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**Topic of Dissertation “The impact of Corporate Governance on
Firms’ Performance in the UK”**

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In the Name of God the Merciful

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I dedicate this research to my beloved mother and father and my brothers and sisters and all my friends, as I do not forget my supervisor {Kirsten Jones} who has been credited in the completion of this research.

Abstract:

Consider the importance of corporate governance that has emerged after the failure of many companies. There was great interest on the impact of corporate governance on the performance of companies, particularly in the UK and the US. In this context, this study examines the effect of corporate governance on the performance of firms in the UK by using a secondary data for 44 firms selected randomly from FTSE-350 firms listed on the London Stock Exchange for the period from 2010 to 2014 and this In order to obtain new results, as well as in order to avoid the financial crisis which emerged in the period between 2008 and 2009. This study was conducted by focusing on corporate governance factors namely: the size of the board and the frequency of the board meeting, where the data were analysed by using the SPSS software. The results that obtained by using ROE showed that, the relationship between the performance of the company and the size of the board and the frequency of meetings of the board is a positive relationship, while the findings that has been obtained by using ROA showed the opposite, where the relationship was negative.

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Abbreviations list

BS	Board size
CG	Corporate governance
FA	Firm age
FASB	Financial Accounting Standards Board
FBM	Frequency of board meeting
FRC	Financial Reporting Council
FS	Firm size
LEV	Leverage
LSE	London Stock Exchange
NEDs	Non-executive directors
PM	Profit Margin
ROA	Return on asset
ROE	Return on equity
SEC	Securities and Exchange Commission
FTSE	Financial Times Stock Exchange

Chapter 1: Introduction

1.1.1 Introduction:

The term corporate governance has become a commonly used term these days. Where corporate governance has been argued by many researchers and academics who used this term in their research. According to the Economic Co-operation and Development (OECD) (2004) which defined corporate governance, it includes the relations between the executive management of the company, its board of directors, shareholders, and other interested parties where it contributes in providing the structure that helps firm in determining their objectives and the means of achieving those goals, and follow-up performance. So, given the importance of the corporate governance, especially after the occurrence of the global financial crisis, which included many financial scandals as well as the collapse of many companies including Parmalat, WorldCom, Xerox and Enron, many academics and researchers have begun studying the association between corporate governance and the performance of the firm.

Tarraf (2011) Iwasaki (2014) suggested that, the occurrence of the financial crisis in some countries such as MG Rover Group (2005) in the UK and Enron Scandal (2001) and Lehman Brothers (2008) in the USA, this crisis highlighted the importance of corporate governance and suggested that the lack of good

corporate governance is one of the reasons for the financial failure of these companies. According to Hawas (2014), the failure of leading companies such as the Italian company (Parmalat) and the US companies (Arthur Andersen, World Com and Enron) was due to poor corporate governance, and thus the impact of this poor corporate governance on corporate performance requires more understanding. This was confirmed by researchers such as Florackis (2005), Abdullah and Page (2009), Price, Roman and Rountree (2010), Braga-Alves, Marcus V and Shastri (2011), Baydoun, Maguire, Ryan and Willett (2013), Afrifa and Tauringana (2015). They reported that corporate performance is improved only by good corporate governance, which in turn it ensures the rights of investors.

This was also confirmed by Ghabayen (2012), who reported that corporate governance is one of the effective tools that help companies achieve their goals because it is considered one of the mechanisms that provide oversight for management. Corporate governance has become the focus of attention of many researchers. Some researchers, such as Vo and Nguyen (2014) and Owusu (2012), have conducted studies to investigate the importance of corporate governance and its impact on corporate performance. They found that good practices of corporate governance have a positive influence on corporate performance. In other words, according to Fama and Jensen (1983), a good corporate governance system leads to a reduction in agency costs,

which helps to decrease monitoring and bonding costs leading to enhancement in governance practices and financial performance.

The importance of corporate governance has been emphasised in the Cadbury Report (1992), which pointed to the need for corporate governance and its role in improving the performance of companies. After the issuance of this report, many of the reports and codes emerged, such as Greenbury (1995), Combined Code (1998) and the code of the UK corporate governance (2010), where they seek to correct the errors and improve the performance within companies in the UK. Where these reports and codes have been developed in the UK, like other countries, which had codes. This what was referred to it by Caliskan and Icke (2010) who said that many countries have improved the codes of corporate governance to ensure the practice of good corporate governance within their companies, which provides improved the performance.

The Cadbury report, which was issued by The Committee on the Financial Aspects of Corporate Governance in 1992, which headed by Adrian Cadbury, provided a set of recommendations that would reduce the risk of corporate governance, as well as failure. These recommendations included the order of the boards of directors for firms, as well as the accounting systems. Where the Committee focused on the separation of the roles between the chairman and chief executive officer, it also suggested that the appointment of non-executive

directors on the board and non-executive directors to the audit committee. Whole suggestions and recommendations are in order to provide the control over the performance, which would affect the decision-making.

However, due to the importance of the role played by the board of directors, the corporate governance focused on the importance on monitoring the board of directors as well as improving its independence. This is achieved by following one of the measures that are important, the frequency of the board meetings (Ntim and Oseit, 2011). The increase in the frequency of meetings of the board gives the board more time to consult and to enable it to assess performance as well as the develop business strategies. Therefore, this leads to increased management control quality. Also, based on Greco (2011) who mentioned that, in the literature the meeting of the board it is considered one of the indicators that refers to the level of control over activities, and thus it is regarded as one of the means that contributes to improving the organisation's efficiency. This was also confirmed by Vafeas (1999) who reported that the frequency of board meetings is important. When the board meets frequently, this may help improve the performance of the firm, which leads to increased interest by shareholders.

In this respect, many studies have been conducted to understand the relationship between a firm's performance and board meeting frequency. Some of these studies that were conducted include those Florackis (2005),

Karamanou & Vafeas (2005), Abdullah and Page (2009), Hoque, Islam and Azam (2013), Noor and Fadzil (2013) and Afrifa and Tauringana (2015), who have studied the effect of the frequency of meetings of the board on the performance of the company. They came to the conclusion that the frequency of meetings of the board has an impact on performance regardless of whether this effect is positive or negative.

A set of theories was employed in this study, which are the Agency Theory, Stewardship Theory and Resource Dependency Theory. These theories are employed in order to assist the understanding and interpretation the relationship between corporate governance and the performance of companies.

The first theory is Agency Theory. The focus of this theory is about solving the problems that may occur between owners and directors (shareholders and executives or non-executives, for example). These problems occur because of the difference in the interests and goals among owners and managers. Agency theory is used as part of corporate governance to solve these issues by knowing the interests of the managers and designing the appropriate incentives to encourage them within the framework of the job. According to agency theory corporate governance systems are set to avoid managerial opportunism, which leads to decrease agency costs, monitoring and bonding

costs, which in turn leads to improvements in corporate governance practices and financial performance (Solomon, 2013).

The second theory is Stewardship Theory. This theory assumes that managers are working to achieve the goals of owners instead of their personal goals (Wesley, 2010). Managers are keen to maximize the interests of the owners more than the owners themselves, because they know that their interests are associated with the interests of the owners (Hong & Nguyen, 2014). Therefore, shareholders must be given the power and tools to provide information to managers which facilitate the performance of managers in the limits to ensure their dependence to shareholders (Heenetigala, 2011).

The third theory is Resource Dependence Theory. This theory based on the premise that organizations are looking for available resources which enable them to continue and develop. According to this theory, the responsibility of bringing the resources such as expertise, counsel and administering advice that enable the organisation to continue are the responsibility of directors (Hillman, Withers and Collins, 2009), where directors are working to link the company with the external factors (suppliers, for example), which are the source of the resources required for survival. This means that the need of the organisation for resources will lead to the development of trade relations between groups.

This study used a secondary data for 44 firms in the wholesale and retail trade sector selected randomly from the FTSE-350 firms listed on the London Stock Exchange. These given to ease of access and reduced costs to obtain. This data were used to study the impact of corporate governance on the financial performance of the wholesale and retail trade sector in the UK for the period from 2010 to 2014. The data were obtained from the University of Huddersfield (FAME) as well as the annual reports obtained from the websites of the sampled firms Internet engine. SPSS software was used to analyse these data. In addition, the return on equity (ROE) and the return on assets (ROA) were used as measures for the performance of these companies. Some control variables (leverage, the size of the firm and the age of the firm) have been used also in order to assist in the interpretation of the relationship between independent and dependent variables.

1.1.2 Research Aim, Objectives and Questions:

1.1.2.1 The Objectives of Research:

The issue of corporate governance has become important after the financial crisis, which led to collapse for many global companies in the world like Dynegy in the US in 2012 and Northern Rock in the UK in 2008. This research seeks to investigate the impact of corporate governance on the performance of the firms through achieving the following objectives:

- To examine the relationship between both firms' performance [return on asset (ROA), return on equity (ROE)] and corporate governance's factors [board size (BS) and frequency of meeting (FM)].
- To identify the type of relationship (positive / negative or there is no relationship).

1.1.2.2 Research Questions

The following research questions were formulated to achieve the above objectives:

- Is there a relationship between the size of board and firms' performance (ROE)?
- Is there a relationship between frequency of meeting and firms' performance (ROE)?
- Is there a relationship between the size of board and firms' performance (ROA)?
- Is there a relationship between frequency meeting and firms' performance (ROA)?

1.1.3 The Outline of research:

This research includes five chapters, beginning with the introduction and ending with the analysis and the final result. The first chapter is the current chapter introduction, which provides background to the study. The chapter

also provides a definition of corporate governance and a brief summary about the most important reports and codes of corporate governance and theories that are used in interpreting the findings of the current study. The introduction also includes the aims of the research in addition to the questions of research. The second chapter is a literature review. This chapter focuses on the most important reports and corporate governance codes in the United Kingdom, which relate to the subject of research. It also discusses the most important theories (Agency Theory, Stewardship Theory and Resource Independence Theory), as well as corporate governance variables that are used as independent variables (the size of the board and frequency of board meeting) in this study. Chapter two also presents a review of the empirical related studies. The following is chapter three (methodology). This chapter includes the framework of the sample and the sample size. It also includes the type of data that is used as a sample for the study, as well as how the data were collected and the method that is used for analysing the data. This chapter also presents the measurement of the dependent variable (return on equity and return on assets) in the sample of the research. In addition, the measurement of the control variables (leverage, firm size and firm age) is explained. The fourth chapter is the analysis of secondary data. This chapter includes the tool that was used in the analysis of data and describes the results of Descriptive Statistics, Multiple Correlation and Multiple Regression. The chapter also

provides a discussion of the findings of the employed analysis techniques in reference to prior empirical studies. The last chapter is the final conclusion of the research. The final conclusion of the search is presented in this chapter including a discussion of the limitations of the research as well as some recommendations for future research.

Chapter 2: Literature review

2.1 Introduction:

This chapter aims to investigate the association between the performance of corporations and corporate governance by answering the questions of the study that have been formulated in the first chapter. However, it is recognised by scholars and academics that it is difficult to explain the associations between the performance of firms and corporate governance. Many theories emerged, such as Agency Theory and Stewardship Theory, and these theories are introduced by academics and scholars as a way to explain this relationship between corporate governance and firms' performance. Several studies such as Hoque, Islam and Azam (2013) and Noor and Fadzil (2013), found that corporate governance factors have a positive impact on the performance of the firm such as the size of the board, audit committee, frequency of meeting, board leadership structure and others (Marashdeh, 2014). These factors can be used to help explain the relationship between corporate governance and companies' performance. In order to discover and determine this relationship, this research aims to review the major relevant theories of corporate governance (agency, stewardship and resource dependency theory) in addition to the codes of corporate governance in the UK (Cadbury report 1992, Hampel 1998, Higgs 2003 and the UK CG Code 2014).

