Impact of Corporate Governance on Financial Performance of the Publicly Traded Companies in UK

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ABSTRACT

This study aimed to analyze the relationship between corporate governance and financial performance of listed companies on London Stock Exchange (LSE). FTSE 100 firms were selected as a sample for this study. The methodology of this research is the cross-sectional regression analysis where relevant data of 100 listed companies are used, for year 2021, to test our hypothesis. Data was collected from firm's financial statements and the Bloomberg Terminal. The study employed 3 dependent variables representing financial performance, 4 independent variables representing corporate governance, and one control variable. The dependent variables for capturing financial performance were Return on Assets (ROA), Return on Equity (ROE), and Tobin Q ratio. The independent variables to represent corporate governance were board members, number of independent directors on board, single block holder (1 person holding more than 5% of total outstanding shares), and group block holders (3 person holding more than 15% of total outstanding shares). Lastly, one control variable i.e. Total Assets was used for this research. In conclusion, this study found that corporate governance is one of the factors that explains ~10% of the variance in financial performance, and remaining variance could be attributed to the variables that did not fall under the scope of this research.

Keywords: Corporate Governance, Financial Performance, London Stock Exchange

ÖZ

Bu araştırma, Londra Menkul Kıymetler Borsası'nda (LSE) işlem gören şirketlerin kurumsal yönetişimi ile finansal performansı arasındaki ilişkiyi incelemeyi amaçlamıştır. Bu çalışma için örneklem olarak FTSE 100 firmaları seçilmiştir. Bu araştırmanın methodolojisi, kesitsel regresyon analizidir, ve hipotezlerimizi test etmek için halka açık 100 şirletin 2021 yılı verileri kullanılmıştır. Çalışmada 3 bağımlı değişken, 4 bağımsız değişken ve bir kontrol değişkeni kullanılmıştır. Finansal performansı yakalamak için bağımlı değişkenler, ROA, ROE ve Tobin Q oranıydı. Kurumsal yönetişim için bağımsız değişkenler, yönetim kurulu üyeleri, yönetim kurulundaki bağımsız yönetici sayısı, blok sahibi (toplam tedavüldeki hisselerin %5'inden fazlasına sahip olan 1 kişi) ve blok sahipleridir (toplam tedavüldeki hisselerin %15'inden fazlasına sahip olan 3 kişi). Son olarak, bu araştırma için bir kontrol değişkeni, yani Toplam Varlıklar kullanılmıştır. Sonuç olarak, bu çalışma, kurumsal yönetimin finansal performanstaki hareketin ~%10'ini açıklayan faktörlerden biri olduğunu ve kalan hareketin bu araştırmanın kapsamına girmeyen değişkenler tarafından açıklandığını bulmuştur.

Anahtar Kelimeler: Kurumsal Yönetim, Finansal Performans, Londra Menkul Kıymetler Borsası

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Chapter 1

INTRODUCTION

This study aims at assessing the effects of selected forms of corporate governance on the financial performance of listed companies in the United Kingdom (UK). As an organization grows, the corporate governance issues become critical to ensure the shareholder, stakeholder and community interests are protected. The legal formation of companies in the UK dates to the 18th century and the system ensured separating the ownership of corporations, where managers were expected to protect and grow the investment of shareholders which are the legal business' owners (Agyemang-Mintah, 2016). Over time, it was observed that managers could be involved in inappropriate use of the organization's assets and that necessitated the organizations to implement a mechanism to prevent such activities. One important action was to appoint a board of directors (BoD) to oversee the management's operations on defined frequencies.

Since then, the effectiveness of BoD has been a topic of interest, and simultaneously of great concern. Fraud cases, corporate collapses, shareholder suits, or inappropriate strategic decisions were still part of the system (Masulis, 2020). Since the 18th century, many big companies like Enron & Barrings Bank filed for bankruptcy due to inadequate oversight by the BoD and weak corporate governance structure (Juabin and Bawa, 2020). Afterward, to govern the Board, "codes of best practices" were drawn by institutional investor organizations, several countries, and international institutions that are the base of today's corporate governance structure.

Corporate governance has become an integral part of today's organizations as companies expand and grow both in emerging and developed economies. As the companies enter into the expansion phase, demand for raw material is increased, and more workers are employed, and so the sales also increase within the community and taxes are paid by the companies on the income generated that are expected to be used for the benefit of that community. Yet, the major reason behind financial scandals has been the “bad” policies of corporate governance (Jizi, 2017). The consequences of a firm's failures are huge as they can wipe out an investor's money in an overnight incident. For example, the collapse of Barings bank was done by a single rogue investor, who was hiding losses from the senior management by making a false customer account to whom all the losses were transferred. The act by single personnel became the cause of bankruptcy for one of the oldest banks in the UK (Juabin and Bawa, 2020).

