimum had to comply with the new set wage. Changes in state minimum wage law and other laws relating to employees' benefits could cause employers to incur additional benefit costs which could harm profitability and impact growth strategy. Although the costs of compliance with the minimum wage could be huge, breaches of this rule could lead to fines and affect the profitability and reputational of the company. When the minimum wage is set above the current wage of organizations, employees benefit by getting additional money. This can motivate and encourage employees to work as expected and hence FP.

The Equality Act (2010) forbids companies from discriminating against employees and applicants based on sex, region, disability, age, race, gender, marriage, and reassignment. Equality Act 2010 prevents workplace and recruitment process discrimination. The Act makes it unlawful for employers to disqualify someone based on sex, age, marriage, religion, belief, gender reassignment, disability, race, sexual re-orientation, and others (Hepple, 2010). The Equality Act covers areas such as recruitment, promotion, and training. The act brings fairness in areas such as recruitment, promotion, and training. During the process of recruitment, employers must ensure that they stand by the Equality Act to ensure that they do not discriminate against applicants. Recruitment units must be set out in transparent terms. This enables a fair selection of employees. Selecting fairly based on the Equality Act ensures that the right people are hired and promoted. This enables organizations to have the right people at the right place at the right time. Having the right people to do the right kind of job increases organizational output, which can impact FP. Lawson (2011), The Equality Act forbids any conduct of discrimination against employees. They maintain that discrimination against an applicant because of their disability is unlawful. As stated by Lawson (2011), the failure to

comply is considered an unlawful act. Gender equality also has been a major concern in the UK (Burton, 2014). Burton (2014) stated that these measures are employed to compel employers to recruit and promote an equal percentage or number of men and women to bridge the gap to achieve true gender quality. Recruiting employees should be only based on stronger candidates, not based on which gender candidate is in shortage in the workplace since this is against UK laws (Fell, 2017). Having a stronger candidate who possesses the right knowledge, skills, and capability can add value to the company.

Working environments are much protected under EU laws which are still practiced in the UK. Directive 89/391 on health and safety in 1989 initiated health and safety productions across European countries (Chapter et al., 2009). Employers are obliged to provide good health and safety to employees at work by preventing risk, giving necessary training, and accommodating technical changes in the workplace. Directives 89/645, and 89/655 give the principle, as well as the minimum requirement for the workplace, working equipment, access to working devices, and the use of accident prevention equipment.

Health and safety are seen as major concerns in the UK companies. The right should be given to employees to work in a safe environment (Health and Safety Executive, 2009) and this is bounded by laws. Health and safety laws are put in place in the UK to ensure that the working environment is free from injuries. Health and Safety Act 1974 provides legislation involving health and safety in Great Britain. It spelt out duties and responsibilities employers have towards employees and the public, as well as the duties employees have towards themselves and each other. The law permits employers to provide good working equipment to employees and see to it that such equipment is maintained to prevent employees from injuries at work. The law also requires employers to give training, information, and instruction to employees as well as supervision to prevent accidents. There should be adequate facilities to provide welfare for the employees. Non-compliance to health and safety laws is seen as a criminal offense and may lead to prosecution. Vassie et al. (2000) mentioned that the UK has basic legislation covering workplace health and safety. People have the right to a healthy and safe workplace outlined in the Global health and safety policy. Manual handling, falls, slip and trip, and fire safety training are done to ensure that the working environment is free from accidents. During COVID-19, the UK government enacted a lot on health and safety measures at workplaces to protect employees at the workplace. This included protective equipment (facemasks, hand sanitizer), and social distancing measures where all organizations were to comply with them.

Early academics described socially responsible HRM as HRM with morals or providing higher than the minimal legal requirements and giving respect and dignity to the employees and this brings a high level of trust and confidence between employees and employers (Richards & Sang, 2021). This indicates that meeting only the minimum requirement is not enough to bring trust in relationships, and this may hinder productivity and profitability. It could also be noted that the cost of failing compliance is always high, including penalties and fines which could impact profitability and destroy the reputation of the organization. When the reputation/brand of the organization is destroyed, investors' interest in investing in the organization would go down. This may affect the market price and possibly the shareholders' value. Mitchell et al. (2013) stated that employees perform better to contribute to organizational goals when they have a working environment that gives them the necessary support and opportunity to perform. Research work by Manzoor et al. (2011) showed that a good working environment increases employees' output, and this is guided by rules.

4.4.5.3 The Moderation Variable

In recent years, it has been argued that organisations must use various progressive Human Resource Management Practices (HRMP) to increase performance and improve their competitiveness as HRMP plays an essential role in the increase of performance. Many studies have illustrated a significant relationship between HRMP and FP (Huynh et al., 2020, Liu et al., 2019, Xiu et al., 2017). Xiu et al. (2017) for example illustrated that performance is possible when appropriate HRM practices are used.

Though it is generally known that HRMPs significantly impact FP, many scholars have questioned this relationship (Katou, 2008, Paul & Anantharaman, 2003). Based on this theorem, Pavlov et al. (2017) suggested that some moderation exists in this relationship. Past studies have used some factors to moderate the relationship between HRMP and FP. Triguero-Sánchez et al. (2013) for instance confirmed that hierarchical distance is a cultural dimension that moderates the relationship between HRM practices and perceived FP. Yoo et al. (2021) also found financial slack as a moderator between training investment and the FP relationship. Many scholars have confirmed board size and board independence as important corporate governance elements of board structure (Chen, 2011, Prashar & Gupta, 2020, Kyereboah-Coleman & N, 2008).

Chen (2011) employed board independence as a moderator between top management characteristics and internationalization. Chen (2011) indicated that board independence

influences the strategy decisions of the top management team for better internationalization. His study finds that the interaction between the top management teams, international experience, and board independence is significantly positive. The independent director ratio is a moderator which is calculated as the percentage of independent directors on the board (Chen, 2011, Chen et al., 2019). Ozdemir et al. (2022) likewise moderated board independence with board diversification and firm risk-taking in tourism centres. Alipour et al. (2019) examined the moderation role of board independence on environmental disclosure quality and firm performance and found that board independence significantly and positively reinforces environmental disclosure quality and firm performance. Other studies that have used board independence as a moderator include Karim et al. (2020) and Zaid et al. (2020). While Alipour et al. (2019) examined the moderation role of board independence on environmental disclosure quality and firm performance, Chen (2011) employed board independence to moderate top management teams and internationalization, whereas Chen et al. (2019) moderated the relationship between family ownership and R&D investment with board independence. Following these studies, this current study used board independence as a moderator between HRMP and FP since to best of knowledge, this has never been tested. Indicating whether small or large board size has positive impact on FP will help management or owner to make proper decision on how many board members to take on board.

Top management leadership is essential and centres on the implementation of HRMP in every organization (Rhee et al. 2014) and for which FTSE firms are not exceptional. Any important decision for any effective policy is either made by the board, supported by the board, or passed through the board's desk. Board support is the most important form of organizational support in the decision-making process as it facilitates management activities. Board members develop policies, strategies, and control resources to meet the goals of the organizations and ensure that the decisions made are aligned with the organizational policies (Maia et al., 2014, Arnwine, 2002). For effective, proactive, and intensive initiation and or implementation of management activities including performance-based HRMP, the competence of the board of directors is needed. Rhee et al. (2014) suggested that organizational performance can increase if the board participates in HRM activities. Bretos et al. (2018) stated broadly that if shareholders are dominant in an organization decision making, their interest would be prioritized by managers at the expense of commitment to employees, thus less willing to support training, job security, and other employee well-being initiatives at the interest of shareholder short-term interest (Bretos et al., 2018). Board dependence can change this notation.

The less willingness to support training, job security, and the well-being of the employees with dominant shareholders in an organization as claimed by Bretos et al., (2018) means that not much HRMP would be implemented. This may not be possible with the presence of board independence. The Board independently works in the interest of all stakeholders and then sees that the resources of the organization, decisions, and policies are allocated well for all interest groups and therefore pushes for employees to attain what they require to have (HRMP) as they are obliged to all stakeholders including employees. Thus, they work fairly with all interest groups. When employees become aware that they are treated fairly in terms of sharing the organizational resources or they are getting the maximum reward available (through an effective strategy of independent board expertise), they would go the extra mile to support the organization to attain its full objectives which may increase FP as studies have shown that the higher HRMP the higher FP (Lee et al., 2005, Kaur & Kaur, 2021, De Lourdes Machado et al., 2011, Ondiba et al., 2021). Independent board fairness and expertise in the allocation of resources to meet or to enlarge employee interest (salary, skills, working conditions) can maximize FP. This means that HRMP can bring FP, but the presence of board independence can improve existing HRM practice hence better FP.

Large board sizes can also moderate the relationship between HRMP and FP. Prashar & Gupta (2020) have showed that a large board size has more capability and collective expertise of executing their role. They indicated that if the board is large, the organization benefits from the diverse knowledge of the directors (Prashar & Gupta, 2020) and can implement a good decision that will benefit all stakeholder groups, including employees. Bathula (2008) saw board size as an important variable and employed board size as a moderator between other corporate governance variables and FP. He emphasizes that board size is a very important factor and stated that besides the direct effect board size has, board size may moderate the effect of other board characteristics. Elaborating further on this, they mentioned that as board size increases, outside directors' increase, indicating improvement in board independence. This implies that board size is the summary of all the board characteristics. Zheng & Tsai (2019) investigated the impact of diversification strategy and organizational performance and employed board size as a moderator. They hypothesized that the presence of a large board size moderates the relationship between diversification and FP. Albitar et al. (2020), in using governance mechanisms to moderate the relationship between environmental, social, and governance disclosures and FP considered board size as one of the mechanisms to moderator the above relationships. Other studies that have also used board size as moderator is Bogdan et al.(2022).

Following Albitar et al. (2020), Bathula (2008), and Zheng & Tsai (2019) who used board size as a moderator, this current study attempts to fill this gap in the study of HRMP and FP by employing board size as a moderation mechanism between HRMP and FP since to the best of the knowledge this has not been tested.

Large boards are more likely to have members with diverse backgrounds, values, and skills (Castro et al., 2009). Board members have the responsibility to control organizational resources, develop policies, and strategies to meet the goals of the organizations, and ensure that the decisions made are aligned with the organizational policies (Maia et al., 2014, Arnwine, 2002). Effective strategic investment decision-making practices calls for a good understanding of the interests and expectation of stakeholders' (Alkaraan et al., 2023) which employees are not exceptional. For effective policies to be made to achieve performance, all the stakeholder's interests (including employees) should be met as suggested by stakeholder theory (Alkaraan et al., 2023). Large board size indicates the ability of the organization to respond to diverse stakeholders (Yeh & Taylor, 2008). The large board has a representation of people with diverse backgrounds, who bring intelligence to the board and improve the quality of strategic decisions (Dwivedi & Jain, 2005) including HRMP-related issues. Their expertise, diverse knowledge, and background most likely include one of the following: HR-related factors, HR directors, people from HR backgrounds, experience in HRMP, experience in employee relations or studied employee relations, and can utilize their expertise in decisions when it comes to employee affairs. Occupational expertise on the board can help shape the business strategy. Large board sizes with various expertise can use the organizational resources to maximize HRMP leading to maximizing FP.

Many scholars have shown how board size can be negative for organizational output. Guest (2009) concluded on UK-listed firms that the UK board plays a weak monitoring role and therefore found board size outcomes to be strongly negative in the UK firms. Despite their great diverse backgrounds, values, skills, and ideas possessed at large boards (Castro et al., 2009), they may delay decisions related to employees as they may oppose issues (Zheng & Tsai, 2019) and drag issues that may delay employees' interests or needs. Large board size appears to have many disadvantages in coordination, communication, and flexibility than the positive benefit of manager monitoring and control (Arosa et al. 2013). The influence of the size of the board as suggested by Arosa et al. (2013), should be a trade-off between benefits and drawbacks.

It is a fact that a large board size may have a lot of expertise to deal with HRMP related issues thoroughly, their presence in number hinders how fast decision is made to address employees' issues and this may affect employee productivity and FP. The board becomes ineffective as their number goes up (Harrison et al., 2015). Ineffective to deal with employees issues may have a consequential effect on FP. Treepongkaruna et al. (2024) confirmed that large boards may badly perform because of dragging issues and conflict in collective decisions. This include employee issues which may end up with employees' interests hanging without solving. Though board size is believed to take effective employees related decisions because of their values, skills, and diverse ideas, such decisions may not be implemented at all because of disagreement and conflict and this may have adverse results on productivity and FP.

The presence of large board size and board independence can add value or may worsen HRM practices to change the performance level. The strength of HRM practices and the FP relationship may depend on corporate governance variables (board size and board independence)

4.4.5.4 Control Variables

Huselid et al. (1997) suggested that a lot of factors in both the internal and external environment of the organisation impact HRM practices and financial performance. To reduce the likelihood of false results produced by the relation among these variables and our hypotheses of interest, as stated by Huselid et al. (1997), control variables were introduced. Following the prior literature on HRM practices and performance outcomes such as Huselid et al. (1997) and Akter et al. (2020), certain variables are made constant for this study and these are firm-specific variables and corporate governance variables, and these are explained below.

4.4.5.4.1 Firm Size

Firm size is an important characteristic of a firm and firm size affects empirical results (Mudashiru et al., 2013). Firm size is measured by the number of employees, properties of the firm, and total sales (Salman & Yazdanfar 2012). Prior studies have revealed how important firm size is in contributing to organizational performance. Dang & Li's (2013) studies for instance found that profitability and firm size correlate positively. Ali et al. (2020) likewise showed a positive relationship between firm size and FP and indicate that large firms can meet their target because they have access to a lot of resources which include managerial skills. A study conducted by Sritharan (2015) also showed that the size of the firm is related positively to profitability. A research work conducted by Ting (2021) in a Taiwanese-listed company

revealed that firm size impacts positively on corporate social responsibility (CSR) disclosure while CSR disclosure impacts FP better in a small firm with a small number of employees. As argued by Wu et al. (2015), HPWS outcomes are greater in large organizations than in both medium and small-medium firms. They continue that HPWS relationships would also have greater performance in medium firms compared to small firms. Giving explanations based on past literature (Snell, 1992, Baird and Meshoulam 1988), they explained that in small firms at its initial stages, the owner/manager naturally controls the firm by personally interacting with employees and therefore takes all decisions on recruitment, salaries, performance management and appraisal. HPWP would therefore be considered as excessively bureaucratic which is not necessary in small firms and may gain little from HPWS.

Acs & Audretsch (1988) in the US also found that large firms prove to be more innovative in a lot of industries compared to small firms. Innovation, however, is believed to impact positively on performance of an organisation (Fernández et al., 2019). As stated by Ali et al. (2020), large firms are likely to achieve their objectives because they have the benefit of gaining access to resources that offer them a competitive advantage. They are more likely to possess competent managers, more departments, more knowledge and skills, and more centralization than in smaller firms. Managerial skills for instance impact organisational performance. Ali et al. (2020) research, therefore, reveals that firm characteristics such as firm size impact positively on market-based measures (Tobin's q) and accounting-based measures (ROA or ROE) of FP. Large firms, as maintained by Asimakopoulos et al. (2009), have the opportunity to access better capital markets and lower interest or cost of borrowing and can rely on the higher turnover they experience to make a higher income. They highlighted that large firms have the advantage of higher profit as they can use their position to reduce average costs and push up profitability through negotiation (Asimakopoulos et al., 2009) and this can also lead to competitive advantage. Ahinful et al. (2021) equally stated that larger firms, based on their influence, can bargain for goods and services at a relatively cheaper rate and this may influence the pricing of their products. This may attract a lot of customers leading to increase in sales and enhanced impact on profitability. Their study did not reject the fact that large firms bring better financial performance. Akben-Selcuk (2016) argued their case to control the size of the firm since they impact performance. Ling et al. (2007) also collaborated that firm size should be controlled as they influence profitability. They mention that to reduce the variance caused by other variables that are not related to the research objectives other factors such as firm size should be controlled.

Some research have indicated that large firm size impacts negatively on firm performance. . Salman & Yazdanfar (2012) revealed that firm size has a significant negative impact on profitability in micro-firms. Giving explanation of their findings, they attributed the negative results to the clash and disagreement between managers and shareholders as their conflict brings a lack of control. It should also be noted that solving this type of conflict activates only the need of one stakeholder group (shareholder) affecting the interest of others. Per stakeholder theory, this would impact performance negatively since lack of interest can result in demotivation. As cited by Salman & Yazdanfar (2012), the larger firms also increase their manager salaries and job security, and these would reduce the manager's focus on improving FP. Moeller et al. (2004) also found that the collective dollar returns of acquired and acquiring firms is significant and positive in small firms but significantly negative in large firms. Niresh & Velnampy (2014) in Sri Lanka's study on manufacturing firms also revealed that no relationship between the firm size and profitability. Elsayed & Paton (2009) posited that firm size impacts FP due to economy of scale and needs to be controlled. Afum et al. (2021) have said that large firms tend to possess more internal resource-based to invest in green practices to improve performance and therefore should be held constant or controlled. Firm size has therefore been used in this study as one of the control variables as they believe to possess characteristics that impact financial FP.

4.4.5.4.2 Liquidity

Liquidity is the ability of a firm to transform short-term assets into cash for day to day running of the business (Ali et al., 2020). It is measured by the current ratio (Ali et al., 2020). Egbunike (2018) put liquidity as a firm's ability to convert its short-term assets into cash to meet day to day running of the organisation. Example of liquidity given by Egbunike (2018) included quick ratio and current ratio. Many of the prior studies have established a positive link between liquidity and FP while few of the studies support the opposite (Ali et al., 2020). Ali et al. (2020) study found that liquidity has a positive impact on FP indicators such as ROA, ROE, and Tobin's q (Ali et al. 2020). Jihadi et al. (2021) study also revealed that liquidity has the highest effect on organisational value. Egbunike (2018) similarly established that the liquidity of a firm is positively related to FP. As emphasised by Egbunike (2018), a firm can use its liquid assets to finance its activities when there is no external finance available. Saleem & Rehman (2011) study aimed to establish how liquidity impacts performance in Pakistan companies. The main results established that each of the ratios has a significant impact on FP at varying amounts. They explained that every stakeholder has an interest in the liquidity position, and that suppliers

would assess the liquidity position of an organisation before giving goods on credit. The organisation employees also have concern about the liquidity level to ensure if the company can meet all the obligation (salaries, bonus, pension) that the organisation owed them. Organisations need to hold adequate liquidity so as to impact profit that enhances shareholder-value (Egbunike & Okerekeoti, 2018). Ofoegbu et al. (2016) found that liquidity impact is positive on profitability. Akben-Selcuk (2016) suggested to control liquidity because it impacts performance.

However, some studies have indicated no association or negative association between liquidity and profitability. Dioha et al. (2018) studied the relationship between firm characteristics such as firm size, leverage, liquidity, and firm age on FP. The results showed that leverage, firm size and sales growth are significantly associated with profitability but liquidity is not significantly impacting profitability. Alarussi & Alhaderi (2018) studied factors affecting the profitability of listed companies in Malaysia. The study revealed that leverage has a strong positive relationship with profitability, but liquidity has no significant relationship with profitability.

4.4.5.4.3 Leverage

Leverage is the ratio of total debt to total equity or the ratio of total debt to total assets (Asimakopoulos et al., 2009). It is a ratio used to assess or measure the extent to which organization assets are financed with debt (Jihadi et al., 2021). As explained by Jihadi et al. (2021) a company's leverage reflects by the debt-to-equity ratio and the equity ratio compares an organization's total liability to the equity of its shareholders and can be employed to assess the level of the leverage or how much leverage the organization is using. Jihadi et al. (2021) found that leverage is positively significant to a firm's value. They mention that leverage has an important role in an organization's FP. Explaining their point, they emphasized that leverage boosts public confidence in the organization and enhances the value and image of the organization. The leverage ratio is among the most common financial measurements that quantify the capability of the organization to meet its financial obligations. A good leverage ratio influences public confidence in the organization and the results increase the organization's value (Jihadi et al., 2021). As revealed by Jihadi et al. (2021), the higher the leverage ratio the higher the organization value. Gill et al. (2011) using US manufacturing, studied the effect that capital structure has on profitability within a three-year period. The results favoured leverage as it revealed a positive link between short-term debt to total assets and profitability, and long-term debt to total assets and profitability. Arguing their case for their founding, they indicated that interest on debt is tax deductible which also implies profitability. This was in line with

what was put forward by Dalci (2018), who also based his argument on capital structure theory, which confirmed that financial leverage impacts profitability because of agency cost, bankruptcy cost, tax effect, financial distress, and information asymmetry. Talking from a trade-off theory point of view, he stated that a firm can increase its profitability through external debt because the interest paid on the debt is tax-deductible (Dalci, 2018). However, some authors also suggest that financial leverage negatively affects the performance or profitability of organizations. Asimakopoulos et al. (2009) found that firm leverage is negatively associated with organizational performance. Ali et al. (2020) likewise confirmed that leverage is negatively related to FP. Rafique's (2011) studies portrayed that the profitability of a firm and financial leverage have an insignificant effect on the capital structure of the sample firm used in their studies. Okeke et al. (2021) studying Nigerian firms, found a significant negative relationship between firm leverage and cash ratio and recommended that firms should try to generate internal resources to fund themselves.

Many studies have shown how leverage impacts organisational profitability and therefore needs to be controlled. Cordeiro & Sarkis (1997) argued for leverage as a control variable. Akben-Selcuk (2016) argued for the control of leverage as it impacts performance. Leverage has been used as a control variable as leverage impacts organisational profitability and enhances FP.

4.4.5.4.4 The Effect of Industry

Firms from different industries have various characteristics, various rules and regulations, various operating systems and various resources that may impact the overall performance of the organisation. Many researchers have indicated that industry effects may impact profitability. Dess et al. (1990) proposed that industrial structure explains the level of the firm performance. Mauri & Michaels (1998) examined the firm and industry effects within strategy management using 264 single-business companies from 69 industries. The study indicated that firm effect impacts more on performance compared to the industry effect. Chava & Jarrow (2008) likewise examined the effect of industry on the accuracy of the hazard rate model. Using US companies, their studies found that industry grouping has a significant impact on both intercept and coefficient in predicting outcomes. Spanos et al. (2004) studied the effect of firm and industry-specific factors on profitability. Using Porter's (1980) 5 forces, they found that profit is higher in industries characteristic of higher entry barriers. Caloghirou et al. (2004) based on existing literature also stated that industry factors such as barriers to entry, concentration and industry life cycle have given evidence that industry type determines

organisational profitability. They detailed that industry structure is determinate of profitability in that higher profit firms are found in desirable and attractive industries with favourable competitive structures. They also maintained that the differentiation of a product is an essential characteristic of an industry that prevents entrants. Arguing further on product differentiation as an important industry characteristic that prevents entrants for existing firms in the industry to enjoy profitability, they mention that product differentiation is measured using advertising intensity and therefore leads to a higher barrier to entry. They clarified that when buyers have established long-term loyalty with the existing firm through advertising intensity, new entrants or potential entrants may have a lot of challenges and difficulties in breaking through such established loyalty (Caloghirou et al., 2004). Chang & Singh (2000) also examine the corporation and industry effect on competitive position. Their result suggested that the importance of industry, corporate and business unit effect depend on certain criteria such as level of industry aggregation and firm size.

Claver et al. (2002) examined the consequence of industry and firm effects on profitability in Spanish manufacturing companies. In explaining firm and industry effects, their study revealed that ROA impact on profitability and the extent depends on different industry definitions and the size of the firm. They explain that the relevance of the firm effect over the industry total effect reduces as the industry definition becomes narrower. However, a firm effect exists or occurs in all industry aggregation levels. Industry effect was also more significant in larger and medium-size firms compared to small-size firms. Claver et al. (2002) analyzed their results from the RBV point of view stressing the need for proper identification and management of internal aspects of a company aiming to enhance profitability and competitiveness and highlighted that the formulation of a corporate strategy must develop from successful internal analysis complemented by an appropriate external strategic analysis about the industry. Afum et al. (2021) stated that industry type impacts organisation performance and therefore was controlled in their study: “Internal environmental management and green HRM: a significant catalyst for improving corporate reputation and financial performance”. Their argument further suggested that the type of industry should be controlled to rule out the possible effect of external environment on performance. Akben-Selcuk (2016) in his study “Influence of founder-CEO personal value on performance” held other variables constant which included industry effect. Industry effect has impacts on profitability and financial position and will remain constant throughout the study.

4.4.5.4.5 Board Gender Diversity

The study considers gender diversity as the existence of gender differences on board. Traditionally, there has been a lot of perceptions about how different genders impact performance. People perceived that a particular gender group is working-class. There has been a lot of perception about different groups of people on how they behave, work, and strive towards the achievement of career goals which gender plays important role in every aspect. Empirical and theoretical studies justify how gender differences impact profitability or performance. Song et al. (2020) posited that female executives or directors are relatively a new group from their counterpart traditional male directors. Their presence on the board makes the independence of the board stronger to ensure management effectiveness to eradicate asymmetry and minimize stakeholder costs. Arguing from the stakeholder-agency theory point of view, they found that gender diversity has a positive and significant impact on organisational performance. They also cited that women are likely to be independent compared to men and are talented to promote harmony (Song et al., 2020). Using agency theory, they illustrated that female directors may perform an essential and catalytic role in checking management and also offer a unique approach that will help in enhancing the strategic decisions of executive managers (Song et al., 2020). Dang & Nguyen (2018) had mixed results from investigating the relationship between board gender diversity when they examined how female directors in decision making influence performance using 120 listed company from French. They found that the impact of board gender diversity depends on performance measures. While board gender diversity impacts negatively on market-based measures of FP (Tobin's q), it positively impacts accounting-based measures of FP (ROA). Female leaders are very ethical (Larkin et al., 2013). Ethics plays an essential role in performance (Al Halbusi & Bello, 2012). Al Halbusi & Bello (2012) explained that ethical directors or managers can better achieve better performance by demonstrating qualities that will entice employees to work hard towards the achievement of organisational performance. They explained that ethical behaviour includes honesty, fairness, concern, integrity, and concern for others. Studies suggest that women directors are more ethical and moral compared to their male counterparts (Larkin et al., 2013) and their presence in the board room is likely to strengthen the oversight of the management behaviour and activities to reduce the cost of the agency to monitor the activities of the managers base on the agency theory. Boardroom is responsible for the business return on investment, organisational assets, financial effectiveness, cost-effectiveness, operations, as well as long-term business sustainability and success (Alkaraan et al. 2023). And therefore, good personality, attitude and ethics is essential at boardroom. Larkin et al. (2013) revealed

that the large difference between the number of females and males who hold board of directors' roles impacts business benefits. They pointed out that including a female on the board improves the value of the organisation and draws a wider range of qualified employees. There is conclusive evidence that the presence of women on board impacts positively on FP (OECD 2020). Organisations hold a better chance in establishing a useful relationship with their stakeholders to increase FP as diverse board is seen as symbol of value by stakeholders (Song et al., 2020).

The contrasting view suggests board diversity may delay the decision-making process. Research suggests that the increase in diversity of gender at board meeting may intensify conflicts and this may delay important strategic decision-making (Song et al.2020). Jane Lenard et al. (2014) study revealed that more diversity of gender of board directors related to a lower risk of the variability of stock market return indicating that companies with a higher level of female percentage on board of directors had lower performance. Female leaders' deliberation on issues from different point of views may surely delay the decision-making process, but it is for the betterment of rightful decisions to be implemented. They are honest in dealing with stakeholders' interests and strive to achieve the objective of the organisation. Their presence eliminates the agency cost as there would be no for incentive to entice them to work in the interest of the organisation and this positively impacts FP and therefore need to be held constant to generalise the results.

4.4.6 Summary of the Variables

Table 4: Definition for Dependent, Independent, and Control Variables of Regression Model

Variables	Measurement
Financial performance	ROA and Market capitalization are financial performance indicators Both accounting and market-based measures in line with Huselid, (1995)
ROA	Return on assets is calculated as net income divided by the total assets at the end of the financial year.
Market capitalisation	Share price multiplied by the number of shares
HRMP	This is the composite of all HRM Practices (Reward + Training + Recruitment + Promotion + Working Conditions + Engagement). Calculated by adding all items retained under each construct.
Staff Financial Rewards	The total number of measures put in place to enhance employee rewards such as an increase in salaries/wages, bonuses, share options, profit-sharing, and benefits recorded in the annual report. (Oni-Ojo et al. 2015: Edirisooriya 2014: Safiulla, 2014: Long & John, 2005)

	<p>Bonus =Incentive given to staff after achieving a certain goal (Calvin, 2017),</p> <p>Salary/wage (increase) = amount paid to the employee at regular intervals or hourly for their productivity or work done (Calvin, 2017).</p> <p>A share option =is a right given to the employee to acquire a share at the end of the agreed option period for the price at the date the option is granted (Wallington, 2014).</p> <p>Profit share = percentage of firm profit given to employees over a specific period (Estrin et al., 1997).</p> <p>Employee benefit = Additional compensation given to employees aside from their wage/salary (Dulebohn et al., 2009).</p>
Training & Development	<p>The number of training and development interventions/activities undertaken by the company during the year reported in the annual report such as induction, job/professional training, training need analysis, employee training, and training evaluation. (Nikandroua et al., 2008: Malhotra et al., 2007).</p> <p>Induction = allowed employees and new employees to learn the scope of the new job (Vijayabanu et al., 2013)</p> <p>Training needs is the process of identifying the type of training employees need (Reed & Vakola, 2006).</p> <p>Employee training = is a program to help the employee learn a specific skill and knowledge to improve performance in their role (Aguinis & Kraiger2009).</p> <p>Training evaluation is assessment to indicate if training has met its desired outcome (Vijayabanu et al., 2013)</p> <p>Professional training = Is formal training given to employees to acquire skills and knowledge for operating professionals/experts in a particular field (Garavan & Dirani, 2012).</p>
Promotion & Growth	<p>Number of employees' progression from one level to a higher level of skills, pay, responsibility, and authority recorded in the annual report during the year such as advancement opportunities, promotional opportunities, career development, remuneration progression, and professional progression (Kim, 2021: Kenyatta, (2019),Malhotra et al., 2007)</p> <p>Promotion=change in employee role, a status that comes with responsible authorities and compensation (Sihabudin, 2018)</p> <p>Career development =is the lifelong route of managing learning, work, and transitions to a more forward personally determined evolving preferred future(Nkechi & Dialoke, 2017)</p> <p>Career advancement=it is a marked path of progression through the ranks of an organization (Nkechi & Dialoke, 2017)</p> <p>Remuneration increase =increase in total compensation (Murphy, 1985)</p> <p>Professional development learning to obtain professional recognition within a work role</p>
Recruitment & Selection	<p>Number of recruitment processes/activities such as recruitment, selection, interview, recruitment consultant, and recruitment agency (Hsu & Leat, 2000)</p> <p>Recruitment= process of finding the right person for a specific job (Hamza et al., 2021)</p> <p>Interview = It is the interaction between the applicant and organization representation to identify which applicant should be hired.</p> <p>Selection=choosing the right applicant to fill the position (Hamza et al., 2021)</p>

	<p>Recruitment consultant=they help the employer to find the right candidate (Mornet, 2017)</p> <p>Recruitment agency=they act on behave of the employers to find candidates for employers (Kapse A. et al., 2012),</p>
Working Environment	<p>The number of working conditions arrangements put in place during the year such as teamwork, flexible working hours, health and safety at work, working relationships, and physical working environment recorded in the annual report (Kumar et al., 2015: Raziq & Maulabukhsh, 2015),</p> <p>Teamwork=is a group of interdependent individuals that have accepted the responsibility of a group job and assign responsibility by a monitory and control the contribution of its members (Delarue et al., 2008)</p> <p>Working relationship = relationships such as co-worker relationships, subordinate and manager relationships (Sluss & Ashforth, 2001)</p> <p>Physical working environment=architect (crowdedness) interior layout (color, furniture), and ambient features (ventilation, light, temperature) (Djukic et al., 2014)</p> <p>Flexible working creates a working pattern to suit the needs of employees (Costa et al., 2004)</p> <p>Health & safety measures in the workplace to address hazard potential and to prevent injuries or accidents (Loeppke et al., 2015)</p>
Engagement & Communication	<p>Number of communication/engagement measures put in place during the year such as meetings, employees' feedback, appraisal, engagement, and recognition record in the annual report during the year, (Rajhans, 2009: Lim & Greenwood, 2017),</p> <p>Communication= is a process of information transmission and common understanding from one person to another (Adu-Oppong & Agyin-Birikorang.,2014)</p> <p>Engagement = is a high level of motivation to do the work, together with a passion for the work and a feeling of a person connected to the organization (Marrelli, 2011)</p> <p>Appraisal= is evaluating employee performance and achievement over a specific period (Wiese & Buckley, 1998)</p> <p>Feedback =Is the information given on the gap between the actual level and reference level of a system parameter normally used to alter the gap (Ramaprasad, 1983)</p> <p>Meetings= is one of the workplace settings for employees to undertake a range of functional, cultural, and rational activities and objectives (Brockner et al., 2006)</p>
Size	The logarithm of the total number of employees.
Liquidity	Current assets divided by current liabilities
Gearing	Level of risk measured by total liabilities divided by total assets
Industry	The industry represented by 1= Primary Sector 2= Manufacturing Sector, 3=Tertiary Sector Manufacturing 4 =Quaternary Service
Board diversity	The existence of gender differences on board
Board Size	Total Number of Directors
Board Independence	Number of Non-Executive Directors (Board Independence)
ε_i	The error term

4.5 Research Strategy (Content Analysis)

The research strategy that was employed to obtain HRMPs variable is content analysis. Content analysis is a method of making replicable and valid inferences from data according to the context (Chew & Sharma, 2005). Kenyatta (2019) defined content analysis as research method for the objective interpretation of a text from a content by systematically classifying process of coding and identifying themes or patterns. It involves the systematic and replicable technique of compressing many texts into a few categories based on explicit rules of coding. Aburaya (2012) postulated that because rigorous counting processes must be followed when using content analysis, data collected through content analysis are regarded as quantitative in nature, making the method unbiased or more objective. Content analysis has been employed in some of the HRM studies (e.g. Akunda et al., 2018; Barringer et al., 2005; Chew & Sharma, 2005; Malik & Lenka, 2020). Chew & Sharma (2005) for instance, used content analysis to obtain information on cultural values and HRM effectiveness in their study on the effects of culture and HRMP on firm performance. As explained in Chew & Sharma (2005), using content analysis involves making inferences from sentences, paragraphs as well as other indicators of meaning. Following Chew & Sharma (2005), Vithana et al. (2021), and Subbarao & Zeghal, (1997)) who used content analysis to obtain HRMPs from the annual report, this study employed content analysis to obtain HRM variables from the audited annual reports of FTSE 350 companies in the UK.

