MODERATING ROLE OF CORPORATE GOVERNANCE BETWEEN CAPITAL STRUCTURE AND FIRM PERFORMANCE: EVIDENCE FROM UK MANUFACTURING SECTOR

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CHAPTER ONE: INTRODUCTION

1.1 Background

Corporate Governance is defined as the system that is used for the composition of the board members that governs and manages the organizations in a proper manner and is also profitable. It has been widely useful technique for managing and governing organizations. They are considered as the core players at organizations for the protection of the stakeholders' interest. Board of Directors is most important stakeholders to formulate and implement corporate strategic policies about various problems of the smoothness in decision making process (Krechovska and Prochazkova, 2014). Generally, the practices of the strategic corporate governance provide way for knowing the goal of the justification of the risk and performance optimization with aggressive and regulatory setting (Fenwik et al., 2019). Corporate governance plays an important role in the organization.

Particularly, the effective combination of the diversified and organization board is the main component of corporate governance that is dependent primarily on two different variables that includes structure and roles defined. Board of directors have to make sure that every manager performance and employees with the daily check and providing report to the shareholders for the objective of stewardship (Wijethilake, Ekanayake and Perera, 2015). There are extensive literature that exists for defining role and board structure and their significance for increasing the organizational performance. The board of directors have to perform different business functions in two distinct areas that are overall performance of organization and compliances with the accounting standards (Woodhouse and Matruglio, 2013).

Capital structure along with the corporate governance have been played important role for maximizing the wealth of shareholders and good level of the corporate governance is crucial for enhancing the organizational market value while higher level of financial leverage reduces the organizational value by increasing risk of bankruptcy. Corporate governance mechanism that are sound and secure helps to assure that the investors that they will be paid back the capital and receiving adequate return on the investments (Okiro, Aduda and Omoro, 2015). Organizations with the good level of corporate governance give transparent disclosures and hence are capable of accessing the capital markets on the extent of better ways (PeiZhi and Ramzan, 2020). The financial system that are well developed gives market for the control of capital while stronger

level of legal framework has protected the contractual rights of investors by reducing and minimizing risk of losing from the opportunism of the managers. Corporate governance has been explained as the framework for directing and controlling the business corporations and encompasses rules and relationships framework and procedures that are designed for ensuring directors that are acting in the organization's interest (Iqbal and Javed, 2017). Capital structure is defined as the ratio debt to the equity for the organization for minimizing financing cost and reducing the bankruptcy chances. The purpose of this study is investigating corporate governance as the moderating on association of capital structure and firm performance. This study considers the case of the manufacturing organizations of the UK.

1.2 Problem Statement

Corporate Governance practices has been crucial for the organizations and its effectiveness level is also identified in the developing countries has been discussed for the last some decades and developing countries have been making efforts for the suitable corporate governance mechanism that can help in increasing their performance (Ahmad, 2017). Poor level of corporate governance are not relying or leading towards the risky financing, poor performance but also creates the crisis in the macroeconomic environment and there has been many scandals caused from the poor governance practices like East Asia Crisis in 1997. The scandals have increased the focus on the corporate governance for the decisions of the organization and hence organizations have to focus on the better performance of the organizations (PeiZhi and Ramzan, 2020).

Ali, (2018) have also addressed the problems that are linked with the cost of capital practices that are not fresh as they have emerged with major established organizations in US, UK and Australia. Cost of capital has not been the challenges in the business community; therefore, organizations require for imposing high penalties for preventing organizations that are engaged in the practices of capital structure as explained by the Rahman et al., (2016) and Saleem et al., (2016) have reflected that capital structure has been the major issue and has still been focused between the researchers.

1.3 Research Objectives

The aim of the study has been to determine relationship between the capital structure and financial performance by the moderating role of corporate governance particularly in the manufacturing industry of UK. The specific objectives of the study are:

- To assess the conceptual significance of corporate governance along with for financial performance and capital structure in the manufacturing sector of UK.
- To examine factors of capital structure that influences on the financial performance.
- To critically analyze relationship between capital structure and financial performance by the moderating role of corporate governance particularly in the case of manufacturing sector of UK.
- To provide set of recommendations regarding how financial performance can be improved by the capital structure and corporate governance.

1.4 Research Questions

The research questions that are going to be addressed in this study;

- What is the conceptual significance of corporate governance along with the financial performance and capital structure in the manufacturing sector of UK?
- What are the factors of capital structure that influences on the financial performance?
- What is the relationship between capital structure and financial performance by the moderating role of corporate governance particularly in case of manufacturing sector of UK?
- What is the relationship between capital structure and financial performance through the moderating role of corporate governance?

1.5 Rationale of Study

There are various studies conducted to study the subject and shed light to evaluate the association between capital structure and financial performance for which there are very limited studies available to present the evidences on the corporate governance moderating effect. The core purpose for the research is to evaluate the way in which the manufacturing industry of UK manages and maintains the capital structure for increasing the organizational financial performance. Hence, this study has been useful for the finance managers, stakeholders, directors, shareholders and investors of an organization since it provides with the deep insight about the organizational financial position.