On the contrary, the board has not always been a reason for financial scandals. The other group i.e. stakeholders can also affect the functions of an organization. In case of society is not happy with the firm's operations, then it may have worse effects on the firm- like boycotting the firm's products. To cater to that, firms modify their governance principles by shifting towards socially friendly issues from the main goal of shareholder primacy, where managers aim at maximizing the returns for shareholders. Shifting from main corporate governance objectives to a socially friendly structure can have both advantages and disadvantages (Giulianotti, 2015). In addition, a study was done on the willingness of investors to purchase shares of companies at premium that have good corporate governance. The study concluded that investors are prone to paying great interest to the companies with the best corporate governance structure.

Over the decades, many academic studies have been conducted on finding the impact of governance on a firm's financial performance. Most of the studies found that corporate governance is a major factor affecting the financial performance of firms (Stanwick, and Stanwick, 2002).

Usually, firms require funding from investors for initiating a new project or expanding an existing one. Evidence from past research suggests that good mechanisms for corporate governance can increase the value of a firm by more than 12%. The central idea is that an investor always takes into account the corporate governance mechanism before planning to invest in a firm. As per Stanwick, and Stanwick (2002), firms with weak structures of corporate governance struggle significantly for securing a loan from investors of financial institutions. An investor - before taking an investment decision - considers various indicators like board independence, audit committees, CEO duality, and board size. In response, companies are now engaging in developing good governance principles to attract funding at reasonable rates.

As per Gormley and Matsa (2016), manager and shareholder conflict can also become an area of problem for the financial performance of the firm. Issue of conflict can occur due to the unavailability of information resulting from a weak contractual agreement among shareholders and managers. Such misleading contracts can serve as an incentive to the firm's senior management at the cost of shareholders, who are the ultimate owners of the firm. Furthermore, the board may find the interest of business colliding with the fiduciary duties. Therefore, corporate governance plays pivotal role in managing the conflict among shareholders and managers.

Two biggest financial frauds like WorldCon and Enron were witnessed that shifted the trend of corporate governance from traditional idea of aiming at resolving the agency conflicts to necessary problems like reporting, transparency, accountability, and lastly the disclosures. The spike in demand of corporate governance standards risen that stimulated the governing bodies to make the standards that shall be applicable on all the public entities to ensure that public's money is safe (Mallin, 2016). A research of Aguilera (2005) concluded that The Sarbanex Oxley Act was even introduced to address the issues of weak corporate governance. The act was implemented in United States of America (USA), and later was adopted by worldwide regulators. The act aimed at resolving the internal issues to ensure that customer's funds can be protected.

After the Sarbanex Oxley act, a wave of financial scandals was stopped, however, the financial crisis reinvigorated the base of corporate governance and its effects on financial performance. Following this, this research aims at studying the impact of good governance on the firm's financial performance. All FTSE 100 listed firms will be taken into account, avoiding the bias of the sector, and the data of the last year 2021 will be downloaded from all companies' websites to assess the effects of corporate governance on companies' financial performance.

A theoretical framework based on the theories of Agency and Stewardship will help answer the research questions. For measuring the corporate governance, the factors selected are size of the board, number of independent members on board, CEO duality, block holders – 1 person holding how much % of total outstanding shares, and 3 persons holding how much % of company's total outstanding shares. For measuring the financial performance, the proxies used will be the firm's financial ratios i.e. return on assets (ROA), return on equity (ROE), and Tobin Q ratios.

After Brexit, the UK economy experienced extreme shocks resulting in the falling profitability of various corporations listed on the London Stock Exchange. In addition to Brexit, Covid-19 has proven to be an extra burden for the economy; therefore, this research aims at studying the latest year financial results of all listed and assessing the impact of corporate governance variables on these firms.

In the following chapter the theoretical foundations of corporate governance are discussed and in Chapter 3 research on corporate governance is summarized. In Chapter 4 we discuss the research methodology, sample and data collection of this research. In Chapter 5 results of the data analysis are presented and discussed; and Chapter 6 concludes the research findings.

Chapter 2

THEORETICAL FOUNDATIONS ON CORPORATE GOVERNANCE

Nowadays, there has been a growing debate that the implementation of a good governance structure can only be done if shareholders' and board of directors' goals are aligned. In case of any conflict among both, such conflict can be addressed by both Steward and Agency theory.

2.1 Agency Theory

This theory aimed at explaining the connection between shareholders and managers that were hired to run the company. It aims at resolving the conflicts among both owners and the management of the company by outlining the ways to address the relevant issues. In addition to the agency theory, organizations can maximize profitability if the cost of relevant raw materials is decreased. The amount paid for agency cost shall be considered as a loss of value by owners due to the deviation in goals of owners and managers. Also, agency costs are reflected in the traded stocks on the stock market. Proper management of agency costs can be beneficial in terms of raising the share price of a particular share, resulting in gains for the investor. As per Glinkowska and Kaczmarek (2015), costs related to the agency are calculated as the summation of residual, bond and monitoring costs. Therefore, to decrease this cost, organizations implement a good corporate governance structure that aims at addressing these conflicts on a priority basis. As an effective structure of corporate governance aims at enabling management to act in the best interest of the owners.