2.2 Theories:

This study adopts three theories which are the Agency, Stewardship and Resource Dependency Theory in order to investigate the relationship between corporate governance mechanisms and the performance of the firm. Below is a review of the three theories used in the literature.

2.2.1 Agency Theory:

Since the appearance of this theory authored by Berle and Means in 1932, a large part of the research about corporate governance depends on (Soltani, 2007). However, the concentration of this theory is on the separation between those who own the firm and those who manage the firm, and this is in order to avoid the problems between agents and principals (Marashdeh, 2014). Where, the relation between both principals (owners) and agents (managers) appears through dealing together. In this relationship, conflicts of interest may emerge due to the differences in interests between shareholders and managers. Shareholders usually invest their wealth or shares in the asset of firms, which permit managers to run the corporations (Hong and Nguyen, 2014). However, the interest of shareholders is to maximise their wealth, while managers run firms to further their personal interest (Hong and Nguyen, 2014). Thus, the conflict of interest arises as result of managers desiring to promote themselves rather than promoting value for shareholders. According to Ching et al (2006), to control the relationship among stakeholders, shareholders and the

management of company, corporate governance requires a set of rules. Thus, it is supposed corporate governance controls and monitors the practices of managers through a variety of mechanisms (e.g. Policies, firm's decisions and monitoring the actions), whether these mechanisms are internal or external, which make managers perform their tasks within a framework of the organisation without ignoring the interest of shareholders (Tornyeva and Wereko, 2012). In other words, the behaviour, compliance, controls and the performance of the corporation are the responsibility of the directors, which means the board of directors should review the strategies of the firm in order to achieve or maximise the returns to shareholders (Ching and et al., 2006). This should be done by complying with the regulations of the firm. According to Denis and McConnell (2003), the goal of corporate governance reduces conflicts of interest through controlling and observing the work of managers and paying rewards and incentives in order to avoid the problems of self-interest. According to Babatunde, Edwin, Adedire and Oluwaremi, (2014), to make governance more efficient and effective, governance should be designed according to the culture of the corporation, and this is important for some companies while it is not important for some other such as firms in developing countries. For example, the owners employ managers to operate the company for their interests and owners compensate managers for their work which are done by paying salary and rewards (Marashdeh, 2014). The performance or

results depend on the efforts of the managers, which cannot be fully observed by shareholders. Hence, they cannot measure the efforts of managers, which influences compensations and rewards. Managers will seek to achieve personal benefits and ignore the interest of shareholders due to lack of incentives (Soltani, 2007). According to Agency Theory, the incentives are considered necessary for managers to harmonize the interest among managers and shareholders, which lead managers to give priority to maximizing the value to shareholders (Hong and Nguyen, 2014). Thus, the interests of managers and shareholders will increase and become more compatible, which increases the trust between them and hence reduces the problems of agency (Marashdeh, 2014). Moreover, the shareholders have contributed to the reduction in problems of the agency because the motivations that they have in addition to the incentives and the ability of monitoring the managers (Marashdeh, 2014).

Agency theory has been used by Marashdeh (2014) and Afrifa & Tauringana (2015) to explain the relationship between firm performance and both board size and frequency of meetings. With regard to the association between board size and firm performance, agency theory postulates that board size as measured by the number of executive and non-executive is a key factor in monitoring board activities with a diversity of experts in the board (Laksmana, 2008). By the same token, frequent board meetings assist to enhance the

quality of management monitoring leading to better corporate performance (Ntim and Osei, 2011).

2.2.2 Stewardship Theory:

Based on this theory, the relationship between the corporation's success and managers is a strong, hence the shareholder wealth is maximised and protected by managers through the performance of the corporation (Yusoff and Alhaji, 2012). This theory, in contrast with the Agency Theory, assumes that managers seek to achieve their interests, not the maximisation shareholder wealth (Duh, 2010). The Stewardship Theory suggests that both managers and shareholders are interested in maximising the performance of the firm in the long-term, which in turn maximises the wealth (Yusoff and Alhaji, 2012). According to this theory, when the responsibilities are divided between the executive and chairman, this may affect negatively the performance of the corporation (Duh, 2010). Thus, this theory proposes that it is essential to remain the respective roles of chairman and executive combined with some to ensure better performance for the firm (Heenetigala, 2011). According to the studies that are conducted by Dalton, Hitt, Certo and Dalton (2007) and again by Dalton (2010), the separation of the role between the chairman and the executive reduces the performance of the corporation in the market, which means that the requirements of regulations related to the separation of the roles may reduce the administrative efficiency of the board

within the organisation. Based on this theory, managers seek to achieve their goals, whether these gains are material, moral, and monetary or owners' satisfaction. This means that their interests go beyond material gains (Babatunde, Edwin, Adedire and Oluwaremi, 2014). Managers are keen to maximize the interests of the owners more than the owners themselves, because they know that their interests are associated with the interests of the owners (Hong & Nguyen, 2014). Therefore, shareholders must be given the power and tools as well as provide information to managers to facilitate the performance of managers within limits to ensure their dependence to shareholders (Heenetigala, 2011). According to Clarke (2004), the Stewardship Theory recognises the importance of separation of the role of chief executive officer and chairman and appoints one manager for this job instead of non-executive directors, because the responsibility in the organisation will be for one person, when the position of chairman and chief executive officer are held by one person. In other words, according to the theory, the lack of the ability to observe the managers and making-decisions less conscious with boards consisting from outsiders member, this could not lead to improve the performance of the firm, at the same time with boards combine a high number of directors from the inside of the firm.

2.2.3 Resource Dependency Theory:

Organisations looking for available resources which enable them to continue and develop. So, access to resources is the goal of resource dependence theory, in addition to the other goal which is the separation between control and ownership (Kyereboah-Coleman, 2007). According to Heenetigala (2011), some researchers such as Lawrence and Lorsch (1967), they have linked this theory to corporate governance. They said, in order to be a successful organization should have an internal structure which is commensurate with the demand of environmental (Heenetigala, 2011). Based on the theory, the board of directors, which is regarded one of the corporate governance structures, it has an impact on the firms in terms of access to resources that are necessary for continuing the performance of the firm. Therefore, according to the role of this theory, the responsibility of bringing resources is the task of directors such as information, buyers and suppliers, which helps organisations to reduce the risk of lack of continuity (Brettel and Voss, 2013). According to Nicholson and Kiel (2007), the personal relationships for managers can help in obtaining an additional information that may help the organisation in the work. According to Hong and Nguyen (2014), one of the benefits that are progressed by directors, who improve the reputation of the firm in business. So, the appointment many directors on the boards provides chances to collect information in a variety of ways, and this what the theory supports (Brettel

and Voss, 2013). Thus, this theory illustrates that the force of organisation represent in the amount of information which it is provided by the directors that guarantee the continuation and improving the performance for the firm (Kyereboah-Coleman, 2007).

Resource dependency theory assumes that firms with large boards are more likely to have a range of stakeholder representation and expertise (Linsley and Shrives, 2006).

2.3 The Corporate Governance in the UK:

The corporate governance has developed and become an important in the UK, especially during the last two decades. This importance of CG relates to the issues that occurred in the past, such as the collapse in some leader firms in the US (WorldCom and Enron), as well as Maxwell in the UK. Where the period of the 1990s has seen a development of CG in the field of trade in the United Kingdom by the researchers, in seeking to develop it till becoming appropriate for the environment of business.

Due to the global issues that occurred, such as some companies fail in addition to the financial crisis and the efforts of some researchers those who are interested in CG, they have been providing some of the reports in addition to some of codes that would strengthen the role of CG, especially after the occurrence of such financial scandals. Where in 1992 has seen the appearance

the report of the Cadbury Committee, which included the principles that would lead to the development of corporate governance in the UK. It has been featured later some other reports such as Greenbury in 1995 in addition to the Hampel Report in 1998. In addition to these reports, many codes of CG issued in the UK such as code (2010), code (2012) as well as code (2014).

2.3.1 The report of Cadbury Committee (1992):

This report was issued in 1992 under the title 'The Report of The Committee on the Financial Aspects of Corporate Governance'. This report included on the definition of CG, which is defined as *“the system by which companies are directed and controlled”* (Cadbury Report, 1992: p15).

The Cadbury committee looked at the factors behind unclear framework that assist directors in keeping the business under the review and control in addition to the weakness in the standards of accounting. The importance of CG increase, especially after the failure of some leader firms. The focus of Cadbury committee was about the board of directors' effectiveness, where the board of directors is considered the internal CG's mechanism. The Cadbury report sets a group of recommendations related to the board's functions, and it emphasises on that, the listed firms' boards should comply with the code. In addition, these recommendations include the appointment of the board directors for firms, as well as the accounting systems. The report also emphasize on the separation of the roles between the chairman and chief

executive officer, and appointment of non-executive directors on the board and also appoints non-executive directors to the audit committee, which follows the board of directors. Whole suggestions and recommendations are in order to provide the control over the performance, which would affect the decision-making.

The discussion above shows the importance of adopting corporate governance by the firms and this what is confirmed by the findings Coles, Daniel & Naveen (2008) and McKnight, Milonas, Travlos & Weir (2009) (represented by board size and frequency meetings), Who reported that companies with good corporate governance system has a better financial performance. Where, the findings of their study showed the existence of a positive relationship between the code's adoption and the performance of the firm.

2.3.2 The report of Hampel (1998):

The issuance of Hampel report came in order to review the recommendations made by Cadbury (1992) in addition to the Greenbury (1995). The report provided recommendations do not differ from that were provided by the Committee for Cadbury. Where, the emphasis of the report was about the Board of Directors' responsibility towards stakeholders, whereas the accountable meeting of directors front of shareholders' firm should be held. The highlighting of the report was also about the investors and their roles in the firm's success by their rights that represent in electing the members of the

board as well as the right of estimating the performance of the board. According to Mallin, Mitleton-Kelly, Al-Hawamdeh and Chiu (2010) who stated that, the recommendations of Hampel report were about continuing with approach that based on CG voluntary instead of that based on the regulations as well as the rules.

2.3.3 The report of Higgs (2003):

This report follows the recommendations of the report of the Cadbury committee (1992), and it focuses on the both types of directors non-executive (NEDs) and executive and their roles in the CG. This focus appears after the failure of many large firms such as Maxwell in the UK. The following recommendations which related to the board are recommended by Higgs (2003):

- The firm's success is board's responsibility and this is done by directing and leading the firm. The board's role should be proposed in order to incorporate them within the code.
- The board's meetings and committees should be mentioned within the annual report, including the directors' attendance. The annual report should be included a description for mechanism that follows by board to run the corporation.
- The size of the board should be suitable. Where, the board's members should be half of them or less of that independent non-executive directors,

however this number excludes chairman of the board. In addition, the executive should be strong on the board.

2.3.4 The UK CG Code (2014):

The UK CG code (2014) is issued in September 2014 by The Financial Reporting Council (FRC). This code is a development for The UK CG code (2012). The code (2014) is a little different about the code (2012), and these differences are in the internal control and risk management, financial reporting, shareholder engagement as well as remuneration. Where, it describes the actions of the board of directors toward the firm. This code identifies a group of standards which ensure best practice for CG with respect to matters such as accountability and leadership, remuneration, effectiveness in addition to the relation between the board and shareholders (FRC, 2014). The UK CG code (2014) recommended a number of recommendations, which relate to the board of directors and these recommendations as follows:

- The head of the firms (the board of directors) should be effective, which regards the responsible about the firm's success in the long-term.
- The size of the board should be appropriate in order to meet the business' requirements.
- The responsibilities should be divided clearly between firm's head (the board and the executive). In the other word, the making decision is not individually.