This study adopted Cooke's (1989) dichotomous process in which an item is scored 1 if it is disclosed, and zero if not disclosed. The benefit of using this method is that, unlike scale disclosure in which different weights are attached to different disclosure items, this method ensures that the subjective weight of user groups would be averaged out. Vithana et al. (2021) measured HRMP from a dichotomy perspective when using content analysis. They confirmed that many of the studies of HRMP rely on a dichotomy process to measure their HRMP and a checklist from a broader conceptual framework.

In employing content analysis some of the major criteria to consider are the sampling and recording units. Vourvachis (2008) for instance indicated that one of the first decisions to be made when using content analysis is the sampling unit. Krippendorff (2004) defined sampling units as units that are separated for selective inclusion in the analysis. Following Chew & Sharma (2005), annual reports of FTSE 350 companies were used as the sampling units.

An annual report as defined by Aburaya (2012) is a formal document published by organizations to communicate company activities. As seen above, some HRM practices' disclosure information is employed annually as the primary source of corporate disclosure. The annual report is used in this study to examine the HRMP in FTSE firm 2016 - 2021. Once the sampling unit is decided, the recording unit must also be established. As defined by Holsti (1969), recording unit is a “specific segment of the content that is characterized by placing it in a given category. The four major recording units identified by Vourvachis (2008) are sentences, words, photographs, and proportion of pages and page size data. Arguing for the use of sentences as recording units, Gray et al. (1995) averred that sentences should be given priority if the intention is to infer meanings. Fahy et al. (2000) and Hillman (1999) employed sentences as recording units and emphasized that it is reliable and easy to use. In a test of the reliability of their studies, while Fahy et al. (2000) reported a percentage agreement of 94%, Hillman (1999) reported a Kappa of 96%. As this study intends to infer meaning about what the companies say about themselves in the annual report, sentences were used as a recording unit in collecting data on HRM practices from the annual reports. Various arguments have been made in the disclosure literature on the use of the Annual report as a sampling unit. Adams et al. (1998) showed that annual reports are the most vital media in which companies reveal information about themselves to the public. The annual report is the main channel for organizational communication and this has been confirmed by many studies (Vuontisjärvi, 2006, Gray et al.1995). Aside from being read by the organization's target audience, as suggested by Neu et al. (1998), the annual report has a level of credibility that cannot be matched by other forms of advertising. Vithana et al. (2021) concluded that the nature of the disclosures of Human resource development has gradually shifted from a selective to a more comprehensive one, and more substantive information is disclosed in the annual report. Research indicates that the main source of disclosure information is obtained through annual reports that are easily accessed by internal and external stakeholders (Pandya & Rao, 2021). Providing employee information and financial information in the same report is useful. The annual report provides comprehensive information and vital information to be used in this research. Annual reports were used in this study as a reliable source of information for HRMP.

4.5.1 Checklist

In using content analysis as a research strategy, a clear and accurate definition of the phenomena under examination is required. A checklist was developed to select HRMP from the annual reports. A checklist in this study consists of the list of expected HRMP which is

checked by the researcher for their absence or presence of information disclosed in the annual report. Subbarao & Zeghal (1997) used absence and presence in analysing HRMP information from annual reports and cited that majority of such research analysed their social performance using absence and presence. Most studies that have used this process have a checklist to clarify the expected items that are to be picked from the annual report (Vithana et al. 2021, Aggarwal, 2022, Subbarao & Zeghal, 1997, Cassell et al. 2002, Hronová & Špaček, 2021, Jean-Marie Hiltrop, 1996, Gooderham et al.2008). This detailed the classification of the main HRMP with their relevant items under each category. As defined by Aburaya (2012), disclosure checklist is an extensive list of chosen items that are disclosed in the organizational report. The checklist of HRMP disclosure items was done to capture the HRMP from 2016 to 2021 inclusive of the FTSE annual report. It comprised different sections detailing different categories of the main HRMP variables to which each HRMP disclosure item belongs.

The process of developing the HRMP Checklist started with the researcher reading a lot of literature on HRMP and performance outcomes. Based on the knowledge gained from the sampled literature, the researcher purposefully selected Theriou & Chatzoglou' (2014) model of best practices which include compensation and incentive (financial rewards); training; selective hiring (recruitment and selection); involvement and internal communication (engagement and communication); internal career opportunity (growth and promotion); and teamwork, harmonization, employees security, and decentralization, (working environment) as this integrated from various studies. Authors such as Subramony (2009), and Kim et al. (2015) have confirmed Theriou & Chatzoglou' (2014) model of best practices to increase employees' ability, motivate them, and offer them the opportunity to participate. Further review of the literature revealed that HRMP could be reworded to suit the methodological approach or the data collection sources (Seidu 2011). Following Seidu (2011), Theriou & Chatzoglou (2014) model were adopted, rephrased and compressed to suit the data collection source, as well as to be consistent with other HRM studies (Raziq & Maulabakhsh, 2015, Almutawa et al 2015). For example, it is likely to find engagement in the annual report than involvement, and recruitment than hiring, and these were used after the researcher read through some of the annual report. The researcher developed her own checklist based on the prior ideas and feedbacks she had gathered from one of the academic conferences (Management and Business Academy international Business Conference) attended, coupled with further readings on HRM studies that have used checklists. The researcher reviewed several literatures on HRMP and other fields of study that have used the checklist (Aburaya, 2012; Vithana et al., 2021) to gain

in depth understanding of how to develop a checklist. Thus, in creating the checklist, reference was initially made to the assessment of past studies that had developed checklists, especially, those that had used annual reports of FTSE firms (Aburaya, 2012) (Vithana et al., 2021). A checklist of disclosure items that consists of the list of expected HRMP which is checked by the researcher for their absence or presence was developed by the researcher based on HRM studies that have used checklist, HR items used by other researchers, and words that are common in the UK annual report taking into consideration the main model used.

Similarly, references were also made to other HRM items and other recommender disclosure items in the sample of annual reports (Vithana et al.2021, Subbrarao & ZeghaL 1997), Aggarwal, 2022, Cassell et al. 2002, Jean-Marie Hiltrop, 1996 and Gooderham et al. 2008) taking into account Theriou & Chatzoglou (2014) model. Initially, 48 items were selected considering other studies' checklists and HRM items which are also connected to Theriou & Chatzoglou (2014) model. For example, in considering Vithana et al. (2021) disclosures on HR, items like health and safety, welfare and benefit, work environment and culture, involvement and engagement, employee appreciation, and career development were considered. Fifty-two sample companies from 2016 to 2018 (3 years) were pilot-tested with the list of broad items (48) to capture some variability in the disclosures between the companies, to capture items that needed to be included, and to exclude items that were not disclosed by any of the companies. This helped the researcher to refine the final checklist to 30 items. The final 30 items in Table 5 have been used as a disclosure checklist for this study.

Following Jaiswal & Kumar (2020), HRMP disclosure is measured using coding comprising thirty items and it is grouped into six categories: financial reward, training and development, promotion and growth, recruitment, engagement, and working environment. Unweighted disclosure in which an item is recorded as 1 and 0 for its presence and absence respectively is considered to remove different weights of an item by different user groups. Disclosure practices were selected and validated through a pilot study of 136 company annual reports from selected companies across different industries before main data collection. A large dataset was used for the pilot study to be sure of how the data results are most likely to be. The Table 5 below shows a checklist of various HRMP disclosure categories and their item.

Table 5: HRM PRACTICE CHECKLIST

FINANCIAL REWARD

Salary/Wages Increase

Bonus

Benefit

Share Option

Profit Sharing

RECRUITMENT AND SELECTION

Recruitment

Recruitments Agency

Recruitment Consultant

Interview

Selection

TRAINING AND DEVELOPMENT

Training Needs

Induction

Employee Training

Job/Professional Training

Training evaluation

WORKING ENVIRONMENT

Flexible Working/Working from home

Health and Safety

Teamwork

Working Relationship

Physical environment

GROWTH AND PROMOTION

Career Development

Career Advancement

Promotion

Professional Development

Remuneration Progression

ENGAGEMENT/COMMUNICATION

Feedback

Communication

Engagement

Meeting

Appraisal

4.5.2 Variable Definition

Though the above sub-items of HRM practices have been selected based on an effective development of checklist, it was also based on literature.

4.5.2.1 Financial Rewards

Monetary rewards (Financial rewards) are a very powerful determinant of employee motivation and performance which in turn can lead to an organizational level performance (Aguinis et al., 2013). Financial reward has become crucial in stimulating employee performance therefore pay, bonuses, profit-sharing, and employee benefits play a vital role in motivating employees as confirmed by many researchers. Yousaf et al. (2014) considered pay (salary or wages), benefits, and bonuses, under financial reward measures that impact performance and indicated that financial rewards like salary, benefits, and bonuses are instruments in fulfilling the necessities of life. Long & Shields (2005) likewise, in their study at Canadian and Australian firms outlined financial reward measures geared toward performance. The overall result shows that Australian and Canadian firms showed a similar rate of most forms of performance pay with the profit-sharing being exceptional. Their study employed salaries, bonuses, share-option, benefits, and profit-sharing as sub-elements of financial reward. Oni-Ojo et al (2015) similarly, conducted a study on employees' incentives and job satisfaction in the Nigerian manufacturing industry. Their study found that financial reward such as bonuses, salaries, and fringe benefits improve the performance of employees. Based on a sample of 127 respondents from both managerial and non-managerial employees, Oni-Ojo et al (2015) considered employees' rewards such as steady payment of salaries, other benefits, bonuses for high performance, and fairness of profit share. Edirisooriya (2014) using questionnaires considered extrinsic rewards such as bonuses, benefits, and pay (salary scales based on job categories). Based on a sample of 100 employees from a public organization in Sri Lanka, their study found that there is a positive correlation between these financial rewards and employees' performance. Likewise, Safiullah (2014) also used salaries, and benefits as factors of rewards that motivate people at work. The choice of financial rewards such as salaries, bonuses, share-option, benefits, and profit-sharing are in line with prior studies and consist of other HRM studies such as Long & Shields (2005), Safiullah (2014), Oni-Ojo et al. (2015), and Edirisooriya (2014).

4.5.2.2 Working Environment

Riyanto et al. (2017) has indicated that the working environment involves physical and non-physical environments that cannot be separated from the business development of employees'

performance. Raziq & Maulabakhsh, (2015) in their study: “The impact of working environment on Employees’ satisfaction in the city of Quetta in Pakistan” used a conceptual model, working hours, relationship with co-workers, job safety and security, and top management relationship as variables. The study revealed that the working environment plays a vital role in attaining job satisfaction. Working environment measures used against employee satisfaction were physical working environments, satisfaction with working hours, job safety teamwork, and help from a co-worker. Almutawa et al (2015) mentioned that the environment at work includes a social unit with employees working together (teamwork and working relation). Pheng and Chuan (2005) also included team relationships, project environment (physical working environment), and working hours as working environment factor that impacts work performance. Following the studies and the literature above, this study employed teamwork, flexible working hours, health and safety at work, working relationships, and the physical working environment under the working environment to assess how they impact FP in FTSE firms in the UK. Good health and safety at work for instance reduces fines, absenteeism through injuries, increases productivity as employees are healthier and happier, and all these impacts FP. Offering employee’s flexibility to balance their social or family life with work also improves employees' health, and well-being and subsequently impacts FP.

4.5.2.3. Communication and Engagement

Engagement is defined as “the employment and expression of a person’s preferred self in task behaviours that promote connections to the work and to others, personal presence (physical, cognitive and emotional) and active full performance” (Guest, 2014 p,143). Marrelli (2011) also saw employee engagement as a high level of motivation to do the work, together with a passion for the work and a feeling of a person connected to the organization. Communication however is a process of information transmission and common understanding from one person to another (Adu-Oppong & Agyin-Birikorang, 2014). Lim & Greenwood (2017) compared two contemporary corporate social responsibilities (CSR) communication strategies (responsiveness and engagement), along with communication channels in achieving CSR goals (employees’ goal, community goal, and business goal). The study found that the CSR engagement strategy has a positive and significant impact on achieving all three CSR goals. However, the responsiveness strategy has a positive impact on community goals and business goals but not on employee goals. CRS communication strategies outlined include holding a meeting, soliciting stakeholders’ opinions, engaging in dialogue with employees, meeting with representatives for their feedback, and taking employees' comments (Ridha, 2017). Da Costa

& Loureiro (2019) discussed that creating an event to get employees together, power of recognition, and feeling part of an organization is vital in creating happiness at work and retaining talent. In their study on the importance of employees' engagement in organizational success, they stated that when employees are happy at the workplace, they take ownership of the organization, become more focused, and have a high-quality standard is achieved. Similarly, Rajhans (2009) studied effective organisational communication on employees' motivation and performance. Using interviews with employees from Vanaz Engineering Ltd, the study analysed that the company follows their communication plan in the form of regular meetings with the employees, assists and guides employees in their work and progress, offers them praise for good work, and recommends them for career development programme (appraisal) through regular departmental meetings. Following the above studies, this current study employed communication/engagement measures such as meetings, employees' feedback, appraisal, engagement, and communication as sub-variables to determine how continuous improvement on these factors impacts FP.

4.5.2.4. Training and Development:

Aguinis & Kraiger (2009) maintained that training is a programme to help the employee learn a specific skill and knowledge to improve performance in their role. Malhotra et al. (2007) in their study: "Linking Rewards to Commitment in UK call centres" found that training can be very useful to promote normative commitment as it empowers employees to perform at the desired level. Types of training employed in their study include induction, continuous training for employees to provide a good service, and regular training to keep up to date with good services (Malhotra et al 2007). They posited that in call centres that are technology-driven, training is crucial for quality services. Nikandrou et al. (2008) also investigated the impact of training and development on organizational performance in 14 European countries. Their findings pointed out the importance of cultural, institutional, and organizational factors in analysing the relationship between training development and performance. Training and development practices they considered in their study were training formation, HR involvement in training and development, training needs analysis, training evaluation, and employee training. Nikandrou et al. (2008) clarified that these practices were selected, as effective training practices involve a systematic approach to developing training programmes using a training design process that begins with training need analysis and ends with an evaluation of the training. Kulkarni (2013) mentioned that training should be done in a systematic order starting from need analysis, designing of the training, implementation of the training, and

ending with the evaluation to get a good outcome. Following the work of Nikandrou et al. (2008) and Malhotra et al (2007), this study used training need analysis, induction, job/professional training, employee training, and training evaluation to establish how training impacts FTSE firms in the UK.

4.5.2.5 Promotion and Growth

Employees tend to put more effort toward their organization if they perceive enough promotion and growth opportunities available for advancement. Malhotra et al. (2007) explained that when employees perceive promotional opportunities at the workplace, they become committed to the organization. Malhotra et al. (2007) however, considered promotional opportunity as an independent variable that may enhance employees' commitment at call centres in the UK. To obtain information about promotion opportunities at call centres, employees were asked to indicate if there is enough opportunity for advancement and promotional opportunities at the call centre. Son & Kim (2021) examined the role of organizational career growth in relation to career commitment, as mediated by work engagement in South Korean hotels and resort companies. Using 330 employees' responses, the study found that work engagement mediates the relationship between organizational career growth and career commitment. Career growth measures that were considered in Son and Kim's (2021) studies include career progression, professional progression, remuneration growth, and promotional speed. This study however adapted both Son and Kim (2021) and Malhotra et al. (2007) career and promotional growth measures to determine how these measures would affect FP in FTSE firms in the UK. Promotion and growth measures that have been used in this study are advancement opportunities, promotional opportunities, career development, remuneration progression, and professional progression.

4.5.2.6. Recruitment and Selection

Hsu & Leat (2000) presented and discussed the findings of a survey of the recruitment and selection process and practices of the manufacturing industry. Some of the recruitment and selection methods and techniques used in their study include promotion from within, selection, recruitment, interview, direct application and application forms, recruitment agency (private and public), recruitment consultant, and job rotation. With the 156 respondents for the study, the evidence showed that line managers share HR responsibilities rather than giving them sole responsibility. Line managers' responsibilities seem stronger in recruitment and selection process, particularly regarding the final hiring decisions. In line with Hsu & Leat (2000) recruitment and selection methods and techniques, this study applied recruitment, selection,

interview, recruitment consultant, and recruitment agency as recruitment and selection methods to assess how they impact 350 FTSE firms in the UK. These practices have been employed because effective recruitment practices comprise a systematic approach to hiring by using a recruitment strategy or process that is set up with choosing appropriate qualified personnel or agents to do the interview, selecting an appropriate candidate on merit, and recruiting them to fill the gap.

4.5.3. Scoring Process and Decision Rules

In using content analysis, decision rules and scoring process should be specified. The reason for the scoring process and the decision rule is to clarify how HRM items are scored and coded when handpicking from the sampling unit. Quantitative manual coding has been used instead of computer-aided methods because manual coders are generally expected to be superior in judging meaning in a particular context (Kabanoff & Daly, 2000). Manual coding helped to identify words with similar meanings (Massaro et al., 2016) in a sentence. For example, performance appraisal, performance review, and performance evaluation can be understood in their true sense and coded accordingly. The scoring process and decision rule as stated by Emilio (2019), is an approach that can be seen as the only method of conveying qualitative information to quantitative for it to be further examined. Hackston & Milne (1996) posited that in using content analysis a clear scoring process and decision rules should be specified. Scoring rules for content analysis reduce subjectivity as well as improve the quality of the results (Emilio 2019, Hackston & Milne, 1996). Hackston & Milne (1996) indicated that the coding process and decision rule specify how disclosure items are selected and coded which enhances the level of reliability. To check the reliability of the process, an independent person followed the coding rule and process to check if the results are replicated. Following Hackston & Milne (1996), social decision rule and Vithana et al. (2021) and Aburaya (2012), the following scoring rules were selected.

- Any disclosure (sentence) that talks about HRMP concerning employees would be selected. It does not matter how many times an item is mentioned, it is recorded as 1 when mentioned and 0 if not mentioned.
- Any sentence of HRMPs for employees disclosed in the annual reports regardless of how it has been designed, presented, or formatted is selected and recorded. As a result, narratives, non-narratives such as photographs, charts, and other pictorial presentations as well as financial statements, would be recorded e.g., pictorial representation with a

sentence (disclosure) of the number of trainings allocated or done by employees in the year would be selected. Also, report or narrative information from the annual report showing how employees are rewarded with HRMPs would be selected irrespective of the reporter or presenter (employees, manager, CEO, board of directors).

- If the discloser discussed more than one possible classification, the item would be classified under each category as the intention is to find out what the organization prides itself on doing. E.g., company “A” offers customer service training to their employee and promotes highly competent employees to a senior role. Such sentences would be categorized as job training and employee promotion.
- An item which has already been selected and recurred on the same sampling unit (annual report) is disregarded. This means that more than one disclosure holding the same information is coded once.
- All disclosures must not be or have implied meanings. They should be explicitly stated.

After a decision has been made on scoring rules, it is also important to decide on the scoring system to determine how an item is scored. There are two key methods (scale disclosure and dichotomous process) for establishing a scoring system to determine the disclosure level (Cooke, 1989). First is the scale disclosure system in which different weights are attached to different disclosure items which was advocated by Copeland et al. (1968). Digit one to any range that is deemed necessary is attached to different disclosure with digit 1 representing the low strength of the disclosure item and 5 representing the high strength of the item disclosed if the weight attached is up to 5. This makes one disclosure more valuable than another. Cooke (1989) emphasized that giving weight to different disclosures is subjective. Marston & Shives (1991) quoted that attaching weight is irrelevant and reported that different user groups may attach different weights to different items (Marston & Shives, 1991).

The other scoring system this study employed is a dichotomous process (binary) in which an item is scored 1 if it is disclosed and 0 if it is not disclosed (Cooke's 1989). Cooke (1989) used unweighted (dichotomous process) scoring system and acknowledged that it is not subjective. This has been employed in this study to remove subjectivity associated with scale disclosure. Five sets of six items in Table 5 were entered in Excel using 0 or 1 to mean No or Yes to indicate undisclosed or disclosed items, respectively. Vuontisjärvi (2006) used unweighted disclosure when picking up HRM items and suggested that it is a reliable and simplest form

when using content analysis. The use of an unweighted scoring method enables the study to be free from the bias of a user group.

HRM intervention is categorized into six (financial reward, training, and development, growth and promotion, recruitment and selection, working environment, as well as communications and engagement). Each intervention has five sub-divisions making the total items 30. These five sub-division were obtained after intensive review of literature on the HRM that have also used sub-division, especially, a few that have used disclosure items (Vithana et al. 2021, and Aggarwal, 2022). To lower the effect or influence of non-normality and quasi-continuous assessment, binary coding was employed. Binary coding ensures that the subjective nature of attaching a different weight to a different sentence is removed. Binary coding (0 or 1) was used to code each sub-item identified in the annual report using 1 to indicate the disclosure item and 0 when not disclosed. Other HRM studies that have used binary coding include (Gallego-álvarez et al. (2014), and Zheng et al. (2006).

All the disclosed sub-item scores under each variable to define the level of disclosures under each main variable were added. The maximum score that an organization could obtain is 30. The six-year data was selected from the 350 FTSE firms to have many firm year of observations. It also generated longitudinal data to lower the estimation variance for better predictive performance. The six years of data enabled the researcher to discover developments or changes in the trend of the target firms at different years as it extended beyond a single moment in time. The six years of data allowed for the examination of both linear and non-linear relations proposed to be investigated. It also provided panel data for detailed analysis as most of the studies of HRMP (Agyabeng-Mensah et al. 2020, Barpanda & Bontis 2021, Mousa & Othman, 2020) are based on cross-section data. The data was analysed by employing multiple regression analysis to establish whether a linear or non-linear relationship exists between HRMP and FP. Descriptive statistics such as mean, median, maximum, minimum, skewness, and kurtosis were also computed from the panel data.

Table 6: Sample Summary of Table for Coded HRM Practice

Company: Auto Trader	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Staff Rewards							
Increase in Salaries /wages	1	0	0	0	0	0	p106
Bonus	1	0	0	0	0	0	p99,
Profit-sharing	0	0	0	0	0	0	
Share option	1	1	1	1	1	1	p115,111,99, p93,p70, p80
Benefit	1	1	1	1	1	1	P132,107,98,95,p87,p92
Total	4	2	2	2	2	2	

Company: Auto Trader	2021	2020	2019	2018	2017	2016	
Training and Development							
Training Need Analysis	0	0	0	0	0	0	
Job/Professional/Training	1	1	1	1	1	1	P52,29,p37,p44,p39,p41
Induction	1	1	1	1	1	1	P10,43,p37,p44,p78,p41
Employees Training	1	1	1	1	1	1	p10,P56,p19,p37,74,p21,
Training Evaluation	0	0	0	0	0	0	
Total	3	3	3	3	3	3	

Company: Auto Trader	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Promotion and Growth							
Advance Opportunity	1	1	1	1	1	1	P67,43,37,p44,p43,p41
Promotion Opportunity	1	1	1	1	1	1	P104,70,59,p44,p43,p41
Career Progression	1	1	1	1	1	1	P67,43,p37,p44,p43,p41
Remuneration Progression	0	0	0	0	0	0	
Professional Progression	1	1	1	1	1	0	P68,43,p37,p44,p39
Total	4	4	4	4	4	3	

Company: Auto Trader	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Recruitment and Selection							
Recruitment Consultant	0	1	1	1	0	0	P92, p39
Recruitment	1	1	1	1	1	1	P99,57, p39,p21,p43,p36
Interviewing	1	1	0	0	0	0	p51, P44
Selection	0	0	0	0	0	0	
Recruitment Agency	0	1	0	0	0	0	p59, p82,
Total	2	4	2	2	1	1	

Company: Auto Trader	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Working Environment							
Flexible Working/Working from home	1	1	0	0	0	0	Pp9,28,
Health and Safety at Work	1	1	1	1	1	1	P39,54, p40,p47,p39,p42
Working Relation	0	1	0	0	1	0	P43, p43,
Teamwork	1	1	1	1	0	0	P52, p25, p45,p47,
Physical Working Environment	1	1	1	1	1	0	p61,p39,p40,p47,p42
Total	4	5	3	3	3	1	

Company: Auto Trader	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Communication/Engagements							
Engagement	1	1	1	1	1	1	P54,p5,p44,p39,p41,p40
Meetings	1	1	1	1	1	1	p24,54,p33,p37,p39,p40
Appraisal	1	1	1	1	1	0	p57,p33,p44,,p38,p67
Feedback	1	1	1	1	1	1	P98,43,p36,p44,p39,p40
communication	1	1	1	1	1	1	P78,54,p36,p44,p39,p40
Total	5	5	5	5	5	4	

Company: Barr	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Staff Rewards							
Increase in Salaries /wages	1	1	1	1	1	1	77,p98,p57,p62,p66,p60
Bonus	1	1	1	1	1	1	77,p98,p57,p62,p66,p78
Profit-sharing	0	0	0	0	1	0	p65
Share option	1	1	1	1	1	1	346,p91,p99,75,97,18,50
Benefit	1	1	1	1	1	1	p99,91,140,58,33,31,100
Total	4	4	4	4	5	4	

Company: Barr	2021	2020	2019	2018	2017	2016	
Training and Development							
Training Need Analysis	0	0	0	0	0	0	
Job/Professional/Training	1	1	1	0	1	1	p28,p27p26,p31,p20
Induction	1	1	0	0	1	0	p25,p24,p30
Employees Training	1	1	1	1	1	1	p24,27,p42,p36,p36,p50
Training Evaluation	0	0	0	0	0	0	
Total	3	3	2	1	3	2	

Company: Barr	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Promotion and Growth							
Advance Opportunity	0	0	0	0	1	0	p32
Promotion Opportunity	0	1	1	1	1	1	p112,p74,p41,p50
Career Progression	1	1	1	1	1	1	p28,p90,p84,p74,p41,50
Remuneration Progression	0	0	0	0	0	0	
Professional Progression	0	0	0	0	0	0	
Total	1	2	2	2	3	2	

Company: Barr	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Recruitment and Selection							
Recruitment Consultant	0	0	0	0	0	0	
Recruitment	1	1	1	1	0	1	p28,28,27,64,28
Interviewing	0	0	0	0	0	0	
Selection	0	0	0	0	0	0	
Recruitment Agency	0	0	0	0	0	0	
Total	1	1	1	1	0	1	

Company: Barr	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Working Environment							
Flexible Working/Working from home	1	1	0	0	0	0	p26,30
Health and Safety at Work	1	1	1	1	1	1	25,p26,p24,p36,p12,p93
Working Relation	0	1	0	1	0	0	p10,p12
Teamwork	1	1	1	1	1	1	p27,p8,p12,p34,p20
Physical Working Environment	1	1	1	0	0	0	pp25,p21,24
Total	4	5	3	3	2	2	

Company: Barr	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Communication/Engagements							
Engagement	1	1	1	1	0	1	p8,p8, 82,p79,49
Meetings	1	1	1	1	0	1	p26,p65,82,73,49
Appraisal	0	0	0	0	0	0	
Feedback	1	1	1	0	0	1	p60,p30,p27,p29
communication	1	1	1	1	1	1	24,p25,p82,p79,p11,p49
Total	4	4	4	3	1	4	

Company: Big Yellow	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Staff Rewards							
Increase in Salaries /wages	1	1	1	1	1	1	p101,82,84,p76,p75,p72
Bonus	1	1	1	1	1	1	p46,18,p70,p18,p19,p17
Profit-sharing	0	0	0	0	0	0	
Share option	1	1	1	1	1	1	p118,p95,p99,p57,61,57
Benefit	1	1	1	1	1	1	40,148,p78,p41,124,155
Total	4	4	4	4	4	4	

Company: Big Yellow	2021	2020	2019	2018	2017	2016	
Training and Development							
Training Need Analysis	0	0	0	0	0	0	
Job/Professional/Training	1	1	1	1	1	1	44,p39,p190,p16,p38,14
Induction	0	0	0	0	1	0	p41,
Employees Training	1	1	1	1	1	1	p19,p21,p11,p37,p41,p5
Training Evaluation	0	0	0	0	0	0	
Total	2	2	2	2	3	2	

Company: Big Yellow	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Promotion and Growth							
Advance Opportunity	0	0	0	0	0	0	
Promotion Opportunity	1	1	1	1	1	1	p84,p67,p71,p27,p41,27
Career Progression	1	1	1	1	1	1	p84,83,p59,p61,58
Remuneration Progression	0	0	0	0	0	0	
Professional Progression	0	0	0	0	0	0	
Total	2	2	2	2	2	2	

Company: Big Yellow	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Recruitment and Selection							
Recruitment Consultant	0	0	0	0	0	0	
Recruitment	1	1	1	1	1	1	p26,p46,p27,p19,p68,39
Interviewing	0	0	0	0	0	0	
Selection	0	0	0	0	0	0	
Recruitment Agency	0	1	0	0	0	0	p83,
Total	1	2	1	1	1	1	

Company: Big Yellow	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Working Environment							
Flexible Working/Working from home	1	1	1	1	1	1	p4, 58, p50, p41,41,p39
Health and Safety at Work	1	1	1	1	1	1	p60, p14, p44,p35,57,41
Working Relation	0	0	0	0	0	0	
Teamwork	0	0	0	0	0	0	
Physical Working Environment	1	0	1	1	1	1	p60, 9, p7, p16, p16,p14
Total	3	2	3	3	1	3	

Company: Big Yellow	2021	2020	2019	2018	2017	2016	Notes/Pages Numbers
Communication/Engagements							
Engagement	1	1	1	1	1	1	p19, 67, p18,p37,15,p39
meetings	1	1	1	1	1	1	p63, p67 p50,41,57, p39
Appraisal	1	0	1	1	1	1	p19, 44, p41,p16,p38,36
Feedback	1	0	0	1	1	0	p111, p36, p38, p9,
communication	1	1	1	1	1	1	p45, p40, p44, p58, p39
Total	5	3	4	5	5	4	

4.5.3.1. Reliability of Coding Process

Rigorous reliability is assured through the coding criteria and measurement tool developed to identify and categorise disclosures from annual reports as well as the accuracy and consistency with which the researcher applied these definitions and instruments. Thus coding reliability and measurement reliability were established through rigorous processes of Krippendorff's (1980) identified reliability. Guthrie & Abeysekera (2006) mentioned that for content analysis to be effective, the categories of disclosure must be visibly defined, the data capture must be systematic, and it should demonstrate some features of reliability and validity. Krippendorff (1980) identified three reliabilities for content analysis as accuracy, stability, and reproductivity. Reliability is the consistency or stability of the score over time while validity is the extent to which an instrument measures what it intended to measure (Maina, 2019). Reliability is about how the measuring instrument brings the same results on the repeated test. Hassan & Marston (2012) identified three forms of reliability test as test and retest, inter-coder, and internal consistency. The three forms of reliability outlined by Krippendorff (1980) were identified in this study through the following process: Two pilot studies were conducted using 52 and 136 companies respectively, at different periods. Selected annual reports were coded by the researcher at different time intervals (one-month difference). An independent coder who

has been trained to use the coding system in the research was asked to pick some of the annual reports already coded by the researcher and code them. He recoded some of the annual report for the first pilot study and precisely examined and coded 25% of the annual report (136 companies) that have been coded by the researcher to test for precision, accuracy, and consistency in the coding system. This was also used in the second pilot studies. As the picking of the data went along, the independent coder who had used the coding system in the research was asked to pick a few of the annual reports and code them. There were not significant differences in each case. Well-defined decision rules established were strictly followed.

With the sample of the company annual reports using both the researcher and the independent coder, only two annual reports did not tally between the researcher and the independent coder and the difference was one (1) from each annual report. Thus, very slight variation was observed. This showed that the findings/results were replicable. The researcher further checked if there had been a switching of items within categories as the raw data had page numbers in which an item found were color-coded at the initial stage. None of these were found. In effect, the accuracy of the recording process was secured for the researcher to continue to pick the items from the sampling unit.