In addition, there is a general assumption of agency theory which explains that corporate controls are usually weak in a well-developed financial market. Such weak controls result in the non-existence of markets, market failures, asymmetric information, moral hazards, moral selection, and incomplete contract (Panda and Leepsa, 2017). However, various types of research have proved that it can be controlled by proper monitoring of market competition, employing an efficient board of directors, increasing the numbers of independent directors on the board, control of executive pay, and concentrated holding can aid in resolving the agency theory. As per Madhani, (2017), followers of agency theory suggest that the role of the chairperson and CEO should be separated, as it will ensure that adequate controls are implemented between the chairperson and CEO.

Though, this theory is very popular and pragmatic, it does have some limitations, and that has been highlighted by various researchers in past. One of those researches was done by Panda and Leepsa (2017), which suggested that the theory works on the assumption of an agreement that is of contractual nature between the agent and principal that can be for either an unlimited or limited time period, where there is no surety about future. The theory assumes that the agreement can eradicate the problem of agency, but specifically it is exposed to various problems like rationality, information asymmetry, transaction cost, and fraud. The interest of shareholder is only to increase the wealth; however, their limited role cannot make this happen. The job of directors even is restricted to look after the managers, and sometimes their role is not clearly outlined. This theory suggests that managers are opportunistic, and doesn’t look for their competency.

2.2 Stewardship Theory

Dissimilar to agency theory which focuses on the idea that the chairperson and CEO roles should be different, the theory of stewardship suggests that both roles can be handled by one person. This theory suggests that the directors can attain the objectives of shareholders by increasing their utility rather than focusing on the principle of self-serving. Various empirical studies support this argument of stewardship theory (Glinkowska and Kaczmarek, 2015).

In addition, this theory works on the assumption that giving permission to managers to perform duties with carefulness can motivate them put in extra efforts for the company’s betterment. Researchers supporting this side concur that the behavior of management is driven by reward in the form of financials but it also expects discretion to assure then them to attain the maximum value for shareholders. Furthermore, the theory of stewardship stresses that the manager's concern for their reputation, and their future career growth, enables them to take actions that are in the best interest of shareholders. Henceforth, the cost of the agency will be minimized. Further, there is evidence suggesting that managers perform well when the work they are doing is satisfying. This theory suggests that management is more knowledgeable than the board of directors, and promotes less appointment of independent directors. Lastly, the steward theory confirms that an insider-dominated board is effective in attaining the objectives of the organization because of proper access to technology and information. The theory suggests that the CEO wants to do well for the company rather than exploit the system, which is also suggested by the agency theory (Keay, 2017).

A research done by Davis, Schoorman & Donaldson (2018) mentioned that the stewardship theory falls under the discipline of psychology and sociology. It was mainly designed to examine the situation where executives were assumed as stewards, and were hired to act in the best interest of the owners. In this theory, the model is based on stewards, whose intentions are ordered such that collectivistic, and pro-behaviors of organization have higher utility than behavior of an individual. Given the choice between pro-organizational behavior and individual behavior, a steward will not fall towards individual behavior, and will always work for the betterment of the whole organization. The steward will not be expected to trade or substitute behaviors of self-serving nature. Therefore, even when the interests of principal and steward are not aligned, the steward will be more prone towards organization. This is because the steward places higher utility in corporate behavior. The behavior of the steward is expected to be collective, because the steward seeks to gain the objective of organization like growth, and revenue. Such behavior will be beneficial for owners/principals in terms of capital gain, and dividends on the shares. The steward aims at maximizing the cumulative wealth of the organization rather than focusing on the individual's bonus.

Chapter 3

LITERATURE REVIEW

This chapter aims at highlighting the historical researches done by researchers on similar topic throughout the world. The section highlights the research methodologies employed by the researchers to gauge the effect of corporate governance variables on the firm's financial performance, and will summarize the results of their studies.

Florackis (2005) examined the the "non-linear impact of compensation and ownership on a firm's financial performance". The study aimed at analyzing the relationship between high pay and a firm's financial performance. The study also highlighted the problems like agency theory that can be faced by companies throughout the world. The findings of this research concluded that compensation and ownership can be an alternative to one another in mitigating the cost of agency, and henceforth increasing the revenue for the company.

A thesis published by Guest (2009) examined the connection among the board size and profitability. The study concluded that there is a strong inverse relationship between profitability and board size, share returns, and the Tobin Q ratio. The theory also suggests that boards of the UK play an important role; consequently, any effect of a bigger size of the board is likely to reflect the fault of the board of advisory. To summarize, the study supported that the bigger board size can become problematic for effective communication, and effective decision-making.

A study by Danoshana and Ravivathani (2013) was done on the Sri Lankan market that aimed to investigate the effectiveness of best practices on the performance of 25 listed companies. The data taken into account was from 2008 to 2012. They concluded that the practices of corporate governance have a vital impact on the financial institution's performance. The independent variables taken for the study were board size, meeting frequency, and audit committee' members, and the dependent variables were ROA and ROE.