- The effectiveness of the board and its leadership is the responsibility of the chairman.
- There should be regular meetings of the board to be able to carry out its duties. In addition to a special timetable for matters that require decisions from the board. Also, how the Board works must remember that within the company's annual report.

Theories that are listed previously as well as the reports and the codes of corporate governance in the UK will help to demonstrate the impact of the board and its characteristics on the performance of the corporation.

2.4 Empirical studies:

There are many researches which are conducted by researchers such as Vafeas (1999), Coles et al., (2008); Greco (2011); Tornyeva and Wereko (2012), this is in order to know the impact of corporate governance on corporate performance. So, this part of the research shows some studies which related to factors that are used to investigate from the existence of a relationship between corporate governance and performance of the firm and its impact on the company's performance.

2.4.1 The roles of the board and board characteristics:

2.4.1.1 The board role:

According to Adams, Hermalin and Weisbach (2008) who mentioned that, most of the firms are administered through the board of directors, which is employed by election or appointment by shareholders in order to operate the corporation instead of them (behalf of them). Thus, the board of directors is regarded important to the corporate governance of the firm and through the role that they play in protecting the interest of shareholders. So, according to Adams, Hermalin and Weisbach (2008) the board of directors roles are:

- To determine the objective of the firm.
- To determine firm's values that make firm meet its duties.
- To determine the stakeholders who have association with the corporation.
- To develop and review the strategies of the firm.
- To guarantee that the strategies will be implemented.

2.4.1.2 The characteristics of the board:

According to Anderson, Mansi and Reeb (2004), the Financial Accounting Standards Board (FASB) and The Securities and Exchange Commission (SEC), they emphasize on the role of the board of directors in the supervision process related to the financial accounting. The board consists from the number of members who are elected or appointed by owners, who may not disclose

information that may affect negatively the firm in order to obtain benefits or to stop the interference of stakeholders or limit their interference in the corporation (Anderson, Mansi and Reeb, 2004). So, in order to investigate the impact of corporate governance, this study concentrates in the literature on two characteristics, which are: the size of the board and the frequency of board meetings.

2.5 The size of board (BS):

According to Coles, Daniel and Naveen (2008) previous studies showed that the relationship between the size of the board and performance of the firm is different from company to another. This may be caused by characteristics of the firm such as the number of board of directors (Larmou and Vafeas, 2009). The board of directors has an important role in the governance of firms. Agency theory and stewardship theory as well as dependence theory have identified the board's role in three main roles which are: firstly, administrative control which refers to the mechanism that is provided through the independence of the board, which assists shareholders in controlling associated with the rights of ownership. The second role is administrative empowerment, which indicates to stewardship role that is empowered to management by the board of directors, it can be helped managers to manage the assets of the company with more responsibility. The third role is co-optation, which means the board accessed to the external resources with high

levels by using the co-optation as a mechanism to co-optation the organisations. The most of the debates were about the pressure of board structure for smaller the size of the board. Most of the discussions were about the pressure of board structure for companies that have a small board size. According to Larmou and Vafeas (2009) despite the large size of the board, which helps to facilitate the performance of tasks it becomes useless in the event of the emergence of problems in communication and coordination and thus negatively affect the performance of the board and the company's performance. So, according to Robertson (2016), the number of directors on the board should be at least nine directors including the chairman.

In this context, in order to know the relation that connects between firm's performance and the size of the board, many researches have been carried out. According to Cheng et al., (2008) and Coles et al., (2008), they reported that the relationship between the size of the board and the performance of the firm is negative. Haniffa and Hudaib (2006), they found that the size of the board has a negative relationship with the firm's performance. As well as, the relation between both board size and firm's performance is a negative relationship Brickley, Coles & Jarrell (1997). This means, when the number of directors on the board increase, then the performance of the firm will decrease and vice versa. On the other hand, according to Tornyeva and Wereko (2012) reported that, there is a positive relationship between the size of the board

and the performance of the company, which means when board size is large, the performance of company will increase and vice versa. Coles, Daniel and Naveen (2008) reported that, better performance of the corporation is positively associated with the size of the board of the company. As well as, Lehn et al., (2009) and Yawson (2006) said that, the size of board impacts positively on the performance of corporate, where any increase in the board size will lead to improve the performance of the corporation, unlike that, if the size of the board decrease then the corporation's performance will decrease. According to the above, the research hypothesis is:

Hypothesis (H1): The relationship between the size of the board and the company's performance (ROE and ROA) is a positive relationship.

2.6 Frequency of board meeting (FBM):

A meeting of the board is regarded an important for the firm to monitor and control over all operations of the firm, which assist the board to check and evaluate all operations regularly, and this what is recommended by the code (2014) of corporate governance in the UK. Greco (2011) mentions that, in the literature the meeting of the board is considered one of the indicators that refers to the level of control over the activity, and thus it is regarded as one of the means that contributes to improving the organisation's efficiency board. In addition, Vafeas (1999) indicates that, the frequency of board meeting is important for the board, when the board meeting is frequently, this may

promote the performance of the firm, which leads to increase the interest of shareholders. In the same context, Sonnenfeld (2002) reported that one of the features of the conscientious director is the attendance of meeting regularly. So, according to Aronoff and Ward (1996), the board of directors should meet at least four times in the year which in turn assists in monitoring the work.

In this respect, many studies have been conducted in order to know the relationship between firm's performance and board meeting frequency. According to the study, which is done by Karamanou & Vafeas (2005) the performance of corporate linked to the board meetings of frequency which hold, where there is a positive relationship between them and this means that the performance will increase when the number of board meetings increases. Hoque, Islam and Azam (2013) suggested that, there is a significant positive relationship between the performance of the company and the meetings of the board, which indicates that the company's performance is linked with the frequency of the board meeting. According to Noor and Fadzil (2013), the performance of the firm is associated with frequency board meeting, where board meeting frequency affects positively firm's performance. Unlike the previous studies, the findings of the study, which is carried out by Vafeas (1999) reported that, the relationship between the performance of the company and the frequency of board meetings is a negative relationship and this indicates that the organisation's performance will decrease, if the number

of board meetings frequency increases. According to the previous presentation, the hypothesis of the research is:

Hypothesis (H2): Frequency of board meeting has a positive impact on the performance of the firm (ROE and ROA).

2.7 Conclusion:

This chapter has presented a brief on corporate governance and its relationship with the performance of companies. Where it has presented some theories such as agency theory, stewardship theory and resource dependency theory in addition to the Cadbury Committee report (1992), the report of Hampel (1998), the report of Higgs (2003) and the UK CG code (2014), which have emerged in order to illustrate the importance of corporate governance and to determine its relationship with performance by studying some of the factors such as board size and frequency of the board meeting, that are related to governance and performance. Based on this division, the hypotheses of the research have been formulated and they have been linked to theories that are previously mentioned. In addition, some of the previous studies have been reviewed in this chapter, which are conducted by researchers in order to know the impact of corporate governance on the performance of the companies. In the next chapter, this study will discuss the frame of the sample and its size and the way that will be followed to collect data as well as the method that will be followed for the analysis of the sample.

Chapter 3: Research Design and Methodology

3.1 Introduction:

This research seeks to investigate the impact of corporate governance on the performance of the firms in the UK through studying some factors such as the size of the board (BS) and frequency of board meeting (FBM), which is assisted in determining the relationship between corporate governance and companies' performance. According to Saunders, Lewis and Thornhill (2011) who said that, the most useful technique that helps the researchers to discover or test the relations is quantitative analysis. This technique could provide a high confidence degree in the results that appear as a numerical result (Saunders et al., 2011). Thus, in order to investigate that there is a relationship between factors and firms' performance, identify the relationship and determine the extent of the impact of these factors on firms' performance, this research will be used quantitative analysis technique.

With a view to achieve the aims of the study, secondary data is used in this research. This data covers the period from 2010 to 2014. In addition, in order to avoid any bias during selecting the sample and any contrast in the characteristics between both the sample and the population is by chance, this data was selected randomly obtained from the website of the University of Huddersfield in addition to the annual report of the firms that are provided on

Google engine as (pdf) or on the website of the firms. As the current study investigates the influence of corporate governance mechanisms on firms' financial performance of wholesale and retail trade firms listed on LSE. 46 firms were identified from the FTSE-350 (Industry: Wholesale and retail trade and repair of motor vehicles and motorcycles, Wholesale trade, except of motor vehicles and motorcycles, Retail trade, except of motor vehicles and motorcycles) in the UK for the period from 2010 to 2014. The annual reports of the sampled firms were collected from companies' Websites except two companies (B&M European Value Retail SA and Card Factory PLC) due to the non-availability of their annual reports.

3.2 The aims of the study:

Based on the first chapter, the target of the study is to investigate the impact of the corporate governance on the performance of the firm in the UK. In order to achieve the goal of the study, there are three aims:

- Examine the relationship between both firms' performance [return on asset (ROA), return on equity (ROE)] and corporate governance's factors [board size (BS) and frequency of meeting (FM)].
- Identify the type of relationship (positive / negative or there is no relation).

3.3 The questions of the study:

In order to achieve the goals of the study that mentioned previously above, they will be done by attempting to find answers to the questions of the study:

- Is there a relationship between firms' performance (ROE) and the size of board?
- Is there a relationship between firms' performance (ROE) and frequency of meeting?
- Is there a relationship between firms' performance (ROA) and the size of board?
- Is there a relationship between firms' performance (ROA) and frequency meeting?

3.4 The philosophy of the research:

According to the definition that is given by Collis and Hussey (2013) the philosophy of the study is as a guidance that clarifies the way that research should be done. Where, this philosophy includes the assumptions that are adopted by the researchers and which relates to their view to the world. According to Easterby-Smith, Thorpe and Jackson (2012) the assumptions are useful for researchers in supporting the strategy that will be followed in addition to the methods that has been selected. Moreover, Easterby-Smith et al., (2012) stated that, the design of research can only be achieved by

identifying the philosophy of research in addition to understand it, which is considered a good beginning for scientific research.

There are three main reasons that are determined by Easterby-Smith et al., (2012). Which confirmed the importance of understanding the issues of philosophical. The first reason is, assisting to give a clear image of the research design. Secondly, the researchers can recognise the suitable designs for search by using it. The last reason it is assistance in determining the designs for research and creating them if in need to that to adapt with the research, in case of the circumstance differed.

Based on Collis and Hussey (2013) and Saunders, Lewis and Thornhill (2011) who stated that, the philosophy of the science research could be classified to two frameworks of the philosophies. The first framework is positivism, which is *"underpinned by the belief that reality independent of us and the goal is the discovery of theories, based on empirical research (observation and experiment)"* (Collis and Hussey, 2009, p. 44). The second framework is interpretivism, which is *"underpinned by the belief that social reality is not objective but highly subjective because it is shaped by our perceptions"* (Collis and Hussey, 2009, p. 45).