Krippendorff (1980) reproductivity of reliability was secured through intercoder reliability by allowing different researchers (independent) who have used the same process before to take some of the annual reports and code them. Multiple coders are used to ensure replicability of the process involved in coding. Straight variations found were discussed to reach an agreement. Aside from the coding process to identify the well-defined and established HRM checklist from the annual report, strict decision rules were also established based on many criteria stated above. The well-defined checklist, decision rules made in advance, multi-coder, repeated coding at different intervals, and the pilot study were all done to enhance the reliability of the disclosure measurement and content analysis.

Aside the above reliability test, the researchers also considered an excellent technique of internal consistency. Internal consistency shows how well different items measure the same issue. Cronbach's alpha, as stated by Christmann & Van Aelst (2006) as a measure of internal consistency, was used. It has been widely used in the context of multi-item assessment instrument tests which measure internal consistency to check reliability (Amirrudin et al. 2020). It measures reliability scale. To provide internal consistency of reliability test, its value express between 0 and 1 (Bonett & Wright, 2015). Alpha value of 0.70 is good. It has been

stated that an alpha level of 0.60 is questionable. The higher the Cronbach's alpha value, the more reliable the instrument is in measuring construct (Amirrudin et al. 2020). The value of 0.70 is used as the cut-off point for alpha (Amirrudin et al. 2020). Alpha level below 0.70 shows that there is a problem. The appendix 9 shows that the overall alpha level is good.

4.5.3.2. Measurement of Disclosure Indices

A disclosure index measures the extent of disclosure revealed by a company over the total list of disclosure checklists. A disclosure checklist was developed, and the disclosure index was computed as the total number of disclosures found over the maximum disclosure possible (Vithana et al. 2021). The checklist created was used to develop disclosure indices for each of the total HRMP disclosures of each category of HRMP. The disclosure index calculates the percentage of the disclosure score obtained by an organization to the maximum possible score projected (Rimmel, 2003, Cooke, 1989). The disclosure/presence of an item in the sampling unit (annual report) was record 1 and absence 0. There was no differentiation between the relative importance of item information as it only emphasized the existence of HRMP in the sampling unit. The overall organization index was calculated, as well as the indices for each of the categories. The total score of each HRMP was calculated to each HRMP disclosure category in the checklist by putting together the scores of all the items within each category. A total score was also awarded to HRMP disclosure through addition of the score of all disclosure categories to get total score for the organisation. The highest quantity score which each company could get for comprehensive disclosure was 30. Disclosure number/quantity indices are calculated as a percentage of the quantity score awarded to maximum applicable quantity score. The total HRMP disclosure quantity index is measured as the percentage of the total quantity score awarded to the maximum applicable quantity score. Equally, HRMP disclosure category quantity index is measured as the percentage of category of quantity score awarded to maximum applicable category quantity score.

4.5.3.3. Validity of Disclosure Measurement

Validity is when the measuring instrument measures what it claims to measure (Dumay & Cai, 2015). Validity demonstrates evidence that the process or instrument measures a concept it intended to measure. The three main types of validity are content validity, construct validity, and criterion validity (Schijven & Jakimowicz, 2003). Gyamfi et al. (2022) confirmed the different types of validity as criterion, content, and construct. Various tests are necessary to measure the validity of the disclosure index. Schijven & Jakimowicz (2003) indicated that the type of validation intended to use must be related to the purpose of the content of interest.

Aburaya (2012) mentioned that the validity of disclosure index are measured through construct validity and content validity.`

Content validity, as stated by Hassan & Marston (2010), involves seeking subjective judgment from experts/professionals and or non-experts on how well an instrument measures what intended to measure. It consists of seeking feedback (Jalal, 2012). Content validation has been assessed in this study by attending academic conferences to collect scholarly feedback and attending a writing retreat for feedback. The work was also sent to a quantitative expert who is also HR person from the university of Derby for his feedback.

Schijven & Jakimowicz (2003) mentioned that construct validity is often seen as the central theme for study validation. Hassan & Marston (2012) highlighted that a test of construct validation of the measure of disclosure requires a pattern of consistency of a result with past studies. Past study of HRMP have used disclosure as causal effect to measure how they impact on organisation success (McCracken et al., 2018, Vithana et al., 2021). Studies that have accessed their validation through construct validation include Fong et al. (2011). Construct validation focuses on consistency with theoretical prediction and supporting information from the literature (Schijven & Jakimowicz, 2003). With the use of correlation analysis, two tests were done to check the construct validity of the disclosure indices. This is in lined with the study of Aburaya (2012) and Botosan (1997). Correlation between disclosure indices and individual/element indices has been used. Besides, the correlation between the disclosure indices and significant explanatory variables identified in past studies were employed to validate the disclosure index.

Another form of validity is Criterion validity. It is evaluated whether there is a significant correlation between a measure and external criterion (Hasan and Marston, 2010). The assessment tool is considered valid if there is a strong association between the new measure and the old one. It is used to compare results with another criterion of interest (Luo et Al, 2019). Criterion validity, as shown by Hassan and Marston (2010), has less possibility to be used in social sciences, as usually there is no established criterion to be compared. Criterion validity was not considered in this study, as there was no established standard for human resource management measures.

4.6 Determining the Alpha Level

Hypothesis is common in quantitative research. There can be either null or alternative hypotheses (Greenwald, 1975). Null hypothesizes, as explained by Bulajic (2012), indicates

that nothing has been scientifically proven. Alternative hypothesis indicates that there is a significant difference between the variables. As indicated by Bulajic (2012), the alternative hypothesis is a hypothesis that is accepted. The alternative hypothesis implies that the independent variable impacts on dependent variable.

At the beginning of a research, it should be assumed that the null hypothesis is true. As the probability of the null hypothesis being true and it is expressed between 0 and 1, 1 representing 100 percent likely, 0.5 being 50 percent likely and 0 percent being 0 percent likely. The *p-value* tells how likely it is that the data could have occurred under the null hypothesis. Thus, the degree of statistical significance is usually expressed as a *p-value* between zero and one where *P* is probability. The smaller the probability value, the stronger the evidence that the null hypothesis is rejected (de Ruiter, 2019). In this study, the alpha level, which is a significant level is set before the data is collected to avoid being biased. Alpha is a threshold value used to determine if a test statistic is statistically significant. It shows how firmly the evidence must reject the null hypothesis before it is rejected. In this study, the significant level is set at 0.05 which indicates that strong evidence is required before the null hypothesis would be rejected (Sinclair et al., 2013).

4.7 Panel data analysis

An econometric model was used for the analysis of the panel data. Panel or longitudinal data is a means of studying a given sample of individuals over time, presenting multiple observations of each of the individuals in the sample (Yaffee, 2005). It comprises the use of multiple cases such as people, firms, sites, countries, etc. that are observed at two or more periods. They constitute many observations over periods or several units such as individuals, firms, and countries. This allows the researcher to analyse the dynamics of change within the frame of the time (Seetaram et al., 2012). Solon & Hsiao (1987) indicated that panel data usually offer the researcher a large number of data point and therefore increasing the degrees of freedom and easing the collinearity among explanatory variables and improve the efficiency of the econometric estimates. Hsiao (2007) confirmed that panel data present a lot of advantages which is lacking in the use of cross-sectional data. Panel data allow the researcher to analyse several important economic questions that cannot be analysed by cross-sectional data. The use of panel data allows for control for unobserved heterogeneity (Seetaram et al., 2012). Panel data facilitate the identification of models that cannot be addressed on single-outcome data (Arellano & Bonhomme, 2011). Panel data was employed in this current study

to avoid a short snapshot of the result, and to analyse the linear and non-linear relationship of the variable under investigation.

Notwithstanding the advantages of panel data, it faces some disadvantages. Panel data is not as easy to work with as it sounds (Park, 2011). Park (2011) explained that the problem of panel data ranges from the data itself, modelling process, interpretation, as well as the presentation of the results.

4.7.1 The Panel Regression Model

Panel data are longitudinal data or data that are collected at different points in time. Panel data can be balanced and unbalanced panels (Kerstens & Van De Woestyne, 2014). In a balanced panel, all the variables are observed for all entities and period-of-time without missing variables (Stock and Watson 2013). It produces an overall total observation (Kerstens & Van De Woestyne, 2014). Xaisongkham & Liu (2022) used a balanced panel and showed that balanced panels are complete data and provide accurate results. In their view, balance panel data provide more accurate results than unbalanced data. An unbalanced panel has missing data for some periods (Mahdavi, 2008). Missing data are common in secondary data. As the study is based on secondary data obtained from organizations, some data for some of the organizations were missing, and therefore unbalanced panels were used. Williams (2012) acknowledged that the most common estimations for panel data are fixed effects and random effect models. As stressed by Williams (2012), the decision to use a fixed effect model or random effect model depends on many parameters that are covered in the section that follows. This has also been confirmed by Borenstein et al. (2010) who mentioned the two popular statistical models as fixed effect and random effect.

4.7.2. The Fixed Effect Model

The fixed effect model controls or partially eliminates the effect of variables whose values do not vary over time rather than estimating them (DeHaan, 2020). Fixed effects as indicated by DeHaan (2020) are often used for multiple grouping at once (firms and years). A fixed effect model is likely to control the bias caused by missing variables if there are omitted variables and these variables are associated with other variables in the model (Williams 2012). Thus, fixed effect control omitted variable bias (DeHaan, 2020). To reduce the standard error and avoid the effect of omitted variable bias, Alkaraan et al. (2023) re-run their regressions using a fixed- effect panel model. DeHaan (2020) emphasized that though fixed effects may introduce problems, they can be a powerful instrument for enhancing identification. Fixed effect is

extremely efficient when removing correlated omitted variables in each firm and each year. The fixed effect model gives a chance to estimate causal effects in analyses where units are measured repeatedly over time. Baltagi (2005) indicated that the fixed effect model is suitable when the intent is to focus on a specific set of firms or regions. It should however be noted that if there is a little variability within the subjects, the standard errors from the fixed effect model may be excessively large to tolerate.

4.7.3 The Random Effect Model

The random effect model is the primary alternative approach to estimating the causal effect with panel data (Morgan, 2013). It makes use of between-unit and within-unit variance (Morgan, 2013). The random effect model is deemed appropriate where omitted variables are absent, or the omitted variables are not correlated with the explanatory variables that are in the model. In such an instance, the Random effect model is presumed to produce unbiased estimates of the coefficients, use every data presented, and yield the smallest standard error (Williams, 2012). Though the Random effects model has the potential to deliver a more powerful test of hypotheses and can narrow confidence intervals, it is more vulnerable to omitted variable bias from unmeasured time-invariant causes (Morgan, 2013). Random effect has smaller sample validity which narrows the confidence interval level and can also estimate the effect of measured causes that do not vary over time (Morgan, 2013). Williams (2012) has shown that random effect models estimate the effect of time-invariant variables, but the estimates can be biased, as the omitted variables are not controlled. In using the Random effects model, the researcher has to make important assumptions on the pattern of the correlation between the effects that are included in the explanatory variables (Hsiao, 2007).

4.7.5 Hausman Test

Apart from practical and theoretical considerations on choosing either to use fixed effects or random effects models, there is the Hausman test which provides statistical specification tests in the decision between the two effects. Hausman test compares the results from fixed effect and random effect to check if there is sufficient evidence for the null hypothesis to be rejected (Morgan, 2013). Hausman test tells how significantly a parameter differs between the fixed effect model and the random effect model. The two models (fixed and random effects) differ significantly to reject the random effect model in favour of the fixed effect model when the Hausman test results indicated a significant difference ($P < 0.05$) between them (Clark & Linzer, 2015). However, this does not mean that the random effects estimator is safe and free from bias and should be chosen instead of the fixed effects estimate if the Hausman test does not show a

significant difference ($p > 0.05$) (Clark & Linzer, 2015). Thus, if the Hausman test declines the null hypothesis, it is not likely that because the true correlation is zero and that the Random effect model is not biased but instead, there is insufficient statistical power in the test to reliably identify departure from the null (Clark & Linzer, 2015). In many cases, of course, a biased estimator (Random effect) can be preferred to the unbiased estimator (fixed effects) if the Random effect provides sufficient variance over the fixed effects (Clark & Linzer, 2015). If the null hypothesis is rejected, conventional wisdom recommends the use of fixed effect estimations (Dieleman & Templin, 2014). Aside supporting the theoretical models for employing either fixed or random effect, employing the Hausman statistics, suggested that, the effect model was more appropriate.

4.7.6. Generalised Methods of Moments (GMM)

Usually, the study that attempts to investigate the causes and effects of organizational performance experiences endogeneity. Researchers in business and management are increasingly becoming aware of the importance of regression analysis being affected by endogeneity (Abdallah et al., 2015). Endogeneity is a correlation between explanatory variables and the error term in a regression (Roberts & Whited, 2013). Endogeneity is a situation whereby an explanatory variable in a multiple regression setup correlates with the disturbance term (Abdallah et al., 2015). Most scholars have put forward that studies involved in regression are likely to face endogeneity because of the causality problem (Abdallah et al., 2015, Roberts & Whited, 2013). Three endogeneity problems are omitted variable bias, simultaneous endogeneity, and dynamic endogeneity (Abdallah et al., 2015).

Abdallah et al. (2015) mentioned that endogeneity may result from the omission of explanatory variables in regression which would end up in error terms being correlated with explanatory variables and violate a basic assumption behind ordinary least square regression analysis. They mentioned that it may also happen when the dependent variable is influenced by explanatory variable(s) which in turns are influenced by the dependent variable. They emphasized that such endogeneity is often a simultaneous type. In this study, the endogeneity problem could occur as an explanatory variable; HR practice, and the dependent variable; financial performance, are determined simultaneously. Whilst the study explored whether HRMP influences FP, others have argued that improvement in FP may also influence the adoption of proactive HRM practices (Yoo et al., 2021, Jeff Boakye et al., 2020).

Also, there is a significant cause of endogeneity coming from the possibility that the current HRMP could connect with the past FP of the firm or the current FP could correlate with past aggressive HR practices (Yoo et al., 2021). It is therefore essential to address trace of important endogeneity to avoid incorrect inferences and to draw unbiased conclusions. To address the possible problem of endogeneity, the study employed a dynamic generalized method of moments (GMM) to control omitted variable bias, simultaneous endogeneity, and dynamic endogeneity.

Arellano and Bond's (1991) dynamic generalized method of moment (GMM) model which can be used for dynamic panel data has been used in this study. For dynamic panel data, the cause-and-effect relationship under study is normally dynamic over time (Ullah et al., 2018). Thus, it may be possible that the previous year's HRMP could be playing a significant role in FP but not the current HRMP. To control the endogeneity, lagged values of the dependent variable are used as instruments to control the endogeneity relationship. These instruments are usually called internal instruments because they are employed from the existing econometric model (Ullah et al., 2018). GMM model normally used for panel data gives consistent results in the existence of various sources of endogeneity such as unobserved heterogeneity, simultaneity, and dynamic endogeneity.

To control for firm-specific time-invariant effects and potential endogeneity of the regressors, this study adopts the first difference GMM method. There must be no second-order serial autocorrelation in the residuals or on the reliability of the instruments examined for the GMM estimations to be deemed valid. As there is no serial correlation among the differenced residuals, the study shared the results of the first-order (AR1) and second-order (AR2) tests for serial correlations, which are asymptotically distributed as a standard normal. The study further reported Hansen's test for over-identifying restrictions that confirm the validity of the chosen instruments. In every estimation made, all these conditions/requirements were met. The model is given below.

4.7.7. The Regression Model

The basic regression model used to model the relationship between HRM practices and financial performance which addresses the research objectives are given below. All the models for all the objectives and explanations. E.g., FP=financial performance

$$FP_{i,t} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 HMRP_{it} + \beta_3 HMRP2_{it} + \beta_4 Controls_{it} + \mu_{it} + \lambda_{it} + \varepsilon_{it} \quad 1$$

$$FP_{it} = \beta_0 + \beta_1 Reward + \beta_2 Training + \beta_3 Recruitment + \beta_4 WE + \beta_5 Promotion + \beta_6 Engagement + \beta_7 Controls_{it} + \mu_{it} + \varepsilon_{it} \quad 2$$

$$FP_{it} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 HMRP_{it} + (\beta_2 HRMP_{it} \times \beta_3 COG_{it}) + \beta_4 Controls_{it} + \mu_{it} + \varepsilon_{it} \quad 3$$

Where $FP_{i,t-1}$ stands for the one-year lag of the dependent variable in the regression.

Where FP: financial performance (ROA and Market capitalisation), HRMP: Composite of Human Resource Management Practices, HRMPC: Components of Human Resource Management Practices such as staff reward (compensation), training and development, recruitment, and selection, working environment, promotion, and growth, engagement, and communication. HRMP2 is the square term of the composite HRM practices (quadratic model). Controls denote control variables: firm size (Size), liquidity (Liquidity), financial leverage (Gearing), COG also represents Corporate Governance variables such as board gender diversity, board size, board independence (NEDs represented by the number of non-executive directors). The symbol ε_{it} is the error term. The subscript i denotes the n th company ($i = 1, \dots, 350$), and the subscript t denotes the year ($t = 1, \dots, 6$). μ_{it} is the unobservable heterogeneity (individual effects) that is specific for each firm.

OLS was used as a robustness test, and in the case of OLS the model below was adopted

$$FP_{it} = \beta_0 + \beta_1 HRMP_{it} + \beta_2 HRMP2_{it} + \beta_3 Controls_{it} + \mu_{it} + \varepsilon_{it}$$

4.8. Sensitivity Analysis/Robustness Test

The credibility of the results depends on the validity or models of the analysis used. Sensitivity analysis is how the uncertainty in the output of a model can be distributed to diverse sources of uncertainty in the model input (Saltelli, 2002). The simplest form of sensitivity analysis as put forward by Taylor (2009), is to simply modify one value in the model by a given amount and examine the impact that the change will have on the model outcome/results. Sensitivity analysis is used to establish the parameters that require the research to improve and strengthen the body of knowledge and reduce uncertainty in the output. It also lowers the risk of bias estimation from possible heteroscedasticity, multicollinearity, and serial correlation. The study employed the following technique to check for the accuracy of the results. First, the study used

a different regression model. Apart from using GMM which addressed the endogeneity problem, OLS which is a popular as well as widely used method for statistical modelling due to its simplicity has also been used to assess how HRMP influences FP based on ROA for accounting-based measures and market capitalization for market-based measures. Additional financial performance has also been used. All the models follow a similar trend. Additionally, the models rejected null hypothesis of AR (1). This shows that the specification was right. The data was also split into two for pre-COVID and COVID period to assess how these periods were affected by HRMP and FP.

4.9. Dealing with Outliers

They are observations that are suspicious as they are extremely bigger or smaller than the vast majority of the observations. Outliers are considered to ensure that the regression analysis is not disturbed/distorted. Outlier detector techniques aim to find out suspicious values and address them accordingly (Beaumont & Rivest, 2009). Standardized residuals are more effective in detecting outliers. It has a standard deviation of 1 and a mean of 0 and they are calculated by dividing residuals by estimation of standard errors (Aguinis et al., 2013). An observation that has a higher standard value is most likely to be an outlier (Aguinis et al., 2013). They stressed that an observation standardized residual value does estimate an observation outlyingness of the predictor variables. Field (2013) advocated that standardized residual higher than 3 could be an outlier. It has been suggested that Cook's and Mahalanobis' distance should be used to detect outliers (Leys et al., 2018).

Cook's distance assesses the total impact of a case on the model and Field (2013) suggests that a number higher than 1 should raise a concern. Mahalanobis distance on the other hand measures the distance of a case from the mean (s) of the independent variables. Field (2013) stated that the sample size and the number of predictor variables determine the critical values of the Mahalanobis distance. He gave a range of sample sizes and matched them to predicted values for concern. For example, for a sample size of 500, he suggested that five predictor values greater than 25 should raise a concern. This study followed Standardized residual and Cook's distance for outliers, and this is shown in Appendix 10.

4.10. Multicollinearity

Multicollinearity happens in a regression model when two or more independent variables are correlated (Daoud, 2018). Multicollinearity or near-linear dependence as stressed by Daoud, (2018) is a statistical phenomenon whereby either two or more predictor variables in a multiple

regression model are highly correlated. Multicollinearity can cause problems in the analysis and can affect the results. Variance inflation factors are normally used to detect the presence of multicollinearity in regression. Multicollinearity can influence the standard error and can bring statistically significant results like all independent variables in the regression model. Variance Inflation Factor (VIF) is engaged to test for the possibility and the likelihood of multicollinearity among the predictor or explanatory variables. It reviews the degree to which the multicollinearity within the predictors lowers the precision of an estimate (O'Brien, 2007). The variance inflation factor measures how much the variance is inflated (Murray et al., 2012). In testing using VIF, rules of thumb show that VIF should not be more than 10 as this would be regarded as serious multicollinearity (O'Brien, 2007). VIF less than 10 is therefore indicative of inconsequential collinearity (O'Brien, 2007). Thus VIF more than 10 is considered serious multicollinearity exists between independent variables (Chen et al. 2013). The results from the IVF were used to determine if there was problem of multicollinearity among the variables.

4.11. Summary and Conclusion

The chapter discussed the methodology observed to arrive at the research objectives. The population of the study consists of FTSE UK firms to establish how HRMP impacts FP. This study adopts positivism to address the research questions and uses a deductive approach and quantitative method as the study is based on testing hypothesized for conclusions.

The FP which the dependent variables captured both accounting-based and market-based measures representing ROA and market capitalization. HRMP, the independent variable, considered financial rewards, training and development, promotion and growth, recruitment and selection, working and environment, and communication and engagement. The HRMP was collected from the annual report using content analysis. All the corporate governance variables were obtained from Refinitiv (Asset4). Financial performance was retrieved from the AMADEUS database for the period 2016 to 2021. Six-year data which were consistent with other HRMP studies (Boakye et al., 2020) were used. The above years were considered because they gave the latest financial statement available. The period was chosen because it offered the latest financial statement and a lot of HRM interventions that took place during the COVID 19 which coincidentally fell within the period of study. The data analysis covered the complete period (2016 – 2021), the pre-COVID, period (2016 – 2019), and the post-COVID period (2020 – 2021). This helped in the analysis of whether COVID-19 impacted HRMP and FP. The rest of the chapter detailed the process of developing a checklist of HRMP thorough discussion on

panel data, quantitative analysis selected for the study, as well as all the tests and processes done to obtain suitable results that reflected true causality. In using panel data, the Hausman test was performed to count for fixed effect and random effect models to select which one was suitable for this study. To check variance, inflation factor was used to check for multicollinearity among the variables which was expected to have VIF below 10.

CHAPTER FIVE: PRESENTATION AND ANALYSIS OF RESULTS

5.1. Introduction

Chapter five presents the descriptive statistics, generalized method of moment (GMM), and Ordinary Least Squares (OLS) regression assumption, as well as the analysis, interpretation, and discussion of the results. The chapter presents the complete descriptive statistics of the dependent variables, financial performance (FP) representations by ROA (accounting-based FP), and market capitalization (market-based FP). Descriptive statistics for the independent variables, human resource management practices (HRMPs), and descriptive statistics of the control variables are also presented. The chapter also presents bivariate correlation analysis, addresses the issue of endogeneity, identifies any problem of multicollinearity and OLS regression norms of linearity, homoscedasticity normality, and multicollinearity, and establishes how assumption violations in any of these have been addressed. The chapter further reports the main results from the regression, HRMP, and FP as well as other objectives outlined in the introduction section. The chapter further shows the robustness test by using different FP measures representing ROE and Tobin's q. OLS was also used as an alternative model to validate the results from the main model. The chapter has been structured into various sections as follows. 5.2 detailed descriptive statistics for all the variables (dependent, independent, moderation, and control variables), correlation analysis, bivariate correlation analysis, and GMM and OLS regression assumptions. 5.3-5.6 entails the analysis and interpretations of all the results. 5.7 discusses all the results and 5.8 is the summary of the chapter.

5.2 Descriptive Statistics

Descriptive statistics is used to summarize and organize data by defining the relationship between variables in a sample. The summary statistics for all the variables used for the empirical analysis are exhibited in the **Table 7** below. It shows the number of observations, mean, median, standard deviation, minimum, maximum, skewness, and kurtosis of the variables. Stata 18.0 was employed to perform statistical analyses.

5.2.1. Descriptive Statistics of Dependent Variables

Panel A and B in Table 7 gives a summary statistic for 2016 to 2021 for the observed companies listed in the FTSE firms in the UK. It shows a mean total ROA of 6.023 (6%) and a standard deviation of 12.54 (13%). It shows a minimum value of -86.39 (-86%) and a maximum value of 98.05 (98%) which suggests a wide variation in the accounting profit of FTSE firms. The negative minimum ROA implies relatively lower returns for companies in FTSE firms, which

is similar to the findings of Cancela et al. (2020) and Aggarwal (2022). Across the years 2016 to 2021, the mean for ROA ranges from 3.8 percent to 7 percent with most of the years recoding 6 % which is not different from the panel mean of 6 %. The mean value of 2021, 2018, 2017, and 2016 is greater than the total mean value. 2021 has the highest mean ROA while the lowest ROA mean was recorded in 2020. This was not different from the median as the highest median was recorded in 2021 with the lowest in 2020. This implies that the asset efficiency of FTSE firms occurred during 2021. The descriptive statistics indicates the normality of ROA for the panel as the data fell within the standard skewness that has been observed. However, ROA can be normality distributed if the standard kurtosis is less than 10. Kline (2010) and Lee and Yom (2013) have stated that normality is confirmed if the absolute value of skewness of variables is less than 3 and that of kurtosis is less than 10. However, concerning the standard kurtosis, the standard ROA data are not normally distributed because they show kurtosis above the normal range. In such instances natural log is applied. Yoo et al. (2021) mentioned that the value of skewness and kurtosis of the log-transformed variable fulfil and satisfy the assumption of normality. Darwish et al. (2013) likewise transformed all the variables that deviated from normal distribution into log (skewness and kurtosis).

In the case of market capitalization which measures the market value, 4.3 mean of the total market capitalizations were recorded. Across the years, the highest of 7.3 was recorded in 2017. There is a large variation in the market performance of FTSE firms as a minimum of -178.7 and a maximum of 722.5 were recorded. The mean and the median values of 4.3 and 1.7, respectively, indicate that the data distribution is not symmetrical. Across the years 2016 to 2021, the mean market capitalization ranges from 7.3 to 3.2 with 2017 recording the largest mean and 2020 having the least mean. This implies that the value of the FTSE firm was higher in 2021. As seen in Panel C, 2020 and 2021 had the lowest mean indicating how COVID-19 impacted the value of the share as investors might not be willing to invest their money during uncertain periods. Jong et al. (2021) study showed a drop-in share price during the COVID-19 period. They indicated that the average stock prices were exposed to market risk during the outbreak of COVID-19. Da Luz Rua Rocha (2021) mentioned that the FTSE share price was reduced by 35 percent during 2020 and indicated that such reduction might be due to COVID-19. This has been reflected in this study showing a big reduction in the mean and median of market capitalization during the COVID-period. This is contrary to Apergis et al (2022) finding which indicates that COVID-19 to have positive and significant on mean of Canadian stock returns.

ROE and Tobin's q was employed as robustness to find if alternative variables would produce similar outcomes. Panel B in Table 7 shows the summary statistic of ROE which is Net income divided by Equity. Panel B gives a mean of 16.81 for the total value of FTSE firms from 2016 to 2021. It further produces minimum value of -705.5, a maximum of 5.6.6 and a median of 11.91 showing a wide variation in accounting profit similar to the ROA in panel A. The Tobin's q which was used as an alternative for market capitalization has a similar pattern as market capitalization.

5.2.2. Descriptive Statistic of the Independent Variables

The summary statistics of the independent variable, human resource management practice (HRMP) which is the composite of financial reward, training and development, promotion and growth, recruitment and selection, working environment, and engagement and communication is presented in Table 7 Panel E to K. On the composite of HRMP, the summary statistic shows a mean of 16.57 as seen in panel E, a standard deviation of 4.44, a median of 17, and minimum value of 0, and a maximum value of 25. The mean of 16.57 indicates that more than 50% of the FTSE firms are likely to disclose HRMP as the maximum disclosure item a company is expected to have is 30. The minimum value of 0 for the HRMP indicates that there was non-disclosure for some years by some companies. The mean value and the median value suggest that there is a moderate level of quantitative disclosure of HRMP in the UK annual report. The minimum and maximum disclosure values also show a wide variation in HRMP disclosure quantity. There has been a slight consistency increase in the HRMP disclosure quantitatively throughout the study period (2016-2021). This increased pattern of HRM disclosure practices emphasises how FTSE firms are increasingly becoming aware of how their corporate responsibility is important to the public and other stakeholders in the UK. It also shows that FTSE firms are increasing the disclosure of HRMP over time. Aggarwal (2022) showed that organizations try to voluntarily disclose a lot of their HR information to improve the marketability of their shares, lower the capital cost, and increase investor confidence in the organization. The increasing trend in the HRMP disclosure is also in line with the finding of Vithana et al. (2021) who revealed an increasing trend in terms of the amount of HR index when they used 100 FTSE in the UK. They concluded that the nature of disclosure has gradually shifted from selective to more comprehensive, and more significant information is been disclosed in the annual report.

With regards to the different components of HRMP, communication/engagement and working environment have the highest means, similar to the study of Vithana et al. (2021). The

communication has a higher maximum and a higher median throughout the years compared to the other disclosures. Communication has become essential to FTSE as their stakeholders including employees need clarity and transparency of what goes on around them. Communication and working environment are relatively very high compared to the overall HRMP composite. It is also revealed that 2020 and 2021 recorded the largest communication and working environment disclosure which can be attributed to COVID-19. This is because, a lot of interventions such as working from home, social distances, handwashing, and the use of protective equipment were implemented throughout the country and the FTSE firms took this on board. Recruitment and selection showed the lowest mean and median values throughout all years of the study.

5.2.3. Descriptive Statistic of the Control Variable

Panel L to O illustrate summary statistics of the control variables in the study. Panel L is the size that represents the number of employees. The size (employees) of FTSE firms varies from 1 to 592,897. Over the years 2016 to 2021, the mean number of employees ranged from 16869 to 19802. It appears that there is a wide variation between the minimum and maximum of the size of the firm. In Panel M, summary statistics of liquidity are presented by the current ratio which shows the ability or how quickly an organization pays short-term obligations when they are due. Panel M shows the mean liquidity as 3.0 between a minimum of 0.001 and a maximum of 98.65. It shows a large variation between the minimum and maximum values among most of the characteristics of the organization. It has a median of 1.0. The mean and the median imply that most of the FTSE firms have adequate finances to satisfy their short-term obligations when they fall due.

Panel N also shows a summary statistic of gearing indicating the ratio of debt to equity. The mean for the panel is 95.7 with a minimum of 0 and a maximum of 999. The average gearing over the years (2016-2021) ranges between 84-106 with the highest gearing recorded in 2020 which shows that FTSE depended more on debt to finance its operation during 2020. The median of gearing is represented by 53%. These figures indicate that an average firm listed on the FTSE is highly geared.

Aside from the firm characteristics that may impact FP, Panels O shows corporate governance factors that may also influence financial performance which has been controlled for the study. The corporate governance factor is board diversity which shows the ratio or percentage of female representatives on the board. The board diversity shows a mean of 30% with a minimum number of 0 to a maximum of 66 % and a median of 30. Throughout the year, the diversity of

the board ranged from 23% to 37% which is consistency with the overall mean and median. The major changes made to the UK Corporate Governance Code (2010) as mentioned by Aburaya (2012), involve the annual re-election of directors of 350 FTSE firms to bring an increase in accountability to owners, inspiring well-balanced members on board where appointment should be on merits against objective criteria and reverence should be given to gender and other diversity. Gender board diversity is seen as important in the UK. Kakabadse et al. (2015) indicated that the difficulty of increasing board diversity balance in the UK has called for the initiation of new governance guidelines such as Higgs (2003) reports, drawing attention to the need to improve the diversity of the board in the UK which also requires all FTSE 350 with less than 20 % of women on board to defend their action. The mean of 30 shows that FTSE firms have met the above requirement.

5.2.4. Descriptive Statistics of the Interacting Variables

Panels P and Q provide the descriptive statistics for variables used as interaction variables, that is, board size and the ratio of the independent director on board presented in Table 7. Overall, the mean for board size as in panel P is 8 with a minimum value of 3, a maximum of 21, and a median of 9, while the standard deviation was 2.5. A similar figure (8) is recorded throughout the years with a peak in 2021 having the largest number of board members (9). The average board size is 8. This is in line with the narration of London Stock Exchange (2012) that the FTSE 350 firm now typically consists of 8 to 12 members as board of directors. Board independence, the percentage of outside directors on the board shows a mean of 68 with a minimum of 0 to a maximum value of 100 and a median of 66. The result suggests that FTSE firms are complying with the recommendations of the London Stock Exchange (2012) that half of the board should consist of independent non-executive directors in FTSE 350 firms. The mean, median, minimum, and maximum indicators are all consistent with the requirements of the London Stock Exchange (2012). The mean independence of the board is 68% showing more than half of the directors are independent non-executives which is also in line with the corporate governance code (2010) in the UK.

Table 7: The descriptive statistics

Summary Descriptive Statistics of the Dependent and All Continuous Independent Variables Based on All (335) Firm Year Observation.