Al-Matari et al, (2012) analyzed the effect of the members of the audit committee on the performance of a firm. The study found evidence that the size of the audit committee has a negative effect on a firm's financial performance, and the remaining corporate governance's variables like CEO duality, the board size, proportion of independence, and independence of the audit committee have no relationship on the performance of listed companies in Saudi Arabia for the year 2010. The dependent variable taken into consideration was only Tobin Q along with variables of control nature i.e. leverage and firm's size.

A study by Othman (2014) analyzed the impact of good governance on the performance of organizations in the financial market of Dubai for the period of 2010 to 2011. The study took variables of corporate governance such as audit committee, independent directors on the board, total board members, number of meetings in a year, and for profitability the study took the variables like ROA and ROE. The study was conducted on all the listed companies on the Dubai stock market. The results of his study showed that corporate governance is the key element that aims at increasing the firm's financial performance.

Another study conducted by Naushad and Malik (2015) analyzed the impact of good practices of corporate governance on the performance of the banking sector of the Gulf cooperation council (GCC) region by analyzing 24 banks from 2012 to 2013, and found that boards with fewer members are efficient in monitoring the banks; the duality of board increased the firm's performance, and the availability of block holders in banking sector of GCC also elevated the performance. Tobin Q ratio and ROA are used as dependent variables; board size, block ownership, and ownership structure are categorized as independent variables. The results of this study contradicted the general principles of corporate governance. The study highlighted that the corporate governance variables don’t have sufficient impact on the firm’s profitability. The research highlighted that there are numerous variables that don’t fall under the scope of this study and can have an impact on profitability of the firm.

Al-Sager and Samontaray (2018) assessed the concepts of corporate governance, and the importance of ownership structure and board (committees, composition, and size). The study was conducted to assess the awareness of corporate governance (gender-wise) of investors in Saudi Arabia and its impact on decision-making. The study proved that gender bias also affects the firm's financial performance and recommended that the firms should be neutral concerning gender.

A research done by Danoshana and Ravivathani (2019) conducted a study on the listed financial sector firms in Sri Lanka. The study only focused on listed companies as the data for unlisted companies was hard to obtain, and cannot be relied upon. The variables considered for this study were ROE, ROA, board size, meetings frequency, audit committee members, and meetings in a year. The sample size was of only 25 listed companies. The study summarized that the board size has a positive influence on the firm’s financial performance, and the frequency of audit meetings in a year had a negative effect on its performance.

A study conducted by Bhagat and Bolton (2019) was an extension of the research done in 2008. The study aimed at analyzing the data of post global financial crisis. The study updated the data, and used the similar methodology as adopted in 2008 to gauge the impact of revised data of corporate governance on firm’s performance. The study found that the director’s ownership of stock has positive effect on a firm's financial performance, which was different in the research initially conducted. The study concluded that the global financial crisis was an unexpected event, and had unprecedented events; however, the current data proves that some of the corporate governance variables do have an impact on the firm’s financial performance.

Koji, Adhikary, and Tram (2020) did a study on the relationship of corporate governance and financial performance in Japan. The study focused on 144 listed companies, for which the data was collected from their annually published financial reports. The study aimed at analyzing the effects of enhanced corporate governance on the firm’s financial performance. The study concluded that enhanced variable of corporate governance does have a significant effect on financial performance of the firms.

A study conducted by Kyere, and Ausloos (2021) examined the impact of good governance on the firm’s financial performance within the UK sector. The sample taken was of the non-financial sector. The study was based on five corporate governance indicators, and two indicators of the financial performance, and the methodology adopted by the research was cross-sectional regression methodology.

The research concluded that financial performance is merely affected by the corporate governance variables. The study concluded that the variables included for this study proved that there is a limited corporate governance impact on firm's financial performance.

Khatib and Nour (2021) analyzed the impact of corporate governance on financial performance of firms listed in Malaysia post Covid-19. The study took a sample of one year after Covid-19 i.e. 2021. The study summarized that the size of the board has positive impact on the firm's performance. It also concluded that in some circumstances like covid-19 when board size didn't have any impact at all. The covid-19 was an uncertain time, when whole economy was under lockdown, and therefore, it was hard for people to even go out for shopping or earning; therefore, the year of covid-19 showed unprecedented moves.

A research by Nugroho (2021) analyzed macroeconomic, scientific, audit views, and investment decisions as a moderator. A sample of 147 firms was taken from the Indonesian stock exchange. The study indicated that there are four hypotheses that are insignificant. The results suggested that the macroeconomic factors, and corporate governance does not have sufficient impact on the firm's financial performance; whereas, the investment decisions, scientific, and audit views has positive impact on its performance.

Chapter 4

RESEARCH METHODOLOGY, SAMPLE, & DATA COLLECTION

In this chapter, we discuss the research methodology and data collection and explain the model used for this research.