Financial decisions are important and complex but have great significance for the business growth and hence this decision have to be taken carefully by undertaking all the points that are related with the decision making process (Saeed, Gull and Rasheed, 2013). Organizations are using long term and short term debt financing along with the capital in order to achieve overall operational organizational objectives. Iqbal and Javed, (2017) have found that financial managers have to make the right decision so that optimal capital structure have to be used for maximizing financial value of any organization. Hence, the study is exploring and measuring the capital structure influence on the performance of the organization with the moderating effect of corporate governance. It has also been indicated by Gul and Cho (2019) that leverage and corporate governance have positive and significant association between leverage and corporate governance, whereas, Munisi and Randoy, (2013) have also found positive relationship of CG and firm’s financial performance.

Additionally, research gap has been identified that was based on the fact that CG practices effectiveness in developing country has been researched for many years but it has been identified that poor governance practices may also lead towards poor or slow organizational performance. Due to this reason, UK and most of the European countries, shareholders encompass the power of taking the financial decisions. However, due to Brexit the policy changes may influence adversely on the performance of an organization in the manufacturing sector of UK. Therefore, this study will be exploring moderating effect on the practices of corporate governance can effect on the association between capital structure and financial performance of an organization.

1.6 Structure of Study

The study is split into five distinct chapters including introduction, literature review, methodology, results and discussion and then conclusion lastly.

The first chapter Introduction has described the overview and background of the study. It presents the background of the research topic and how it has been studied previously. It also presents the research problem by addressing issues that are being focused in this study. It also elaborates the research objective and research questions. It also provides with the rationale behind the study.

The second chapter Literature Review which elaborates the previous studies that has been conducted within the study. This chapter elaborates the theories that supports the hypothesis and on which the study has been based on. This chapter also elaborates review of the previous studies that have been done in this perspective and provide with the critical overview.

The third chapter Methodology has elaborated the approaches and techniques through which the study will be conducted which includes research design and data collection techniques, sample size and technique, data analysis techniques.

The fourth chapter Results and discussion highlights the results obtained from the data analysis and interpret the data. It also provides the discussion of the findings of this study with the research objectives.

The fifth chapter Conclusion provides with summary of the findings and the conclusion of the study. It provides with the summarized findings, recommendations and the future research implications.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The Financial performance of the company can be influenced by various factors. The corporate governance model and the capital structure both can impact the performance of the company. This study evaluates the impact of the capital structure, the debt-equity mixes on the monetary performance of the company. Corporate governance has been taken as the moderating variable. The section provides a detailed analysis of the Concept and significance of the corporate structure, the determinants of the corporate governance, the concept and determinants of the capital structure, and the determinants of the financial performance. The empirical review has been done on the impact of the capital structure on the firm's financial performance and the moderating role of the corporate governance structure.

2.2 Concept and Significance of Corporate Governance

Corporate governance refers to the system of direction and control maintained by the companies to adhere to the laws prevalent in the industry and performance regulation of the company. A strong corporate governance structure is crucial for the survival of the company. The companies with weak internal controls face issues in economic performance both on internal and external matters. The corporate governance structure is directly c related to the strength of the company (Al-Gamrh et.al, 2018). The concept of corporate governance is to maximize the shareholder's value by maintaining an internal structure of the company which is regulated by the appointed directors and management. It can be distinguished from the operational activities as it is linked with the long-term strategic objective of the company. The corporate governance structure is affected by the legal regulations and laws of the company.

The corporate governance structure is linked to the performance of the firm directly as a study has shown that corporate governance can affect the firm's profitability both positively and negatively (Naimah, 2017). Corporate governance can include the structure and accountability of the board of governors and audit committees which can impact the performance of the firm both in monetary and non-monetary aspects. Corporate governance is the fundamental foundation on which the company's values and policies are developed. The long-term strategic orientation and direction of the company are set and monitored by the corporate governance structure. Good corporate governance can promote the values of transparency, fairness, accountability, and independence. On the other hand, if the corporate structure of the company is corrupted it can negatively impact the organization's performance in the long run.

2.3 Determinants of Corporate Governance

Several factors impact the Corporate Governance structure. Below are some of the important factors that impact the Corporate Governance structure of the company.

Regulations:

One of the most important determinants of the corporate governance structure is the country's legislation and the industry-specific regulations (Naimah, 2017). The regulations set the parameters for the corporate governance structure. Many industries are dominated by industry-specific regulations that guide the companies about setting the guidelines for internal control measures and the transparency structure. The rules regarding the board of directors, their authority, and audit control and management structure are also influenced by the regulations which can be country or industry-specific. Listed companies have more obligations regarding the corporate governance structure and the disclosure of information.

Firm size:

The firm size is also an important determinant of the corporate governance structure of the company. A study conducted on the listed companies of Bombay stock exchange using the empirical evidence of sample companies from 9 sectors indicates that the firm size along with other factors including the age and the origin of the firm has a direct positive relationship with the corporate governance structure of the companies (Madhani.et.al 2016.).The larger companies tend to have a more strong and robust corporate structure.

2.4 Concept and Determinants of Capital Structure

The capital structure of the company is the combination of the debt and equity used by the company for growth. Depending on the condition and circumstances of the company it can be determined by many factors. Following are some of the important determinants of the capital structure.