Table 7: Summary Statistics for All Continuous Variables

The table accounts for descriptive statistics for all variables used in assessing the relationship between human resource management practices and financial performance on a sample of 350 FTSE firms in the UK in the period 2016-2021. It is presented from panels A to Q where each panel presents all year observations (2016-2021) as well as specific years from 2016-2021. Panels A and D present the dependent variables; return on assets (ROA), and Market Cap ROE and Tobin q. This is followed by explanatory variables which are the component and composite of human resource management practices (Financial rewards, training, and development, promotion, and growth, recruitment and selection, working environment, and communication and engagement) illustrated in panel E to K as well as panel L to N which also account for both FIRM specific variable and corporate governance variable which may affect FP and therefore are held constant for the study (firm size, liquidity, board diversity). Finally, Panel O to Q presents the moderation variables (Board independence, board size) that enhance the relationship between HRMP and FP.

Summary Descriptive Statistics of the Dependent and All Continuous Independent Variables Based on All (335) Firm-Year Observations							
Variables	Obs	Mean	Std Dev	Min	Max	Skewness	Kurtosis
Panel A: ROA (2016-2021)	1,731	6.023	12.54	-86.39	98.05	1.0993	19.7102
2016	291	6.118	10.35	-47.21	83.24	0.8507	17.0036
2017	293	6.966	7.917	-24.78	44.33	0.8930	7.2966
2018	288	7.107	11.44	-49.94	95.65	1.8689	21.4222
2019	303	5.121	13.4	-86.39	97	-0.3282	24.3872
2020	299	3.846	16.73	-81.03	98.05	1.9580	15.8573
2021	257	7.22	13.25	-55.91	65.02	0.6848	10.3563
Panel B: ROE (2016-2021)	1,706	16.81	47.49	-705.5	516.6	-0.4123	59.3766
2016	289	17.52	37.31	-248.7	224.1	0.2214	18.8405
2017	292	19.04	36.76	-262.6	316.8	1.0548	31.5056
2018	287	21.51	54.38	-241.5	414.9	3.6150	33.3691
2019	296	18.85	45.74	-168.1	516.6	5.1013	53.5332
2020	288	7.38	59.16	-705.5	274	-5.8806	77.2969
2021	254	16.44	46.6	-414.6	319.9	-1.7476	39.0381
Panel C: Market Cap (2016-2021)	1,289	4.384	27.18	-178.7	722.5	19.2761	454.5700
2016	208	4.241	33.83	-178.7	452.4	10.4982	153.7433
2017	211	7.372	52.17	-14.23	722.5	12.7160	170.8611
2018	213	4.548	21.81	-14.96	306.7	12.7925	175.4908
2019	221	3.604	10.28	-42.79	134.6	9.1714	122.4517
2020	220	3.263	4.808	-8.069	46.14	4.2147	32.4609
2021	216	3.38	7.277	-9.882	95.49	9.6347	120.4953
Panel D: Tobins' Q (2016-2021)	1,289	1.64	4.053	0.017	62.61	11.9816	166.5300
2016	208	1.606	4.252	0.018	60.18	12.7133	174.8719
2017	211	1.646	4.031	0.018	57.26	12.5946	173.4504
2018	212	1.636	4.349	0.017	60.57	11.9615	160.8259
2019	222	1.702	4.127	0.034	56.69	11.0547	144.1325
2020	220	1.55	2.915	0.037	35.41	8.0778	86.7731
2021	216	1.7	4.517	0.045	62.61	11.6266	154.9281

Variables	Obs	Mean	Std Dev	Min	Max	Skewness	Kurtosis
Panel E: HRMPS (2016-2021)	1,673	16.57	4.444	0	25	-1.6794	6.4562
2016	275	15.29	4.151	0	23	-1.7567	6.6494
2017	277	15.58	4.141	0	23	-1.6208	6.3139
2018	278	16.58	3.865	0	24	-1.8155	7.2828
2019	281	17.12	4.157	0	24	-1.8996	7.5003
2020	282	17.39	4.577	0	24	-1.8451	6.9430
2021	280	17.44	5.181	0	25	-1.8744	6.4053
Panel F: Rewards (2016-2021)	1,662	3.592	1.088	0	5	-1.3395	5.1141
2016	274	3.577	1.046	0	5	-1.5107	5.7022
2017	276	3.649	1.063	0	5	-1.3916	5.2902
2018	278	3.619	0.987	0	5	-1.2816	5.3939
2019	281	3.612	1.074	0	5	-1.5239	5.8428
2020	279	3.527	1.159	0	5	-1.2175	4.5915
2021	274	3.569	1.194	0	5	-1.1282	4.1174
Panel G: Training (2016-2021)	1,657	2.243	0.888	0	5	-0.0590	3.3039
2016	272	2.096	0.867	0	5	-0.0148	3.4137
2017	275	2.153	0.939	0	5	-0.0162	3.1111
2018	277	2.325	0.831	0	5	0.1299	3.3598
2019	280	2.289	0.923	0	5	-0.2466	3.4440
2020	280	2.261	0.855	0	5	-0.1464	3.4534
2021	273	2.33	0.892	0	5	0.0222	3.0106
Panel H: Promotions (2016-2021)	1,656	2.53	1.076	0	5	-0.5117	2.9849
2016	272	2.294	1.014	0	4	-0.5488	2.9932
2017	275	2.422	1.069	0	5	-0.3437	2.7855
2018	276	2.533	0.999	0	5	-0.5825	3.3330
2019	280	2.618	1.02	0	5	-0.5648	3.2999
2020	279	2.563	1.164	0	5	-0.5223	2.8711
2021	274	2.748	1.132	0	5	-0.6950	2.9417
Panel I: Recruitment (2016-2021)	1,657	1.365	0.733	0	4	0.8659	3.8505
2016	273	1.271	0.647	0	4	0.8953	4.5176
2017	275	1.305	0.635	0	3	0.8448	3.7875
2018	276	1.366	0.65	0	3	0.8251	3.4423
2019	280	1.396	0.716	0	4	0.8366	3.8572
2020	279	1.358	0.827	0	4	0.8197	3.6907
2021	274	1.489	0.874	0	4	0.6935	2.9538
Panel J: Working Cond (2016-2021)	1,643	3.068	1.164	0	5	-0.3124	2.5883
2016	270	2.57	1.024	0	5	-0.0656	2.6920
2017	272	2.496	1.133	0	5	0.1006	2.2046
2018	274	2.905	1.023	0	5	-0.0771	2.863435
2019	278	3.191	1.106	0	5	-0.7343	3.2635
2020	277	3.635	1.104	0	5	-0.7502	3.6342
2021	272	3.592	1.055	0	5	-0.8659	3.8633

Variables	Obs	Mean	Std Dev	Min	Max	Skewness	Kurtosis
Panel K: Communication (2016-2021)	1,607	4.138	0.999	0	5	-1.4248	5.2063
2016	264	3.803	1.143	1	5	-0.8333	2.8776
2017	268	3.847	1.106	0	5	-1.0425	3.9084
2018	270	4.089	1.02	0	5	-1.3155	4.9432
2019	272	4.276	0.889	0	5	-1.9553	8.7756
2020	271	4.443	0.772	0	5	-1.9141	8.5719
2021	262	4.363	0.832	0	5	-1.8407	7.7170
Panel L: Size (2016-2021)	1,510	18,055	46,301	1	592,897	7.5087	78.0782
2016	247	19,802	54,590	2	592,897	7.2916	68.4250
2017	264	18,053	48,075	2	573,671	7.4202	76.0216
2018	271	18,385	50,769	2	559,880	7.4422	71.3203
2019	270	17,274	44,907	2	551,748	7.6572	81.5941
2020	241	17,838	43,622	2	513,324	7.2586	74.2356
2021	217	16,869	30,249	1	231,223	3.5945	19.7968
Panel M: Liquidity (2016-2021)	1,717	3.003	8.511	0.001	98.65	6.5892	53.4604
2016	288	3.025	8.416	0.004	91.84	6.4717	54.7708
2017	290	3.22	9.995	0.001	98.65	7.2572	61.5908
2018	293	2.932	8.702	0.011	82.91	6.9461	55.3804
2019	299	2.714	7.216	0.004	74.76	6.2852	49.0463
2020	295	3.355	9.106	0.003	68.18	5.2078	31.1817
2021	252	2.74	7.192	0.003	60.17	6.0416	43.0538
Panel N: Gearing (2016-2021)	1,633	95.77	133.5	0	999.5	2.9231	13.5910
2016	273	104.4	153.8	0	889.8	2.7422	11.3667
2017	276	84.68	112.3	0	796.6	2.9601	15.4776
2018	278	89.14	129.8	0	999.5	3.3688	18.0764
2019	285	103	138.3	0	865	2.7748	12.1856
2020	274	106.1	142.1	0	841.8	2.6007	10.9433
2021	247	86.25	118.2	0	759.3	2.9246	13.5707
Panel O: Board Size (2016-2021)	1,397	8.814	2.524	3	21	0.5976	4.3166
2016	210	8.814	2.515	4	21	0.7282	4.6900
2017	229	8.703	2.551	4	21	0.6227	4.4241
2018	241	8.755	2.691	3	20	0.4877	3.6184
2019	246	8.736	2.444	3	20	0.6172	4.1058
2020	242	8.86	2.451	3	21	0.6393	4.6666
2021	229	9.022	2.496	3	21	0.5515	4.6331
Panel P: Board Ind in % (2016-2021)	1,397	68.22	16.54	0	100	0.1498	3.0997
2016	210	64.37	15.88	30	100	0.4082	2.8224
2017	229	66.13	16.96	16.67	100	0.1502	2.8711
2018	241	67.55	17.83	0	100	-0.1687	3.9521
2019	246	69.31	16.28	27.27	100	0.3551	2.5599
2020	242	69.86	16.13	20	100	0.2154	2.9681
2021	229	71.65	15.05	29.17	100	0.2595	2.8215
Panel Q: Board Diversity in % (2016-2021)	1,396	30.38	11.25	0	66.67	0.0821	3.0797
2016	210	23.19	10.14	0	57.14	0.2899	3.4006
2017	229	25.19	10.87	0	57.14	0.3257	2.9189
2018	240	28.03	10.52	0	60	0.2149	2.9948
2019	246	32.33	9.822	10	60	0.2233	2.9777
2020	242	35.33	9.842	0	66.67	0.1388	4.0134
2021	229	37.31	8.967	10	66.67	0.4367	4.2033

5.2.5 Bivariate Analysis

Bivariate Analysis helps to assess changes in the independent variables that may affect the value of the dependent variable. The study used regression analysis and a correlation matrix to examine the relationship between the independent variable and the dependent variable. The correlation coefficient therefore assists in measuring the statistical relationship between two variables and offers ideas and information about the magnitude of the association and also the direction of the relationship (Asuero et al. 2006). Moreover, it determines the strength of the linear relationship than the prediction and sample correlation coefficient (Asuero et al., 2006). As mentioned by Lee Rodgers & Alan Nice Wander (1988), any value between -1 to 1 shows the correlation between the variables. If the coefficient is equal to or closer to 1, it shows a perfect positive association between the dependent and independent variables (Asuero et al. 2006). If the coefficient is equal to or closer to -1, it shows a perfect negative relationship demonstrating that the independent variable and the dependent variable are inversely related. In this case, the higher the HRMP, the lower the FP. A coefficient of 0 on the other hand shows that there are no correlations between the two variables. The correlation matrix has also been used to test for multicollinearity in the regression models. Moreover, kurtosis and skewness were employed to check for the normality of disclosure of HRMP. The natural log was applied to variables with high kurtosis and or high skewness to lower outliers as some of the variables had higher kurtosis and higher skewness above the normal range of 3 and 10 respectively (Kline 2010). It has been argued by Tabachnick and Fidell (2007) that the influence of kurtosis and skewness value departing from the normality can be managed. It is therefore unlikely that the results would be distorted by the non-normal distribution. To test the relationship between two variable, key HRMP that have been used across various studies were considered in a panel. Thus, different HRMP and different years contributed in analysing this relationship and these has been illustrated below.

Table 7a: Distribution of Total HRMP Disclosure Over Categories

HRMP	AVERAGE CONTRIBUTION
Financial Reward	3.59
Training and development	2.24
Promotion and Growth	2.53
Recruitment and selection	1.36
Working Environment	3.06
Communication and engagement	4.13

The total of HRMP disclosure by FTSE firms has been broken down into various categories as seen in Table 7a. It shows how much each category of HRMP contributed to the average disclosure categories. It is expected that each category of HRMP can produce an average maximum of 5 and a minimum of 0. The largest average disclosure revealed was communication/engagement which revealed an average of 4.13 representing 24.6 % of the overall quantity of FTSE HRMP disclosure as seen in the table above. Thus, communication is seen as the largest component of HRMP disclosure. This shows that FTSE firms are using communication/engagement disclosure as a useful tool to make employees happy and to show the public how they value their employees. Effective communication with employees by FTSE firms is expected to increase productivity, produce quality products, bring better customer services, receive high customer ratings, and reduce product defects, and this can bring a good public perception of the organization as well as gain more customers which can subsequently impact share price and profit, and as the results boosting ROA and market capitalization. However, the smallest disclosure was recruitment and selections which was 1.36 representing 7.8 percent of the total disclosure items.

Table 7b: The Distribution of HRMP Disclosure over the year (2016- 2020)

Years	Average HRM Practice of the Year
HRMPS (2016-2021)	16.57
2016	15.29
2017	15.58
2018	16.58
2019	17.12
2020	17.39
2021	17.44

Table 7b shows the total HRMP disclosure distributed over the sample year 2016 to 2021 inclusive. It shows the distribution made by each year towards the average quantity HRMP of such disclosure. The table shows significant increasing trend in the quantity of HRMP disclosure over the years, where 2021 has the largest share followed by 2020, and 2019, with 2016 having the smallest share of disclosure. The distribution shows that COVID-19 contributed to disclosure in the HRMP. The Table 7b shows slight consistency increase in the

HRMP disclosure throughout the study period. It indicates how FTSE firms are increasing the disclosure of HRMP over time (Aggarwal 2022).

5.2.6. Variance Inflation Factor (VIF)

Panel regression data model is largely subjected to heteroscedasticity, autocorrelation, multicollinearity, and cross-section dependent variable problems which can never be ignored as it can compromise statistical inference. GMM regression models was employed with statistical package, STATA 18.0. Before employing the GMM model, a test was conducted to check if the data was good enough to be analysed. A variance inflation factor (VIF) test was done to check for multicollinearity among data which confirmed the absence of multicollinearity among the variables. The variance inflation factor (VIF) was used to measure how severe the multicollinearity in the results from the regression analysis would be. VIF lower than 10 indicates the data is free from multicollinearity (Stine, 1995). As seen in Table 8, the VIF in all the regression results has a very low value illustrating that the variables are free from multicollinearity. Table 8 presents the variance inflation and tolerance coefficients of the variables. It shows that the highest VIF is 5.21 and the lowest coefficient is 1.08 showing that there is no undesirable level of multicollinearity among the variables and can therefore be concluded that no concern can be raised about the correlation between the explanatory variables.

Table 8: Variance Inflation Factor of the Independent and Control Variables

This table accounts for the results of the variance inflation factor (VIF) to check for the existence of multicollinearity of the independent variables. All independent variables, both continuous and ordinary variables are reported. The variables are training and development, financial rewards, promotion, recruitment and selection, working conditions, and working environment. Other variables are Firm Size (Size), Liquidity, Gearing, Board Gender Diversity, Board Size, and Board Independence.

Variable	VIF	1/VIF
Rewards	1.07	0.938468
Training	1.20	0.836437
Promotion	1.23	0.812335
Recruitment	1.08	0.921998
Working Conditions	1.40	0.714799
Communication	1.22	0.820532
Size (No of Employees)	1.23	0.813975
Liquidity	1.09	0.915421
Gearing	1.10	0.910143
Board Size	1.16	0.860363
Board Independence	1.17	0.851985
Board Diversity	1.46	0.685586
Industry 2	4.99	0.200211
Industry 3	5.21	0.192033
Industry 4	2.26	0.442021
Year 2017	1.73	0.578018
Year 2018	1.79	0.557144
Year 2019	1.94	0.514852
Year 2020	2.12	0.472234
Year 2021	2.14	0.467623
Mean VIF	1.83	

5.2.7. Correlation Matrix

Table 9 exhibits the correlation matrix of the variables (dependent variable, independent variables, control variable, and other variables) used in the study. This section explores whether a relationship exists between the variables as well as the magnitude. ROA, the financial performance measure shows a significant correlation with reward (0.018^*), training (0.033^*), promotion (0.026^*), working environment (-0.06^*), communication/engagement (-0.03^*), but did not show significant correlation with recruitment (0.006). While rewards, training, and promotion show significant positive with ROA, working environment and communication shows significant negative with ROA. Though communication and working environment show a significant negative correlation with ROA, they have a much smaller magnitude. In the case of market capitalization, there is a significant correlation with all the HRMP variables (training (0.045^*), promotion, (0.073^*), recruitment (0.057^*), communication (0.021^*), with reward (-0.05^*), and working condition (-0.02^*), showing negative value. The alternative measure of

accounting-based FP representing ROE has no significant correlation with reward, training, and promotion, but had a positive significance with recruitment and a negative significance with working and environment and communication. However, the alternative to market capitalization Tobin's q had a significant relationship to all the HRMP variables except communication with reward having a negative significant relationship.

The control variables also show a significant relationship with ROA with only liquidity and board gender diversity having positive value. With market capitalization, all the control variables were significant except for gearing. However, only diversity showed positive significant value. Looking at the control variables, no significant correlation was identified between ROE and firm size. While liquidity has a negative significant correlation with ROE, board diversity and gearing had a positive correlation with ROE. Tobin q, however, showed significance with all the control variables with only diversity having positive value. In the case of interaction variables, both board size and board independence showed negative and significant relationships with both ROA and market capitalization, ROE, and Tobin's q. Apart from the fact that the correlation analysis gives evidence of the relationship between the variables, it is also highly essential because it also checks for multi-collinearity to preventing incorrect result specification from the regression. Suleiman & Suleiman (2015), for instance, stated that a multicollinearity problem arises if there exists a high correlation between two independent variables. Problems of multi-collinearity make significant variables not significant by increasing their standard error (Suleiman & Suleiman, 2015). The correlation matrix rules out the possibility of any significant multicollinearity issues as the coefficient among the independent variables does not call for concern as seen in the correlation matrix in Table 9.

Table 9: Correlation Matrix

This table reports the correlation coefficients for all variables employed in estimating the relationship between human resource management practices and financial performance. Variables are defined as follows: return on assets (ROA), Market capitalization (Market cap), Return on Equity (ROE), Tobin's q (Tob Q), financial rewards (reward), training and development (training), Promotion and Growth (prom), Recruitment and Selection (Recruit), Working Environment (WCond), Communication and Engagement (Com) firm size (Size), liquidity, Gearing, Board diversity (B Div) Board size (B Size), Board independent (B Ind)

	ROA	ROE	Mkt Cap	Tob Q	Rewards	Training	Prom	Recruit	W Cond	Comm	Size	Liquidity	Gearing	B Size	B Ind	B Div
ROA	1															
ROE	0.614*	1														
Mkt Cap	0.159*	0.575*	1													
Tob Q	0.530*	0.477*	0.570*	1												
Rewards	0.018*	0.0131	-0.05*	-0.04*	1											
Training	0.033*	0.0139	0.045*	0.045*	0.285*	1										
Prom	0.026*	0.0108	0.073*	0.085*	0.323*	0.401*	1									
Recruit	0.006	0.043*	0.057*	0.141*	0.272*	0.216*	0.288*	1								
W Cond	-0.06*	-0.07*	-0.02*	0.004*	0.220*	0.244*	0.325*	0.192*	1							
Comm	-0.03*	-0.03*	0.021*	0.005	0.212*	0.276*	0.293*	0.142*	0.306*	1						
Size	-0.06*	0.0132	-0.03*	-0.09*	-0.015	-0.0132	-0.04*	-0.02*	0.063*	0.044*	1					
Liquidity	0.059*	-0.02*	-0.02*	-0.01*	-0.089*	-0.079*	-0.06*	-0.05*	-0.03*	-0.06*	-0.081	1				
Gearing	-0.13*	0.092*	0.0191	-0.89*	0.013	-0.05*	-0.05*	-0.06*	0.010*	-0.03*	0.236	-0.14*	1			
B Size	-0.08*	-0.03*	-0.02*	-0.05*	0.159*	0.0103	0.088*	0.025*	0.131*	0.163*	0.332	-0.19*	0.201*	1		
B Ind	-0.11*	-0.08*	-0.06*	-0.08*	-0.149*	-0.132*	-0.13*	-0.04*	0.025*	-0.03*	0.076	0.239*	-0.12*	-0.3*	1	
B Div	0.022*	0.030*	0.052*	0.11*	0.042*	0.032*	0.086*	0.039*	0.251*	0.184*	0.056*	-0.01*	0.116*	0.00*	0.261*	1

Significance levels (*) are designated between 1% and 5%

5.2.8 Hausman Test (Fixed Effect and Random Effect)

In cases where OLS employed instead of GMM, in controlling for firm-specific effects, fixed effect, and a random effect were employed. The Hausman test which revealed $\text{Chi}^2 = 0.0467$ indicated that the fixed effect model was appropriate and therefore employed in the study.

5.3 Analysis and Results

5.3.1 Human Resource Management Practice (HRMP) and Financial Performance (FP)

The study employed both Ordinary Least Square (OLS) and Generalized Methods of Moments (GMM) analysis using STATA 18.0. However, the study mostly relied on the results provided through GMM for the following reasons: The GMM employed lagged variables to control any problem of endogeneity. GMM which is normally used for panel data gives uniform/consistent results in the presence of different sources of endogeneity (Ullah et al. 2018). GMM internally transforms data by including lagged data and by including the value of the dependent variable to control endogeneity and as a result provides a superior estimation model compared to the most widely used OLS. It is also suitable for short panels (Diaz-Fernandez et al. 2017, and Piva & Vivarelli, 2009). Piva & Vivarelli (2009) used GMM, employed a six-year panel, and indicated that GMM is suitable for short panels. Additionally, the specification assumption is valid when there is a correlation in the residuals of the first difference (AR1) but there is no serial correlation in the second difference (AR2). GMM as clarified by Ullah et al. (2018), offers a more efficient and consistent estimation for the co-efficient compared to other models including OLS. Meier et al. (2021) using GMM stated that it can be used to control for reverse causality and omitted variables and at the same time control for individual and time effects. Ullah et al. (2018), in their detailed analysis of the estimation technique, termed OLS as basic and placed GMM as the more sophisticated econometric model that controls different sources of endogeneity bias. The study confirmed that the Hansen test for over-identifying restriction shows that the selected instrument is valid. In all estimation, every requirement has been made. Following Diaz-Fernandez et al. (2017) and Piva & Vivarelli (2009), the study employed GMM to estimate the relation between HRMP and FP. Most of the discussions in the study follow the results obtained from the GMM models.

As indicated in the GMM results which the analysis is based on, the regression model was used to determine how quality HRMP is related to FP. The validity of the GMM model has been confirmed by the overidentifying restrictions with the Hansen test. Besides, AR (1) and AR (2) have been used to test for the first order and second-order residual correlation and this has also

been reported. From the GMM result in Table 10, the study employed both Accounting-based measures (ROA) and Market-based measures (market capitalisation) in line with Huselid et al. (1997), and Chang et al. (2021).

5.3.2 The Composite of Human Resource Practices and Financial Performance

Table 10 represents the composite of Human resource management practices (HRMP). The results show that there is a positive and significant relationship between the composite of HRMP and FP representing ROA and market capitalisation confirming hypotheses 1. This indicates that when HRMP are combined positive result is obtained confirming the Ability, Motivation, and Opportunity (AMO) framework. This finding is in line with the study such as Zhai & Tian (2020) who showed that combined HRMP (high-performance work practice) works to increase performance in value creation and tends to bring long-lasting financial gain. Colombo et al. (2007) also demonstrated that HPWP leads to better performance.

The results from Table 10 also show that the regression coefficient for the linear term of HRMP is significantly positive and the coefficient for the quadratic term of HRMP is significantly negative indicating an inverted U-shaped relationship between HRMP and FP (Stewart, 2021, Boakye et al. 2021, and Meier et al. 2021). The result therefore supported by hypothesis 2 that there is a non-linear relationship between HRMP and FP. This is in line with Yoo et al. (2021) which found an U-shaped relationship between training and development and gross profit and Meier et al. (2021) which found an inverted U-shaped relationship between HRM-CRS and ROA. The results imply that investing excessively in HRMP may not be profitable as it might lead to decreased returns or less investment in other key activities/areas that might also increase FP.

Table 10: Dynamic Panel Regression (GMM) of the effect of HRMP on FP

This table presents the results of the following panel data regression on the relationship between Human Resource Management Practices (HRMP) and financial performance (FP) based on the dynamic panel regression model – GMM using different measures of financial performance, Return on Assets (ROA) and Market Capitalisation:

$FP_{i,t} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 HRMP_{i,t} + \beta_3 HRMP_{i,t}^2 + \beta_4 Controls_{i,t} + \mu_{it} + \lambda_{it} + \varepsilon_{it}$. Where $FP_{i,t}$ is the dependent variable which is measured using return on Assets and market Capitalisation. $FP_{i,t-1}$ represents one-year lag of the dependent variable (ROA and Market Capitalisation).. The HRMP is the independent variable, which is the composite of Rewards, Training, Promotion, Recruitment, Working Environment, Communication/Engagement. HRMP2 is the square term of HRMP (the non-linear relationship). Control variables indicated by controls are firm size (Size), Liquidity, Gearing and Board Gender Diversity. β_1 , β_2 and β_3 are the regression coefficients. *The subscript i denotes the nth company (i = 1... 350), and the subscript t denotes the year (t=1,..6). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term.. GMM Regressions are robust*

VARIABLES	(1) ROA	(2) Market Capitalisation)
HRMP	3.113** (1.99)	0.102** (2.00)
HRMP ²	-0.121** (-2.34)	-0.00367* (-2.18)
L.ROA	0.114 (1.61)	
L.Mkt Cap.		0.188*** (2.76)
Size	-17.20** (-3.83)	-0.242 (-1.28)
Liquidity	0.159 (0.81)	-0.0139 (-0.64)
Gearing	-0.0105 (-1.18)	-0.166* (-1.72)
BDiversity	0.200** (2.44)	0.00498* (1.80)
AR (1) test (p-value)	0.000	0.006
AR (2) test (p-value)	0.174	0.809
Number of Observations	625	570

The AR(1) and AR(2) tests for first-order and second-order serial correlation in the first differenced residuals. The null hypothesis is no serial correlation. The Hansen test of over-identifying restrictions is a test with the joint null hypothesis that instrumental variables are valid, i.e. uncorrelated with error terms. Robust z-statistics are used.

5.3.3 Results on the extent to which HRMP influences FP

Aside from indicating that there is non-linear relationship exists between Human resource management practices (HRMP) and financial performance (FP), this section indicates the degree to which proactive HRMP impacts FP. Although some researchers (Yoo et al., 2021, Chadwick & Flinchbaugh, 2016 and Chadwick et al., 2004) have shown and documented that a non-linear relationship exists between HRMP and FP, they did not indicate the actual level where the impact of proactive HRMP on FP is expected to be optimized. Additional evidence

is provided by this study by establishing the optimal levels where it is more beneficial to engage in proactive HRMP using both measures of FP represented by ROA and Market capitalisation. Based on the results from the regression model, integral calculus is used to establish the maximum or minimum points.

The formula to determine the optimal level of HRM practices and how they impact FP is indicated below.

$$ROA = \beta_1 HRMP + \beta_2 HRMP^2 + Controls$$

$$HRMP^* = \beta_1 / [2 * \beta_2]$$

Where HRMP is the maximum or minimum level*

β_1 is the regression coefficient of the linear model

β_2 is the regression coefficient of the square term or the quadratic model

If the regression coefficient of β_2 is negative, a maximum point will be established (Stewart, 2021, Meier et al. 2021, Boakye et al., 2021)

If the regression coefficient of β_2 is positive, a minimum point will be established (Stewart, 2021, Boakye et al., 2021)

The essence of establishing a minimum or a maximum is to identify whether there is a point where it is no longer beneficial to continue to invest in HRMPs (maximum point) or the point where investment in HRMPs begins to yield positive results (minimum point). This will provide essential information for managers/HR managers, and owners to be aware that there exists an optimal level of HRMPs and FP relationships. The existence of an inverted U-shape relationship between HRMP and FP brings the question of an organization located above the optimum, thus a firm over-investing HRMP (Meier et al., 2021). Finding extremum (optimal level) for FTSE firms provides new evidence to managers as it makes them aware of the existence of an optimal level of HRMP that maximizes ROA and market capitalization (financial performance) and therefore should be very careful in continually applying HRMP or underproducing HRMPs in an organization below the optimal level. Meier et al. (2021) test the relevance of the extremum (optimal level) with this formula $\beta_1 / [2\beta_2]$. They arrived at 0.42 and they indicate that any form of abuse or excess of HR investments beyond this level does not necessarily yield the expected performance outcome. This suggests that HRMP must be managed with caution.

The regression models in both ROA (Accounting measures) and market capitalisation (market-based) in Table 10 indicate that there is a significant and non-linear relationship between

HRMP and FP. In both ROA and market capitalization, β_2 , that is the correlation coefficient for the square term of HRMP (the non-linear model) is negative meaning an inverted U-shaped relationship, and therefore maximum point can be established. The inverted U-shaped relationship implies the improvement of HRMP will initially improve FP until the maximum point is reached where further improvement in HRMP would result in declining FP.

The maximum points for both ROA and market capitalisation are established below:

Computation of Maximum or Minimum Points

$$ROA = \beta_1 HRMP + \beta_2 HRMP^2 + Controls$$

$$HRMP^* = \beta_1 / [2 * \beta_2]$$

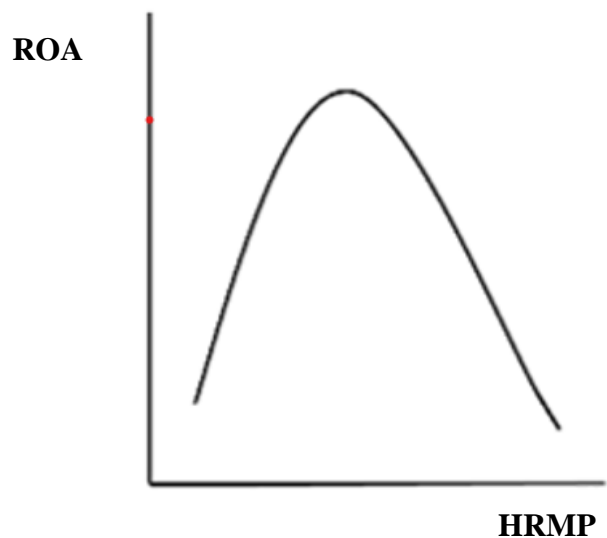
$$= 3.113 / [2 * 0.121]$$

$$= 3.113 / [0.242]$$

$$= 12.86 \text{ or } 13 = 43\%$$

As the β_2 is negative, this involves establishing a maximum point. Therefore, the optimal point where further addition to HRMP falls is 13. The shape of the curve under the accounting-based measure of performance is inverted U-shaped.

Figure 3: HRMP and ROA – Inverted U-Shaped Relationship



The results which confirm objective 3, show that the beneficial level in which HRMP maximized FP (ROA) for FTSE firms is 13 out of the maximum of 30 used. Therefore, any excess above this level reduces FP.

Figure 4: HRMP and Market Capitalisation – Inverted U-Shaped Relationship

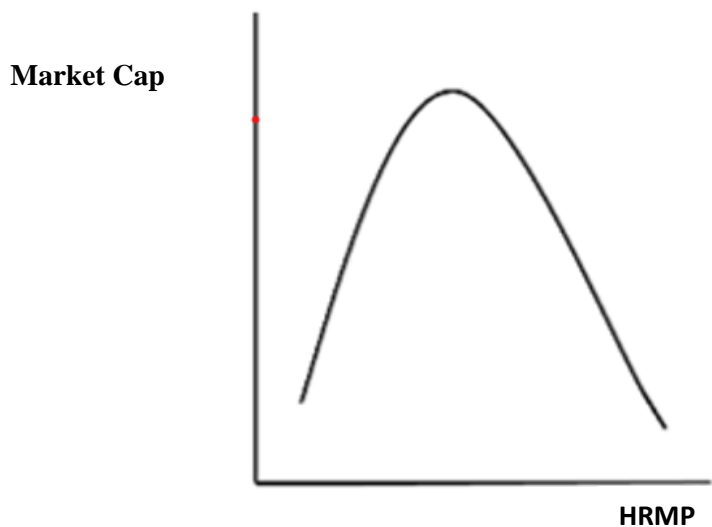
Computation of Maximum or Minimum Points

$$\text{Market Capitalisation} = \beta_1\text{HRMP} + \beta_2\text{HRMP}^2 + \text{Controls}$$

$$\begin{aligned} \text{HRMP}^* &= \beta_1/[2*\beta_2] \\ &= 0.102/[2*0.00367] \\ &= 0.102/[0.00734] \\ &= 13.89 \text{ or } 14 = 46\% \end{aligned}$$

As the β_2 is negative under the market measure of FP, this involves establishing a maximum point. Therefore, the optimal point where further addition to HRMP falls is 14. The shape of the curve under the market-based measure of performance is inverted U-shaped.