4.1 Data

The FTSE 100 firms listed on London Stock Exchange (LSE) have been taken as the research sample for this study. The data for the year 2021 was collected from the firm's website and some data was extracted from the Bloomberg terminal. The year 2021 was selected as most of the financial information required for this study was available on the firm's website whereas the historical data related to corporate governance variables wasn't available on all firm's websites. Furthermore, this period captures the post-covid-19 scenario. Firms were suffering from huge losses during the covid-19 period as the economies were under lockdown and businesses were finding it very tough to survive. Many businesses were laying off employees to manage their working capital cost and to ensure profitability for the shareholders. Henceforth, the selected period would capture the event of whether firms are still giving importance to corporate governance or not.

The methodology of this research is the cross-sectional regression analysis where we used the relevant data of 100 listed companies to test our hypothesis the studies done by Rodriguez (2016) and Watsham and Parramore (1997) supported the usage of 1-

year data for performing the cross-sectional regression of the listed companies. The collected data was analyzed through Excel by using the "Data Analysis" feature.

The study initially analyzed the descriptive statistics of the study like mean, standard deviation, maximum and minimum values. Afterward, a correlation analysis performed to estimate the connection between dependent, independent and control variables. Lastly, a multivariate regression analysis performed to test the impact of independent variables on three dependent variables.

4.2 Sector Distribution of FTSE 100 Companies

The FTSE 100 listed companies belong to nine different sectors that are financial, consumer, non-cyclical, cyclical, basic materials, industrial, communications, utilities, energy, and technology. The sector wise companies’ count can be seen in Table 1. The companies’ list can be seen in Appendix.

Table 1: Sectors of FTSE 100 Firms

Industry	Count of Companies	% of total listed Companies
Financial	26	26.0%
Consumer, Non-cyclical	20	20.0%
Consumer, Cyclical	18	18.0%
Basic Materials	9	9.0%
Industrial	9	9.0%
Communications	8	8.0%
Utilities	5	5.0%
Energy	3	3.0%
Technology	2	2.0%
Grand Total	100	100.0%

4.3 Description of Variables and Models

This section outlines both the independent and the dependent variables that are used in this study. Three dependent variables i.e. ROA, ROE, and Tobin Q ratio have been used and four independent variables i.e. number of board members, number of independent members on the board, block holders (1 individual/entity holding more than 5% of shares), and block holders (3 individuals/entities holding more than 15% of shares). Lastly, one control variable has been used i.e. Firm's size (Total assets).

Dependent Variables

- ROA
- ROE
- Tobin Q

Independent Variables

- CG1 – Numbers of Board Members
- CG2 – Numbers of Independent members on the board
- CG3 - Block Holders (if 1 person/entity holding more than 5% then 1, else 0)
- CG4 - Block Holders (if 3 persons/entities holding more than 15% then 1, else 0)

Control Variables

- Firms Size – Total assets size of the firm would be used.

4.4 Hypothesis Development

After reviewing the literature review, three hypothesis emerge:

Hypothesis H1: Corporate governance has a significant impact on the ROA.

Hypothesis H2: Corporate governance has a significant impact on the firm's ROE.

Hypothesis H3: Corporate governance has a significant impact on the Tobin's Q ratio.

To test the above hypothesis, following regression model would be tested:

$Model\ 1 = ROA = f\{CG1, CG2, CG3, CG4, Firm\ Size, \varepsilon i\}$

$Model\ 2 = ROE = f\{CG1, CG2, CG3, CG4, Firm\ Size, \varepsilon i\}$

$Model\ 3 = Tobin\ Q = f\{CG1, CG2, CG3, CG4, Firm\ Size, \varepsilon i\}$

Chapter 5

DATA ANALYSIS & DISCUSSION

This chapter entails the discussion and analysis of the findings of the regression analysis. Firstly, this chapter discusses the descriptive statistics of the data. Secondly, a correlation analysis is performed to find the relationship between dependent and independent variables. Lastly, multivariate regression analysis is used to gauge the effect of independent variables (Corporate governance) on dependent variables (Financial Performance).

5.1 Descriptive Statistics

Table 2 presents the descriptive statistics (Mean, standard error, standard deviation, range, minimum, and maximum) of the dependent and independent variable of FTSE 100 listed companies.

ROA depicts that the majority of listed firms in the UK were profitable for the year 2021 except for 8 firms that made losses. These firms were BP PLC, Flutter Entertainment, Rolls-Royce, Centrica, Melrose Industries, International consolidated airlines, Ocado Group and Aveva group. These firms belong to various sectors, and therefore their losses cannot be taken as a basis to make any assumption about the whole sector. Furthermore, standard deviation of ROA is small, which depicts that dispersion is less in the return made by all the listed firms.

ROE depicts the same position as like ROA except Standard deviation, which is relatively higher. The higher dispersion depicts that the firm's total equity is significantly different among the 100 listed companies. This proves that the firms require varying amounts of capital depending on their size, sector, and business market.