2.4.1 Profitability

One of the most important determinants of the capital structure is the profitability of the company. As the capital structure have a direct and significant impact on the profitability of the company (Jaisinghani et al., 2017). Some companies can improve their profitability by increasing the returns on employed capital by taking leverage. More profit-driven companies will be more likely to take leverage and opt for a combination of the debt-equity mix.

2.4.2 Liquidity

The liquidity or working capital management is another important constituent of the capital structure of the company. The firm cash holding policy has a significant relationship with its capital structure (Anderson.et.al 2012). The companies that are more tilted towards liquidity are more likely to have an equity-based capital structure. The liquidity preference can be because of the industry-specific factors or organizational preference. The capital market access also plays an important role in determining the capital structure of the company. The companies which have access to more efficient markets will rely on equity more as compared to debt.

2.4.3 Macroeconomic factors

Another important determinant of the financial structure of the company is the macroeconomic environment and the government policies of the country, particularly the fiscal and monetary policies are important in decision making regarding the capital structure of the company (Mokhova et.al, 2014). The interest rates are the important determinant of debt financing since they can either increase or decrease the cost of borrowing capital and in turn the capital structure of the company.

2.5 Determinants of Financial Performance

The financial performance of the firm can be influenced by many factors ranging from the corporate structure to the economic context in which the firm is operating. The important

determinants of the financial performance of any company can be broadly categorized as follows.

2.5.1 Ownership structure

The ownership construction of the company can have a direct effect on the monetary performance of the company (Mirza.et.al, 2013). The ownership structure of the company can be public or private. The state-owned entities have a different ownership structure altogether. The public companies are often under more pressure regarding their financial performance as the performance can impact the value of stock in the capital markets. The private companies are under no legal obligation to share their information but in their case, the risk is not diversified and concentrated on a few owners which can influence the performance. The financial performance is the product of the ownership structure and the capital mix of the company and cannot be viewed separately ignoring these factors.

2.5.2 Firm size and capital structure

In addition to the ownership structure of the company, the firm size and capital structure are two important determinants of the financial performance of the company. The leveraged and non-leveraged companies tend to have differences in their financial performances. A study conducted on 269 Vietnamese listed companies by collecting the data from audited reports and using the quantile regression method reveals that firm size along with the capital structure has a direct corelation with the monetary performance of the company (Ha, et.al 2019). The larger firm size is associated with strong financial performance.

2.6 Empirical Review on the Effect of Capital Structure on Firm Performance

The capital structure can influence the performance of the companies both positively and negatively. A study conducted on 237 Malaysian listed companies using the panel data for the year 1995-2011 analyses the impact of capital structure on financial performance. The matrices used for performance were the profitability ratios and factors such as long-term debt was taken as independent variables (Salim.et.al. 2012.). the companies were taken from various manufacturing and services sectors. The results indicate that the capital structure does impact the performance of the company with total debt as the negative influencer.

Another study was conducted on the 74 companies of Saudi Arabia using panel data from 2004 through 2012. The study used the variables such as short- and long-term debt as the independent variables and the impact on operating performance was measured using the indicators of return on equity and the return on assets. The results indicate that the capital structure of the company has a noteworthy influence on financial performance. Especially the long-term debt was linked to the returns on equity (Twairesh, 2014). The short- and long-term debts do impact the company's financial performance in the long run.

The short- and long-term debt impact the company's performance differently. As Akingunola, Olawale, and Olaniyan (2018) have shown using the data of 22 listed Nigerian firms, the empirical evidence was taken from the years of 2011-2015. The study explores the impact of short-term debt, long-term debt, and total debt to equity ratio on the financial performance of the company. The results indicate that both short- and long-term debt affect the returns on equity. The returns on shareholder's equity can be maximized by improving the financial performance of the company with the help of debt.

The debt structure can impact the performance of the company both positively and negatively depending on the debt management and other factors.

2.7 Empirical Review on the Moderating Effect of Corporate Governance between Capital Structure and Financial Performance

The corporate governance structure can play a moderating role in the capital structure and financial performance of the company. One study was conducted on taking the data from the 173 manufacturing listed companies using the empirical data from the period of 2009-2014. The multiple regressions were used for showing the relationship of corporate governance as the moderating variable. The results suggest that the inclusion of the corporate governance index did have a positive impact as the moderating variable and influenced the interactions between the capital structure and the firm performance (Iqbal.et.al 2017). Corporate governance indicates signifies the relationship between the dependent and the independent variable.

Another study conducted on 171 companies listed on the Saudi Stock exchange taken the data from 2012 to 2014 using the approach of multiple regression revealed that the corporate governance as the moderate variable has a positive impact on the relationship of capital structure and the financial performance of the company (Hamdan. et.al, 2017). Since the corporate

governance structure is impacted by the firm size and its performance it can moderate the relationship between the capital structures of the company.

The corporate governance structures do have moderating effects on the firm-level financial variables. A study conducted on listed entities of the Karachi stock exchange using the data of companies from 2004-2008 and running the multiple regression analysis revealed that corporate governance variables influence the capital structure of the companies (Sheikh, et.al.2012). The financial performance of the company is affected by the capital structure variables like the debt to equity ratio and the long-term debt structure of the company explaining the link of corporate governance role as the mediator for gauging financial performance.

The capital structure and financial performance of the company are interlinked and the corporate governance structure plays a deciding role in evaluating the significance of one variable on the other.