Figure 4: HRMP and market capitalisation – Inverted U-Shaped Relationship



The results which confirm objective 3, indicate that the optimum level for proactive HRMP for FTSE firms is derived at 14 out of the maximum of 30. Therefore, any excess HRMP at this level reduces FP (market capitalization).

5.3.4 The Results of Individual Measures of HRM Practice and Financial Performance

The study also assesses whether HRMP takes a long time to influence FP. It shows how different HRMPs impact FP and further assesses the lagged relationship between individual HR practices and FP. OLS regression is often used in lagged dependent variables to capture dynamic effects in the political processes and as the method of ridding autocorrelation from the model (Keele & Kelly, 2006). In short, as stated by Ullah et al.(2018), the GMM controlled for various endogeneities by including the previous FP. It captured the lagged value of last year and the preceding year (2 years) FP. The GMM model already incorporates lagged values of the dependent variable which is the internal instrument as they are used internally from the existing econometric model (Ullah et al., 2018) and it cannot appear to be analysed as it is internal. Meier et al. (2021) added that using GMM involves a large missing of information as only observations made two years in a row are measured. OLS was employed instead of GMM as reduction of data by dividing the data into six did not make it appropriate for the GMM methods to be used. Following Chen et al. (2013), this current study used a fixed effect regression model to test for one year and two years lagged in this relation. The HRMP and FP relationships were also analysed by disaggregating HRMP into the various aspects of HRMP measures namely, financial reward, training and development, career growth and opportunity, recruitment and selection, working environment, and communication and engagement. The result from the disaggregated version is presented in the model in Table 11.

Concerning ROA, reward, training, and promotion showed a positive and insignificant relationship between HRMP and FP (ROA) while communication indicated a negative and insignificant relationship with ROA. However, recruitment/selection and working environment showed a positive significant relationship with ROA. In the case of market capitalization, promotion and recruitment were positively significant with market capitalization. Financial reward was negatively significant with market capitalization, training was positive but insignificant with market capitalization while working environment and communication had a negative and insufficient impact on market capitalization. The result is, therefore, partially supported by hypothesis H1a to H1f, which have been further analysed.

When one and two-year lags were integrated into the model under ROA to determine the long-term effect of individual HRMP on FP, reward, training, promotion, and recruitment were not significant under both one-year and two-year lags. However, the working environment shows a negative significant relationship under both one-year and two-year lags. Communication

demonstrated a significant negative relationship in one year lagged but not two years lagged. This shows that last year's and preceding year's reward, training, promotion, and recruitment do not impact current profitability. In the case of the working environment, last year's and preceding year's working environment impacted current profitability negatively. In the case of communication, whilst last year's communication influenced negatively on the current year's FP, the preceding year's communication had no impact on the current FP.

Concerning market capitalisation (market-based measures of performance), the regression results in Table 11 illustrated that there is a negative significant relationship between rewards for both one-year and two-year lags, demonstrating that last year and preceding year rewards negatively impact the current year FP. Training did not identify any significant relationship between both one-year and two-year lags, illustrating that the last training and the preceding year's training did not impact on present year's share price. It was also revealed that working environment did not produce any significant relationship in one year but had a negative significance with a two-year lag illustrating that last year's working environment did not impact on current (2021) market capitalization or share price but the year before working environment impacted negatively on market capitalization. Recruitment was positively significant under one year and two-year lags showing that last year, and previous year recruitment influenced present year market price. However, engagement/communication was significant in two years even though not significant in one year, demonstrating that last year's communication did not influence market price, but the preceding year did. These results are further analysed below.

The regression results indicate that combined HRMP has positive results in both ROA (Accounting-based) and market capitalisation (market-based) as illustrated in Table 10, which shows a positive relationship between the combined effect of HRMP and FP (ROA and market capitalisation). The result is fully supported by hypotheses 1 and research objective 1 in line with the findings of (Huselid et al., 1997) and Cavaco & Crifo (2014) who found a positive relation between joint HRMP and FP using both market and accounting-based measures. This is also in support of AMO theory which indicates that performance can be attained when all the elements of AMO are present. Bos-Nehles (2013) stated that employees' behaviour in the workplace is determined by ability, motivation, and opportunity. AMO theory supports the argument that combined HRMP shapes employees' characteristics and helps the success of the organization. As the theory suggests, organizational interests are best achieved by a system that

addresses employees' ability (training and recruitment), motivates them (reward and promotion), and gives them the opportunity (engagement and communication) (Yong et al., 2020). The results therefore confirm the AMO theory and are in line with other empirical studies such as Choi (2014), Zhai & Tian (2020).

The disaggregated version of HRMP has different results between ROA and market capitalization. The regression results from Table 11 show that training and development follow one direction in terms of ROA and market capitalization. The results reveal that training and development have no significance with ROA and market capitalization which is not supported by H1a. However, these results were in line with Manresa et al. (2019) who revealed no significant relationship between training and FP. The findings also contradict Yoo et al. (2021) who showed a positive relationship between training and development and FP. The financial reward had no significant relationship with ROA but has a negative significance with market capitalization rejecting H1b. This is in line with Sadq & Sadq (2015) and Erick et al. (2014) studies which revealed a negative relationship between financial reward and FP. H1c assumed for a positive relationship between engagement/communication and FP. The results showed no significant relation between engagement/communication and FP (ROA and market capitalization). Although H1c, is not supported, similar results were discovered by Flamholtz & Kannan-Narasimhan (2005) who found no correlation between communication and FP. The regression results further showed that there is a positive relationship between growth and FP (ROA and market capitalization). While ROA was not significant, market capitalization was significant. The result was therefore partially supported by H1d. Rinny et al. (2022), also found positive relationship between employees promotions and employees' performance.

The H1e was partially supported because the working environment has a significant positive relation with ROA but no relation with market capitalization. With H1f, the supposition for a positive correlation between recruitment and selection and FP has been confirmed by the regression results based on ROA and market capitalization. Therefore, in line with studies such as Cook & Rice (2006), Greer et al. (2001), and Gamage, (2014), the organizations that recruit the best candidate lead to increased efficiency and positively impact on FP. The H1f is fully supported. The findings also confirmed the empirical results of Meier et al. (2021) and Chadwick (2007), which concluded that there exists a non-linear relationship between HRMP and FP. Using both market and Accounting based measures of FP, the H2 is fully supported.

Table 11: OLS Results of Disaggregated Measures of Human Resources Management Practices (HRMP) and Financial Performance (FP)

This table presents the results of the following panel data regression on the relationship between Human Resource Management Practices (HRMP) and financial performance (FP): $FP_{it} = \beta_0 + \beta_1 HRMP_{it} + \beta_2 Controls_{it} + \mu_{it} + \lambda_{it} + \varepsilon_{it}$. Where FP_{it} is the dependent variable which is measured using Returns on Assets and Market Capitalisation. The independent variables are Rewards, Training, Promotion, Recruitment, Working Environment, Communication/Engagement. Control variables indicated by controls are firm size (Size), Liquidity, Gearing and Board Gender Diversity. β_1 and β_2 are the regression coefficients. The subscript i denotes the n th company ($i = 1... 350$), and the subscript t denotes the year ($t=1,..6$). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term. Regressions are estimated with robust fixed effects

VARIABLES	(ROA)	(ROA)	(ROA)	(Market Capitalisation)	(Market Capitalisation)	(Market Capitalisation)
Rewards	0.455 (1.19)			-2.060** (-2.13)		
Rewards _{t-1}		0.506 (0.10)			-1.481** (-2.02)	
Rewards _{t-2}			0.0334 (0.06)			-1.740* (-1.96)
Training	0.167 (0.46)			0.831 (1.36)		
Training _{t-1}		0.637 (1.62)			0.544 (1.08)	
Training _{t-2}			0.696 (1.58)			0.934 (1.42)
Promotion	0.0484 (0.14)			1.374** (2.08)		
Promotion _{t-1}		-0.322 (-.80)			0.359* (1.91)	
Promotion _{t-2}			-2.18 (-0.48)			0.916* (1.93)
Recruitment	0.875** (1.99)			2.781*** (2.47)		
Recruitment _{t-1}		0.887 (1.57)			1.908** (2.28)	
Recruitment _{t-2}			0.120 (0.14)			1.981** (1.99)
Working Env	-0.822** (-2.54)			-0.558 (-0.49)		
Working Env _{t-1}		-0.891*** (-2.70)	-		0.119 (0.20)	
Working Env _{t-2}			-1.770*** (-4.51)			-0.404 (-1.03)
Communication	-0.448 (1.31)			-0.749 (-1.44)		
Communication _{t-1}		-0.667* (-1.76)			-0.657 (-1.53)	
Communication _{t-2}			-0.00925 (-0.02)			-0.644* (-1.79)
Size	0.213 (1.21)	0.338* (1.93)	0.493** (2.40)	-0.868* (-1.83)	-0.663 (-1.60)	-0.556 (-1.29)
Gearing	-0.0163*** (0.10)	-0.0176*** (-4.92)	-0.0186*** (-4.34)	0.0501 (0.74)	0.00702 (1.38)	0.0103* (1.77)
Liquidity	2.424*** (-5.43)	2.967*** (3.97)	3.307*** (3.79)	-0.0292 (-0.04)	0.612 (1.19)	0.915* (1.67)
BDiversity	0.174*** (4.85)	0.187*** (4.56)	0.199*** (3.93)	0.268** (2.44)	0.242** (2.18)	0.240* (1.77)
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observation	954	797	638	898	751	602
R Squared	0.152	0.170	0.192	0.0526	0.0611	0.0676
F Statistics	8.14	8.06	7.18	2.95	3.17	3.15
P Value	0.271	0.119	0.485	0.238	0.863	0.818

t statistics in parentheses
*p<0.10, **p<0.05, *** p<0.01

5.4. The Moderation Effect of Board Size and Board Independence

The study also suggested that the size of the board or board independence can be moderators that can influence how HRMP impacts FP. Board size is measured as the number of board of directors. Studies that have used board size as a moderator include Zheng & Tsai (2019), Albitar et al. (2020), and Bogdan et al. (2022). Table 12 illustrates the moderation effect of board size on the relationship between HRMP and FP. It illustrated whether large board size influences the relationship that exists between HRMP and FP. The result revealed a negative and significant relationship between HRMP, the board size, and FP representing ROA and market capitalisation. This is in line with Zheng & Tsai (2019) who found that board size harm diversification and tourism. This indicates that when HRMP interacts with large board sizes, negative FP is obtained, supporting hypothesis 3a.

Small board sizes however, are more focused and efficient in monitoring any decision than large boards that are characterized with opposing views (Zheng & Tsai, 2019) including HRMP-related issues. Opposing and dragging views, especially, those that are specifically related to employees may delay employees' needs and demotivate employees and this may consequently affect employee productivity, customer services, and the organizational activities as employees are seen as the lifeblood of the organization (Lahkar Das & Baruah, 2013, Tima Minahan, 2021). This could bring bad public perception about the organisation and affect the share price as investors buy more shares based on public perception or information. As investors patronise less in the shares, the price would go down affecting market capitalization negatively because market capitalization is measured as a share outstanding multiple by stock price. On the other hand, in the case of ROA, demotivation due to dragging employee benefits may affect employees' output negatively which in turn impacts the profit of the organisation and negatively impacts ROA as ROA measures how much profit made by a company compares with the value of its assets. Thus, the capacity of the board to make decisions to meet employees' needs declined as the board size increased. Also, since both the employee and the board receive their compensations from the same coffers of the organisation if the board is large, their reward and other incentives would be large and this may impact employees' reward and training and subsequently, FP. Zheng & Tsai (2019) mentioned that large board sizes are more costly. Cost-effective board management would earmark financial resources for the operation of other areas such as HRMP-related issues. A large board size which is believed to have more capability and collective expertise in executing their role (Prashar & Gupta, 2020) should be a trade-off with a small board size which can fast-track employee-related issues.

The study also observed the interaction between HRMP, board independence, and FP (ROA and market capitalisation). As illustrated in Table 13, the regression results revealed that interaction between HRMP and board independence has a positive effect on both ROA and market capitalization. However, while ROA was significant, market capitalization did not reveal any significant relationship with HRMP, board independence, and FP. The result is therefore in line with Alipour et al. (2019) and Ozdemir et al. (2022). The result proposes that the ratio of the independent directors in regular administration and affairs of an organization may monitor managers to perform their duties liberally by enforcing managers not to only satisfy the needs of shareholders, but also other stakeholders including employees, and this may impact FP. The finding is partially supporting H3b.

Table 12: Dynamic Panel Regression (GMM) of the effect of HRMP on FP with Board Size as a Moderating Variable

This table presents the results of the following panel data regression on the relationship between Human Resource Management Practices (HRMP) and financial performance (FP) based on dynamic panel regression model – GMM using different measures of financial performance, Return on Assets (ROA) and Market Value (Mkt Value) with Board Size as a moderating variable:

$FP_{i,t} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 HRMP_{i,t} + \beta_3 BSize_{i,t} + \beta_4 HRMP_{i,t} \beta_5 Controls_{i,t} + \mu_{it} + \lambda_{it} + \varepsilon_{it}$. Where $FP_{i,t}$ is the dependent variable which is measured using return on Assets and market value. $FP_{i,t-1}$ represents a one-year lag of the dependent variable (L.ROA and L.Market Capitalisation). The HRMP is the independent variables which is the composite of Rewards, Training, Promotion, Recruitment, Working Environment, Communication/Engagement. BSize represents Board Size, HRMP5 represents the moderating variable (HRMP*Board Size). Control variables indicated by Controls are firm size (Size), Liquidity, Gearing and Board Gender Diversity. $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are the regression coefficients. The subscript i denotes the n th company ($i = 1... 350$), and the subscript t denotes the year ($t=1,..6$). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term. GMM Regressions are robust.

VARIABLES	(1) ROA	(2) Market Capitalisation)
HRMP	2.975 (1.63)	0.101* (1.72)
BSize	6.488* (1.84)	0.160 (1.39)
HRMP5	-0.400** (-2.04)	-0.0108* (-1.70)
L.ROA	0.159** (2.12)	
L.Mkt Capital		0.155*** (2.43)
Size	-19.62*** (-3.90)	-0.227 (-1.35)
Liquidity	0.641 (0.52)	-0.0726 (-135)
Gearing	-0.00887 (-0.94)	0.00135*** (3.89)
BDiversity	0.126 (1.57)	0.000341 (0.00)
AR (1) test (p-value)	0.000	0.006
AR (2) test (p-value)	0.101	0.440
Number of Observations	614	576

The AR(1) and AR(2) tests for first-order and second-order serial correlation in the first differenced residuals. The null hypothesis is no serial correlation. The Hansen test of over-identifying restrictions is a test with the joint null hypothesis that instrumental variables are valid, i.e. uncorrelated with error terms. Robust z-statistics are used.

Table 13: Dynamic Panel Regression (GMM) of the effect of HRMP on FP with Board Independence as a Moderating Variable

This table presents the results of the following panel data regression on the relationship between Human Resource Management Practices +++++(HRMP) and financial performance (FP) based on dynamic panel regression model – GMM using different measures of financial performance, Return on Assets (ROA) and Market Value (Mkt Value) with Board Size as a moderating variable:

$FP_{i,t} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 HRMP_{i,t} + \beta_3 BSize_{i,t} + \beta_4 HRMP_{i,t} \beta_5 Controls_{i,t} + \mu_{it} + \lambda_{it} + \varepsilon_{it}$. Where $FP_{i,t}$ is the dependent variable which is measured using return on Assets and market value. $FP_{i,t-1}$ represents one-year lag of the dependent variable (L.ROA and L.Market Capitalisation). The HRMP is the independent variables which is the composite of Rewards, Training, Promotion, Recruitment, Working Environment, Communication/Engagement. BSize represents Board Size, HRMP6 represents the moderating variable (HRMP*Board Independence). Control variables indicated by Controls are firm size (Size), Liquidity, Gearing and Board Gender Diversity. $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are the regression coefficients. The subscript i denotes the n th company ($i = 1... 350$), and the subscript t denotes the year ($t=1,..,6$). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term.. GMM Regressions are robust.

VARIABLES	(1) ROA	(2) Market Capitalisation)
HRMP	-5.145** (-2.22)	-0.114 (-1.61)
BIndependence	-0.963 (-1.45)	-0.0365* (-1.75)
HRMP6	0.0621* (1.71)	0.00170 (1.54)
L.ROA	0.113 (1.35)	
L.Mkt Capital		0.0527 (0.58)
Size	-18.71*** (-2.92)	-0.332 (-1.59)
Liquidity	0.555 (0.694)	-0.00854 (-1.62)
Gearing	-0.0175 (-1.59)	0.00156*** (3.49)
BDiversity	0.0843 (1.88)	0.00346 (0.58)
AR (1) test (p-value)	0.000	0.000
AR (2) test (p-value)	0.881	0.213
Number of Observations	614	576

The AR (1) and AR (2) tests for first-order and second-order serial correlation in the first differenced residuals. The null hypothesis is no serial correlation. The Hansen test of over-identifying restrictions is a test with the joint null hypothesis that instrumental variables are valid, i.e., uncorrelated with error terms. Robust z-statistics are used.

5.5 The Relationship Between HRMP and FP During the COVID and pre-COVID Era

Table 14 and 15 represents the regression results of the relationship between HRMP on FP before COVID-19 and during COVID-19 using OLS. OLS was used instead of GMM as reduction in the data from six year to two-year period did not make it appropriate for the GMM

methods to be used. The result of pre-COVID in Table 14 revealed a positive but non-significant relationship between HRMP and Accounting-based FP (ROA and ROE). However, market-based measures of FP (market capitalisation and Tobin's q) show non-linear relationship with an inverted U shape relationship with HRM.

Pre-COVID Era

Table 14: OLS Results of the relationship between Human Resources Management Practices (HRMP) and Financial Performance (FP) pre-Covid-19

This Table 14 presents the results of the following panel data regression on the relationship between Human Resource Management Practices (HRMP) and financial performance (FP) before the COVID period (2018 -2019)

$FP_{it} = \beta_0 + \beta_1 HRMP_{it} + \beta_2 HRMP_{it}^2 + \beta_3 Controls_{it} + \lambda_{it} + \varepsilon_{it}$ Where FP_{it} is the dependent variable which is measured using returns on assets (ROA) and Market Value. HRMP is the independent variables which is the composite of Rewards, Training, Promotion, Recruitment, Working Environment, Communication/Engagement. HRMP2 is the square terms of HRMP (the non-linear relationship). Control variables indicated by controls are firm size (Size), Liquidity, Gearing and Board Gender Diversity. β_1, β_2 and β_3 are the regression coefficients. The subscript i denotes the n th company ($i = 1 \dots 350$), and the subscript t denotes the year ($t=1, \dots, 2$). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term. Regressions are estimated with robust fixed effects.

VARIABLES	(1) ROA	(2) ROE	(3) Market Capitalisation	(4) Tobin's q
HRMP	0.609 (1.19)	2.436 (1.05)	0.0998* (1.84)	0.128** (2.41)
HRMP2	-0.0212 (-1.26)	-0.0781 (-1.06)	-0.00324* (-1.80)	-0.00433** (-2.37)
Size	0.449 (1.59)	-0.923 (-0.50)	0.0330 (1.13)	-0.00221 (-0.08)
Gearing	-0.0122* (-1.90)	0.0943 (1.36)	0.00145** (2.29)	-0.00177*** (-2.67)
Liquidity	2.854** (2.52)	6.879* (1.90)	0.202** (2.23)	0.339*** (3.81)
Bdiversity	0.196*** (2.86)	0.776* (1.95)	0.0110 (1.51)	0.0181*** (2.65)
Industry Effect	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes
Observation	342	343	316	316
R Squared	0.097	0.079	0.117	0.151
F Statistics	2.59	1.64	7.02	6.51
P Value	0.311	0.123	0.004	0.00

t statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Computation of Maximum or Minimum points with regards to pre-Covid-19

Market Cap = $\beta_1 HRMP + \beta_2 HRMP^2 + Controls$

$HRMP * \beta_1 / [2 * \beta_2]$

$= 0.0998 * / [2 * -0.00324]$

$= 0.0998 * / [0.00648]$

$= 15.4 (15)$

$= 50\%$

Tobin's q = $\beta_1 HRMP + \beta_2 HRMP^2 + Controls$

$HRMP * \beta_1 / [2 * \beta_2]$

$= 0.128 / [2 * 0.00433]$

$= 0.128 / [0.00866]$

$= 14.78 = (15)$

$= 50\%$

Figure 5: HRMP and Market Cap -pre-COVID– Inverted U-Shaped Relationship

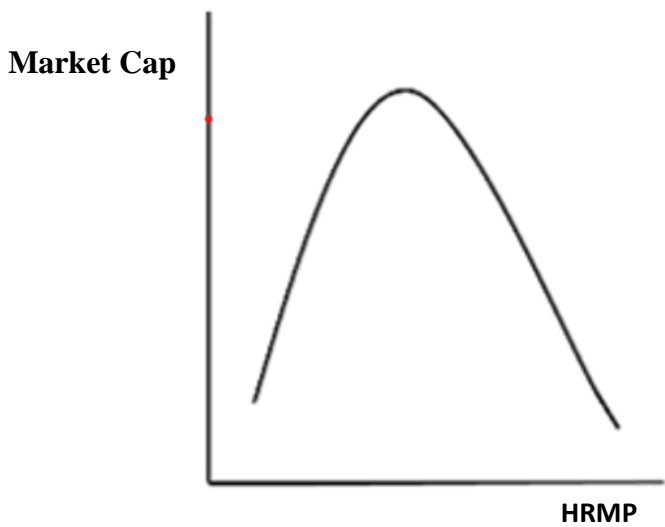
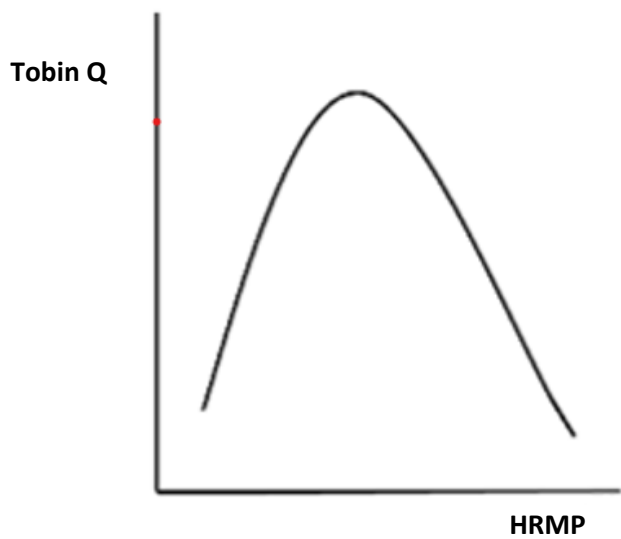


Figure 6: HRMP and Tobin's q – pre-COVID-Inverted U-Shaped Relationship



As the β_2 is significant negative under pre-COVID, with market measures of FP, maximum points are established. Therefore, the optimal point where further additional HRMP falls is 15 for both market capitalization and Tobin's q. The shape of the curve is therefore inverted U-shaped.

The results indicated that the optimum benefits for proactive HRMP for FTSE firms is derived at 15 out of the maximum of 30 for both market capitalisation and Tobin's q in a normal period. It is expected that moderate level of HRMP is needed to optimise financial benefit in normal time. In the case of the Accounting based FP, the optimum level could not be established during pre-COVID period, as the relationship was not significant.

During COVID-19 period, as illustrated in Table 15, ROA and ROE (Accounting) show a non-linear relationship between HRMP and Accounting-based measures of FP, and the relationship is U-shape. This implies that the initial introduction of HRMP may not yield any benefit or may affect FP negatively until the minimum level is reached after which any additional HRMP starts to impact positively on FP. Meier et al. (2021) stated that there is a need to explore why FP decreases with HRM to reach a minimum before financial benefits start to take effect. This finding is in line with Yoo et al. (2021) study which showed a U-shape curve between HR practice and FP when firm financial slack was introduced as a moderation variable. In the case of market-based FP, no significant relationship was established.

COVID PERIOD

Table 15 OLS Results of the relationship between Human Resources Management Practices (HRMP) and Financial Performance (FP) during Covid-19

This Table 15 presents the results of the following panel data regression on the relationship between Human Resource Management Practices (HRMP) and financial performance (FP) during the COVID period (2020 -2021)

$$FP_{it} = \beta_0 + \beta_1 HRMP_{it} + \beta_2 HRMP_{it}^2 + \beta_3 Controls_{it} + \lambda_{it} + \varepsilon_{it}$$

Where FP_{it} is the dependent variable which is measured using returns

on assets (ROA) and Market Value. HRMP is the independent variables which is the composite of Rewards, Training, Promotion, Recruitment, Working Environment, Communication/Engagement. HRMP2 is the square terms of HRMP (the non-linear relationship). Control variables indicated by controls are firm size (Size), Liquidity, Gearing and Board Gender Diversity. β_1 , β_2 and β_3 are the regression coefficients. The subscript i denotes the n th company ($i = 1... 350$), and the subscript t denotes the year ($t=1,..2$). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term. Regressions are estimated with robust fixed effects.

VARIABLES	(1) ROA	(2) ROE	(3) Market Capitalisation	(4) Tobin's q
HRMP	-1.181*** (-2.77)	-4.960*** (-2.36)	0.0338 (0.10)	-0.106 (-0.53)
HRMP2	0.0399*** (2.63)	0.154** (2.42)	0.0195 (0.18)	0.00440 (0.75)
Size	0.466 (1.56)	0.993 (0.95)	-0.0420 (-0.24)	-0.0280 (-0.26)
Gearing	-0.0210*** (-3.84)	-0.0576** (-1.99)	0.00139 (0.55)	-0.00450*** (-3.31)
Liquidity	3.826*** (3.57)	5.759*** (2.85)	1.561*** (2.73)	1.384*** (3.43)
Bdiversity	0.135* (1.70)	0.560** (2.30)	0.112* (1.76)	0.0877** (2.16)
Industry Effect	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes
Observation	311	312	295	295
R Squared	0.2272	0.1380	0.087	0.1167
F Statistics	7.26	3.47	4.91	2.93
P Value	0.387	0.144	0.223	0.320

t statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Computation of Maximum or minimum points with regards to Covid-19

$$\text{ROA} = \beta_1 \text{HRMP} + \beta_2 \text{HRMP}^2 + \text{Controls}$$

$$\text{HRMP} * \beta_1 / [2 * \beta_2]$$

$$= 1.181 / [2 * 0.0399]$$

$$= 1.181 / [0.0798]$$

$$= 15 \text{ (14.8) or 50\%}$$

$$\text{ROE} = \beta_1 \text{HRMP} + \beta_2 \text{HRMP}^2 + \text{Controls}$$

$$\text{HRMP} * \beta_1 / [2 * \beta_2]$$

$$= 4.960 / [2 * 0.154]$$

$$= 4.960 / [0.308]$$

$$= 16.1 \text{ or 53.7\%}$$

As the β_2 is positive under the accounting measures of FP during COVID-19 period, this involves establishing minimum point. Therefore, the optimal point where HRMP started yielding financial benefit is 15 and 16 for ROA and ROE respectively.

Figure 7: HRMP and ROA – During-COVID-U-Shaped Relationship

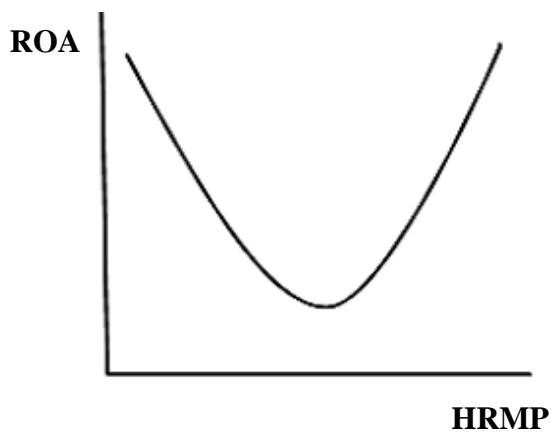
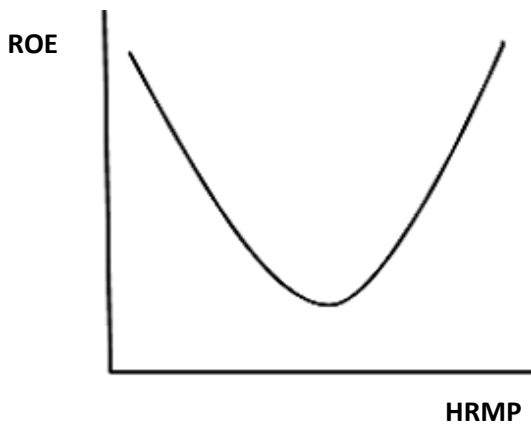


Figure 8: HRMP and ROE– During COVID -U-Shaped Relationship



The results indicate that the optimum benefits for proactive HRMP for FTSE firms during COVID is developed at 15 and 16 for ROA and ROE, respectively, out of the maximum of 30. Therefore, producing HRMP below these levels reduce expected FP outcome. It is therefore expected that less than moderate level of HRMP during uncertainty period reduces organisational profitability. In the case of market capitalization and Tobin's q, there was no significant relationship with HRMP during COVID-19 period and the optimum level could not be determined.

5.6 Robustness Test

An additional test was employed to check the robustness of the results. Table 16 exhibits the results using ROE and Tobin's q as an alternative FP variable to assess the results. The other two variables in Table 16 exhibit similar results from the main variables employed. The coefficient of the linear term was positive and negative for the square term in both ROE and Tobin's q. It was also found that ROE and Tobin's q started to increase as HRMP increased to a point after which FP decreased as HRMP further increased. The robustness was also checked with the OLS model as seen in Table 17. ROA showed no significant relationship when OLS model was used. However, market capitalisation was consistent with the GMM results.

ROBUSTNESS TEST

Table 16: Dynamic Panel Regression (GMM) of the effect of HRMP on FP

This table presents the results of the following panel data regression on the relationship between Human Resource Management Practices (HRMP) and financial performance (FP) based on dynamic panel regression model – GMM using different measures of financial performance, Return on Equity (ROE) and Tobin's Q:

$FP_{i,t} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 HRMP_{i,t} + \beta_3 HRMP_{i,t}^2 + \beta_4 Controls_{i,t} + \mu_{it} + \lambda_{it} + \varepsilon_{it}$. Where $FP_{i,t}$ is the dependent variable which is measured using Return on Equity and Tobin's Q. $FP_{i,t-1}$ represents one-year lag of the dependent variable (L.RE and L. Tobin's Q). The HRMP is the independent variables which is the composite of Rewards, Training, Promotion, Recruitment, Working Environment, Communication/Engagement. HRMP² is the square terms of HRMP (the non-linear relationship). Control variables indicated by controls are firm size (Size), Liquidity, Gearing and Board Gender Diversity. β_1 , β_2 and β_3 are the regression coefficients. The subscript i denotes the n th company ($i = 1.. 350$), and the subscript t denotes the year ($t=1,..6$). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term.. GMM Regressions are robust.

VARIABLES	(1) ROE	(2) Tobin's Q
HRMP	11.56** (2.19)	0.105** (2.03)
HRMP ²	-0.473*** (-2.80)	-0.00300* (-1.80)
L.ROE	-.0142*** (-3.23)	
LTobin's Q		-0.0811 (-1.24)
Size	-13.76 (-0.80)	-0.118* (-1.67)
Liquidity	-2.514 (-0.62)	0.000419 (0.01)
Gearing	0.0775** (2.33)	-0.00146*** (-5.04)
BDiversity	0.337 (1.25)	-0.000941 (-1.24)
AR (1) test (p-value)	0.000	0.001
AR (2) test (p-value)	0.597	0.238
Number of Observations	614	576

The AR(1) and AR(2) tests for first-order and second-order serial correlation in the first differenced residuals. The null hypothesis is no serial correlation. The Hansen test of over-identifying restrictions is a test with the joint null hypothesis that instrumental variables are valid, i.e. uncorrelated with error terms. Robust z-statistics are used. * Denote significance at the 10% level, ** Denote significance at the 5% level, ***Denote significance at the 1% level.

Computation of Maximum or Minimum Points

$$ROE = \beta_1 HRMP + \beta_2 HRMP^2 + Controls$$

$$HRMP^* = \beta_1 / [2 * \beta_2]$$

$$= 11.56 / [2 * 0.473]$$

$$= 11.56 / [0.946]$$

$$= 12.2 \text{ or } 12$$

Computation of Maximum or Minimum Points

Tobin's q = $\beta_1HRMP + \beta_2HRMP^2 + Controls$

$$\begin{aligned} HRMP^* &= \beta_1/[2*\beta_2] \\ &= 0.105 / [2*0.00300] \\ &= 0.105/ [0.00600] \\ &= 17.5 \text{ or } 18 \end{aligned}$$

Table 17: OLS Regression Results of the effect of HRMP on FP

This table presents the results of the following panel data regression on the relationship between Human Resource Management Practices (HRMP) and financial performance (FP).