Tobin Q is also a profitability measure that presents similar positions as ROA and ROE. All three profitability ratios present that the firms were profitable during Covid-19 year except some listed above.

With regard to the control variable that is total assets, it depicts that the average size of firms is GBP 130 billion with a standard error of GBP 37 billion that presents that the figures are not different within firms. Higher total assets position means that firms are expected to perform well to earn good profitability for the shareholders. Table 2 depicts that there is one firm with an asset size of GBP 0.02 billion, which is Scottish Mortgage Investment Trust PLC. The firm belongs to the financial sector, and is still profitable with lesser total assets than other firms in the financial sector.

In connection to the independent variables that depict the corporate governance position within the companies, the CG1 (board members) show that mean board members are 10.69 (~11) with a dispersion of only 0.19. It shows that most of the selected firms have at least 10 board members.

CG2 (Independent members on board) shows that ~70% are independent members on the board of listed companies in the UK. It shows that firms are being fair to the shareholder by avoiding the agency conflict. In case firms would have appointed more executives for the board, then it would have created a bad impression with shareholders. Even in the firm with only 6 board members - 4 were independent - which is more than 70%.

For CG3 and CG4 that depict the majority shareholding. It shows that firms do have some individual shareholders holding more than 5% and 3 shareholders holding more than 15% of the total shareholding. This shows that firm have concentrated shareholding, and the decisions can be impacted by some members of the board.

Table 2: Summary of Descriptive Statistics

	Mean	Standard Error	Standard Deviation	Range	Minimum	Maximum	Count
ROA (%)	0.08	0.02	0.17	1.73	-0.08	1.64	100.00
ROE (%)	0.18	0.03	0.32	3.51	-1.14	2.37	100.00
Tobin Q	0.02	0.01	0.06	0.63	0.01	0.64	100.00
Total Assets (GBP'bln)	128.96	36.87	368.65	2,957.92	0.02	2,957.94	100.00
CG1	10.69	0.19	1.88	10.00	6.00	16.00	100.00
CG2	7.85	0.19	1.87	8.00	4.00	12.00	100.00
CG3	0.98	0.01	0.14	1.00	-	1.00	100.00
CG4	0.91	0.03	0.29	1.00	-	1.00	100.00

5.2 Correlation between Variables

This section discusses the correlation between dependent and independent variables that can be helpful in determining whether strong or weak relationships exist in between financial performance and corporate governance. As discussed in the literature review, some research does show concerns over weak relationships between variables, which can be problematic for performing regression. Also, the data taken for this study is of 1 year; therefore, it does not have any problem of heteroscedasticity.

Table 3 presents the correlation results of dependent variables (ROA) on independent and control variables.

As per the research done by Gujarati and Porter (2009), if the correlation is greater than 0.8, that shows that there is positive evidence of multi-collinearity within the dataset. Table 3 shows that it is very unlikely for this problem to arise here as no one of the variables have a correlation of greater than 0.8. The results are very distinct. Some independent variables are showing the negative relationship with ROA; whereas, others are showing slightly positive results. It is to note that the correlation with board members, and independent members on board does have a negative relationship with ROA, which shows that decreasing the number of board directors would actually be beneficial for the firm’s financial performance. Lastly, this table shows that the correlation is slightly positive with block holders, and it can be summarized that having someone with more shareholders can be better for the profitability. It can be seen that the decision making would be easy, if more shareholders agree with the same decision; whereas, decision making can be problematic in the companies having less number of block holders.

Table 3: Correlation of ROA with Independent Variables

	ROA	*Total Assets*	*CG1*	*CG2*	*CG3*	*CG4*
ROA	1.0000					
Total Assets	- 0.1231	1.0000				
CG1	- 0.2218	0.1963	1.0000			
CG2	- 0.1586	0.2040	0.7340	1.0000		
CG3	0.0094	0.0462	0.0909	0.0520	1.0000	
CG4	0.0229	0.0547	0.0787	- 0.0361	0.4543	1.0000

Table 4 presents the correlation of ROE with independent and control variables. This data doesn't have any problem of multi-collinearity. This data shows that ROE doesn't have any positive relationship with the selected variables, which means that ROE doesn't move in line with the corporate governance variables. The decrease in corporate governance variables can increase the ROE (Farhan et al., 2020).

Table 4: Correlation of ROE with Independent Variables

	ROE	*Total Assets*	*CG1*	*CG2*	*CG3*	*CG4*
ROE	1.0000					
Total Assets	-0.0949	1.0000				
CG1	-0.1468	0.1963	1.0000			
CG2	-0.0976	0.2040	0.7340	1.0000		
CG3	-0.0023	0.0462	0.0909	0.0520	1.0000	
CG4	-0.0141	0.0547	0.0787	-0.0361	0.4543	1.0000

Table 5 presents the relationship between Tobin Q (dependent variable) with other independent and control variables. With regard to multi-collinearity, Table 5 doesn't show any problem.