2.8 Theoretical Framework

2.8.1 Pecking Order Theory

Pecking order Theory illustrates that management always prefers using the retained earnings from the organization for financing their business instead of using the debt financing or any other financing sources. When the retained earnings are more than the investments needs of a firm then debt has to be repaid (De Jong, Verbeek and Verwijmeren, 2011). The pecking order theory also illustrates the sequence or the chronological order of financing which also includes the retained earnings, debt financing have to be selected as the second choice and last will be the equity financing. This theory ahs supported the fact that when financial managers of shareholders follow the systematic technique of financing hence, they will be capable of contributing for firm value maximization. The researchers have also stated that there is not any standard for making investments and has suggested that organizations must use internal funds first and then move forward to the methods of external financing (Martinez, Scherger and Guercio, 2019). However, some of the organizations also face asymmetric information issues which tend to increase the risk.

2.8.2 Irrelevance Theory of Capital Structure

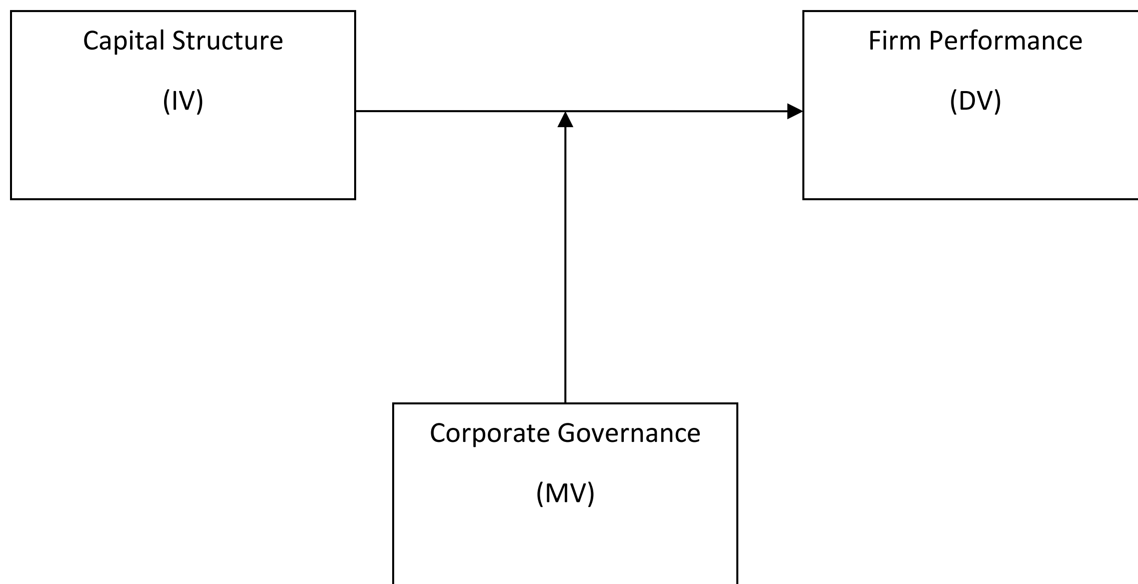
Irrelevance theory of capital structure has initiated modern concept about capital structure that is also providing the validation with the approach of net operating income. They have

analysed the effect of capital structure on the organizational financial performance under postulates of the capital markets that are perfect that states that there is no cost of transaction, no corporate taxes, shareholders that have the homogenous desires for the earnings in the future, and every earnings disseminated to the investors and represented organizational value is not linked with the debt or the equity portion of financing or the cost of capital that is not influenced by the debt ratio of an organization (Al-Kahtani and Al-Eraji, 2018).

2.8.3 Trade-off Theory

Trade-off theory in the capital structure has represented the optimal level of the debt and equity in the capital structure of an organization and how they are selected for deriving the optimum advantages from taxes shield as interest expense is considered to be the tax deductible expense. Additionally, it is helpful for selecting the best level of financing of debt and equity which saves organization from the financial difficulties. It has been focused that higher level of the leverage by the use of excessive debt financing of organization leading towards the financial crisis causes in the era of 1997 (Aldamen et al., 2012).

2.9 Conceptual Model and Research Hypothesis



The framework represents the conceptual framework that has been designed for representing the relationship between the variables. The independent variables of the study is capital structure, dependent variable used in the study is financial performance and finally moderating variable which is corporate governance.

The hypotheses of the study are

H1= There is positive and significant relationship between capital structure and financial performance.

H2= There is moderating role of corporate governance with the relationship of capital structure and financial performance.

2.10 Chapter Summary

The Corporate governance structure decides the governing rules and regulations as well as long term strategic objectives of the company. The corporate governance structure can be influenced by the regulations and the firm size. Corporate governance has a significant correlation with capital structure and the economic performance of the company. The monetary performance of the company is influenced by the leverage and the long term and short-term debt taken by the company. The capital structure which influences the financial performance can in turn be influenced by different factors including the macroeconomic factors and the liquidity and profitability of the companies. The firm size and ownership structure do impact the financial performance of the company. It can be inferred given the analysis that the corporate governance structure does play a mediating role in the relationship of capital structure and the firm's performance.