$FP_{it} = \beta_0 + \beta_1HRMP_{it} + \beta_2HRMP_{it}^2 + \beta_3Controls_{it} + \lambda_{it} + \varepsilon_{it}$ Where FP_{it} is the dependent variable which is measured using returns on assets (ROA) and Market Value. HRMP is the independent variable which is the composite of Rewards, Training, Promotion, Recruitment, Working Environment, and Communication/Engagement. HRMP2 is the square term of HRMP (the non-linear relationship). Control variables indicated by controls are firm size (Size), Liquidity, Gearing, and Board Gender Diversity. $\beta_1, \beta_2,$ and β_3 are the regression coefficients. The subscript i denotes the n th company ($i = 1... 350$), and the subscript t denotes the year ($t=1,..6$). μ_i is the unobservable heterogeneity (individual effects) which is specific for each firm, λ_t is the parameters of time dummy variables and ε_{it} is the error term. Regressions are estimated with robust fixed effect

VARIABLES	(1) ROA	(2) Market Capitalisation
HRMP	0.0309 (0.66)	0.0994*** (2.68)
HRMP2	-0.000797 (-0.54)	-0.00288** (-2.43)
Size	-0.000256*** (-2.63)	0.000307*** (-4.71)
Gearing	-0.001322*** (-3.82)	0.00137*** (5.14)
Liquidity	0.219*** (3.42)	0.14*** (2.87)
Bdiversity	-0.0104** (2.71)	0.0146*** (4.19)
Industry Effect	Yes	Yes
Year Effect	Yes	Yes
Observation	829	904
R Squared	0.0839	0.1434
F Statistics	6.34	14.32
P Value	0.000	0.005

t statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.7. Discussion of Results

5.7.1 Human Resource Management Practices and Financial Performance.

Situated within the social exchange theory; Ability, Motivation, and Opportunity (AMO) framework; and stakeholder's theory, the study examined the relationship between human resource management practice (HRMP) and financial performance (FP) and tested if board size or board independence could moderate this relationship. The discussion would first begin with the individual HRMP to test hypotheses H1a to H1f, which deal with each of the HRMP in isolation. Each one of them (financial reward, training, promotion, and growth, recruitment, and selection, working environment, and recruitment and selection) was analysed separately. Table 12 shows the results of the regression analysis on how isolated HRMP influences FP and this addresses research question 2 and H1a to H1f. From the results of Table 12, H1a to H1f are partially supported as most of the isolated HRMP show non-significant relationship with FP. Thus, mixing results were obtained in the individual HRMP. It also revealed that the results from Market capitalization are stronger in the individual HRMP than ROA. While promotion, and recruitment (two out of the six individual HRMPs) have a positive significant relationship with market capitalization, only recruitment has a positive significant relationship with ROA. Reward, however, has a negative significance with market capitalization while communication, training, and working environment showed no significant relationship with market capitalization. The working environment has a negative significant relationship with ROA. Reward, training, promotion, and communication have no significant relationship with ROA.

However, the results are consistent with other HRM studies. Guerrero & Barraud-Didier, (2004) after treating each of the HRMP separately in relation to FP found that compensation was not significant to FP while communication, empowerment, and training are significant. Huselid (1996) and Ahmad et al. (2020) also indicated a mixing result after treating each of the HRMP separately in relation to FP. Guest et al. (2003) clearly stated that their results were very mixed and it was balanced and predominately negative.

Recruitment and selection seem to be strong in favouring FP. This is also in line with Mousa & Othman (2020) who also found recruitment as the most influential practice. Cook & Rice, (2006) similarly found that recruiting the best is essential for organizational success. This result implies that significant tools for interviews, selecting, and recruiting qualified competent employees have more cost-benefit than other HRMPs. It was also observed that the results from

market-based FP (market capitalisation) were stronger compared to accounting measures (ROA). Combs & Liu (2006) confirmed that one organisational performance may outweigh the other. This means that there is a possibility of HRMP influencing differently in different performance measures. Combs & Liu (2006) further mention that forward-looking market-based measures may have a better prediction in relation to HR practices than backward-looking accounting-based measures which have been reflected in this study. Campbell et al. (2008) and Campbell et al. (2006) illustrated that market-based representations have little supremacy after control variables. Agarwal and Taffler's (2008) analysis showed that there is little variation between market-based and accounting-based measures in predicting accuracy. The results from market-based measures, as confirmed by the above scholars, may be different from accounting-based measures as they have different measurements. While accounting-based measure reflects the past performance of the firm (Agarwal and Taffler, 2008), market-based reflects the future performance (Huselid et al., 1997). Though Agarwal and Taffler (2008) agreed that there is little variation between account and market-based FP in terms of prediction outcome, they concluded that accounting-based measures produce significant economic benefits to the market-based approach which is the reverse of these findings. Merchant (2006), in his assessment using both accounting-based and market-based measures found that all the measurement alternatives fail to satisfy one or more of the criteria for the evaluation and therefore led to less-than-optimal results. He also clarified that some alternatives are better than others in a specific situation. Supporting their findings, Huselid et al. (1997) noted that the estimation derived from accounting-based and market-based measures possess the attractive feature of being net to any additional cost that such an increase in HR effectiveness might generate. They underscored that for accounting measures, this is because HR investments are generally expensed annually while market-measures reflect the present value of the future cash flow of a firm.

The results also demonstrate that the composite of HRMP was positively significant in both accounting and market measures of FP. Table 10 displays the results that validate H1 and research objective 1 with the combined HRMP significantly influencing both accounting and market-based FP positively with good value compared to isolated HRMP in Table 11.

A combined HRMP (financial reward, training and development, communication/engagement, recruitment system, workplace promotion/growth, and a good working environment) increases employees' output which would, in turn, affect the organizational profit and subsequently

ROA. ROA tells how much profit an organisation makes compared to the value of its assets. Proactive HRMP increases employee motivation and encourages them to work hard to increase output and profitability, and as a result, FP (ROA). The positive significance of ROA with the HRMP implies that FTSE firms are making enough profit from their HRMP. Aggarwal (2022) showed that if the ROA is low, it shows that the organization is unable to utilize its assets more efficiently. This shows that the proactive HR practices undertaken by FTSE portray how effective they are using their human resource.

The results from market capitalization were not different from the results from ROA in the bundle of HRMP as it also revealed positive significance with integrated HRMP. This may imply that if FTSE firms apply different HRMPs that serve different individual needs, it may influence the attitude of different individual employees towards customers and the public. This could create a good public perception. Thus, employees' attitudes can retain and recruit customers, increase sales, increase stop floor representation, and public conversation. This can increase share price as share price can be sensitive to the good and bad news of an organization. If the public recognises that a firm is doing the right thing, or the policies of the organisation is good, it could affect the share price because investors rely on this information to decide whether to invest in a company or not. HRMP impacts positively on customer satisfaction and public perception of an organisation and this necessitate more investors to buy more shares. As the demand for shares goes up, all other things being equal, the price of the share would go up thereby affecting the value of market capitalization. Thus, when different HRMPs were integrated, positive results were obtained compared to individual HRMP.

This implies that when HRMP are combined, better FP is achieved. Subramony (2009) posited that HRM bundles consist of several practices that are considered superior to isolated individual best practices. Subramony (2009) derived from a meta-analysis of 65 studies that the HRM bundle has a greater magnitude of significance than the individual ones. As confirmed, HPWP has a statistically significant positive relationship with ROA (Choi, 2014). The significant positive relationship between the composite of HRMP and FP representing both market-based and accounting-based FP (ROA and market capitalisation) supports the existing assumption that proactive HRMP measures would improve the FP. Delaney & Huselid (1996) maintained that HPWP, which is the combination of HR practices, could improve current and potential employees' ability, knowledge, and skill; increase their motivation and reduce shrinkage; and improve the retention of quality employees while encouraging non-performance to exit the

firm. Jyoti & Rani (2017) similarly opined that HPWP fosters a sound environment in the organization, whereby employees feel contented and motivated to put in additional efforts to achieve the organizational goals to boost the organizational performance.

This current study, in line with Jyoti & Rani's (2017), Guerrero & Barraud-Didier's (2004), and Delaney & Huselid's (1996) findings, and aligns with the AMO framework, posits that combined/integrated HRMPs ensure employees' Ability, Motivation, and Opportunity (AMO), and lead to the better performance outcome. The results conjecture that recruiting and training the right people, motivating and incentivizing them, and allowing them to participate, lead to better FP. Guerrero & Barraud-Didier (2004) studies confirmed that better performance is arrived when HR practices are integrated. Delaney & Huselid (1996), using both accounting and market-based measures, indicated the economic and statistical impacts of HPWP and FP. The idea that the integration of HRMP should have a greater effect than isolated HRMP on FP is supported by many other researchers. The significant positive relationship between HRMP and FP also reinforces global reporting initiative (GRI) which is intended to encourage all organisations including FTSE firms on employees related guideline to help organisation with HRMP footprint while also helping them to improving their competitiveness.

Linking the finding more specifically to the AMO theory, it is fully supported. AMO theory insists that organizational interest is greatest and provided for by a system that joins the three components of AMO which bundle HRMP. Bello-Pintado (2015) emphasized that an effective HRM strategy needs the advance of the three bundles of ability, motivation, and opportunity. Bello-Pintado (2015) illustrated that ability is associated with training, and recruitment/selection, while motivation is associated with practices like compensation, incentives, promotion, job stability, and performance management (Bello-Pintado, 2015). While opportunity goes with practices such as communication, engagement, autonomy, and information sharing, organizational performance, as confirmed by Bello-Pintado (2015), is determined by the effective combination of HRMP. The bundle of HRMP brings forth significantly greater outcomes compared to individual HRMP (Gooderham et al. 2008).

The findings did not fully support the social exchange theory. With social exchange theory (SET), reciprocation is created when employees feel their needs are met. Significant relations between HRMP and FP are not fully supported by SET. According to Frieder (2018), a reciprocate response is contingent upon the type of treatment received by individuals, and If an individual receives negative treatment, s/he would reciprocate in kind with a negative

rewarding action (Frieder, 2018) and vice versa. In the research work of Zhang & Jia (2010), social exchange as a predictor of higher performance work, the study preliminary attempt, from the social exchange point of view to reveal the potential mediating role of employees' perceived organization support on the relationship between high-performance HRM practices and corporate entrepreneurship. They postulated that employees tend to work and perform better to repay perceived organisation support if they benefit from the organisation. Arguing strongly from the point of view of effective implementation of SET, Gould-Williams and Davies, (2005), emphasized that employees usually interpret HRM practice in unintended and idiosyncratic ways giving an instance that the same HRMP can have different results depending on the employee's predisposition. For this reason, it is essential to employ the AMO framework which consists of integration of various aspects of HRMP to address different individuals' different needs for proper reciprocation. Thus, in enticing employees with HRMP for them to reciprocate, the emphasis should be placed on the AMO element to cater for the individual needs. This has been confirmed in this study as better results are seen in joint HRMP compared to individual HRMP seen in Table 10 and Table 11. Social exchange theory should incorporate the AMO element for a successful give-take notion to be established as this has revealed better results in FTSE firms. Individual HR practices such as reward and training did not support give-and-take assumption of social exchange theory. Social exchange theory did not fully support when HR practices were applied individually because most of the variables in the Table 11 reveal non-significant and negative significant.

5.7.2 The Case for Non-Linear Relationship Argument

This study has established that there is a non-linear relationship between HRMP and FP representing ROA and market capitalization. This implies that continuing investment in HRMP may not impact FP in perpetuation. There is a point where HRMP maximizes FP.

Many organizations have taken positive HRM measures to achieve better FP, but the results are still uncertain as claimed by other studies (Akter et al. 2020, Uribebarria et al. 2021). Implementing good HRM practices such as good working conditions, effective communication, competitive pay, training and development, and work-life balance are expected to provide “win-win” results by increasing employees’ motivation, organizational citizen behaviours, employee satisfaction, productivity, and hence FP. However, the costs of providing such proactive HRMP initiatives may also overshadow the expected benefits and affect FP negatively.

Several arguments have been advanced on how proactive HRMP may impact positively on firm FP. Guest et al. (2003) explained that the best way for organizations to attract and keep key employees that will contribute to the organization's FP is to apply the kind of HRMP and policies that would appeal to employees. Rakthin et al. (2021) presented that a good HR practice is an approach to increase the chance of business success contributing to both individual and organizational performance, productivity, and well-being of the business. Huynh et al. (2020) study for instance used a survey questionnaire and showed how different HRMPs such as reward, recruitment, training, and job evaluation impact on internal measure of FP (ROE) using linear regression analysis. Many other recent studies have also shown how efficient HRMPs impact FP (Gede Riana et al. 2020; Mulolli & Boskovska, 2020; and Subramony et al. 2021).

While studies have found positive relationship between HRMP and FP performance, others have shown no or negative relationship between HRMP and FP. Rompho (2017) in his analysis, established no relationship between human capital and long-term FP. Uribetxebarria et al. (2021) also found no significant relationship between HRMP and organisational performance. Colombo et al. (2021) found a negative relationship between HRMP and firm financialization. Acquah et al. (2021) finding shows that green HRMP has significant negative impact on FP.

Wilkin & Connelly (2015) showed that while health promotion initiatives significantly decreased ROA, work-life balance initiatives significantly increased ROA. However, both effects became non-significant over the longer term. Chang et al. (2021) likewise found that the effect of employees' relation on Tobin's q lost its significance over time. This indicates that increasing investment in human resources after a certain point reduces the marginal return and therefore would be not beneficial to continue investing at that level. Lee & Cugin (2022) stated that HRM investment delivers good outcomes. They further indicated that the relationship between HRMP is not expected to be linear as opportunities to increase FP from proactive HRMP should be limited to some point because more intensive HRMP may worsen the FP. Huselid et al. (1997) clarified that inconsistent results in the traditional HR literature may illustrate the existence of non-linear relationships.

Both ROA and Market capitalization identified a non-linear relationship between HRMP and FP with an inverted U-shaped relationship demonstrating that producing more HRMP in FTSE would decrease marginal output. It is possible to establish a U-shape relationship (Yoo et al.,

2021) which implies that the initial introduction of HRM practice may not impact FP as it needs to reach a certain point before achieving performance. Offering explanations for this model, Yoo et al. (2021) used the period of 2009-2018 (longitudinal data) to allow for both linear and non-linear relationships. Meier et al. (2021), Lee & Cugin, (2022), and Chadwick, (2007) established a non-linear relationship between HR practices and FP. Meier et al. (2021) and Yoo et al. (2021) used the economic model the law of diminishing to explain the existence of an inverted U shape (non-linear) relationship. Chadwick (2007) explored how the intensity of applying innovational HR practices impacts on performance of an establishment using US Census Bureau data. He found departures from linearity that are statistically significant and substantively meaningful for four out of six HRMPs. He concluded that the linearity estimation could be misleading and faulty and the results could be detrimental to theorists and practitioners. Building on his arguments, he mentioned that though no study has examined the non-linear relationship between strategy HR practice literature, a few scholars have suggested the possibility of meaningful non-linear relationships in the review of strategy HRM literature. Giving an example, he mentioned that Becker & Huselid's (2006) unpublished multi-industry study showed a plateau where the slope of this relationship was mostly flat on the degree of adopting HR practice and organizational performance. De Winne et al. (2019) found a complex non-linear relationship such that labour productivity increases when turnover is low, reaches its maximum, flatten off, and decreases after this point with negative diminishing returns. They emphasized that beyond the optimal level of turnover, performance diminishes because of high turnover cost overweighing its benefits.

The existence of nonlinearity of inverted U shape finding in this study implies that there exists an extremum where FP is maximized. This implies that an excess of HRMP might bring bad investment in FTSE firms. The result as in Table 10 supports a possible quadratic relationship between HRMP and FP. The negative significant coefficient for the second-degree term signal promises the existence of an inverted U-shape relationship -0.121^{**} and -0.00367^{*} for ROA and market capitalization respectively. Other studies that have found an inverted U-shape relationship with HR outcomes include Chadwick (2007), and Yoo et al. (2021). Diminishing returns of HR practices happen after the maximum level is reached where the economic cost outweighs the benefit. Yoo et al. (2021) explained that the benefits of HR practices are taken for granted by researchers and practitioners, and emphasised that they cannot be achieved

without analysing related costs which may diminish in marginal utility as the investment perpetuates.

The results were also robust with alternative FP measures, ROE for accounting measures, and Tobin's q for market capitalisation. The similarity and consistency of results for the ROE and Tobin's q with ROA and Market capitalization provided further support for hypothesis 2. There is a parity between Tables 11 and 15.

The test of the quadratic location of the extremum (maximum or minimum) is rarely performed (Hirschberg and Lye 2005). Quadratic function is mostly used in regression to determine the existence of extremum in a relationship. To establish extremum, there should be a significant relationship between the variables (Hirschberg and Lye, 2005). Lee & Cugin (2022), in using the economic model of the law of diminishing returns to illustrate the worthwhile investment level for HRMP to maximum marginal profit, stated that the extremums level deals with how much (quantity) an investment in HRMP should be made to deliver maximum returns.

To obtain a maximum or minimum point between a dependent variable and the independent variables, Boakye et al. (2020) gave additional evidence by establishing maximum levels between environmental practices and FP (Accounting and market-based measure) by using integral calculus based on the results of the regression model (non-linear relationship). Meier et al. (2021) and Lee & Cugin (2022) used a similar approach to establish the turning point of HRMP and ROA (accounting-based measure). However, Meier et al. (2021) and Lee & Cugin, (2022) used only ROA and marginal profit (accounting-based FP), respectively. Market capitalization, which is the total value of the company share to stock, shows the actual value of the organisation, and therefore needs to be monitored in relation to HRMP to identify how it can be maximised. It measures company worth on the open market, assesses the prospects, and enhances shareholder value (Willmott, 2010). It is therefore essential to note how it can be maximized through proactive HRMP. Aside from using only ROA and marginal profit respectively by Meier et al. (2021) and Lee & Cugin (2022), Meier et al. (2021) used European firms (from 17 countries), whereas Lee & Cugin's (2022) studies were based on large European multi-national companies (92 subsidiaries globally) which cannot be used as a scaled-down version of the UK firms. To maximise FP, 43% and 46% of ROA and market capitalisation, respectively, of the total disclosure items (30) need to be produced. Any point beyond this level would bring negative returns. Similar to Meier et al. (2021) who found 42% as optimal HR score. After the maximum point, it is more costly to generate an additional unit of output, and

so the marginal ultimately exceeds the marginal returns. Going above the acceptable level of investing in HRMP could bring a negative marginal benefit.

5.7.3 Moderation Effect of Board Size and Board Independence.

The study was to determine whether board size and board independence moderate the relationship between HRMP and FP. The board size and the background of the independent directors are essential for the management of an organization for capital and regulatory compliance (Kakabadse et al. 2015). Objectives 4 or H3a and H3b were to establish whether the ratio of outside board directors and the size of the board may enhance or reduce FP if interacting with HRMP. It was discovered that large board size has a significant but negative relationship between HRMP and FP (ROA and market capitalization). In H3a, it was argued that an organization with a large board size may have a lot of expertise to deal with HRMP-related issues diligently. However their presence in number would reduce how quickly any decision is made to favor employees and this may de-motivate employees, reduce productivity, and subsequently FP. Harrison et al. (2015) posited that when the number of the board increases, they become ineffective due to free rider problems and poor decision-making and suggested that organizations should embrace small board sizes. From a theoretical point of view, a large board size has both costs and benefits. As the size of the board increases, its ability to monitor, manage, and advise on employee-related issues becomes effective since there is more expertise. On the other hand, large boards may perform worse due to dragging issues and conflict in collective decisions (Treepongkaruna et al., 2024) relating to employees. Employee issues may either not be solved or delay due to conflict inhabited in large board size and this may demotivate employees and subsequently affect FP.

Eisenberg et al. (1998) cited that two main problems of large board size are increased communication problems and coordination and further indicated that this reduces the board's ability to monitor and control management leading to the agency problem. A strong board can play an essential role in the organization by providing a link between the organization and its internal resources, securing good human resources, and taking a very active part in organizational strategic decision-making including HR-related issues for the interest of employees. Small boards, as stated by Zheng & Tsai (2019), usually are more focused and effective in checking firm activities such as any issue that affect employees. Board directors are expected to evaluate organizational HR decisions, considering their risk, business scope, and FP. When FTSE firms want to achieve FP by pursuing HRMP, board members are considered an important source as they input HRMP selection strategy and implementation,

and such decisions, and information are communicated by the board. If a large board prevents effective decisions as reported by Zheng & Tsai (2019), the CEO can take advantage of this and make decisions that serve their interest. This means the interest of employees and other stakeholders interest group would suffer. The negative moderation role played by board size between HRMP and FP of FTSE firms illustrates that a large board size worsens the organization/management problems of internal resource allocation due to agency problems. Besides, they may increase the competition for internal resources (Zheng & Tsai, 2019). Large board expenses are higher than small board size and money that can be spent on HRMP may be broadly spent on the board as each board needs have to be satisfied. This implies that employee-related issues would suffer at the expense of a large board and consequently, negatively impact FP in FTSE firms. Zheng & Tsai (2019) posited that large board sizes are costly. Small board on the other hand may be cheap. Cost-effective board members would help to get excess money for the operation of HRMP-related issues. A large board was therefore found not to be effective in FTSE firms when interacting between HRMP and FP as in the Table 12. This finding is consistent with other studies that have used board size as a moderator. Zheng & Tsai (2019) found board size to negatively moderate between diversification and firm performance. Makkonen (2022) moderation analysis in his meta-analysis studies points out that board size is negatively correlated with board diversification and innovation. Contrary to this study, Bathula (2008), however, found board size to be positively moderating the relationship between board characteristics and firm performance. The result from this study shows that small board size is beneficial to the UK FTSE if FTSE firms want to use their Human resources to maximize FP.

This current study also reveals that board independence has a positive relationship with ROA and market capitalisation. While ROA was significant with the moderation effect of board independence, market capitalization was unable to confirm a significant relation with the interaction of HRMP and board independence. Though hypothesis 3b is partially supported, it is in line with other findings. Chen (2011) used board independence to moderate two outcomes and found different directions of the outcomes. He showed that while there was an insignificant relationship between top management team age and internationalization with the interaction of board independence, there was a significant relationship between top management team experience and organization internationalization when board independence interacted. The study hypothesized a significant relationship between HRMP and FP (ROA, market capitalization) relationship to be stronger with more independent directors on the board but

was not fully supported. The support of the stakeholders' theory is limited as no significant evidence was found between the moderation effect of board independence as it interacts with HRMP and market capitalization but significant with ROA. The independent board of directors acting to monitor manager behavior and attitude and provide resources would help the organization to reduce risk and uncertainty that may cause well-invested employees with all the needed resources to leave the company and this may contribute to profitability and hence ROA. This is because the cost of organizing, recruiting, and training new employees would not be incurred. However, this is done internally and may not be known to the public to influence investors' decisions which may call for more demand for shares to impact share price.

Tejedo-Romero et al. (2023) mentioned that outside directors do not encourage company information disclosure because they have the fear of damaging their reputation and image, and this impacts future job prospects. If the organization's information is not known, the public cannot react to the buying of company's share because investors react to public information to invest in the share of a company. Few studies have used board independence as a moderation variable. However, the results of those studies are not conclusive as different results have been documented. While Alhebri et al. (2021) found a negative significant moderation effect of board independence, Chen (2019) rather found a positive relationship between firm ownership and research and development investment with a board independent as a moderator. Karim et al. (2020) examined how board independence ratio moderates governance mechanisms and CRS practices. Using GMM, the majority of their variables showed a significant and negative relationship with the board independent as a moderator. Thus the partially supported moderation relationship of board independence between HRMP and FP is constant, with prior studies such as Chen (2011).

Arguing from Stakeholder Theory stand point, external directors are more objective in examining the shareholders and managers as they get more pressure from other stakeholder groups for they respond to the wider groups and provide higher transparency to protect their reputation. They therefore ensure that the company resource is not only benefited by shareholders or other top officials, but by all employees as well. When employee's needs are provided for through different HRMP (bundles) via the effort of outside directors, employees would be more indebted to work extra than expected to maximize FP or to raise the image of the company. However, stakeholders theory was not fully supported.

5.7.4 The Impact of HRMP During pre-COVID and COVID

During the pre-COVID period (2018-2019), although there was a positive relationship between HRMP and Accounting measures of FP, the relationships were not significant. It could be explained that, the HRMP measures undertaken by the FTSE companies during the pre-COVID period were not strong enough to significantly influence FP. Meier et al. (2021) stated that producing HR-CRS below the expected level may not be beneficial. Lee & Cugin (2022) emphasized that minimum investment in training for instance, limits flow from accumulating experience as well as know-how and this may block the building of tacit knowledge and productivity. Meier et al. (2021) further posited that a firm with low HR-CRS finds it difficult to recruit the best employees, motivate them and involve them. These, as emphasised by the AMO framework are the only means to establish performance (Saridakis et al., 2017, Luan, 2020, Al-Mottahar, 2021). HRMP during the pre-COVID era may have been low and that may have led to no significant relationship with profitability with direct effect on ROA (accounting measures of FP). A further increase in HRMP may have moved FP to reach its minimum for positive returns.

Meanwhile, in the pre-COVID period, the stock market was stable, and investors positively reacted to positive HRMP information. This explains why the adoption of good HRMP positively and significantly influences market-based measures of performance for both market capitalisation and Tobin's q.

In the COVID-19 period, the accounting-based measures of FP (ROA and ROE) rather showed that there is a significant and non-linear relationship between HRMP and FP. The relationship was, however, U-shaped indicating that initial improvement of HRMP did not yield any improvement in FP representing ROA and ROE until the minimum point was reached where additional improvement in HRMP started to impact positively on FP. The result is seen as the actual situation during the COVID period where profitability was affected. Omaliko et al. (2021) showed how the COVID pandemic impacted profitability. Alhosani and Liravi (2021), COVID pandemic has drawn many lessons highlighting the need for organisations to assist government imitative in handling contingency and instance crises. During the COVID period, most organizations adopted various HRM practices to safeguard employees from COVID. The pandemic presented a need for government/HR managers to think of a new methods to adapt to the challenging time so remote working strategy was one of the newest emerging techniques

adopted by many organizations (Kalogiannidis, 2021) which FTSE firms were not exceptional. “Work from home if you can” was implemented across the UK.

Some of the measures aside from working from home included transport arrangements and provisions of safety equipment and protective items (Ngoc Su et al. 2021, Kalogiannidis, 2021). Aside, from the efforts by the individual organizations, the UK government also introduced many interventions to protect jobs, as well as enhance performance. Some of these measures include furlough pay where the government supported employers by assisting them with grants to support the payments of salaries. The job retention initiated by the UK government from 1st March, 2020 to 30th September, 2021 to furloughing 80% of wages was for employers to retain their employees (Francis-Devine et al., 2021). Many companies' profitability levels were affected despite these initiatives taken across the UK, and the organization. Some of these measures were sudden and organisations were not fully prepared, as such, it was done in a rush. For example, the working-from-home policy was a sudden and drastic measure for organizations as they had to have all their equipment for their employees to work effectively at their site. Initially, the introduction of this policy may have negatively impacted employee productivity until the maximum capacity of equipment (installation of computers at people's homes, improving ICT for employees' homes, desktops, desks, etc.) was provided for them at their homes to work effectively to bring financial benefit. Green et al. (2020) mention that because working from home was implemented without planning during COVID-19, there was limited ability to adjust to structure elements as this was immediately implemented without notice. Virtual working, which was predominately used during COVID 19, could also impact different individual outputs. This is because of people's characteristics such as age, experience, and level of knowledge (Raghuram et al., 2001). Organisations therefore needed more resources to provide more working-from-home equipment off the work premises and training for employees before they could earn benefits. Thus, the initial introduction of HR practice during COVID era was expected to bring negative returns until more HR practices such as providing appropriate equipment, giving more training, and earning experience from working from home were gained before a positive turn took effect hence a U-shape relation. The initial introduction of HR was not effective until more adjustment was made to provide more HR practices. While initially the relationship between HRMP and FP was negative, the introduction of the more HRMP practices changed the situation from negative to positive and hence the U-shaped relationship between HRMP and FP for both accounting measures of performance.

In the case of the market-based measures of FP (market capitalization and Tobin's q), there was no significant relationship between HRM practices and FP. This stems from the fact that during the period, the investment environment was very volatile, and most investors became risk averse. Various HRM practices introduced by the organisations and the government were not strong enough to enhance the risk appetite of investors hence the lack of a significant relationship between HRMP and FP during the COVID period. This is in line with the research work of Allam et al. (2020) who found that the trading behaviour of institutional investors and individual investors appears to be sensitive to the outbreak of COVID-19. Negative feeling urges investors to cease investing their money and as a result despite initiatives taken by both government and organisation to enrich HRMP, the initiatives proved redundant on FP.

5.7.5 Robustness Test/Sensitivity Analysis

This section checked the credibility of the results by employing OLS to investigate how HRMP impacts FP using ROA and market capitalization. The aim is to establish if the OLS model, which deals with heteroskedasticity associated with the panel, would produce similar results as the main model which addresses the issue of reverse causality and endogeneity problem. Second, the study employed different FPs indicating ROE and Tobin's q on the main model, (GMM) to test for robustness. Furthermore, within the six years period of data employed, the study split the data into pre-COVID and during-COVID. Thus, the study analysed the heterogeneity that existed in this period. This is in line with (Kalogiannidis, 2021) who posited that changes in this (COVID) period have many implications as some employees may find it more convenient and flexible to work from home.

The results from the alternative variables (ROE and Tobin's q) in Table 16 confirmed that there exists a point at which introducing more HRMP would not yield positive benefits in both ROE and Tobin's q and thus confirming hypothesis 3. The results from the OLS model in Table 17 showed that HRMP and the square term of HRMP were significant with a market capitalisation as shown in Table 17 and therefore could establish the maximum point. However, in the case of the ROA, the optimum level could not be established, as the relationship was not significant. The results may have been affected by the endogenous problems associated with OLS. Ullah et al. (2018) posited that the results from GMM may be different from OLS because the GMM model controls for endogeneity including lagged value and applies an internal transformation process.

5.7.6 The Control Variables

In the case of the control variable, the study found that firm size which measures the number of employees harms both ROA and market capitalization in line with Salman & Yazdanfar (2012) who revealed that firm size harms profitability in micro-firms due to clash and disagreement between managers and shareholders as their conflict brings a lack of control. However, while ROA has a significant negative relation, market capitalization was insignificant. The negative value of firm size on financial performance (FP) could be linked to the argument that large firms by their size select quality, experience, and more skilled employees and therefore pay large wages and salaries. Akben-Selcuk (2016) and Ling et al. (2007) argued strongly to control firm size as they believe firm size is an influential variable that impacts performance. The negative significance of firm size supports the agency theory claim that conflicts and clashes between shareholders and managers are predominant in large firms (Salman & Yazdanfar, 2012) leading to a lack of control giving room for slow or hanging up activities or decisions which may reduce productivity and reduce organization profit. Hanging up organization activities can create public conversation, and this may impact share value. However, many studies have argued the positive effect of large firm size on FP, contrary to this finding. Akter et al. (2020) posited that large firms can adopt and execute work-life balance because of large economies of scale. They indicated that organizational size is linked to HR practices and policies. Ahmad et al. (2020) found that firm size is positive and significant with turnover, which is also believed to impact performance. Afum et al. (2021) posited that large firms have a large and superior tendency to have more internal resources base to invest in practices to increase performance. Ali et al. (2020) argued for large firms and stated that such firms are likely to achieve their objectives because they have the benefit of gaining access to resources that offer them a competitive advantage. Additionally, they emphasized that large firms are more likely to possess competent managers, more departments, more knowledge and skills, and more centralization than in smaller firms. Managerial skills impact organizational performance.

Liquidity reported no significant relationship with both FP (ROA and market capitalization) in FTSE. This indicated that holding a large amount of money to pay short-term debts and dividends does not influence profitability or investors' interest in buying more shares. Liquidity which is the ability of the FTSE firm to cover its short-term debt did not show significant value, which is in line with other studies such as Obi-Nwosu et al.(2017) who found liquidity not significant with deposit money bank performance, and Musah & Kong (2019) who found

liquidity to be insignificant to FP representing ROA and ROCE in the Ghana alternative market. The results are contrary to Ali et al. (2020), Jihadi et al. (2021), and Saleem & Rehman (2011). Saleem & Rehman (2011) found liquidity to be significantly related to FP. Drawing from the theoretical underpin of Keynesian liquidity preference theory and the Miller-Orr-Cash Management Model, Akenga (2017) argued that for a firm to meet its obligation, it should hold a certain percentage of its total finance in cash. Referring to the theories, he mentioned that holding cash enables an organization to take advantage of changes in bargained purchases and fluctuations in suitable interest rates. Also, stakeholders, such as investors, suppliers, and shareholders might also be influenced and react positively to an organization with suitable liquidity because the organization could service its dividends and debt when due. Sufficient cash to pay for dividends and debt encourages investors to put money in the organisation because they possess the assumption that this would bring the dividends in due time, and this calls for buying more shares which might bring significant positive with FP. However, this is not in the case of FTSE, as Keynesian liquidity preference theory and the Miller-Orr-Cash management Model were not supported.