Table 5: Correlation of Tobin Q with Independent Variables

	Tobin Q	*Total Assets*	*CG1*	*CG2*	*CG3*	*CG4*
Tobin Q	1.0000					
Total Assets	-0.0772	1.0000				
CG1	-0.1635	0.1963	1.0000			
CG2	-0.1121	0.2040	0.7340	1.0000		
CG3	0.0000	0.0462	0.0909	0.0520	1.0000	
CG4	0.0102	0.0547	0.0787	-0.0361	0.4543	1.0000

5.3 Regression Analysis

This section presents the results of regression analysis which is useful to find the impact of corporate governance on the firm's financial performance. In total, there are three dependent variables and three models to test through regression as discussed in chapter 3. The tested hypothesis and the models are as follows:

Hypothesis H1: Corporate governance has significant impact on the ROA

Hypothesis H2: Corporate governance has a significant impact on the ROE.

Hypothesis H3: Corporate governance has a significant impact on Tobin's Q ratio.

Model 1 = ROA = f{CG1, CG2, CG3, CG4, Firm Size, εi}

Model 2 = ROE = f{CG1, CG2, CG3, CG4, Firm Size, εi}

Model 3 =Tobin Q = f{CG1, CG2, CG3, CG4, Firm Size, εi}

Table 6: Hypothesis 1 - Regression Analysis with ROA as Dependent Variable

Independent variables	***Beta Coefficient***	***t-statistic***
Intercept	0.25607	1.651317
Firmsize	-0.00004	-0.84369

CG1	-0.02125	-1.54231
CG2	0.00239	0.193699
CG3	0.01797	0.129549
CG4	0.02417	0.352907
Regression Statistics		
Multiple R	0.2413	
R Square	0.0582	
Adjusted R Square	0.0081	
Standard Error	0.1725	
Observations	100	

Model 1 = ROA = 0.2561 - 0.0213CG1 + 0.0024CG2 + 0.0180CG3 + 0.0242CG4 +0.000Firm Size

Table 7: Hypothesis 2 - Regression Analysis with ROE as dependent variable

Independent variables	***Beta Coefficient***	***t-statistic***
Intercept	0.41414	1.43367
Firmsize	-0.00006	-0.67991
CG1	-0.02647	-1.03123
CG2	0.00469	0.20368
CG3	0.03454	0.13367
CG4	-0.00407	-0.03188
Regression Statistics		
Multiple R	0.163472	
R Square	0.026723	
Adjusted R Square	-0.02505	
Standard Error	0.321317	
Observations	100	

Model 2 = ROE = 0.4141 – 0.0265 CG1 + 0.0047CG2 + 0.0345CG3 – 0.0041CG4 – 0.0001Firm Size

Table 8: Hypothesis 3 - Regression Analysis with TobinQ as dependent variable

Independent variables	***Beta Coefficient***	***t-statistic***
Intercept	0.077342	1.3396
Firmsize	-0.000009	-0.4790
CG1	-0.0006005	-1.1704
CG2	0.00879	0.1912

CG3	0.002404	0.0465
CG4	0.005636	0.2210
Regression Statistics		
Multiple R	0.1729	
R Square	0.0299	
Adjusted R Square	0.0217	
Standard Error	0.0642	
Observations	100	

Model 3 = Tobin Q = 0.0773 – 0.0060CG1 + 0.0009CG2 + 0.0024CG3 + 0.0056CG4 + 0.00001Firm Size

Table 6 to 8 shows R square of less than 10%, which means that corporate governance variables explain ~10% of the movement in financial performance indicators i.e. ROA, ROE, and Tobin Q. The remaining 90% of the movement in financial performance is explained by the variables that were not covered as part of this study.

Chapter 6

CONCLUSION

The study explained the impact of corporate governance variables on the financial performance of the firms. Three dependent variables for measuring financial performance were employed i.e. ROA, ROE, and Tobin Q, and five independent variables i.e. board size, independence of board, duality, block holders (1 person holding more than 5%), and block holders (3 persons holding more than 15% of total outstanding shares). In addition, a control variable was also used i.e. Total assets.

The study was based on the FTSE 100 listed firms, as the data for listed firms is easy to be obtained as compared to un-listed companies. The data for only 1 year was taken due to unavailability of data of the corporate governance variables for past years. The study began with a comprehensive literature review that explained that much research was done in the past throughout the world. The common thing observed in all research was that the movement on financial performance cannot be explained by corporate governance variables alone. Financial performance is a broader concept and can be impacted by a variety of factors that were not part of this study.

The statistical results of this study gave similar results as discussed in literature review. The study explained that the selected variables only explain a slight movement of financial performance and didn't conclude that corporate governance has significant impact on the financial performance. It is one of the variables that must be kept into consideration by senior management and board to ensure profitability along with various other factors that were not selected for this study.