Chapter 3: Methodology

3.1 Research philosophy

The research philosophy in any research is applied from three primary categories referred to as positivism, interpretivism, and pragmatism. The choice of appropriate research philosophy is significant to develop reliable, accurate and authentic research findings. The research philosophy is adopted mainly based on research design chosen and the type of research (Murshed and Zhang, 2016). For qualitative research design, applicable research philosophy is interpretivism, which supports qualitative data collection based on pinions, viewpoints and behaviour of participants towards the certain phenomenon, or content analysis of exiting findings on the topics. It is mainly done through interviews with open-ended questions or analysing articles in case of secondary research (Nia and Niavand, 2017).

On the other hand, positivism research philosophy is applicable when the research design is mainly quantitative and comprised of data analysis through statistical modelling and quantification of variables. The data is mainly collected from primary or secondary sources in numeric or scaled form and transformed into equations to be analyzed grounded on the conceptual framework (Taherdoost, 2016). It is also applicable when the sample size is larger and contain an excessive amount of data. Also, this philosophy is applicable when the research aims to collect data through close-ended questions based on MCQs and LIKERT scaling system or numeric data from secondary sources like annual reports of the firms, and data banks (Ragab and Arisha, 2018).

Therefore, as this research follows quantitative research design and attempts to analyses time-series quantitative data obtained from annual reports of the firms, the research philosophy adopted in the following study is positivism as this study includes quantitative analysis and secondary data analysis is done through it, therefore, positivism aids to explore the association amid the variables. The philosophy allows how the capital structure of the firms impacts their financial performance through the intervention of corporate governance mechanism with help of statistical analysis. Furthermore, it also helps to test

hypotheses with respect identified independent, dependent, and moderating variables and helps in acceptance and rejection of hypothesis statistical significance.

3.2 Research approach

According to Basias and Pollalis, (2018) application of suitable and appropriate research approach grounded on research design has utmost significance to set foundations for generalization, validity and reliability of data collected and results and findings of the study. The choice of suitable research approach is made from two major classifications referred to as deductive research approach and inductive research approach. The primary difference amid inductive and deductive approach is that the inductive approach is objected to generate a theory whereas deductive reasoning or approach objected to testing the existing theory. In inductive reasoning, the investigator moves from particular observations to generalizations whereas in deductive, the researcher moves from general to specific emphasis (Ragab and Arisha, 2018).

On the other hand, the deductive research is mainly applicable when the research follows quantitative research design and the data is intended to be analyzed through statistical formulations and where it also involves testing of hypothesis based on a conceptual framework. Whereas, in the case of the inductive approach, it mainly supports qualitative analysis of the data through theoretical measures where variables are non-numeric and non-scaled (Delen and Zolbanin, 2018).

Therefore, the above description implies that for this research, deductive reasoning is applicable and appropriate. This is because it follows quantitative research design and the data involves time-series information of financial variables of 12 companies form the United Kingdom from 2009 to 2019. The hypothesis is formed to test the explanation of the dependent variable that the monetary performance of the firms by dependent variables that is the capital structure of the firm through the intervention of corporate governance. Thus, the researcher aims to test an existing theory which is mainly an explanatory

study type which and move from general focus to specific focus that is 12 firm performance. Hence, these arguments support the deductive approach as appropriate for this study.

3.3 Research Method

Methods of research and are divided broadly into quantitative and qualitative methods. According to Greener and Martelli, (2018) quantitative research methods are considered as more accurate and reliable because they allow investigating association based on empirical analysis with application of statistical modelling, therefore, it also leads to enhance generalisation of results on a larger group of the sample (Sekaran and Bougie, 2016). Therefore, it also allows representing findings in the form of numbers, graphs, charts and significance levels which enhance the authenticity of the results established generalised facts and figures. Whereas, the qualitative research method is based on analysing data through theoretical techniques which mainly includes content analysis or thematic analysis techniques. Therefore, for this study, the quantitative method of research design is utilised (Bell et al., 2018). The determination of utilising quantitative method is to statistically assess the data obtained from the financial reports of selected manufacturing organisations from the manufacturing sector of the United Kingdom and then evaluating the relationship of variables through it.

In addition to, another justification for using this research method is the nature of variables which is scaled and numeric and can be quantified. The financial variables obtained for this research are mainly in the form of time series which indicates company performance over 10 or twenty years. This shows the trend of the data which can be easily tested through the application of tools which are featured with assessing cause and effect relationship among the variables (Murshed and Zhang, 2016). A similar procedure is followed in this research also, the time series data is obtained the demonstrates financial performance throughout 2009 to 2019 and then it is analysed as effects of capital structure with the mediation of corporate governance, that how corporate governance led to the optimised capital structure of the firms and ultimately caused improvement or decline in financial performance (Bell et al., 2018).

3.4 Data collection method

The procedure to collect the data is depended mainly on the type of information the investigator aims or needs to collect for the research study. These procedures are split amid primary procedures and secondary procedures to collect required data (Delen and Zolbanin, 2018). The primary procedure is followed when the variables involve opinions, viewpoints, and perceptions of primary respondents. These primary respondents could be field experts, general population, mainly in marketing researches, government officials or legal experts mainly in legal researches and financial experts, managers or economists mainly in financial and economic researches (Basias and Pollalis, 2018). The tool utilised to obtain primary data are survey questionnaires based on LIKERT scaling system and structured questions, interviews, based on semi-structured questions and open-ended questions, observations sheets to observe social or another phenomenon, and field tests (Delen and Zolbanin, 2018).