Based on Easterby-Smith et al., (2002) who mentioned that, the research of social accordance to the paradigm of positivism collects and measures the

facts, hence it seeks to find reasons. In addition to the law, which is based on the interpretation of behaviours, whilst the paradigm of interpretivism seeks to understand as well as explain the variance in constructions in addition to the meanings, which are set by people based on their experience. Collis and Hussey (2013) stated that, the paradigm of positivism indicates to scientific, objective, traditional approach as well as quantitative, while the other paradigm refers to the humanist, subjective in addition to phenomenological approach and qualitative. According to Collis and Hussey (2013) who mention that, given to the assumption of the positivism paradigm that says it is possible to measure social phenomena, this indicates to the possibility of associating the paradigm of positivism with the quantitative analysis methods.

3.5 Methodology of the Research:

Based on Collis and Hussey (2013), the selection of the methodology comes after deciding the researchers the paradigm that is going to follow. In addition, they determine the approaches that methodology can derive from, which are mixed methods approach, quantitative in addition to qualitative approach.

Firstly, mixed methods approach, with approach the researchers another paradigm which is named pragmatic paradigm, and this paradigm uses the quantitative such as annual reports in addition to qualitative information such as interview, in order to gather the data. Secondly, quantitative approach, where the researchers use strategies such as surveys and experiments after

adopting the positivist paradigm, and tools which is determined previously in order to gather the data in addition to statistical methods that are used in analysing the data. Lastly, qualitative approach, in this approach the interpretivism philosophy is utilized by investigators, which means the investigators can utilize other methodologies such as case studies and narrative research.

According to the discussion that is listed previously, this study uses the quantitative approach in gathering and analysing the data, which assists to achieve the objectives of the study as well as to answer its questions.

3.6 The type of research:

The types of research differ, and this what is confirmed by Cooper, Schindler and Sun (2006). Where they argue that, there is no classification for the designs of research.

According to Collis and Hussey (2013), who reported that, classification of research can be in accordance with the purpose of it. Where they classified them into descriptive, exploratory, predictive or exploratory/analytical research. Firstly, descriptive research, this type of research is carried in order to describe the issue or problem exists, and this is done by determining the characteristics of this issue or problem, and then collecting information on. According to Sekaran and Bougie (2010), this type of research is probably

suitable for quantitative data. Secondly, the exploratory research, this type can be conducted when the studies of research are not many or no previous studies, which can be used by researcher to indicate to them with respect to the problem of research. Thirdly, explanatory or analytical research, this type of research seeks to analyse the phenomena in addition to finding explanations and the reasons that led to their occurrence (Collis and Hussey, 2013). Lastly, predictive research, this type of research takes advantage from the explanations that have been suggested by exploratory research to predict the occurrence of phenomena in the future (Collis and Hussey, 2013).

3.7 Frame of the Sample and Selection of the Sample:

3.7.1 Frame of the Sample:

Sampling Frame is defined by Saunders et al. (2011) as a full list includes all cases in the population that will be used in any study. The frame of the sample in this study is the FTSE-350 firms listed on the London Stock Exchange. The source of this framework which the data are collected from the website of the University of Huddersfield (Fame) as well as the annual report of the firms that are provided on Google engine as (pdf) or on the website of the firms.

Because the study in the UK, the FTSE-350 is chosen as a frame of the sample. Due to the small sample size in FTSE-100 and FTSE-250, this study has chosen FTSE-350 as samples in order to obtain answers to the questions that have

been formulated and achieve the aim of the study. The sampled firms are listed on the London Stock Exchange (LSE), which is considered as one of the active markets in the world as other markets such as Nikkei Index in Japan, the Dow Jones Index in the USA and the CAC 40 in France. Thus, these firms which listed on the London Stock Exchange (LSE) must comply fully or partly with the code of the UK corporate governance (2010), which recommended that firms must mention to the arrangements of the corporate governance in the reports that is prepared yearly. As well as, firms must comply with the report of Cadbury (1992). Therefore, it is assumed that these companies apply corporate governance well.

In order to obtain new results, as well as in order to avoid the financial crisis which emerged in the period between 2008 and 2009, that affected the performance of the companies and that may affect the results of the study. For these reasons, this study covers the period from 2010 to 2014, hence the period covered by the study is five years. Due to the importance of the industry (Wholesale trade and Retail trade) and its contribution in increasing the national income through increasing the gross domestic product. As well as, because the growth in the industrial sector contributes to raising the level of productivity, because it is one of the most sectors that has an ability to use technology and modern technology. The industry sector (Wholesale and retail trade and repair of motor vehicles and motorcycles, Wholesale trade, except of

motor vehicles and motorcycles, Retail trade, except of motor vehicles and motorcycles) has been chosen randomly for this study. The figure below shows the frame of the sample.

Figure 1 Sampling Frame (FTSE-350)

Sector	Sample frame	Percentage	Sample
<i>Industry: (Wholesale and retail trade)</i>			
FTSE-100	18 firms	100%	18 firms
FTSE-250	28 firms	100%	28 firms
Total	46 firms	100%	46 firms

3.7.2 A Brief on the Wholesale Trade and Retail Sector in the United Kingdom and Its Importance:

Generally, the sector dealing with wholesale and retail (typically identified as the distributive trades sector) signifies the transitional measures in the allocation of products between the manufacturers and consumers of goods (OECD, 2014). Both retail and wholesale business services are critical for the resourceful and valuable flow of commodities from producers to consumers. Wholesalers are regarded as agents in products marketing since they do not produce or consume the end product, rather market and vend the products to consumers such as institutions, firms, commercial clients, as well as other merchants and retailers (OECD, 2014). The sales strategy practised by retailers

in the sale of products (normally devoid of transformation) includes selling small quantities to the end-user for household or individual use, as well as to institutional and business consumers (OECD, 2014). As stipulated in a study conducted by Garneau et al. (2011), “Services Producer Price Indices” in wholesale and retail sectors ought to concentrate predominantly on the “merchant” distributive business services offered by institutions that acquire and re-trade products, as determined by variations in margin prices. As stipulated by Mosley and Wood (2012), the United Kingdom’s wholesale sub-industry trails behind that of the United States, France and Germany, while the United Kingdom’s retail industry happens to be the third largest globally in terms of sales, coming after the United States and Japan, with an undeviating input of above 5% to the United Kingdom’s GVA (Gross Value Added) (Gambin, Hogarth, Atfield and Li, 2012).

Both retail and wholesale sectors are crucially significant components of the economy of the United Kingdom (Mosley and Wood, 2012). As stated by the Office for National Statistics, with reference to the provisional data of 2010, the yearly turnover of 3 subsectors in the United Kingdom’s economy summed to £1,211 billion (Mosley and Wood, 2012). In the United Kingdom employment sector, the retail industry comprises the leading proportion with approximately 3 million employees, corresponding to 10% of overall national employment (Gambin et al., 2012). While there exists an estimated 29 million

workers in the United Kingdom, retail and wholesale employment contribute 14% of the total employment (Mosley and Wood, 2012). Besides, the retail industry offers a direct input to employment, to GVA, as well as its vital function in delivering services and products to firms and consumers (Oxford Institute of Retail Management, 2007). The industry entails a significant stand in the supply chain. Due to its closeness with the end-consumer, it guarantees an excellent flow of commodities from producers to end-users, hence being termed as the key path to market for diverse economic divisions (Gambin et al., 2012). Literature has confirmed a considerable decrease in labour output in the United Kingdom's retail sector compared to France, the USA and Germany (Treasury, H. M., 2011), with productivity in the same sector improving between 1999 and 2008 (Oxford Institute of Retail Management, 2007). The United Kingdom's retail sector output was £22,464 GVA per employee compared to £14,186 in 1995 (Gambin et al., 2012).

3.7.3 The selection of the sample:

While this study aims to investigate in the relationship between corporate governance and the performance of the corporations in the UK, data was selected in order to identify this relation.

While the components of the frame of the sample were the FTSE-350, the sample of the study was chosen from FTSE-350 (Industry: Wholesale and

retail trade and repair of motor vehicles and motorcycles, Wholesale trade, except of motor vehicles and motorcycles, Retail trade, except of motor vehicles and motorcycles), which is listed in the London Stock Exchange (LSE) for the period from 2010 to 2014. However, two companies have been excluded for lack of their own data, hence the sample of the study was identified 44 out of 46 from FTSE-350 (Industry: Wholesale and retail trade and repair of motor vehicles and motorcycles, Wholesale trade, except of motor vehicles and motorcycles, Retail trade, except of motor vehicles and motorcycles) in the UK for the period from 2010 to 2014. There are many considerations for selection this sample. Firstly, the availability of data and easy access to them. Secondly, the financial reports are provided in GBP, which means they are not in need to change the currency. Thirdly, to avoid the financial crisis which occurred in the period between 2008 and 2009. Fourthly, the firms must conform with corporate governance and disclose their reports yearly.

3.8 The collection of data and analysis:

3.8.1 Secondary data:

Secondary data are data collected for specific purposes. Researchers usually begin testing the secondary information to see whether the problem that they face, it can be solved in part or in whole, without the cost of primary data.

However, these data can obtain for example, from government publications, encyclopedias and periodicals. According to Bernard & Ryan (2010) who reported that, the analysis of secondary data has four sides. These aspects are: firstly, the effectiveness of analysis of secondary data is more than primary data analysis. It is clear that because secondary data gives the specific answers to the questions. Secondly, the time for collection secondary data is less than the time for primary data. Thirdly, the cost of collecting secondary data is inexpensive compared with primary data. Fourthly, the secondary data can be collected by a person, while the primary data the opposite that. It needs more than one person to collect them. And there are other reasons for using secondary data are several. Firstly, it is easy to access to it compared with the primary data sources. Secondly, it provides historical data for previous periods. And the last and important reason for using secondary data is most of previous studies such as Vafeas (1999), Danoshana and Ravivathani (2014), Tornyeva and Wereko (2012), that are used in this research, they used secondary data. So, in order to obtain results can compare with the previous studies, this study also uses secondary data.

For reasons that have been mentioned and to achieve the goals of the research and also in order to answer to the questions raised in this research, this study used the annual reports, which were obtained from the University of

Huddersfield Website through FAME (Financial Analysis Made Easy) and companies' websites.

After collecting the annual reports of the 44 samples companies, the researcher started extracting the data for both the dependent and independent variables into an excel data set (see appendix 2). Data was transferred to the SPSS software for analysis (Descriptive, Correlation and Regression).

3.8.2 Data analysis:

This study adopts the quantitative technique in order to investigate the impact of corporate governance on the performance of the corporations. The SPSS software is employed to analyse data in order to examine this relationship. However, this study uses Descriptive Statistic, Correlation and Multiple Linear Regression from SPSS software to examine the relationship between corporate governance and the performance of the firms. Data (see appendix 2) was classified into three groups. Firstly, dependent variable which includes return on asset (ROA) and return on equity (ROE). Secondly, independent variables which include the size of the board (BS) and frequency of board meeting (FBM). Thirdly, control variables which includes firm size (FS), leverage (LEVE), firm age (FA).

According to Farhat (2014), the following equation which is related to Multiple Linear Regression, shows these variables:

$$ROA + ROE = \beta_0 + \beta_1 \text{ Frequency of Board Meeting} + \beta_2 \text{ Board Size} + \beta_3 \text{ Firm Size} + \beta_4 \text{ Leverage} + \beta_5 \text{ Firm Age.}$$

Where:

- Return on assets (ROA) = Operating profit divided by total assets and multiplied by 100%.
- Return on equity = net income (after distribution of preferred stock dividends but before the distribution of ordinary dividends) divided by total equity (excluding preferred shares) and multiplied by 100%.
- β_0 = the constant.
- Frequency of board meetings (FBM) = the number of meetings of the board of directors annually.
- Board size (BS) = Number of directors on a company's board.
- Firm size (FS) = Natural log of total assets (by using excel data set)
- Leverage (LEVE) = Total debt divided by total assets.
- Firm age (FA) = the company is the number of years since the company was founded.