Gearing shows a negative relationship with both ROA and Market capitalization. While market capitalization was significant, ROA did not prove any significance with gearing. Investors see highly geared companies as a risk to invest and as a result, the negative significant relationship was recorded in the market value as seen in the result demonstrated in Table 10. Having high gearing would also make it impossible or difficult to embark on a growth strategy as debt makes it difficult to get finance for any good strategy that might also impact FP. Rajangam et al. (2014) in their study of the Malaysian-listed firms, concluded that the company directors and owners have concerns about the gearing level to other financial indicators as the gearing level has a long-lasting impact on the liquidity and profitability. Oyesola (2020) concluded from their studies that gearing affects FP in the listed companies in Nigeria and suggested that the government of Nigeria should make policies that would encourage a balanced gearing structure to enhance performance. Adeleke (2021) similarly found that an increase in debt financing reduces equity ratio as well as other financial indicators. However, other studies such as Tunji et al. (2015) found that gearing has a positive impact on organizations' performance contrary to this finding. It should also be noted that having high gearing would also make it impossible or difficult to embark on a growth strategy such as diversification, product expansion, product development, and acquiring a firm that brings financial benefits or boosts investors' interest. It is therefore advisable for FTSE firms to reduce the amount or percentage of their gearing to

guarantee good market value of equity.

Board gender diversity was also controlled since it is believed to impact FP. This current study found a significant relationship between board gender diversity with both ROA and market capitalization. Song et al. (2020) argued from the stakeholder-agency theory point of view and confirmed gender diversity to be significant positive on organizational performance. Expanding further on their findings, they cited that women are likely to be independent compared to men and are talented in bringing harmony (Song et al., 2020) and their presence on the board brings performance. Dang & Nguyen (2018), in line with this study, found that board diversity impacts positively on accounting-based measures of FP (ROA). Brahma et al. (2021), using FTSE 100 firms, examined how board gender diversity as a level of female representatives on the board influences FP. The results showed a strong positive relationship with business performance. Kılıç & Kuzey (2016) results illustrated that the board of directors were female dominant, and further showed that the inclusion of female directors related positively to ROA, ROE, and return on sales. Li & Chen (2018) using contingency theory similarly identified gender diversity to have a positive relationship with FP. The recent study of Kabir et al. (2023) argued that the main essence of agency theory that justifies board of directors' appellation in control and monitoring is to reduce the agency problem because of some cultural dimension. In FTSE firms, it is important to control board gender diversity as large organizations like FTSE would try to incorporate board gender diversity in the selection of their board on the ground of equal opportunity and hence include a good portion of females in the boardroom. From the agency theory point of view, the role of the directors is to monitor and control the activities of the firm and gender diversity can reduce agency problems between managers and stakeholders as female directors can raise more questions than their male counterparts and can be also active in monitoring. Other studies have also found board gender diversity to have significant negative relation with FP. Martinez-Jimenez et al. (2020) for instance, found negative significant between board gender diversity and FP contrary to this finding.

5.8 Summary of the Chapter

The chapter presents the analysis, findings, and discussion of results relating to the main objectives of the study. It begins with descriptive statistics of all the continuous variables, bivariate analysis, distribution made by each HRMP toward the total disclosure, variant inflation factor, correction matrix, and Hausman test for OLS assumptions. The final part

discusses the results relating to the hypothesis and any other results found including robustness test for sensitivity analysis.

Both ROA and market capitalization indicated a large variation of shareholder value in FTSE firms as the difference between minimum and maximum value for both ROA and market capitalization were wide. The negative minimum value from both ROA and market capitalization showed low returns for companies in FTSE firms and this is in line with the findings of Cancela et al. (2020) and Aggarwal (2022).

The GMM results for the key objectives showed that there is a non-linear relationship between HRMP and FP in both ROA and market capitalization. This means that the relationship between HRMP and FP may not always correlate, and this depends on the extent of HRMP investment. The results were robust with alternative FP measures, ROE and Tobin's q, and similar results were exhibited. In using OLS to support the robustness of the results, it partially supported the main results. While market capitalization showed a significant and non-linear relationship between HRMP and FP, ROA was not significant. In the case of individual HRMP, most of the variables showed either negative significance or no significance with FP. It was further discovered that board size negatively moderates the relationship between HRMP and both FP measures (ROA and Market Capitalisation) significantly. However, while board independence had moderate positive significance between HRMP and ROA, there was no moderation impact of board independence in the relationship between HRMP and market capitalisation. The study further reveals that combined HRMP is better than individual HRMP. The results have been linked to empirical literature and theoretical framework to prove and dis-proof the theory.

CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This research investigated the relationship between Human Resource Management Practices (HRMP) and financial performance (FP). It examined how HRMP impacts both accounting and market-based FP and used board size and board independence as the moderators of this relationship. It further challenged their general notation in the literature on the linear relationship between HRMP and FP based on the argument that the higher the HRMP, the higher the FP. Thus, “more is always better” in the application of HRMP was challenged. On the contrary, the study advanced the conceptual argument that perpetually increasing investment in HRMP is not the best since there could be a point where HRMP would not bring any benefit if it exceeds its limit even though investment in HRMP would initially not bring financial benefit until it reaches minimum level. The objectives of the study were to determine the relationship between HRMP and FP (accounting and market-based measure); analyse the various components of HRMP and FP; establish the maximum or minimum point based on a non-linear relationship argument between HRMP and FP; and determine whether corporate governance (board size or board independence) moderates the relationship between HRMP and FP.

To fulfil this objective, the study targeted 350 financial time stock exchange firms in the UK’s annual reports and financial data from AMADEUS to obtain HRMP data and financial performance information, respectively. Refinitiv database formally known as Asset4 was also used to obtain corporate governance variables that were used as moderation and control variables. Six-year data from each of the variables were utilised. Though 350 FTSE firms were used, some of the companies could not reveal/show their annual reports. Thus, organizations with unavailable annual report were excluded. In the end, 335 companies were used for the analysis. The study gives updated documents on HRMP disclosure in the UK and empirical evidence on how HRMP disclosure relates to both accounting and market-based FP representing ROA and market capitalization. The study also provides empirical evidence by negating the traditional assumption that quantity HRMP means better FP. It further shows how much HRMP FTSE firms need to produce to maximize FP and additionally illustrates how the board size and board independence influence HRMP and FP relationship. The rest of this chapter therefore captures the summary of the result and interpretation. It also highlights the contribution, and implication to knowledge, as well as limitations and suggestions for future researchers.

6.2. The Summary of the Findings and interpretations

The study aimed at investigating the relationship between the quantity of HRMP disclosure in the annual report and how these disclosures influence FP. A lot of statistical tests done include correlation matrix, descriptive statistic, and regression analysis to establish the extent and the trend to which HRMP disclosure quantity influences FP while controlling for both specific firm characteristics and corporate governance elements that are believed to also influence FP. The sensitivity analysis was also carried out to check the robustness of the results.

The descriptive statistic revealed that more than 50% of HRMP disclosures were identified in the annual report as the disclosure of the panel HRMP surpasses half of the maximum disclosure item of 30 items. This suggests that there is a moderate level of quantity disclosure of HRMP in the UK annual report. It was also revealed in the descriptive statistics that there has been a consistent increase in the HRMP disclosure over the years (2016-2021). This increased pattern of HRM disclosure over the years emphasised how FTSE firms increasingly becoming aware of how their corporate responsibility is important to the public, investors, and other stakeholders in the UK while at the same time reporting how they are trying to meet the requirements the government in the UK has put in place for employee management.

The results revealed that communication/engagement represents the highest level of disclosure while recruitment/selection has the least disclosure. Moreover, there is a great variation in HRMP disclosure among sample companies and this may be because of observing a large range of organizations with different sizes.

The regression results showed a positive and significant relationship between the composite of HRMP and FP with a good value. The results illustrated that a combined HRMP (financial reward, training and development, communication/engagement, recruitment system, workplace promotion/growth, and a good working environment) brings better FP outcomes than when HRMPs were disaggregated. The bundle of HRMP brings significantly greater outcomes compared to individual HRMP (Gooderham et al. 2008). It was also revealed that recruitment and selection seem to favour FP than all the individual HRMPs.

The results further showed that there is a non-linear relationship between HRMP and FP with an inverted U-shape relationship. The research did not only establish an inverted U-shaped relationship between HRMP and FP, but also located the actual point where it is no more beneficial to continue to increase HRMP. This shows that there exists an extreme point where

FP is optimized with HRMP. This implies that the excessiveness of HRMP brings negative returns after the optimal level. Thus, HRMP may increase FP to a certain point, beyond which any additional HRMP diminishes FP. It was further shown that board size negatively and significantly moderates the relationship between both FP measures representing ROA and market capitalization. Additionally, the results demonstrated that board independence has a positive significant moderation between HRMP and ROA. However, market capitalization was not able to confirm a significant relationship with the interaction of HRMP and board independence. All the results reinforce the general argument that bundle or integrated HRMP brings better FP reinforcing AMO theory which suggests that the bundle of HRMP improves employee AMO for achieving better FP outcomes. The results imply that for employees to reciprocate in kind from what they receive from their organization, there should be an integrated/bundle of HRMP to ensure the needs of different individuals as different employees interpret different HRMP differently. For social exchange theory which operates on the assumption of “give and take” to work effectively, more emphasis should be placed on the AMO element to address different employees' interests because most of the individual HRMPs do not have a positive impact with FP and the few that reveal a positive significant effect did not show good value compared to when they are combined.

Different kinds of robustness tests were done to check the credibility of the results. Firstly, the HRMP and FP relationship was modelled by using the OLS panel regression model that addresses heteroskedasticity associated with the panel. The OLS model shows that HRMP and the square term of HRMP were significant in the case of market capitalization and that B2 which is the square term of HRMP is negative and therefore could establish the maximum point as the main model. However, in the case of the ROA, the optimum level could not be confirmed because the relationship was not significant. The OLS results may have been affected by the endogenous problems associated with OLS. Ullah et al. (2018) stated that OLS and GMM may bring different results because GMM may be controlled for endogeneity including lagged value and apply an internal transformation process.

Similarly, the credibility of the results was further checked by using different measures of FP, ROE, and Tobin's q for accounting and market-based measures respectively, and significant relationships were obtained in both linear and non-linear relationships in both ROE and Tobin's q. Since the square-term of HRMP (B2) was significant and negative, an inverted U shape relationship was established like the main variables (ROA and market capitalization). This

implies that initial investment in HRMP would boost FP to a certain point where any increase above that point would bring a negative marginal return. HRMP was also analysed in relation to FP by splitting the data into two: pre-COVID and COVID periods and finding out how the results were affected by these two eras.

Table 18 Research Hypothesis and their Outcomes

Research Hypothesis	Outcome Accounting-Based	Outcome Market Based
H1: Composite of Human Resource Practice has a significant positive impact on financial performance.	Supported	Supported
H1a: Training and development have a positive and significant impact on financial performance.	Not Supported	Not supported
H1b: There is a significant positive relationship between financial reward and financial performance.	Not Supported	Not supported
H1c: Communication/engagement has a positive significant relationship with financial performance.	Not Supported	Not supported
H1d: Promotion and Growth are positive and significant in financial performance.	Not Supported	Supported
H1e. There is a positive and significant relationship between working environment and financial performance.	Supported	Not supported
H1f: Recruitment and selection have significant positive impacts on financial performance.	Supported	Supported
H2: There is a non-linear relationship between human resource practices and financial performance.	Supported	Supported
H3a: Board size moderates the relationship between Human resource practices and financial performance significantly.	Supported	Supported
H3b: Board independence moderates the relationship between human resource practices and financial performance significantly.	Supported	Not supported

6.2. 3 Main Findings Based on the Research Objectives and Hypothesis

The study sets four main objectives and 10 testable hypotheses to accomplish. Research objective 1 (To determine the relationship between the composite of HRMP and FP) which addresses hypothesis 1 (Composite of HRMP has a significant positive impact on FP) has been confirmed in both ROA and market capitalisation. A positive relationship between bundles of HRMP and FP supports the theoretical declaration of SET and AMO. SET asserts that when employees are given a well-deserved HRMP, they will reciprocate in kind by working hard to

achieve performance. AMO theory posits that employees' performance in the workplace is determined by a bundle of HRMP which consists of ability, motivation, and opportunity (Bos-Nehles). This has been empirically confirmed by studies such as Saridakis, (2017) and Mitchell et al. (2013).

Objective 2, which is linked with H1a to H1f was to find how components of HRMP impact FP also revealed that most of the individual HRMPs were not significant with FP or harmed FP. This implies that objective two was not fully supported and, in this instance, SET is also partially supported. Empirically, this is in line with other HRMP studies (Guerrero & High-involvement, 2020, Delaney & Huselid, 1996) which claimed that performance can be achieved when HRMP is integrated.

Objective 3 is linked with hypothesis 2. Concerning the third objective, it was discovered that there is a non-linear relationship between HRMP and FP, and the maximum point was established since the regression coefficient of the square term was negative. The maximum points for ROA and Market Capitalisation were 43% and 46% respectively of the total number of 30 items from the checklist. This is in line with Meier et al (2021) who also established a maximum point of 42%. Thus, objective 3 which is in line with hypothesis 2 was confirmed.

Objective four was to determine whether board size or board independence moderates the relationship between HRMP and FP which is linked with H3a and H3b. H3a states that "Board size moderates the relationship between HRMP and FP significantly" and this was confirmed in both ROA and market capitalisation. H3b mentioned that "Board independence moderates the relationship between HRMP, and FP significantly". This was partially achieved as ROA was confirmed but market capitalisation was not confirmed. Objective 4 was therefore partially confirmed. It can therefore conclude that stakeholder theory is not fully supported.

6.3. Contribution

The study offers multiple contributions to knowledge. First, the study establishes that the relationship between human resource management practices and financial performance could not be linear. Given that the prior studies have both reported potential benefits and costs of HRMP on FP, the study maintains that the relationship may be more intricate than solely reporting positive and negative relationships by prior studies (Chadwick, 2007). The study adds to the broader research by giving potential explanations for contradicting findings on the relation between HRMP and FP. Similar to Meier et al. (2021), the study adds to the existing

study by providing possible causes of the inconsistency and contradicting results among the studies of HRMP and FP. Lee & Cugin (2022) for instance, underscored that the investment in HRM system can lead to negative returns depending on how much is invested. The empirical finding of Meier et al. (2021) has also confirmed that the investment in HR practices could be positive or negative depending on the amount or how many HR practices engaged. However, Meier et al. (2021) findings related to only ROA, while Lee & Cugin (2022) measured FP as net profit. Thus, their finding was based on only accounting-based measures of FP. The study extends the non-linear relationship argument to market-based measures of FP by using market capitalization. Market capitalization (Market-based value) as emphasized by Willmott (2010) measures a company's worth on the open market, assesses the prospects, and enhances shareholder value. It is therefore essential to note how it reacts to HRMP. To the best of my knowledge, this has not been tested.

Second, the study further established the exact point where HRMP maximises both ROA and market capitalization (Market-based FP), which has not been tested to the best of my knowledge. Meier et al. (2021) were able to establish the exact level where HR practices interact with FP. Their study was based on only ROA (Accounting-based FP). This study, aside from establishing the maximum level where HRMP optimal FP using ROA, also establishes how many HRMP need to be produced to maximize market capitalization (Market-based FP) in FTSE. Thus, the point at which HRMP maximizes market capitalization has also been established.

As far as it is known, none of the studies has demonstrated and established minimum or maximum points using market-based measures (market capitalization) that measure shareholders value. It is the first of its kind to establish an optimal level by using market-based measures of FP and to be precise, market capitalisation for FTSE firms to pursue proactive HRMP. Lee & Cugin (2022) proposed and tested a new theoretical model that hypothesizes and predicts the optimal level of HRM system investment where the greater benefit is returned. After challenging the assumption of linear logic in the literature on HRM systems, Lee & Cugin (2022) stated that deciding how much to invest in HRM is very vital, in the current situation where many organizations compete globally.

Third, the study adds to the knowledge of how the size of the board of directors and board independent ratio influence the relationship between HRMP and FP. Studies such as Alhebri

et al. (2021), Chen (2019), Zheng & Tsai (2019), and Bathula (2008) have used board size or board independence as a moderator in other relationships. Bathula (2008) for instance, employed board size as a moderator between board characteristics and firm performance. None of the study has moderate HRMP and FP relationship with board size or board independence. This would bring new evidence to the relationship between HRMP and FP.

Four, the study contributes to the few studies that have established a link between HRMP and FP by operationalizing both market and accounting-based measures of FP. Most of the studies of HRMP and FP performance typically depend on one aspect of FP's most accounting-based measures. It has been proven by Lu & Taylor (2016) that most researchers have used either market-based or accounting-based measures. Few studies have analysed HR's relationship with FP by employing both measures of FP (Huselid et al.1997, Nawaz, 2019, Choi & Lee, 2013, and Zhai & Tian, 2020). Though these studies employed market-based measures, as well as accounting-based measures, they used Tobin's q as a market-based measure. Abdolmohammadi, (2005) operationalized market capitalization in his HR study. His study was only limited to intellectual capital. However, this study, unlike the prior studies employed both accounting and market-based measures of FP using market capitalization and considered key HRM practices (financial reward, training, and development, promotion and growth, recruitment and selection, working environment, and employees' engagement/communication.

Five, the study employed an objective-based research methodology to investigate the relationship between HRMP and FP, unlike the prior studies that have used perception-based studies (Bryl, 2018; Chen, 2020; Acquah et al., 2020; Lai et al., 2017; and Lai et al., 2017). However, perception-based studies on HRMP and FP relationships have been criticized by many researchers such as Bonenberger et al. (2014) and Darnall and Ytherthus (2005). The use of perception-based methodology is based on individual opinions which may provide wrong assumptions that address the problem statement. Darnall and Ytherthus (2005) argued that studies based on individual perception lack reliability as the participants may produce untrue information and self-reported HRMP and FP by CEOs, HR managers, and managers may lack objectivity. However, an alternative methodology to perception-based study is provided by this current study by using published annual reports and edited financial statements in the UK since HRMPs and FP in the UK have been dominated by people's perceptions.

Six, the study operationalized theory from a bundle of HRMPs to formalized HRMP-financial performance relationship. The study offers a lot of contributions to theory. The study

contributes to existing studies that have proven the AMO framework which bundled HRMP for better performance. Stakeholder theory was used to predict how board size or board independence would moderate the relationship between HRMP and FP. Lee & Cugin (2022) maintained that to increase theoretical accuracy, in the field of management, theories must depart from giving predictions that are directional (positive or negative). With insights from stakeholder theory, an organization needs a large percentage of independent board of directors to monitor management interests or shareholders' interests only to satisfy other stakeholders such as employees' interests as well as prevent agency costs for better performance. The theory further suggests that large boards possess a lot of expertise to provide management with diverse ideas and thoughts for effective supervision to improve performance. These views, therefore, generate theoretical ambiguities that require additional empirical analysis. The result that a larger board harms the relationship between HRMP and FP in both accounting and market measures and board independence enhances the relationship between HRMP and FP is essential to practitioners and policymakers in constructing their boards.

Seven, the study also suggested that social exchange theory may not be relevant when individual HRMPs are used in FTSE firms. However, social exchange was confirmed when HRMP was integrated. Thus, for "give and take" notion of social exchange to be established in the FTSE, integration of HRMP (AMO element) is needed. The result is in line with theoretical arguments by Lai et al. (2017) who suggested that the SHRM notion of social exchange is pivotal to the effective AMO framework.

6.4. Practical, Policy and Theoretical Implication.

The study has policy implications. In the UK, regulations have a major role in how people are managed in various workplaces. This is how organizations like FTSE try to meet the requirements that the UK government put in place for employee management. However, it was revealed that some of the FTSE firms in the UK disclose a few of their HRMP, and in some instances, none were even reported which makes it hard to check if these companies are cooperating with the UK government to address HR-related issues such as health and safety at work, and equal opportunity for all employees. It is therefore recommended that policymakers introduce flexible regulations and platforms where they could encourage FTSE firms to disclose their HRMP, especially those that deal with UK laws such as occupational health (health and safety).

It is also recommended that policymakers enact laws that would enable flexibility for the employee to balance their work pattern with their social/family role. It was identified in the study that work-life balance has a role to play in addressing the needs of employees, organizations, and society and the nations at large. Work-life balance increases productivity and high productivity provides funding for the expansion of an organization (Babin Dhas, 2015). Nakamura et al. (2018) indicated that labour productivity is a source of medium to long term economic growth. This has been confirmed by Krugman (1994) who endorsed that productivity is a crucial source of economic growth and competitiveness. As the advantage derived from work-life balance starts from the individual level to the national level, it is expected that policymakers should incorporate it into the workplace policy as this is believed to increase productivity, and subsequently impact economic growth (Babin Dhas, 2015, Nakamura et al., 2018). Though work-life balance is a top priority for EU policy, national governments' support programmes vary greatly across Europe (Crompton et al., 2005). Working policies that address working life issues are good not only for families but the economy at large. Work-life balance reduces employee stress, and results in good mental health. Brooks & Anderson (2005) using the Socio-technical systems theory to back work-life balance mention that the main objective for work-life balance is to maximise jointly the organisational goal and employee's needs. Brooks & Anderson (2005) emphasized that how work is organized at work is deeply linked to the society at large. Ross & Vasantha (2014) stressed that work-life unbalance brings stress and affects mental well-being. Mental health issues and depression can be caused if people are unable to balance their work with social and family life. This can also be a burden to NHS as the cost of providing anti-depression drug is huge which can affect the total cost of the economy (Lester et al., 2004).

The study provides a lot of practical implications to management and owners when making any decision relating to HRMP. The first managerial implication is that investing in HRMP has a strong influence on organizational FP which is consistent with most of the studies obtained in the close link HR area. This is essential because it validates HRM policies based on people first (Meier et al., 2021). Investing in HRMP pays off and enables organizations to obtain superior FP.

The result has practical implications for managers who do not have enough resources and are in a dilemma of which HRMP they need to adopt with their scarce resources to improve the financial success of their company if they cannot integrate different individual practices. From

the results, the study identifies that whereas most of the HRMPs have either no impact on FP or harm FP (accounting or market-based financial performance), only recruitment has a significant positive impact on both accounting (ROA) and market-based measure (market capitalization) of FP with good value. This suggests that recruitment and selection may influence FP than any of the practices. Any FTSE firm in a dilemma of which HR practice to produce because of limited resources should consider the recruitment process rather than promoting people or giving incentives.

Similarly, the results also revealed that the composite of HRMP significantly impacts both accounting measures (ROA) and market measures (market capitalization). This implies that HRMP directed toward improving FTSE profitability can also be effective in improving market value. This suggests to managers that no different approach is needed when FTSE wants to increase profitability and at the same time attempts to attract investors to drag share price up. It is also recommended that managers should integrate at least an element from AMO framework as most individual practices portray no significant and/or negative significance with both FP measures.

The inverted U-shaped relationship recorded in the HRMP and FP relationship suggests that perpetual investment in HRMP does not result in constant financial returns. From the universal perspective as stated by Meier et al. (2021), any dollar spent on HR brings a positive return. This is not true always as a higher HRMP may decrease overall firm performance. Managers should be aware that a persistent increase in HRMP may bring negative returns. This is because there exists an optimal level of HRMP investment that optimizes FP. Lee & Cugin (2022) maintained that the higher and the extent of the HR system determine whether a firm performance would be negative or positive. Managers therefore need to be vigilant in investing in HRMP above the optimal level as moderate HRMP is needed to maximize FP. “More is better” does not work in the field of HRMP investment.

Year(s) lag has managerial implications for FTSE. The evidence of year one- or two-years financial delay in applying a certain HRMP indicates managerial implications to the employee hiring policy of FTSE. It is recommended for managers to try their best to keep and retain the employees after investing money in them as the results may not be immediate, but it would take one or two years to display the impact on FP.

The study also suggests that a large board is not good for a company like FTSE if they want to use their human resources to achieve FP. The negative moderation role of large board size between HRMP and FP of FTSE firms shows that a large board worsens the organization/management problems of internal resource allocation due to agency problems. Zheng & Tsai (2019) posited that a large board may increase the competition for internal resources. It therefore suggested that managers should trade off the collective expertise and broad diverse view of a large board with a small board size which can fast-track employee-related issues to achieve performance.

It should also be noted that investors do not respond to the appointment of additional independent board members in FTSE firms. The suggestion by the London Stock Exchange (London Stock Exchange, 2012) was to at least give equal shares to outside directors in the boardroom. However, this is not beneficial to the FTSE firm as the market does not react to the appointment of an outside director. The corporate governance code (2010) suggested that UK firms should have more outside directors in the boardroom. This does not work for FTSE firms in terms of attracting investors. However, this is not in the case of ROA or profitability.

6.5. Limitations of the Research and Suggestions for Future Studies

Like many other researches, this research has its limitations for future research directions.

First, the content analysis used to gather data was only limited to the annual reports. This suggests that HRMPs that were not in the annual reports could not be captured. No attempt has been made to use other sources of data such as interviews and questionnaires to supplement the data obtained from the annual reports. Zeghal & Ahmed (1990), in using annual reports, indicated that the sole description provided by the annual report of social disclosure information may not be complete. An annual report is not the only source through which HR information in the UK can be obtained. In addition to the annual report, Cranfield Network on European Human Resource can also be considered as reliance solely on the annual reports may have limited information. However, Adams et al. (1998) argued strongly to rely on annual reports. They stated that annual reports are the most vital media in which companies reveal information about themselves to the public. Vuontisjärvi (2006) in agreement with Gray et al (1995) mentioned that the annual report is the main channel through which organizations communicate to their audience. It is therefore expected that the main communication channel would have all the available information compared to the subsidiaries. Guthrie & Farneti

(2008) argued strongly for the use of the annual report and emphasized that the annual report makes several references to other media and it is considered to be a reporting medium among others. Vithana et al. (2021) contrarily stated that only a handful of firms disclosed their items (disclosure) in the annual report. To ensure most of the practices in the UK are captured, it would be appropriate to use other HR data that can produce other HR information rather than relying solely on annual reports.

Second, the study employed six-year data which is considered a short panel (Diaz-Fernandez et al., 2017, and Piva & Vivarelli, 2009) compared to other economic models (Yoo et al., 2021) that employed over 10-years data. However, the methodology used prevented the research from using ten years because of the time frame. Besides, the six-year data is consistent with other studies such as Piva & Vivarelli (2009). Other studies that have used short panels include Meier et al. (2021) and Lee & Cugin (2022). Piva & Vivarelli (2009) for instance, employed six-year data. While Lee & Cugin (2022) used three-year data, Abdolmohammadi (2005) evidence was based on five years data. Moreover, most studies of the HRMP and FP relationship are based on cross-sectional data (Mousa & Othman, 2020, Aboramadan et al, 2020, and Ahmad et al., 2020) which is limited to only one. For more reliable, and strong results, future researchers could still lengthen the period to ten years and over to get strong and vigorous results.

Third, the study was only limited to FTSE firms in the UK. Reliability of the study could be enhanced by carrying out a comparative analysis with other stock exchange firms from other countries outside the UK. It is essential to do such an analysis since HRMP is done globally but different experiences may be confronted by different countries because of different institutional and regulatory frameworks. Studies have shown that the country of origin has a significant influence on the relationship between HRMP and FP (Schuler and Rogovsky 1998). It is therefore recommended for future studies to draw data from other parts of the world rather than using only the UK data as this makes the generalisation of the findings limited.

Four, 350 FTSE firms employed for this study are predominantly large companies and the findings may not be applicable to smaller companies, because of the financial resources these companies have, considering their size and the scope of operations. Additional studies are therefore required with the smaller companies to check if the results would be confirmed.

Five, this study did not consider industry analysis because of the detailed analysis provided in the other areas. Research has approved that industry type influences the performance or activity of the organisations (Mauri & Michaels 1998 and Caloghirou et al. 2004). Different industries have different characteristics, different rules and regulations, various operating systems, and various resources that may impact the overall practices, activities, and performance of the organisation. The performance of employees can be affected by specific general industrial activities, practices, rules, policies, and regulations. However, these were not considered in this study. Future studies are encouraged to analyse how different HRMP impacts on different industries, taking into consideration the linear and non-linear argument as well as the moderation role played by board size and board independence in these industrial settings.

Finally, sustainable competitiveness is essential in today's competitive and changing environment because it is built around the wider goals of organisations and not just FP. Thus, sustainable HRM pursues the accomplishment of positive social, economic, and environmental outcomes at the same time (Kramar, 2022). The principle of sustainability performance should be integrated into the study of HRMP to analyse how all the components are influenced by HRMP instead of only concentrating FP. This study concentrated on how HRMP impacts FP. Future studies are encouraged to relate HRMP to sustainability development.

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APPENDICES

Appendix 1: Publications included in the literature review

Author and Year	Title of the Article	Journal
Akter and Chang (2020)	Organisational outcomes: The role of Human Resources system	Personnel Review
Akter et al. (2021)	Work-life Balance Programmes in Austrian Organisational: outcome: the role of organisational size and industry type	Asia Pacific Journal of Human Resources
Blazovich et al. (2018)	Mother-Friendly Companies, Work-Life Balance, and Emotional Well-Being: Is there a relationship to financial performance and Risk Level?	International Journal of Work Organisation and Emotion
Giardini & Kabst (2018)	Effects of Work-family Human Resource Practices: A Longitudinal Perspective	The International Journal of Human Resource Management
Qian & Wang (2020)	The effects of temporary workers on firms' financial performance: evidence from China	Applied Economic Letter
Zayed et al. (2022)	Factors Influencing the Financial Situation and Management of Small and Medium Enterprises	Journal of risk and financial management
Agyabeng-Mensah et al (2020)	Examining the influence of internal green supply chain practices, green human resource management and supply chain environmental cooperation on firm performance	Supply Chain Management: An International Journal
Clark (1998)	Designing and sustaining an entrepreneurial role for the human resource function: strategic choice or competitive conditions?	International Journal of Entrepreneurial
Lee & Chen (2006)	The impact of HR configuration on firm performance in Singapore: a resource-based explanation	The International Journal of Human Resource Management
Collings et al. (2010)	Strategic orientation, human resource management practices and organizational outcomes: evidence from Turkey	The International Journal of Human Resource Management
Delery & Doty (1996)	Mode of theorising strategic Human resource management: a test of universalistic, contingency and transfiguration performance predictions	Academy of managements Journal

Elorza et al. (2021)	The effect of high involvement work systems on organisational performance and employee well-being in a Spanish industrial context	Human resource management Journal
Choi (2014)	Who should be the respondent? Comparing predictive powers between managers' and employees' responses in measuring high-performance work systems practices	The International Journal of Human Resource Management
Choi & Lee (2013)	Effects of employees' perceptions on the relationship between HR practices and firm performance for Korean firms	Personnel Review
Paul & Anantharaman (2003)	The Impact of people management practices on organizational performance: analysis of a causal model	The International Journal of Human Resource Management
Acquah et al. (2021)	Examining the link among green human resource management practices, green supply chain management practices and performance	Benchmarking: An International Journal
López et al. (2019)	A High-Growth Firm Contingency Test of the Formalization-Performance Relationship	Journal of Small Business Management
Yoon & Sengupta (2019)	Employee share ownership, training, and early promotion policy as a bundle in enhancing labour productivity: A test of the three-way interaction effect	Human Resource Management
Bhattacharya (2015)	The effects of flexibility in employee skills, employee behaviours and human resource practices on firm performance	journal of Management
Clark (2001)	Strategic HRM as a Budgetary control mechanism in the large corporation: A case study from Engineering contracting	Critical Perspectives on Accounting
Shaw et al. (2013)	A resource-based perspective on human capital losses, HRM investments, and organizational performance	Strategic Management Journal
Akhtar at al. (2008)	Strategic HRM practices and their impact on company performance in Chinese enterprises	Human Resource Management
Garavan et al. (2021)	Training and organisational performance: A meta-analysis of temporal, institutional and organisational context moderator	Human Resource Management Journal
Ubeda-García's (2013)	Does training influence organisational performance? Analysis of the Spanish hotel sector	European Journal of Training and Development
Garavan et al. (2019)	Training and organisational performance: A meta-analysis of temporal, institutional and organisational context moderator	Human Resource Management Journal

Nyamwaya et al. (2020)	Influence of Staff Training on Sales Control in F&B on Financial Performance of Classified Restaurants in Nairobi County, Kenya	Journal of Hospitality and Tourism Management
Liao et al. (2011)	Market Implication of Human Capital Investment	Academy of Accounting and Financial Studies Journal
Chen et al. (2021)	Should Company invest in Human resource development practices: the role of intellectual human Capital and organisational improvement	Personnel Review
Yoo et al. (2021)	Training and development investment and financial performance: bidirectional and moderating effect of financial slack	Human Resource Development Quarterly
Nawaz (2019)	Exploring the Nexus Between Human Capital, Corporate Governance and Performance: Evidence from Islamic Banks	Journal of business ethics
Vela-Jime'nez et al. (2014)	How environmental changes and cooperation moderate labour and firm performance?	Personnel Review
Huselid et al. (1997)	Technical and strategic human resource management effectiveness as determinant of firm performance	Academy of Management
Kim (2016)	The impact of learning organisation on knowledge performance, adaptive performance and financial performance	European Journal of Training and development
Guimarães et al. (2016) 32	The use of organisational resources for product innovation and organisational performance: A survey of the Brazilian furniture industry	International Journal of production economics
Lee & Kim (2020)	Workforce diversity and firm performance: Relational coordination as a mediator and structural empowerment and multisource feedback as moderators	Human Resource Management
Arunprasad (2017)	Inevitable knowledge strategy: A paradigm shift in strategic HRM practices to augment firm's performance	Employee relations
Vogus & Welbourne (2013)	Structuring for high reliability: HR practices and mindful processes in reliability-seeking organizations	Journal of Organizational Behaviour
Festing et al. (1999)	Financial Participation in Europe: Determinants and Outcome	Economic and Industrial Democracy
Chang et al. (2013)	Translating corporate social performance into financial performance: exploring the moderating role of high-performance work practices	The International Journal of Human Resource Management
Evan & David (2005)	High-Performance Work Systems and Organizational Performance: The Mediating Role of Internal social structure	Journal of Management