On the other hand, in case of secondary procedures, the data is mainly obtained from online sources which are consisted of online publications and online resources. These sources are further comprised of financial data banks such as the World Bank, World Economic Forum, or companies' official websites and annual reports published yearly (Taherdoost, 2016). On the other hand, other resources include online publications such as Google Scholar, Emerald, Jstor, Wiley, Taylor and Francis, which are helpful extract and analyse findings of other scholars over the same variables and issue (Ragab and Arisha, 2018). Therefore, in this research, secondary procedures for data collection are analysed. The data is collected from annual reports of 12 organisations belonging to the manufacturing industry of the United Kingdom and the data is obtained from 2009 to 2019.

The data is obtained based on inclusion and exclusion criteria. Based on inclusion criteria articles which are latest and published in last 10 years are included and those which academic and topic relevancy with this research and aimed to analyse how capital structure have impacted financial performance in other countries (Sekaran and Bougie, 2016). In terms of financial data, it is obtained as specified for the

last 11 years to accurately analyse the trend and enhance validity and authenticity and generalisation of the findings. Based on exclusion criteria, all old and irrelevant studies are excluded and financial data older than 2009 are excluded. This is done to generate updated and latest findings. Extractions and sorting of data are done by using Boolean operators such as .pdf, and, docs and setting time limitations on searches. This method allowed to extract required and précised data from a bundle of information.

The independent variables are chosen as a capital structure which is measured by four primary factors such as debt-to-equity ratio, and debt-to-total assets ratio, whereas corporate governance, is measured through Tobin's Q. The financial performance indicators are selected as the Net profit margin of the firm. This represents the amount left to the company when it paid all expenditures. It is impacted by debt and equity ratio which allows the firm to reduce or increase its cost of capital which ultimately impacts cash flows of the firm and leads to an increase or decrease in net profitability. And corporate governance used as a mediator that assists managers to reduce their cost of capital and liquidity risk.

3.5 Data analysis method

The data analysis techniques or methods are applied based on research methods and research design chosen. As this research has selected quantitative research design, therefore quantitative data analysis techniques are applied. These are based on a statistical analysis of the collected data. The first data analysis technique that is applied is a panel regression analysis (Nia and Niavand, 2017. Panel regression analysis is a statistical method, they are broadly utilized in epidemiology, social science, and econometrics to assess two-dimensional (typically longitudinal and cross-sectional panel data. This allows determining cause and effect cause and effect relationship among an independent set of variables and dependent variable (Nia and Niavand, 2017). On the other hand, the fixed-effect model is used to control the effects of an unmeasured variable in the study if they correlated with other independent variables. Then random effect model is applied which helps in controlling for ignored heterogeneity when the heterogeneity is steady over time and not associated with independent factors (Ragab and Arisha,

2018). In this case, this is assessed in terms of analysing capital structure independent variables. In the later step, the GLS method is applied. Generalized least squares (GLS) is a method that is used to estimate the unidentified parameters in a model of linear regression when there is a presence of a certain extent of correlation amid the regression model residuals. This ultimately allows the researcher to analyse the level of significance of relationship among variables and the percentage of explanation of dependent variable by independent variables and the tests are applied on STATA (Murshed and Zhang, 2016). As the data is consisted of listed firms of PSX, whereas the data also differentiates following the time, hence, the study has utilised panel data. Rendering to the study carried out by Sekaran and Bougie, (2016) proposes that for panel data analysis, OLS could not be used as the neglect panel structure.

3.6 Ethical consideration

Ethical considerations are most significant to be followed and taken into account for any research work. This is because it allows the researcher to keep study free of legal charges and criticism and the results are accepted. Based on the chosen data collection method, ethical considerations are applied. In this research as there is no involvement of primary respondents, thus ethics of anonymity and confidentiality are not considered. However, the ethics of secondary data collection are applied (Ragab and Arisha, 2018). These ethics are followed so therefore, authentic and reliable data can be obtained and examined. For the following study. Just published reports must are accessed which are not fabricated or falsified to generate desired results by any means. The dissertation is also kept free of plagiarism and the due credit of the investigators and researchers must be given in each chapter. The financial data for the firms which are taken from the financial statements must not be changed. The research work has been carried out with honesty and produce work with integrity and ethics (Greener and Martelli, 2018).

Chapter 4: Results and Analysis

4.1 Descriptive analysis

The primary technique that is applied in the study is descriptive statistics. The primary function of descriptive of this technique is to summarise raw data into a meaningful and understandable form that allows the investigator to provide a tabular representation of the data which is transformed into information for the reader (Basias and Pollalis, 2018). It provides different classifications of the data in terms of averages, minimum and maximum, and deviation that helps in understanding the trend of data. The incorporation of descriptive statistics is done through numerous constituents of the variables which consist of aggregate observation, dispersion, distribution and central tendency (Delen and Zolbanin, 2018). The central tendency of the variable is primarily assessed through mean function where the overall average of factor is implemented. The data dispersion is primarily managed and assessed with the help of standard deviation which tells how much of the values deviates from its mean. Moreover, the data distribution is evaluated through minimum and maximum value analysis (Sekaran and Bougie, 2016).