3.9 Measurement of corporate performance

There are many measures to measure the performance of the organizations, such as Tobin's Q, Profit Margin (PM), Return on asset (ROA) and Return on Equity (ROE). This research employed return on equity (ROE) and return on asset (ROA) as a metric to measure the performance of the firm due to their importance. Hagel III, Brown and Davison (2010) who reported that, most of investors and analysts prefer to use return on equity to measure firm's performance as well as many executives use this measure dramatically and this evidence on the importance this measure. In addition, they mentioned that, return on assets is also considered one of the important metrics for measuring the performance of the company, because the return on asset identifies if the corporation has ability to achieve an appropriate return or not through assets used to support trade activities.

3.9.1 Return on equity (ROE):

Return on equity has been used by many researchers in their researches as metric to measure the performance of corporations such as (Farhat, 2014) and (Alagla and Ali, 2012). So, it is one of the measures that are used to measure the efficiency of the company to generate profits by investing the shareholders' money (Lefort and Urzua, 2008). This measure is considered as an indicator that shows the ability of firm to use its shareholders' resources and its ability to maximise the wealth of owners (Lefort and Urzua, 2008). This

measure is calculated as follows: net income (after distribution of preferred stock dividends but before the distribution of ordinary dividends) divided by total equity (excluding preferred shares), expressed as a percentage. There are several factors which firm's performance depends on them such as industry that follows the organisation, inflation and the economy, however the most important is still return on equity (Tariq, 2010). From the perspective of shareholders, the most significant metric to measure performance is the return on shareholders' equity because it concentrates on shareholder returns (Marashdeh, 2014). According to Monteiro (2006) who said that, return on equity may be the important ratio for investors and should focus on, given the importance of the information it offers. This was confirmed by Miller, Boehlje and Dobbins (2001), information that is provided by return on equity about debt's performance in the structure of capital is useful for analysts. Brown and Caylor (2006) through their studies found that, when the return on equity is low, this indicates that the company is badly governed.

3.9.2 Return on assets (ROA):

Return on assets illustrates how to use the total assets to generate profits for the company, and it is calculated as follows: Net profit of the company divided by the average total assets, whenever this ratio rises, this indicates the efficiency of the management and ability of company on investment its assets (Hong and Nguyen, 2014). Thus, the rate of return on assets could provide the

investors an idea about the company's investment performance of its assets (Noor and Fadzil, 2013). This is also confirmed by (Epps & Cereola 2008) in their study, since the directors are officials about running the company and to take advantage of its assets, the return on assets enables investors to evaluate and determine the ability of the management of the company to perform its tasks efficiently and effectively through the company's governance system. This measure has been used as metric in order to measure the performance of the firm by many researchers in their research and they underlined on its importance, such as Heenetigala (2011) and Jog and Dutta (2004). According to Brettel (2013), in the field of industry, return on asset is appropriate for firms that work in. As well as, Core et al. (2005) suggest that, return on asset is a better metric to measure the performance of the corporation, since the use leverage does not affect it. Brown and Caylor (2006) found that, when the return on assets is high, this indicates that the company is better governed.

3.10 Control Variables:

Many other factors may have an effect on the performance of the companies such as leverage, firm age and firm size.

3.10.1 Firm size (FS):

The size of the company can be measured either total assets or market capitalisation (Kyereboah-Coleman and Biekpe, 2006). Firstly, the total assets,

the size of the company can be measured by using the book value of the assets. Many researchers have used total assets as a measure of the size of companies, such as Pathan et al. (2007) who reported that, there is a significant association between total assets and the size of the board. In addition to, Keil and Nicholson (2003) who found that, there is a positive correlation between board size and total assets. Secondly, market capitalisation, that presents the value of the company in the market, which is estimated according to the circumstances of economic and cash, and based on the expectations of the future (Heenetigala, 2011). The market capitalisation of the firm is calculated by multiplying the current share price in the market in the number of shares outstanding (Heenetigala, 2011). According to Rashid (2007) who examined the relation between market capitalisation and the performance of the company. He found a positive relation between both of them.

Many researchers have studied the relationship between corporate performance and its size such as Tornyeva and Wereko (2012) who found that, the relationship between both the size of the firm and firm's performance is positive. In addition to that, Vijayakumar and Tamizhselvan (2010) who reported that, the size of the firm affects positively the performance of the company. As well as Jog and Dutta (2004) said that, there is a positive relation between the performance of the corporation and its size. Otherwise, other studies showed the opposite. According to Lee (2009) who suggested that, the

relationship between company's performance and firm size is a negative relation. The size of firm a negative impact on corporation's performance (Amato and Burson, 2007).

3.10.2 Leverage (LEVE):

Leverage means assessing the levels of debt of the firm (D'Hulster, 2009). It is calculated by dividing the total debt on total assets, expressed as a percentage. So, leverage allows an organisation to increase the expected gains or reduce losses by investing its own money directly (D'Hulster, 2009).

Leverage and its impact on the performance of the corporation has been studied by many researchers and they concluded different results. According to Harford, Mansi and Maxwell (2008) who investigated in the presence a relationship between leverage and firm's performance, they found a positive relationship between both of them. In addition to, the results which are obtained by Coles et al., (2008) through their studies showed that, the relationship between leverage and the performance of the company is a positive relationship. As well as, Guest (2008) found that, leverage affects positively the performance of the organisation. On the contrary, according to the study that is conducted by Marashdeh (2014), leverage has a negative effect the performance of the company and this refers to the company is not able to collect the debt. This may mean the company is in financial hardship, hence this will lead to the loss of any possibility to get any investment

opportunity (Marashdeh, 2014). Thus, this may affect the company's reputation, which will influence the confidence of investors. Sami, Wang and Zhou (2011) also found that, there is a negative relationship between both the performance of the firm and leverage and this suggests to when leverage increases, the performance of the firm will decrease and vice versa.

3.10.3 Firm age (FA):

The age of the company is the number of years since the company was founded (Saravanan, 2012). According to Black et al., (2006) who mentioned that, age is an important factor and it has an impact the performance of companies. It is true that younger firms grow faster, but the old companies are considered more efficient because the old ones more experienced companies in the market, and this may assist old companies to achieve their goals faster than younger companies (Black et al., 2006).

The relationship between corporate performance and their ages has been studied by many researchers, such as Guest (2009) who studied this relation and found that, there is a positive association between both of them. As well as, Bogan et al., (2008) examined the association between the performance of the company and its age. They concluded that, the age of company positively affects the company's performance. In addition, Cull et al., (2007) also studied the relationship between firm age and the performance of the company in order to know the kind of relationship between them. The results of their

study showed that the relationship between them is a positive relationship. A number of researchers obtained different results, such as Boone et al., (2007) and Borghesi et al., (2007) who reported that, the old companies do not have the ability to respond to changes that may occur in the surrounding environment, which means firm age influences negatively on the performance of the company. Otherwise, based on the results that are obtained by Nieto and Malinero (2006), there is no relation between firm's performance and its age.

3.11 Conclusion:

This chapter has presented the method of research, frame of the sample, selection of the sample, the collection of data and analysis. This chapter has also presented justifications for using secondary data. Also, this research has displayed the measures of the performance that are used in this study. This chapter has also touched upon some factors that may influence on the performance of the firms and the classification of factors that used in. These factors, which are used in the search, they have been split into three types of variables, which are dependent variables, independent variables and control variables. In the next chapter will be applied the statistical tools in order to obtain the results from data that are collected to answer the questions of research.

Chapter 4: Data Analysis and Discussion

4.1 Analysis of Secondary Data:

4.1.1 Introduction:

The identification and knowledge of the impact of corporate governance on corporate performance is the main aim for this study, which was explained previously. After selecting the frame of the sample, secondary data were gathered for this study, which covers the five years from 2010 to 2014. The data, which was collected from firms' annual reports, were analysed by using SPSS software and the results of the analysis are presented in this chapter.

4.1.2 Methods of Statistical Analysis:

The statistical analysis method focuses on corporate governance by studying the following factors: the Size of the Board, Frequency of Board Meetings, Leverage, the Size of the Company and Firm Age, and how this affects the performance of companies, which are measured by Return on Equities (ROE) and Return on Assets (ROA). The method used will assist in achieving the goals of the study by studying the relationship between variables that was pointed out previously. In order to make sure the results of the search are sound, appropriate statistical methods were applied to the data collected, and the concentration of these methods will assess the statistical correlations between all variables under consideration in the questions of the research. In addition,

the multiple regression model will be applied to evaluate the relationships between variables. This method assists in evaluating the correlation between variables used and whether there are significant relationships between them or not. In order to give more reliability for the analysis, the mean and standard deviations have been calculated for the data.

4.1.3 Multiple Correlation:

According to Quirk, Quirk and Horton (2013), researchers can use a simple multiple correlation coefficient as metric to measure the relationship between variables (dependent, independent and control variables). Based on what they said, multiple correlation is employed. Based on what Huberty (2003) said, the total correlation between variables (dependent and independent) represents R. So, R shows if there is an association between variables or not. However, the value of R is never negative, but it can be from 0 to +1. When the value of R is close to 1, the association between variables is significant. On the contrary, when the value of R is close to 0, this means that there is no association between variables. However, R^2 could be obtained by the contrast in the total amount between both variables (dependent and independent).

4.1.4 Multiple Linear Regression Model:

The prediction of the dependent variables (ROA and ROE) through the value of independent variables (the Board Size and the Frequency of Board Meetings)

is the objective of the use of linear regression analysis. In order to achieve the aims of the study, the aim of multiple linear regression finds a model for the relation between variables by using the data. The multiple linear regression is employed in the following equation, which shows how every independent variable value is linked with dependent variable value (Farhat, 2014).

$$ROA + ROE = \beta_0 + \beta_1 \text{ Frequency of Board Meeting} + \beta_2 \text{ Board Size} + \beta_3 \text{ Firm Size} + \beta_4 \text{ Leverage} + \beta_5 \text{ Firm Age}.$$

Where, the unknown parameter β_0 will be the value of ROE and ROA, when all independent variables (β_1 to β_5) are equal to zero (Yan, 2009). While the parameters β_1 to β_5 are the regression coefficients, which presents the alteration in independent variables (Yan, 2009). This means that any change in ROE and ROA can be seen.

4.2 The Findings of the Analysis:

4.2.1 Descriptive Statistics:

The findings that were obtained from the descriptive statistics analysis will be also described in this part of the research. Where this analysis includes each of: mean, standard deviation, minimum and maximum for the variables under study. The observation variables are for 44 firms in the UK listed on the London Stock Exchange for a period of five years starting from 2010 to 2014; hence, the observations are 220.

The results shown in Table 1 on page 61 indicate that the performance of the firms generally is good. This seems clear from the ratio of ROE, which is 29.37%, and this is regarded as a good indicator for the ability of companies to generate profit from their equities. The minimum for ROE is -117.88%, while the maximum is 436.80%. This refers to the difference in the value of the ROE between the firms that have been studied. The standard deviation also shows this difference, which is high at 54.27. The reason for this could be the experience gained, where the research sample includes companies that have varying ages. ROA is another metric used to measure the ability of the firms to generate the profit from their assets. The ratio of ROA reaches a maximum 104.84%, with a minimum -25.58% and mean value of 10.87%. Although the results showed that return on stocks is higher than ROA, the standard deviation showed the opposite. It shows that the degree of ROA is high, at approximately 11.38%.