Wright et al. (1999)	The role of human resource practices in petrochemical refinery performance	The International Journal of Human Resource Management
Lee & Cugin (2020)	Formalizing the HRM and firm performance link: The S-curve hypothesis	The International Journal of Human Resource Management
Quresh et al. (2010)	Do human resource management practices have an impact on financial performance of banks?	African Journal of Business Management
Sels et al. (2006)	Linking HRM and Small Business Performance: An Examination of the Impact of HRM Intensity on the Productivity and Financial Performance of Small Businesses	Small Business Economics
Guest (1997)	Human resource management and performance: a review and research agenda	The International Journal of Human Resource Management
Lee & Cugin (2022)	Formalizing the HRM and firm performance link: The S-curve hypothesis	International journal of human resource management
Huselid (1995)	The impact of Human Resource management practices on turnover, and financial performance	Academy of Management Journal
Madison et al. 46(2018)	Family firm human resource practices: Investigating the effects of professionalization and bifurcation bias on performance	Journal of Business Research
Aragon -Correa (2013)	Proactive environmental strategies and employee's inclusion: the positive effect of information sharing and promoting collaboration and influence of uncertainty	International Journal of Human Resource
Kim & Kim (2016)	The profits of cause: a new direction for corporate social responsibility in South Korea	International Review of Public Administration
Yi & Liff (2019)	labour used efficiency and New York dairy farm financial performance	Agriculture finance review
Cantrell et al. (2006)	Measuring the value of human capital investment: the SAP case	Strategy and Leadership
Way et al (2018)	HR flexibility: Precursors and the contingent impact on firm financial performance	Human Resource Management
Chaudhry et al. (2018)	The impact of customer orientation strategy with mediating role of HRM and innovation capacity	Personnel Review

Barpanda & Bontis (2021)	Human resource practices and performance in microfinance organisations: Do intellectual capital components matter?	International Journal of Human Resource
Chand (2010)	The impact of HRM practices on service quality, customer satisfaction and performance in the Indian hotel industry	The International Journal of Human Resource Management
Ahmad et al. (2020)	High-performance work practices and organizational performance in Pakistan	International Journal of Manpower
Bou & Beltrán (2005)	Total quality management, high-commitment Human resource strategy and firm performance: an empirical study	Total Quality Management
Bučiūniene & Kazlauskaitė (2012)	The linkage between HRM, CRS and performance outcomes	Baltic Journal of Management
Fox & McLeay (1992)	An Approach to Researching Managerial Labour Markets: HRM, Corporate Strategy and Financial Performance in UK Manufacturing	The International Journal of Human Resource Management
Guest et al. (2003)	Human Resource Human Management and Corporate Performance in the UK	British Journal of Industrial Relation
Darwish et al. (2013)	The role of strategic HR practices in organisational effectiveness: an empirical investigation in the country of Jordan	The International Journal of Human Resource Management
Afum et al. (2021)	Internal environmental management and green human resource management significant catalysts for improved corporate reputation and performance	Benchmarking: An International Journal
Chew & Sharma (2005)	The effects of culture and HRM practices on firm performance: Empirical evidence from Singapore	International Journal of Manpower
Cook & Glass (2014)	Do Diversity Reputation Signals Increase Share Value?	Human Resource Development Quarterly
Ruzic' (2015)	Direct and indirect contribution of HRM practice to hotel company performance	International Journal of Hospitality Management
Barpanda (2021)	Role of human and structural capital on performance through human resource practices in Indian microfinance institutions: A mediated moderation approach	Knowledge Management Process
Taamneh et al. (2018)	HRM practices and the multifaceted nature of organization performance: The mediation effect of organizational citizenship behaviour	EuroMed Journal of Business
Xiu et al. (2017)	Strategic flexibility, innovative HR practices, and firm performance: A moderated mediation model	Personnel Review

Mutua (2019)	Linking Human Capital Resourcing Practices and Performance of Financial Cooperatives in Kenya: Does Presence of Formal Human Resource Department Matter?	Management and Labour Studies
Truss (2001)	The complexities and controversies in linking human resource with organisational outcome	Journal of management studies
Sanyal & Sett (2011)	Managing human resources in dynamic environments create value: role of HR options	The International Journal of Human Resource Management
Pavlov et al. (2017)	Modelling the impact of performance management practices on firm performance: interaction with human resource management practice	Production Planning Control
Lin et al. (2016)	From Customer-Oriented Strategy to Organizational Financial Performance: The Role of Human Resource Management and Customer-Linking Capability	British Journal of Management
Chadwich & Flinchbaugh (2016)	The Effects of Part-Time Workers on Establishment on Financial performance Establishment Financial Performance	Journal of Management
Kim et al (2017)	The relationships among participatory management practices for improving firm profitability: Evidence from the South Korean manufacturing industry	The International Journal of Human Resource Management
Paladino (2007)	Investigating the drivers of innovation and new product success: A comparison of strategic orientations	Journal of product innovation management
Burgess & Willams (2009)	Investing in your people works: can 40,000 organisations be wrong?	Library Management
Akdere (2009)	A multi-level examination of quality-focused human resource practices and firm performance: evidence from the US healthcare industry	The International Journal of Human Resource Management
Voorde et al. (2010)	Predicting business unit performance using employee surveys: monitoring HRM-related changes	Human Resource Management Journal
Macnabb & Whttfield (2000)	Job evaluation and performance work practices: compactible or conflictual	Journal of Management Studies
Benitez (2020)	Impact of mobile technology-enabled HR gamification on employee performance: An empirical investigation	Information & Management

Mitchell et al. (2003)	The effect of strategic human resource management on organizational performance: the mediating role of high-performance human resource practices (HPHRP)	Human Resource Management
O'Donohue & Torugsa (2006)	The moderating effect of 'Green' HRM on the association between proactive environmental management and financial performance in small firms	The International Journal of Human Resource Management
Wang et al (2015)	How does Human resource department relationship management impact on organisational performance in China? Mediating effect of human capital	South African Journal of economics and management science
Hernandez-Espallardo et al. (2018)	Improving firm performance through inter-organizational collaborative innovations: The key mediating role of the employee's job-related attitude	Management Decision
Vlachos (2009)	High performance work practices for Greek companies	EuroMed Journal of Business
Sharma & Upneja (2005)	Factors influencing financial performance of small hotels in Tanzania	International Journal of Contemporary Hospitality Management
Gursoy & Swanger (2007)	Performance-enhancing internal strategic factors and: Impacts on financial success	Hospitality Management
Kaur & Kaur (2021)	A meta-analytical study on the association of human resource management practices with financial, market and operational performance	South African Journal of Business Management
Prysmakova et al. (2019)	The Role of Financial Performance in Motivating Polish Municipal Employee	Review of Public Personnel Administration
Triguero-Sa'nchez et al. (2013)	Hierarchical distance as a moderator of HRM practices on organizational performance	International Journal of Manpower
Ngo et al (2008)	Strategy human resource management, firm performance and employee's relations climate in China	Human Resource Management
Tavitiyaman et al. 92(2012)	The effect of competitive strategies and organizational structure on hotel performance	International Journal of Contemporary Hospitality Management
Lai et al (2016)	Human resource practices, employee attitudes and small firm performance	International Small Business Journal
Hughes & Rog (2008)	A strategy for improving employee recruitment, retention and engagement within hospitality organizations	International Journal of Contemporary Hospitality Management
Saridakis et al (2016)	Exploring the relationship between HRM and firm performance: A meta-analysis of longitudinal studies	Human Resource Management Review

Byarugaba et al, (2022)	Mediation of Psychological Capital on human resource management practices and firm financial performance	International Journal of business and society
Varma et al (2006)	HR and the Bottom-Line: The Impact of High-Performance Work System	Management & Labour studies
Snell & Youndt (1995)	Human Resource Management and Firm Performance: Testing a Contingency Model of Executive Control	Journal of Management
Huang (1999)	The Strategic Level of Human Resource Management and Organizational Performance: An Empirical Investigation	Asia Pacific Journal of Human Resources
Darwish & Singh (2013)	Does strategic human resource involvement and devolvment enhance organisational performance? Evidence from Jordan	International Journal of Manpower
Estap-Durbreil & Torreguitart-Mirada (2015)	Governance mechanisms social performance disclosure and performance in microfinance: does legal status matters?	Annals of Public and Cooperative Economics
Panayotopoulou et al (2003)	Strategic human resource management and its effects on firm performance: an implementation of the competing values framework	International Journal of Human Resource Management
Zhai & Tian (2020)	Do performance measures matter in the relationship between high performance work system and organizational performance?	International Journal of Manpower
Greer et al (2001)	Contrarian Human resource investment and financial performance after economic downturn	Journal of Business Research
Wilkin & Connelly (2013)	Dollars and sense: the financial impact of Canadian wellness initiatives	Health Promotion International
Ren et al (2022)	Leveraging green HRM for firm performance: The joint effect CEO environmental belief and external pollution severity and the mediating role of employee environmental commitment	Human Resource Management
Longoni et al (2006)	Deploying Environmental Management Across Functions: The Relationship Between Green Human Resource Management and Green Supply Chain Management	Journal of business ethics
Meier et al (2021)	Exploring the Curvature of the Relationship Between HRM–CSR and Corporate Financial Performance	Journal of business ethics
Boudreau & Ramstad (1997)	Measuring Intellectual Capital: Learning from Financial History	Human Resource Management

Qaisi (2019)	Corporate social responsibility effect on firm's financial performance in Jordan	International Journal of Monetary Economics and Finance
Wiengarten et al. (2021)	Exploring the performance implications of precarious work	Journal of Operational management
Guerrero & Barraud-Didier (2007)	High-involvement practices and performance of French firms	The International Journal of Human Resource Management
Theriou & Chatzoglou (2014)	The impact of best HRM practices on performance – identifying enabling factors	Employee Relations
Uribetxebarria et al. (2021)	Does employee participation matter? An empirical study on the effects of participation on well-being and organizational performance	Central European Journal of Operations Research
Galeazzo & Furhan (2018)	Lean bundles and configuration: a fsQCA approach	International Journal of Operation Management
Ogunyomi & Bruning (2005)	Human resource management and organizational performance of small and medium enterprises (SMEs) in Nigeria	The International Journal of Human Resource Management
Colombo et al. (2021)	The effects of firm financialization on human resource management: How financialization affects the design of managerial job	The International Journal of Human Resource Management
Vazquez-Bustelo & Lucía Avella (2017)	The effectiveness of high-involvement work practices in manufacturing firms: Does context matter?	Journal of management and organisation
Panayotopoulou & Panayotopoulou (2003)	Examining the link between human resource management orientation and firm performance	Personnel Review
Kim et al (2017)	The impact of a learning organization on performance Focusing on knowledge performance and financial performance	European Journal of Training and Development
Song & Kolb (2013)	Learning Organizational Culture and Firm Performance: The Mediating Effects of Knowledge Creation in Korean Firms	Journal of Leadership & Organizational Studies
Chadwich et al (2004)	Effects of downsizing practices on the performance of hospital	Strategic Management Journal

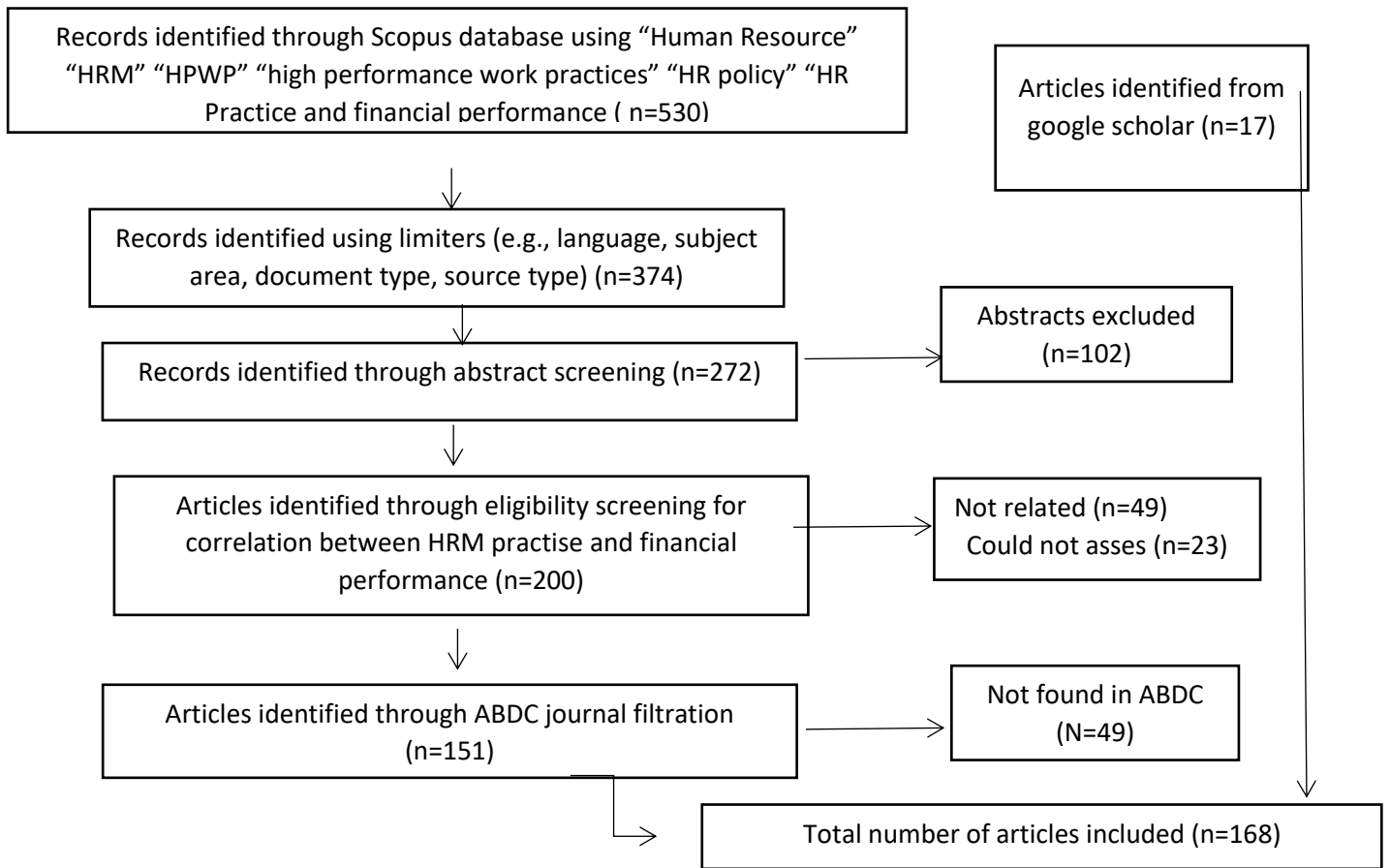
Mahssouni (2022)	Employee Compensation, Training and Financial Performance during the COVID-19 Pandemic	Journal of risk and Financial Management
Patiar & Wang (2020)	Managers' leadership, compensation and benefits, and departments' performance: Evidence from upscale hotels in Australia	Journal of Hospitality and Tourism Management
Ulrich et al (1984)	A Strategy, Structure, Human Resource Database: OASIS	Human Resource Management
Flamholtz (2005)	Differential impact of cultural elements on financial performance	European Management Journal
Jaakson (2018)	Dimensions of organisational innovativeness and company financial performance in the biotechnology sector	International Journal of Manpower
Collins & Clark (2013)	The strategic human resource practice, top management team social networks and a firm performance: The role of human resource in creating organisational competitive advantages	Academy of Management Journal
Rompho (2017)	Human capital and financial performance with two HRM strategies	International Journal of Productivity and Performance Management
Kor & leblebici (2005)	How do interdependent among human-capital deployment, development and diversifications strategies affect firm's financial performance	Strategic Management Journal
Ho & Kuvaas (2019)	Human resource management systems, employee well-being, and firm performance from the mutual gains and critical perspectives: The well-being paradox	Human Resource Management
Panagopoulos & Pimentel (2020)	To study outcome of ambidexterity in skill-enhancing practices	Journal of Service Research
Mosadeghrad & Afshari (2020)	Quality management effects on operating theatre's productivity: participatory action research	The TQM Journal
Santos et al. (2018)	The trajectory of the ability to innovate and the financial performance of the Brazilian industry	Technological Forecasting & Social Change
Chinyamurindi (2021)	Antecedents of small business financial performance: the role of human resource management practices and strategy	Human relation
Bae et al (2003)	Human resource strategy and firm performance in Pacific Rim countries	International Journal of Human Resource

Chang et al. (2021)	Firm employee relations system and financial performance: Unfolding the Dual-Causal relationship and the associated temporal and resource boundary conditions	The International Journal of Human Resource Management
Negahban et al. (2016)	Unleashing the Power of mCRM: Investigating Antecedents of Mobile CRM Values Managers' Viewpoint	International Journal of Human Resource computer interaction
Tarigan et al. (2021)	Total reward system, job satisfaction and employee productivity on company financial performance: evidence from Indonesian generation worker	Journal of Asia Business Study
Zhu (2013)	Strategic integration of HRM and firm performance in a changing environment in China: the impact of organisational effectiveness as a mediator	The International Journal of Human Resource Management
Longoni et al. (2006)	Deploying Environmental Management Across Functions: The Relationship Between Green Human Resource Management and Green Supply Chain Management	Journal of business ethics
Menass & Brodha"cker (2015)	The type and quantity of corporate social disclosures of German 'Universal' banks	Journal of Management and Governance
Whitfield et al.2017	Employee share ownership and organizational performance: a tentative opening of the black box	Personnel Review
Biswas and Saur (2016)	Antecedents and Consequences of Employer Branding	Journal of business ethics
Usman & Amran (2017)	Corporate social responsibility practice and corporate financial performance: evidence from Nigeria companies	Social responsibility Journal
Sung & choi (2014)	Multiple dimensions of human resource development and organizational performance	Journal of Organizational Behavior
Cavaco & Crifo (2014)	CSR and financial performance: complementarity between environmental, social and business behaviours	Applied Economics
Triguero-Sa'nchez (2013)	Hierarchical distance as a moderator of HRM practices on organizational performance	International Journal of manpower
Darwich & Singh (2013)	Does strategic HR involvement and devolvement enhance organisational performance? Evidence from Jordan	International Journal of manpower
Chen et al. (2012)	The IT productivity paradox: Effects of training in audit firms	Human Resource Management

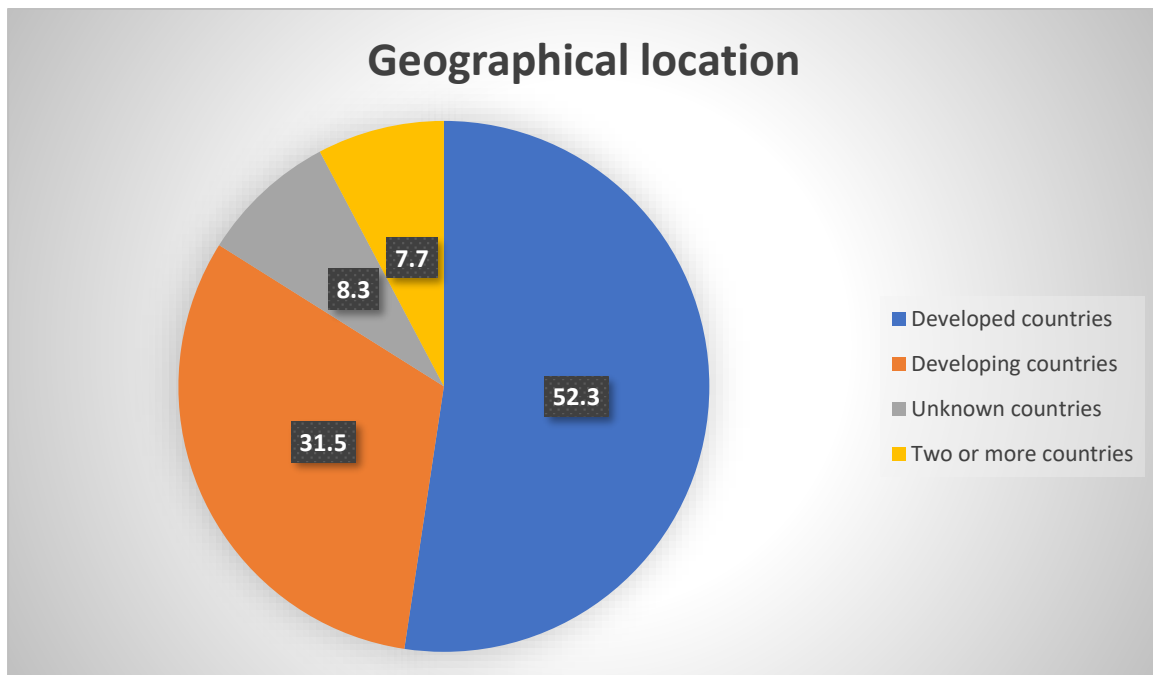
Arumugam & Mojta (2011)	The impact of Human Resource Management Practices on financial performance of Malaysian Industries	International Journal of finance and economy
Mahsud (2011)	Human capital, efficiency, and innovative adaptation as strategic determinants of firm performance	Journal of leadership and organisational studies
Sanyal & Sett (2011)	Applying real options theory to HRM: an empirical study of IT software firms in India	International human resource management
Gursoy & Swanger (2007)	Performance-enhancing internal strategic factors and competencies: Impacts on financial success	International Journal of hospitality management
Comb et al. (2006)	How Much Do High-Performance Work Practices Matter? A Meta-Analysis of Their Effects on Organizational Performance	Personal psychology
Sels (2006)	Linking HRM and Small Business Performance: an examination of the Impact of HRM Intensity on the Productivity and Financial Performance of Small Businesses	Small business Economy
Evans & David (2005)	High-Performance Work Systems and Organizational Performance: The Mediating Role of Internal social structure	Journal of Management
Bhattacharya (2005)	The effects of flexibility in employee skills, employee behaviours, and HR practices on firm performance	International Journal of human resource management
Faems et al. (2005)	The effect of individual HR domains on financial performance: evidence from Belgian small businesses	International Journal of human resource management
Flamholtz & Kannan-Narasimhan (2005)	Differential Impact of Cultural Elements on Financial Performance	European Management Journal
Bou & Beltrán (2005)	Total quality management, high-commitment human resource strategy and firm performance: an empirical study	Total Quality Management and Business excellence
Vogas & Welbourne (2003)	Structuring for high reliability: HR practices and mindful processes in reliability-seeking organizations	Journal of Organizational Behavior
Hiltrop (1996)	The Impact of Human Resource Management on Organizational Performance: Theory and Research	European Management Journal
Sels et al (2006)	Unravelling the HRM–Performance Link: Value-Creating and Cost-Increasing Effects of Small Business HRM	Journal of Management Studies

Luthans & Sommer (2005)	The Impact of High-Performance Work on Industry-level Outcome	Journal of Management issue
Huselid (2013)	THE Impact of human resource management practices on turnover, productivity, and corporate financial performance	The Academy of Management Journal
Andreeva & Kianto (2012)	Unravelling the HRM–Performance Link: Value-Creating and Cost-Increasing Effects of Small Business HR	International journal of finance and economy

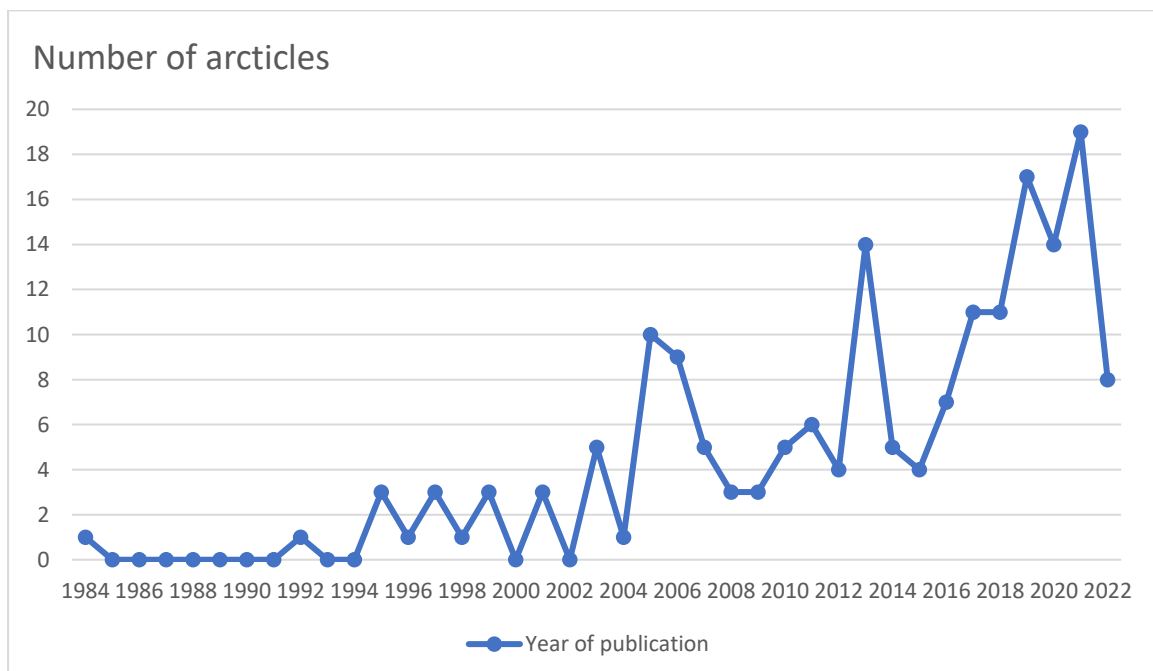
Appendix 2: Results from the selected criteria (inclusion and exclusion) to select articles for the studies



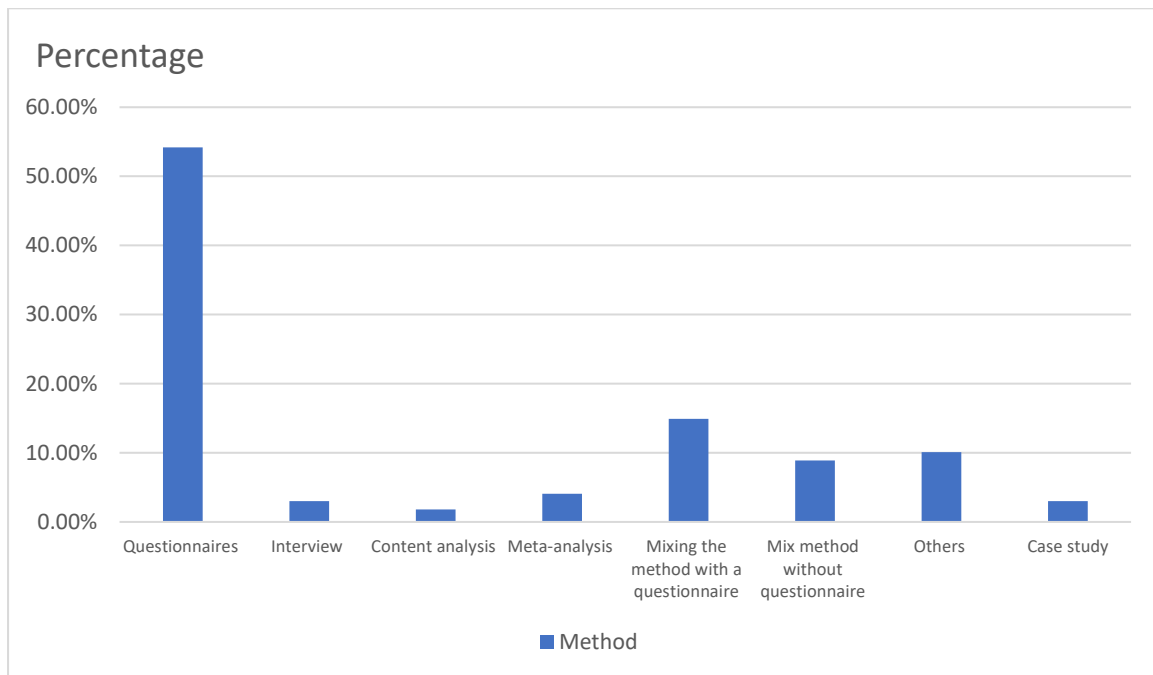
Appendix 3: The results from the geographical location in which the studies were conducted



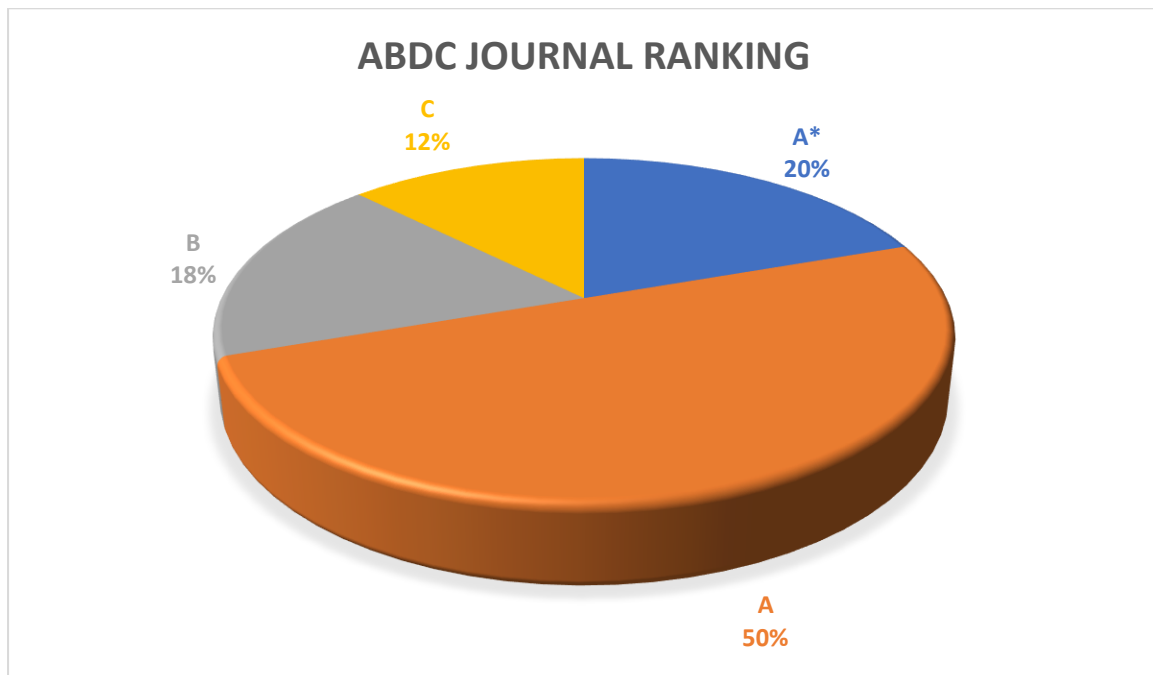
Appendix 4: line graph of the number of articles done in each year



Appendix 5: Percentage of data collection method used



Appendix 6: Journal Ranking from ABDC journal of the articles used



Appendix 7: Themes of each of the articles used

Themes	Numbers of articles	Percentage
HRM practice and performance	73	43.4%
Work-life balance, employee's well-being	6	3.6%
High-performance work practices	26	15.5%
Strategy HRM	14	8.3 %
CSR	7	4.1%
Human capital development	11	6.5%
Environmental management	4	2.4%
Human resource innovation	9	5.4%
Others	18	10.7%
Total	168	100%

Appendix 8: Results/outcomes from the for the studies

Results/outcomes	Number of articles	Percentage
Direct & positive relation	118	70.2
Negative relation	10	5.9
No relationship	9	5.4
Mediation relation	16	9.5
Both negative & positive	15	9.0

Appendix 9: Test of Reliability: Cronbach Alpha

Item	Obs	Sign	Item-test correlation	Item-rest correlation	Average interitem correlation	alpha
HRMP	1673	+	0.9886	0.9830	0.2668	0.6859
Rewards	1662	+	0.6379	0.4861	0.3879	0.7918
Training	1657	+	0.6451	0.4929	0.3814	0.7872
Promotion	1656	+	0.7094	0.5779	0.3618	0.7728
Recruitment	1657	+	0.5528	0.3790	0.4111	0.8073
Working	1643	+	0.6213	0.4622	0.3895	0.7929
Comm	1607	+	0.6371	0.4588	0.3930	0.7953
Test scale					0.3702	0.8045

Appendix 10: Computation of Residual and Cook Distance for Outliers

Variables	Obs	Mean	Std Dev	Min	Max
ROA	1,731	6.023	12.54	-86.39	98.05
ROE	1,706	16.81	47.49	-705.5	516.6
Market Cap	1,289	4.384	27.18	-178.7	722.5
Tobins' Q	1,289	1.64	4.053	0.017	62.61
HRMPS	1,673	16.57	4.444	0	25
Rewards	1,662	3.592	1.088	0	5
Training	1,657	2.243	0.888	0	5
Promotions	1,656	2.53	1.076	0	5
Recruitment	1,657	1.365	0.733	0	4
Working Cond	1,643	3.068	1.164	0	5
Communication	1,607	4.138	0.999	0	5
Residuals	1,051	3.41E-09	5.558901	-22.469	46.39387
Cooksd	1,051	0.009271	0.208419	2.53E-09	6.576544