Variable	Mean	Std. Dev.	Min	Max
NPM	-5.760	33.255	-344.524	1.024
Debt/Equity	1.199	2.605	0.008	27.727
Debt/Asset	0.423	0.197	0.008	0.965
Total/Assets	1980000000.000	3550000000.000	4000000.000	20900000000.000
Mkt. Cap	19.968	1.987	14.635	24.148

Table 1. Descriptive Statistics

From the above table, it can be seen that mean NPM value is -5.76% which signifies that, mean net profit margin of the companies in sample size is -5.76%. Further, standard deviation signifies that NPM deviates from its mean value by 33.25% which is a large deviation and shows that NPM of the sample firm is not stable in the last 11 years. Also, it implies that minimum NPM has remained -344% and max NPM has remained 1.024%.

Moreover, mean debt/equity ratio has remained 1.199% of the sample firms whereas, the standard deviation is 2.605%. This shows that most of the firms have optimised capital structure where debt is low. The minimum debt to equity ratio is 0.008% and the maximum ratio is 27.27%. The debt to asset ratio mean is 0.423 % with a standard deviation of 0.197 which is low deviation and signifies that most of the firm's assets are financed through equity. The maximum debt to assets ratio has remained 0.965 % and the minimum is 0.008%. Moreover, the mean total assets of the firms are 1,980,000,000 and minimum total assets are reported as 4,000,000. Lastly, average or mean market capitalization in the UK's manufacturing sector is 19.968 billion GBP and minimum capitalization is 14.635 billion GBP.

4.2 Correlation Analysis

To analyse the relationship among variables, the technique of correlation is widely used and applied within the dataset to assess the level of the relationship among variables. There is a wide range of techniques that are obtainable for assessing the relationship of the variables which is reliant on the non-normality and normality of dataset. Rendering to Taherdoost, (2016) several correlation methods are commonly utilised by the investigator and that consists of Pearson correlation and Spearman's correlation. While considering the Pearson correlation, it is commonly smeared when the data is distributed normally or comprised of parametric data. Furthermore, with the help of this test, the analysis and interpretation of association are done easily and understandably (Greener and Martelli, 2018). In this respect, the technique of Pearson correlation is carried out for assessing the relationship of a variable.

	NPM	DebtEq~y	DebtAs~t	FS	MktCap	cgi
NPM	1.000					
Debt/Equity	0.057	1.000				
Debt/Asset	0.168	0.5272*	1.000			
FS	0.2909*	0.2005*	0.5375*	1.000		
Mkt. Cap	0.2679*	0.170	0.4763*	0.9196*	1.000	
cgi	0.139	0.010	-0.013	0.4099*	0.3555*	1.000

Table 2. Correlation

While observing the above table, it can be seen that the star sign is the indicator relationship's significance. And the positivity of the relationship is represented by the coefficient value. Based on the standard rule if the value is positive it signifies that the variables are significantly correlated. Based on this rule, it can be seen that there is a positive and significant relationship among firm size (FS) and net profit margin (NPM) of the manufacturing firms. The results also indicate that market capitalization of the firms is also correlated with the NPM of the firms. On the other hand, there is an insignificant relationship among debt-to-equity ratio and NPM and Debt to Asset ratio and NPM and corporate governance (CG) and NPM.

4.3 Fixed and Random effect modelling

The regression analysis is carried out to determine and test the cause-and-effect relationship between the dependent and independent variables (Delen and Zolbanin, 2018). In this study, there is particularly one dependent variable that is Net profit Margin of the firm. Therefore, one regression analysis is performed to analyse the effect of capital structure on NPM with the mediation of CG. The beginning procedure in this technique is to check the applicability of regression which is done through the Hausman test. This helps the investigator to analyse, among several, which regression tests are applicable for the type of data being investigated as panel data in this case (Greener and Martelli, 2018). This leads to signifies among which random effect or fixed effect model is appropriate for the analysis. The null hypothesis of the Hausman test is that random effect can be applied with regression. Thus, if the value of the Hausman test is lesser than 0.10 then, fixed effect model is suitable and applied. The next technique to be applied is the WALD test which tests the heteroskedasticity and heterogeneity in the data. The null hypothesis for this is test is that there is a presence of heteroskedasticity in the data and also heterogeneity is present (Sekaran and Bougie, 2016). Therefore, based on this interpretation, the fixed-effect model has been applied and cause and influence of capital structure variables on NPM with the mediation of CG are analysed through the GLS method as shown in Table 3.

NPM	Coef.	Std.	Err.	t	P>|t|
Debt/Equity	2.175	1.409	1.540	0.126	-0.616
Debt/Asset	-71.576	28.256	-2.530	0.013	-127.540
FS	9.775	5.587	1.750	0.083	-1.289
Mkt. Cap.	-1.041	4.839	-0.220	0.830	-10.626
_cons	-152.518	66.158	-2.310	0.023	-283.553

Table 3. Fixed effect model

R-squared	3.85%
F (4,116)	2.330
Prob > F	0.063

chi2(4)	=	(b-B)'[(V_b-V_B) ^ (-1)] (b-B)
	=	9.89
Prob>chi2	=	0.0423

Table 4: Hausman test for the fixed-effect model.