Based on the findings of the analysis for the size of the board, Table 1 also shows that the number of members on the board is nearly 10. The variation between the value of both maximum and minimum is clear, where the maximum is 21, while the minimum is 5 and this may be due to the large size of some companies. With respect to the annual board meetings the analysis shows that the average number of annual meetings for the board is 8.65%.

However, the difference between the value of both minimum and maximum is large, where the values are 1 and 21 respectively.

With regard to leverage, the average of leverage ratio is about 90%. The percentage means that the firms rely on financing their total of assets on debt and other sources such as banks and dividends that did not pay the shareholders yet. The standard deviation also shows this difference, which is high at 113%. This indicates that there are variations between firms in the sources of funding that they depend on. Also, the table shows that there is a large variation in the value of each minimum and maximum for leverage ratio, which are -207 and 868, respectively. The findings that appeared in Table 1 show that the average of value size of the firms was 6.4 million, with approximately 0.88 standard deviation. Also, based on the natural logarithm of total assets, the results show that there are quite large differences in the size of the firms, where the minimum and maximum values were 4.45 and 9.57 million, respectively. This indicates that there is a variety between the companies surveyed. According to the results, the average age of companies was approximately 33 years, while the standard deviation was 33.38. This is considered as an indicator, which indicates there is a difference in the experience among firms. This seems clearer through the difference between the minimum and maximum values of the age of the firms, which were 1 and 125 respectively.

Table 1 Descriptive Statistics

	BS	FBM	LEV	FS	FA	ROE	ROA
Mean	9.5409	8.6591	89.5414	6.4080	33.4318	29.3741	10.8762
Std. Deviation	2.72535	2.78075	113.49284	.87682	33.38881	54.27192	11.37983
Minimum	5.00	1.00	-207.00	4.45	1.00	-117.88	-25.58
Maximum	21.00	21.00	868.83	9.57	125.00	436.80	104.84

4.2.2 Multiple Correlation:

The results in Table 2 show the association between independent and control variables, which are measured by ROE and ROA. Firstly, the table discusses the association between ROE and the independent variables. The results showed that the relationship between ROE and Board Size is a positive with the value of 0.024. The results in Table 2 also show that there is a positive relationship between both frequency of board meetings and ROE with the value of 0.015. While the results show that there is a significant positive relationship between each of ROE and leverage (0.586**). The findings indicate that the size of the firm has a negative relationship with ROE at (-0.238**), which means that, whenever the size of the company is large, its performance will decrease and vice versa. Based on the results, ROE and the age of the companies are linked by a negative relationship, where (-0.144*). This means that ROE is negatively affected by the companies' age.

Secondly, Table 2 illustrates the existence of a relationship between ROA and the size of the board, and that this relationship is negative at (-0.002). According to this result, the size of the board has an opposite effect on performance. With regard to the relationship between frequency of board meeting and ROA, they are also linked by a negative relation at (-0.072). As for the relationship between ROA and control variables, the table shows, a positive relationship between ROA and leverage ratio at (0.083). This shows that any increase in leverage leads to an increase in performance, while the other control variables have a negative influence on ROA, where the firm size and age were (-0.238**) and (-0.230**) respectively. This means that these control variables are on the contrary of leverage, where any increase in them will lead to reduced performance and vice versa.

Table 2 Correlation

		BS	FBM	LEV	FS	FA	ROE	ROA
BS	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	220						
FBM	Pearson Correlation	-.020	1					
	Sig. (2-tailed)	.766						
	N	220	220					
LEV	Pearson Correlation	.191**	-.064	1				
	Sig. (2-tailed)	.004	.342					
	N	220	220	220				
FS	Pearson Correlation	.423**	-.172*	.231**	1			
	Sig. (2-tailed)	.000	.011	.001				
	N	220	220	220	220			
FA	Pearson Correlation	-.019	.149*	-.050	.146*	1		
	Sig. (2-tailed)	.777	.028	.456	.031			
	N	220	220	220	220	220		
ROE	Pearson Correlation	.024	.015	.586**	-.104	-.144*	1	
	Sig. (2-tailed)	.722	.823	.000	.125	.032		
	N	220	220	220	220	220	220	
ROA	Pearson Correlation	-.002	-.072	.083	-.238**	-.230**	.580**	1
	Sig. (2-tailed)	.982	.289	.218	.000	.001	.000	
	N	220	220	220	220	220	220	220

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.2.3 Multiple Regression:

According to the results shown in Table 3, R's value for both ROE and ROA are (0.640) and (0.354), respectively where that relationship's strength between the variables is measured by R. Thus, this indicates that the relationship between ROE and other variables (size of the board, frequency of board meetings, leverage and the size and age of the company) is acceptable at 64%. Meanwhile, the relationship between variables and ROA is fairly weak, at 35%. While, the percentages of R square 41% and 12%, respectively, explain that ROE and ROA are influenced by the variables under study. While, the ROE and ROA are affected by other variables by 59% and 88%, which are not included in the study.

Table 3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
ROE	.640 ^a	.410	.396	42.16416
ROA	.354 ^a	.125	.105	10.76775

Based on the results that appear in the ANOVA table below, F's value for the first model is (29.77), and this is significant ($p < .001$). This refers to the existence of a relationship between the ROE and one or more variables. With respect to the second model, the outcomes show that the F value is (6.12), and this also seems significant at ($p < .001$). This refers to the existence of a relationship between the ROA and one of the variables at least.

Table 4 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	264598.869	5	52919.774	29.767	.000 ^b
Residual	380452.698	214	1777.816		
Total	645051.567	219			
2 Regression	3548.538	5	709.708	6.121	.000 ^b
Residual	24812.087	214	115.944		
Total	28360.626	219			

a. Dependent Variable: ROE, ROA

b. Predictors: (Constant), FA, BS, FBM, LEV, FS

According to the results shown in Table 5 it is clear that a positive relationship existed between both the size of the board and ROA, of ($\beta = -0.001$, $p\text{-value} = 0.992$). This means that the performance of companies is positively influenced by the size of the board. The table also shows that the frequency of board meeting positively affects ROA. Where the value of β and P were (0.028, 0.607), respectively. This suggests that any increase in the frequency of board meetings will lead to an increase in corporate performance and vice versa. With regard to the control variables, leverage and ROA are associated by a positive relation. This seems clear through the value of each β and P , which were (0.638, 0). Thus, any increase in leverage ratio will drive to increase the performance of the firms. As for the other variables, firm size and firm age, the outcomes show that they are linked by a negative relation with ROA. Where the value of β and P for both variables were (-0.235, 0) and (-0.082, 0.133).

This means that any increase in these variables will lead to a decrease in company performance.

Table 5 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	94.816	24.787		3.825	.000
BS	.011	1.168	.001	.010	.992
FBM	.546	1.060	.028	.515	.607
LEV	.305	.026	.638	11.712	.000
FS	-14.532	3.780	-.235	-3.845	.000
FA	-.133	.088	-.082	-1.509	.133

a. Dependent Variable: ROE

Table (6) shows the association between ROA and board size, frequency of board meetings, leverage, firm size and firm age. We see that the size of the board is correlated positively with ROA (Beta= 0.096, P= 0.178), which indicates that the performance levels increased by increasing the size of the board and vice versa. While the frequency of board meeting showed the opposite of that, as it is linked with ROA by a negative relation at (Beta= -0.089, P= 0.181). Thus, any increase in frequency of board meetings will lead to a decline in firm performance. As for the control variables, both the size and age of the firm are associated negatively with ROA, where the outcomes were (Beta= -0.298, P= 0) and (Beta= -0.166, P=0.013). The company's performance

will be affected in the case of increasing the size and age of the companies, whereby their performance will decline. However, leverage is opposite, as it has a positive relation with ROA at (Beta= 0.120, P= 0.072). This relationship suggests that any increase in leverage will be followed by an increase in performance.

Table 6 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	35.746	6.330		5.647	.000
BS	.403	.298	.096	1.351	.178
FBM	-.364	.271	-.089	-1.343	.181
LEV	.012	.007	.120	1.807	.072
FS	-3.863	.965	-.298	-4.002	.000
FA	-.056	.023	-.166	-2.500	.013

a. Dependent Variable: ROA

4.3 Discussion of the Outcomes

While the previous section included on the findings of the secondary data analysis for the listed firms in the London Stock Exchange (LSE). This section will discuss the outcomes that have been obtained from the analysis of the data. It will also include on comparing the outcomes of this research with the outcomes of previous studies, which were referenced to them in the literature. Where the results of the analysis of the factors (the size of board, frequency

meeting, leverage, firm size and firm age) that were used in this study, they will be presented and compared with the results of previous studies. This will be done in order to answer the research questions, which will be assisted in determining the impact of corporate governance on the performance of companies through them.

4.3.1 Board size

It is one of the factors that has been used as an independent variable in order to determine the influence of the corporate governance on performance. The findings of the descriptive statistics analysis showed that, the overall mean of the members on the board is 9.54. This indicates that the number of directors on the board in most companies in the research sample is a quite large. This may cause by characteristics of the firm such as the board of directors (Larmou and Vafeas, 2009). This was confirmed by Larmou and Vafeas (2009) who said, despite the large size of the board, which helps to facilitate the performance of tasks, but it becomes useless in the event of the emergence of problems in communication and coordination and thus will decrease the performance of the board, which will affect the company's performance. This is also confirmed by the studies which are conducted by Cheng et al., (2008) and Coles et al., (2008). According to Cheng et al., (2008) and Coles et al., (2008), they reported that the relationship between the size of the board and the performance of the firm is negative. Haniffa and Hudaib (2006), they also

found that the size of the board has a negative relationship with the firm's performance.

The results of the analysis showed a difference in the relationship between performance metrics and independent variables. This variance in the relationship may be because some of the companies have a huge amount of debt or the size of the company and age may be are the reason for the differing in the results or both of them. Where the results of the sample analysis in Table 2 showed that, the association between ROE and Board Size is not significant. This result agreed with the findings of previous studies that have been referenced in the literature review. Where, Daniel and Naveen (2008) found that, the association between both the size of the board and the firms' performance is a positive association. As well as, Lehn et al., (2009) and Yawson (2006) reported that, the performance of the corporation becomes better, if the size of the board of the company is large.

While other previous studies have found reverse this result. Where Cheng et al., (2008) and Coles et al., (2008) said that, the size of the board affects negatively on the performance of the firm. As well as, Haniffa and Hudaib (2006) and Brickley, Coles & Jarrell (1997) who concluded that, any increase in the size of the board will drive to decrease in the performance and vice versa.

As for the results that have been obtained by using ROA, which indicated the existence of negative relationship between the size of the board and the performance of the firms. This negative relationship is in line with the findings of Cheng et al., (2008) and Coles et al., (2008), Haniffa and Hudaib (2006) and Brickley, Coles & Jarrell (1997) who reported that the size of the board has a negative influence on the corporate performance. However, the results differed with findings of other studies conducted by Tornyeva and Wereko (2012), Daniel and Naveen (2008), Lehn et al., (2009) and Yawson (2006). The difference between the result that found by this study and the empirical studies that are conducted by Yawson (2006) because of the factors that are used to measure the performance. Where, the studies that are conducted by them used Tobin Q and net profit margin on sales to measure the performance. While, the studies that are done by Tornjeva and Wereko (2012) and Lehn et al., (2009) may differ because of the way that data are collected by. Where, they used the survey, while this study used data from the annual reports of the firms. While, the results that are found by Daniel and Naveen (2008) may vary because the size of the sample.