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APPENDIX

Appendix A: The List of Companies That are used in this Research

Sr. #	Name	Industry
1	Shell PLC	Energy
2	AstraZeneca PLC	Consumer, Non-cyclical
3	Unilever PLC	Consumer, Non-cyclical
4	HSBC Holdings PLC	Financial
5	BP PLC	Energy
6	Diageo PLC	Consumer, Non-cyclical
7	British American Tobacco PLC	Consumer, Non-cyclical
8	Glencore PLC	Basic Materials
9	Rio Tinto PLC	Basic Materials
10	GSK PLC	Consumer, Non-cyclical
11	RELX PLC	Consumer, Non-cyclical
12	Reckitt Benckiser Group PLC	Consumer, Non-cyclical
13	Anglo American PLC	Basic Materials
14	National Grid PLC	Utilities
15	Compass Group PLC	Consumer, Cyclical
16	Lloyds Banking Group PLC	Financial
17	Prudential PLC	Financial
18	BAE Systems PLC	Industrial
19	London Stock Exchange Group PLC	Financial
20	Experian PLC	Consumer, Non-cyclical
21	Barclays PLC	Financial
22	CRH PLC	Industrial
23	Ashtead Group PLC	Consumer, Non-cyclical
24	Vodafone Group PLC	Communications
25	Flutter Entertainment PLC	Consumer, Cyclical
26	Imperial Brands PLC	Consumer, Non-cyclical
27	SSE PLC	Utilities
28	Tesco PLC	Consumer, Non-cyclical
29	Haleon PLC	Consumer, Non-cyclical
30	Legal & General Group PLC	Financial
31	Standard Chartered PLC	Financial
32	NatWest Group PLC	Financial
33	Rentokil Initial PLC	Consumer, Non-cyclical
34	3i Group PLC	Financial
35	Aviva PLC	Financial
36	Scottish Mortgage Investment Trust PLC	Financial
37	Smith & Nephew PLC	Consumer, Non-cyclical
38	Bunzl PLC	Consumer, Cyclical
39	Croda International PLC	Basic Materials

40	Segro PLC	Financial
41	Informa PLC	Communications
42	WPP PLC	Communications
43	InterContinental Hotels Group PLC	Consumer, Cyclical
44	Smurfit Kappa Group PLC	Basic Materials
45	Spirax-Sarco Engineering PLC	Industrial
46	BT Group PLC	Communications
47	Halma PLC	Industrial
48	Burberry Group PLC	Consumer, Cyclical
49	Entain PLC	Consumer, Cyclical
50	Sage Group PLC/The	Technology
51	Rolls-Royce Holdings PLC	Industrial
52	Next PLC	Consumer, Cyclical
53	Mondi PLC	Basic Materials
54	United Utilities Group PLC	Utilities
55	Pearson PLC	Communications
56	Severn Trent PLC	Utilities
57	Intertek Group PLC	Consumer, Non-cyclical
58	Admiral Group PLC	Financial
59	St James's Place PLC	Financial
60	Smiths Group PLC	Industrial
61	Centrica PLC	Utilities
62	Associated British Foods PLC	Consumer, Non-cyclical
63	Antofagasta PLC	Basic Materials
64	Whitbread PLC	Consumer, Cyclical
65	Melrose Industries PLC	Financial
66	International Consolidated Airlines Group SA	Consumer, Cyclical
67	Auto Trader Group PLC	Communications
68	F&C Investment Trust PLC	Financial
69	Kingfisher PLC	Consumer, Cyclical
70	Land Securities Group PLC	Financial
71	Phoenix Group Holdings PLC	Financial
72	Pershing Square Holdings Ltd/Fund	Financial
73	Beazley PLC	Financial
74	Weir Group PLC/The	Industrial
75	RS GROUP PLC	Consumer, Cyclical
76	Rightmove PLC	Communications
77	DS Smith PLC	Industrial
78	DCC PLC	Energy
79	Berkeley Group Holdings PLC	Consumer, Cyclical
80	Barratt Developments PLC	Consumer, Cyclical
81	M&G PLC	Financial
82	Ocado Group PLC	Consumer, Non-cyclical
83	Persimmon PLC	Consumer, Cyclical

84	B&M European Value Retail SA	Consumer, Cyclical
85	abrdn plc	Financial
86	Coca-Cola HBC AG	Consumer, Non-cyclical
87	J Sainsbury PLC	Consumer, Non-cyclical
88	AVEVA Group PLC	Technology
89	ConvaTec Group PLC	Consumer, Non-cyclical
90	British Land Co PLC/The	Financial
91	Taylor Wimpey PLC	Consumer, Cyclical
92	Schroders PLC	Financial
93	HomeServe PLC	Industrial
94	Hargreaves Lansdown PLC	Financial
95	Endeavour Mining PLC	Basic Materials
96	JD Sports Fashion PLC	Consumer, Cyclical
97	UNITE Group PLC/The	Financial
98	Fresnillo PLC	Basic Materials
99	Airtel Africa PLC	Communications
100	Frasers Group PLC	Consumer, Cyclical