According to the null hypothesis acceptance rule specified above, it can be said that the fixed-effect model has been selected. The decision rule to apply the fixed-effect model and rejecting random effect model is that the null hypothesis says the random effect is suitable and the alternate hypothesis says that the fixed effect model appropriate. Based on the above significance level of 0.0423, it can be said that the null hypothesis is rejected and thus fixed effect model is suitable to apply. Therefore, the regression analysis could be conducted through a Generalized Least square model which allows addressing the problems of both heteroskedasticity and heterogeneity.

4.4 Generalised Least Square

Table 5 GLS Regression (Independent and Dependent)

NPM	Coef.	Std. Err.	z	P>|z|
Debt/Equity	-0.03	0.33	-0.09	0.92
Debt/Asset	1.35	8.73	0.15	0.87

Firm Size	2.53	2.34	1.08	0.28
Market Cap	0.33	1.31	0.25	0.80
_cons	-59.26	37.57	-1.58	0.11

The table above represents the GLS regression including only dependent and independent variable. Debts to equity have been found to have an insignificant effect on the Firm performance with the P-value of 0.925. Debt to Asset has also shown significant influence on Firm performance with the P-value of 0.87. Control variable like Firm Size and Market Capitalization also represent insignificant influence on firm performance.

Table 6 GLS Regression (With Moderator)

NPM	Coef.	Std. Err.	Z	P>|z|
Debt/Equity	0.07	0.01	0.88	0.37
Debt/Asset	-0.17	0.06	-2.56	0.01
Firm Size	0.03	0.012	2.3	0.02
Market Cap	-0.08	0.007	-1.08	0.28
CG	-0.002	0.002	-0.55	0.58
_cons	-0.19	0.17	-1.1	0.27

The table above represents GLS regression with the moderator and indicates that Debt to the asset has a significant relationship with the firm performance with a significant value of 0.01. Firm size has been significant with the p-value of 0.02. Corporate governance which is the moderator does not have significant influence with a P-value of 0.58.

Table 7 GLS regression With Moderating Effect

NPM	Coef.	Std. Err.	z	P>|z|
Debt/Equity	0.001	0.01	0.07	0.94
Debt/Asset	-0.18	0.06	-2.68	0.007
Firm Size	0.02	0.01	2.18	0.03
Market Cap	-0.01	0.01	-1.21	0.23
cgi	-0.03	0.01	-1.81	0.07
decgi	-0.02	0.01	-2.81	0.005
dacgi	0.10	0.04	2.34	0.02
_cons	-0.01	0.13	-0.08	0.93

The table above shows GLS regression with moderating effect. It represents that debt to assets has a significant influence on firm performance with the P-value of 0.007. Firm Size has also been shown significant influence on firm performance (P-value = 0.03). Corporate Governance also has a significant influence on firm performance (P-value = 0.07). Moderating effect of CG on debt to equity and FP is significant with a p-value of 0.005. The moderating effect of CG on debt to an asset also has a p-value of 0.02 reflecting significant influence.

4.5 Discussion

4.5.1 To assess the conceptual significance of corporate governance along with for financial performance and capital structure in the manufacturing sector the UK.

Corporate governance has a significant role to play in the organization for improving organizational performance and capital structure of the organization. Bhagat and Bolton, (2008) have indicated a positive corporate governance influence on the performance of an organization. The study conducted by Agrawal and Knoeber, (2012) have represented the significance of corporate governance on firm performance by presenting the pieces of evidence from the manufacturing sector of the UK. The study has concluded that corporate governance influences significantly on the performance of an organization. Akbar et al., (2016) have negated the studies and argued that CG influences on the performance of an organization insignificantly. The study of Saad, (2010) has also presented the influence of corporate governance on capital structure in the UK and has indicated a significant impact. The study of Elmagrhi et al., (2018) has argued the impact of CG on the capital structure and performance of an organization. It has found significant impact. The finding of this study also confirms the previous studies findings.

4.5.2 Capital structure and financial performance

Moreover, while analysing the second objective that what factors of the capital structure significantly affect the financial performance of the firms. It can be said that without the indetermination of corporate governance, there is an insignificant relationship among capital structure variables of debt/equity and debt/asset on the net profit margin of the firm. This is because the p-value as stated in table 5 shows that value is higher than the alpha value of 0.05 which states that the GLS model is statistically insignificant. It also shows that there is no relationship between capital structure and financial performance without the intervention of corporate governance.

4.5.3 Capital structure and financial performance with the mediating role of CG

On the other hand, table 6 of the cause-and-effect relationship with moderator and intermediation of corporate governance shows that some of the capital structure variables become significantly impacting on financial performance. For instance, debt to asset ratio with a p-value of 0.01, lesser than 0.05 CI value shows that with the mediation of CG, debt/assets ratio effects negatively on the net profit margin of the firm. The negativity of the relationship is represented by the coefficient value. On the other hand, firm size positively and significantly affects the NPM of the firm. It negates the findings of Iqbal and Javed (2017) where the researcher proposed that capital structure impacts financial performance. On the other hand table 7 also demonstrates that after the inclusion of corporate governance, the relationship between debt to asset ratio becomes significant with NPM of the firm.

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