4.3.2 Frequency of board meeting:

Given to the role that played by this factor in improving the performance of the board during the meeting and discuss issues which related to the work, this factor was added and used within corporate governance factors in order to

know the impact of governance on the performance of the companies. Based on the results that appear in the data descriptive analysis Table 1, the overall mean of board meetings is 8.65. This regarded a good indicator for companies. And this what confirmed by Vafeas (1999) who reported that, the frequency of board meeting is important for the board, when the board meeting is frequently, this may promote the performance of the firm, which leads to increase the interest of shareholders.

Based on the results in Table 2, the frequency of meetings of the Board affects the performance of the companies positively. This is shown by the results of the analysis by using the ROE, while by using ROA the results of the analysis in Table 2 showed the contrary. Where the results indicated to that, the frequency of meetings of the Board affects the corporate performance negatively. This may be due to the difference in the sample itself, where the companies differ in terms of the age, as well as the size.

The results that were obtained by using the ROE are consistent with the finding by Karamanou & Vafeas (2005), Hoque, Islam and Azam (2013) Noor and Fadzil (2013), who reported that, the performance of corporate is positively linked with the frequency of board meetings. However, the finding of the current study contradicts with the finding reported by Vafeas (1999). He found that the relationship between the performance of the company and the frequency of board meetings is negative and this indicates to that, the

organisation's performance will decrease, if the number of board meetings frequency increases.

As for the results that have been obtained by using ROA, which indicated the existence of an inverse relationship between the frequency of the Board meetings and the performance of the firms. It has agreed with the results of the study that was conducted by Vafeas (1999). While these results disagreed with the studies which were carried out by Karamanou & Vafeas (2005), Hoque, Islam and Azam (2013) Noor and Fadzil (2013). In the next chapter, the final conclusion of the research will be presented, in addition to the limitations and recommendations, will also be presented in the next chapter.

Chapter 5: Conclusion and Recommendations

5.1 Conclusion:

In the previous chapter, the results of the analysis of the data collected have been presented. In addition, the SPSS software has been applied to analyse the data for all variables (dependent, independent and control) used in this study. According to the discussion, which was based on the results of secondary data analysis, it is clear the importance of corporate governance in the United Kingdom (evident by impact of Board size and frequency of board meetings on corporate financial performance ROE & ROA) and its role in improving the level of the performance of the corporation. Where academics, researchers and practitioners gave a lot of attention to the Corporate Governance, especially after the global financial crisis that occurred because of the lack of good practice for the Corporate Governance. Given the increasing attention in corporate governance and the role they play in improving performance.

And as the objective of this study is to investigate the impact of the Corporate Governance on firm performance. This study used the following factors which would explain the relationship between the Corporate Governance and performance. The size of the board and frequency of board meetings, which were used as independent variables. The return on equities and the return on assets, which were used as a metric of performance. Leverage, the company's

size and the age of the company, which were used as control variables, which would assist in the interpretation of the relationship between the dependent and independent variables.

In order to achieve the objectives of the research and to answer research questions, this study used a secondary data for 44 firms in the Wholesale and Retail Trade sector from FTSE-350 listed on the London Stock Exchange. This given to ease of access and reduced costs to obtain. Where this data was used to study the impact the Corporate Governance on the performance in the period from 2010 to 2014, and this is in order to avoid the period in which the global financial crisis occurred.

According to the results that have emerged during the analysis of the data, the size of the board and the return on equities have a positive relationship. Where this result agrees with the results of previous studies for Tornyeva and Wereko (2012), Lehn et al., (2009), Daniel and Naveen (2008) and Yawson (2006) who stated that, the size of the board positively affect the performance of companies. While the analysis by using the return on assets pointed to a negative relationship between the size of the board and in the return on assets. This result reflected the outcome reached by the Cheng et al., (2008) and Coles et al., (2008), Haniffa and Hudaib (2006) and Brickley, Coles & Jarrell (1997) who pointed that, the size of the board has a negative influence on the corporate performance. This difference in the results between the two

dependent variables (return on equities and return on assets) may be due to the large size of the company's debt or it may be due to the company's size and age. However, the results were obtained by using the return on equities confirms the research hypothesis that have been formulated as an answer to the first question. The findings based on the ROE referred to the existence of a positive relationship between corporate governance and corporate performance were rejected when using the return on assets ROA.

With regard to the results for the frequency of the board meeting, the findings indicate that the relationship between each of the return on equity ROE and the frequency of the board meetings is positive. This is confirmed by the results of the analysis by using the ROE. This result is consistent with Karamanou & Vafeas (2005), Hoque, Islam and Azam (2013) Noor and Fadzil (2013), through studies which they conducted and they found that, the frequency of meetings of the Board affects the performance of the companies positively. On the contrary, the results that have been obtained by using return on assets showed that, the frequency of meetings of the Board linked by a negative correlation with the return on assets. Which means that the performance will decrease, when the number of meetings increases. This finding agreed with study that is carried out by Vafeas (1999), who pointed that, the relationship between the performance of the company and the frequency of board meetings is a negative relationship and this indicates to

that, the organisation's performance will decrease, if the number of board meetings frequency increases. And thus, according to these results, the research hypothesis that has been put as an answer to the second question of the research, which states that there is a positive relationship between the performance of the companies and the frequency of the Board meeting. This hypothesis have been accepted by the return on equities, while this hypothesis has been rejected by the return on assets.

5.1.1 Research limitations

This study like any other studies faced many limitations. Where the time was one of these constraints limitations. Due to time constraints, this study was only able to use a limited number of corporate governance factors with the knowledge that there are other factors that may have an impact on the result of the study such as the composition of the board, Sales growth and Net profit margin. The difference in the companies within the sample itself that were taken from FTSE-350 from listed firms on the London Stock Exchange, in which these companies vary in terms of size and age. Furthermore, some companies in the research sample reach more than 90 years, while the others did not exceed five years.

5.1.2 Recommendations:

Several implications can be drawn from the findings of the current study. First, analyses of the effect of corporate governance mechanisms on corporate financial performance indicate that corporate governance laws help to mitigate the agency costs and protect shareholders' wealth. However, some of the sampled firms have a weak governance systems represented by small board size and low frequency of board meetings. This highlights the need for regulatory bodies to establish enforcement mechanisms to ensure that corporate managements act in the interests of their shareholders. Second, as the current study focuses only on two variables of corporate governance, future research can expand the scope of the study focusing on other variables of corporate governance such as board composition, role duality and audit committee to provide a comprehensive conclusion regarding the role of corporate governance in improving corporate financial performance.

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Appendix 1 The sample of the study

No.	Name of the firm	Sector
1	Glencore PLC	Industry: (Wholesale and retail trade)
2	Tesco PLC	
3	J Sainsbury PLC	
4	WM Morrison Supermarkets P L C	
5	Astrazeneca PLC	
6	National Grid PLC	
7	CRH Public Limited Company	
8	British American Tobacco P.L.C.	
9	Wolseley PLC	
10	Associated British Foods PLC	
11	Kingfisher PLC	
12	Marks And Spencer Group P.L.C.	
13	Reckitt Benckiser Group PLC	
14	Inchcape PLC	
15	Home Retail Group PLC	
16	Travis Perkins PLC	
17	Booker Group PLC	
18	DS Smith PLC	
19	Next PLC	
20	Sports Direct International PLC	
21	Tate & Lyle Public Limited Company	
22	Dixons Carphone PLC	
23	Burberry Group PLC	
24	Debenhams PLC	
25	Grafton Group Public Limited Company	

26	Cobham PLC	
27	SSP Group PLC	
28	UDG Healthcare Public Limited Company	
29	JD Sports Fashion PLC	
30	WH Smith PLC	
31	Howden Joinery Group PLC	
32	Cranswick PLC	
33	Ocado Group PLC	
34	Senior PLC	
35	N Brown Group PLC	
36	Dunelm Group PLC	
37	KAZ Minerals PLC	
38	AO World PLC	
39	Supergroup PLC	
40	Ted Baker PLC	
41	Diploma PLC	
42	Moneysupermarket. Com Group PLC	
43	DCC Public Limited Company	
44	Lookers PLC	

Appendix 2 Data spreadsheet

No.	Company Name	Year	Total Assets	BS	FBM	LEVE	FS	FA	ROE	ROA
1	N Brown Group PLC	2014	875,500	10	8	56.01	5.94226	50	20.05	11.11
2	N Brown Group PLC	2013	837,100	8	8	58.83	5.92278	49	21.61	11.52
3	N Brown Group PLC	2012	794,000	9	9	65.15	5.89982	48	24.09	12.20
4	N Brown Group PLC	2011	742,800	9	8	65.95	5.87087	47	26.22	12.72
5	N Brown Group PLC	2010	694,700	9	8	77.18	5.8418	46	26.87	12.34
6	Tesco PLC	2014	50,164,000	12	6	108.61	7.70039	67	15.35	4.50
7	Tesco PLC	2013	50,129,000	11	8	91.93	7.70009	66	11.78	3.91
8	Tesco PLC	2012	50,781,000	15	8	91.70	7.7057	65	21.58	7.55
9	Tesco PLC	2011	47,206,000	16	9	86.66	7.674	64	21.38	7.49
10	Tesco PLC	2010	46,023,000	18	8	116.35	7.66297	63	21.76	6.90
11	J Sainsbury PLC	2014	16,540,000	10	8	71.73	7.21854	92	14.96	5.43
12	J Sainsbury PLC	2013	12,695,000	9	8	69.98	7.10363	91	13.74	6.21
13	J Sainsbury PLC	2012	12,340,000	10	8	66.18	7.09132	90	14.19	6.47
14	J Sainsbury PLC	2011	11,399,000	12	8	57.28	7.05687	89	15.25	7.26
15	J Sainsbury PLC	2010	10,855,000	10	8	63.81	7.03563	88	14.76	6.75
16	WM Morrison Supermarkets P L C	2014	10,729,000	7	11	79.22	7.03056	74	-3.75	-1.64
17	WM Morrison Supermarkets P L C	2013	10,527,000	7	10	57.65	7.0223	73	16.81	8.35
18	WM Morrison Supermarkets P L C	2012	9,859,000	7	11	42.02	6.99383	72	17.55	9.61
19	WM Morrison Supermarkets P L C	2011	9,111,000	7	10	29.61	6.95957	71	16.13	9.59
20	WM Morrison Supermarkets P L C	2010	8,760,000	9	11	37.83	6.9425	70	17.34	9.79
21	Astrazeneca PLC	2014	37,578,000	13	19	122.71	7.57493	22	6.35	2.13
22	Astrazeneca PLC	2013	33,749,000	12	6	79.29	7.52826	21	14.06	5.84
23	Astrazeneca PLC	2012	32,934,000	12	14	70.75	7.51764	20	32.51	14.42
24	Astrazeneca PLC	2011	33,994,000	11	7	68.06	7.5314	19	53.20	23.41
25	Astrazeneca PLC	2010	35,849,000	11	6	70.01	7.55448	18	47.29	19.56
26	National Grid PLC	2014	52,210,000	9	10	306.26	7.71775	14	23.07	5.26
27	National Grid PLC	2013	54,510,000	10	11	393.87	7.73648	13	28.55	5.36
28	National Grid PLC	2012	47,180,000	14	11	372.65	7.67376	12	27.70	5.42
29	National Grid PLC	2011	45,844,000	14	10	363.25	7.66128	11	28.96	5.72
30	National Grid PLC	2010	43,553,000	13	10	847.84	7.63902	10	52.23	5.04
31	CRH Public Limited Company	2014	17,126,377	10	8	82.74	7.23367	65	7.48	3.46
32	CRH Public Limited Company	2013	17,108,108	13	8	79.45	7.2332	64	-2.23	-1.05
33	CRH Public Limited Company	2012	17,699,023	8	8	65.05	7.24795	63	6.40	3.18
34	CRH Public Limited Company	2011	17,898,350	13	8	68.64	7.25281	62	6.77	3.32
35	CRH Public Limited Company	2010	18,333,662	13	8	72.05	7.26325	61	5.17	2.49
36	British American Tobacco P.L.C.	2014	26,127,000	13	9	260.02	7.41709	17	87.99	18.56
37	British American Tobacco P.L.C.	2013	26,746,000	12	7	205.85	7.42726	16	87.41	21.68
38	British American Tobacco P.L.C.	2012	27,222,000	13	6	177.25	7.43492	15	75.59	20.75
39	British American Tobacco P.L.C.	2011	27,014,000	12	8	156.31	7.43159	14	60.38	18.25
40	British American Tobacco P.L.C.	2010	27,738,000	13	9	132.75	7.44308	13	47.66	15.82
41	Wolseley PLC	2014	6,748,000	12	6	49.48	6.82918	8	24.19	10.34
42	Wolseley PLC	2013	7,042,000	11	6	43.33	6.8477	7	15.49	6.72
43	Wolseley PLC	2012	7,140,000	9	6	51.48	6.8537	6	6.32	2.77
44	Wolseley PLC	2011	7,878,000	9	8	53.97	6.89642	5	11.58	4.96
45	Wolseley PLC	2010	8,084,000	11	8	65.81	6.90763	4	-10.72	-4.06
46	Associated British Foods PLC	2014	10,382,000	9	8	25.15	7.01628	80	15.85	9.82
47	Associated British Foods PLC	2013	10,293,000	8	8	33.07	7.01254	79	14.28	8.51
48	Associated British Foods PLC	2012	10,222,000	8	10	40.08	7.00954	78	13.04	7.44
49	Associated British Foods PLC	2011	10,167,000	10	9	45.34	7.00719	77	13.17	7.45
50	Associated British Foods PLC	2010	9,288,000	8	8	42.23	6.96792	76	14.42	8.21
51	Kingfisher PLC	2014	9,820,000	10	10	12.94	6.99211	32	12.03	7.73
52	Kingfisher PLC	2013	9,826,000	11	8	14.75	6.99238	31	11.24	7.03
53	Kingfisher PLC	2012	9,608,000	9	10	21.09	6.98263	30	13.94	8.30

54	Kingfisher PLC	2011	9,603,000	9	10	22.41	6.98241	29	12.31	6.99
55	Kingfisher PLC	2010	9,846,000	9	8	42.83	6.99326	28	11.45	5.75
56	Marks And Spencer Group P.L.C.	2014	7,704,000	15	8	114.29	6.88672	13	21.42	7.53
57	Marks And Spencer Group P.L.C.	2013	7,362,000	16	11	126.83	6.867	12	22.51	7.66
58	Marks And Spencer Group P.L.C.	2012	7,182,000	14	10	97.27	6.85625	11	23.58	9.16
59	Marks And Spencer Group P.L.C.	2011	7,161,500	13	10	107.73	6.855	10	29.20	10.90
60	Marks And Spencer Group P.L.C.	2010	7,153,200	13	10	164.95	6.8545	9	32.40	9.82
61	Reckitt Benckiser Group PLC	2014	15,470,000	16	5	77.36	7.18949	7	31.12	24.06
62	Reckitt Benckiser Group PLC	2013	15,099,000	19	5	83.25	7.17895	6	36.53	23.04
63	Reckitt Benckiser Group PLC	2012	15,053,000	20	5	99.92	7.17762	5	40.87	25.30
64	Reckitt Benckiser Group PLC	2011	14,094,000	19	5	90.84	7.14903	4	41.60	25.05
65	Reckitt Benckiser Group PLC	2010	13,342,000	21	5	102.99	7.12522	3	42.23	25.27
66	Inchcape PLC	2014	3,120,700	10	5	31.43	6.49425	56	19.78	8.20
67	Inchcape PLC	2013	3,261,000	9	5	26.46	6.51335	55	18.10	8.16
68	Inchcape PLC	2012	3,280,300	9	6	33.49	6.51591	54	16.97	7.67
69	Inchcape PLC	2011	3,166,700	10	7	45.74	6.50061	53	15.30	6.42
70	Inchcape PLC	2010	3,079,900	9	7	51.02	6.48854	52	15.21	6.24
71	Home Retail Group PLC	2014	4,204,100	6	14	12.23	6.62367	8	2.66	1.69
72	Home Retail Group PLC	2013	4,245,200	7	12	12.58	6.6279	7	4.76	3.06
73	Home Retail Group PLC	2012	4,008,600	7	12	14.49	6.60299	6	3.97	2.60
74	Home Retail Group PLC	2011	4,137,800	6	10	10.15	6.61677	5	9.67	6.41
75	Home Retail Group PLC	2010	4,277,300	5	10	11.29	6.63117	4	10.22	6.85
76	Travis Perkins PLC	2014	4,722,200	11	9	24.50	6.67414	50	12.00	6.81
77	Travis Perkins PLC	2013	4,443,700	6	10	23.35	6.64774	49	12.43	7.03
78	Travis Perkins PLC	2012	4,355,600	6	12	34.91	6.63905	48	13.57	7.19
79	Travis Perkins PLC	2011	4,171,900	6	12	39.84	6.62033	47	12.79	6.46
80	Travis Perkins PLC	2010	4,078,200	5	16	52.85	6.61047	46	10.08	4.83
81	Booker Group PLC	2014	1,255,200	12	12	9.49	6.09871	10	20.47	9.73
82	Booker Group PLC	2013	1,108,700	12	14	11.69	6.04481	9	18.84	9.15
83	Booker Group PLC	2012	936,500	11	12	21.68	5.97151	8	24.58	9.70
84	Booker Group PLC	2011	865,200	11	13	26.95	5.93712	7	21.38	8.25
85	Booker Group PLC	2010	830,500	11	12	45.06	5.91934	6	20.63	6.89
86	DS Smith PLC	2014	3,535,000	9	7	114.49	6.54839	36	14.75	4.72
87	DS Smith PLC	2013	3,606,300	9	7	128.77	6.55706	35	7.97	2.40
88	DS Smith PLC	2012	2,080,500	7	7	47.86	6.31817	34	2.05	1.04
89	DS Smith PLC	2011	1,863,600	7	8	119.70	6.27035	33	17.43	5.48
90	DS Smith PLC	2010	1,534,200	9	8	123.04	6.18588	32	11.58	3.58
91	Next PLC	2014	2,074,300	12	9	333.99	6.31687	12	242.82	33.51
92	Next PLC	2013	1,828,000	11	7	286.80	6.26198	11	233.29	36.46
93	Next PLC	2012	1,819,100	10	9	386.93	6.25986	10	260.22	31.86
94	Next PLC	2011	1,736,600	10	10	343.00	6.2397	9	237.37	31.75
95	Next PLC	2010	1,693,500	10	10	603.97	6.22879	8	378.22	29.84
96	Sports Direct International PLC	2014	1,700,739	8	10	53.18	6.23064	8	29.16	14.08
97	Sports Direct International PLC	2013	1,408,583	8	9	60.05	6.14878	7	32.13	14.71
98	Sports Direct International PLC	2012	1,132,179	8	6	70.14	6.05392	6	32.07	13.38
99	Sports Direct International PLC	2011	916,190	8	8	96.03	5.96199	5	35.92	12.97
100	Sports Direct International PLC	2010	960,376	7	9	172.67	5.98244	4	46.26	12.44
101	Tate & Lyle Public Limited Company	2014	2,527,000	11	9	100.86	6.40261	111	27.65	11.48
102	Tate & Lyle Public Limited Company	2013	2,775,000	11	9	118.15	6.44326	110	29.83	11.14
103	Tate & Lyle Public Limited Company	2012	2,760,000	10	6	113.94	6.44091	109	36.69	13.73
104	Tate & Lyle Public Limited Company	2011	2,948,000	10	13	145.68	6.46953	108	21.05	6.78
105	Tate & Lyle Public Limited Company	2010	3,272,000	11	9	212.45	6.51481	107	-7.38	-1.86
106	Dixons Carphone PLC	2014	2,307,000	13	10	50.80	6.36305	5	7.61	2.90
107	Dixons Carphone PLC	2013	684,700	9	8	292	5.8355	4	0.77	0.74
108	Dixons Carphone PLC	2012	727,000	9	9	104.88	5.86153	3	107.66	104.84
109	Dixons Carphone PLC	2011	788,600	9	9	-207	5.89686	2	7.09	6.82
110	Dixons Carphone PLC	2010	3,715,000	8	4	-45.76	6.56996	1	-25.13	6.6

111	Burberry Group PLC	2014	1,965,500	12	7	26.72	6.29347	17	38.13	22.61
112	Burberry Group PLC	2013	1,746,200	11	7	29.06	6.24209	16	34.48	20.08
113	Burberry Group PLC	2012	1,610,600	8	6	40.94	6.20699	15	42.20	22.72
114	Burberry Group PLC	2011	1,364,400	8	7	39.92	6.13494	14	41.44	21.67
115	Burberry Group PLC	2010	1,139,600	8	7	43.06	6.05675	13	28.13	14.57
116	Debenhams PLC	2014	2,141,500	9	8	106.62	6.33072	9	13.79	4.94
117	Debenhams PLC	2013	2,128,200	9	4	108.14	6.32801	8	20.69	7.24
118	Debenhams PLC	2012	2,091,200	8	3	131.10	6.3204	7	23.95	7.57
119	Debenhams PLC	2011	2,014,300	8	6	122.38	6.30412	6	24.30	7.96
120	Debenhams PLC	2010	2,087,300	9	5	207.79	6.31958	5	27.79	6.70
121	Grafton Group Public Limited Company	2014	1,699,311	8	7	80	6.23027	83	0.88	4.71
122	Grafton Group Public Limited Company	2013	1,663,228	8	7	40.34	6.22095	82	7.78	4.10
123	Grafton Group Public Limited Company	2012	1,667,868	8	8	50.73	6.22216	81	3.36	1.68
124	Grafton Group Public Limited Company	2011	1,611,824	10	7	48.53	6.20732	80	1.04	0.53
125	Grafton Group Public Limited Company	2010	1,725,198	10	7	58.36	6.23684	79	2.58	1.27
126	Cobham PLC	2014	3,583,000	10	9	159.62	6.55425	125	2.19	0.68
127	Cobham PLC	2013	2,419,200	9	9	81.38	6.38367	124	12.13	5.23
128	Cobham PLC	2012	2,371,600	10	11	76.16	6.37504	123	19.55	8.69
129	Cobham PLC	2011	2,283,500	9	11	72.81	6.3586	122	23.00	10.26
130	Cobham PLC	2010	2,570,900	10	11	91.39	6.41009	121	17.60	7.36
131	SSP Group PLC	2014	1,143,200	7	1	242.93	6.05812	8	-5.84	-1.18
132	SSP Group PLC	2013	1,231,100	7	2	91.14	6.09029	7	-117.88	1.32
133	SSP Group PLC	2012	1,203,600	7	1	92.8	6.08048	6	-72.38	1.20
134	SSP Group PLC	2011	1,207,100	7	3	89.23	6.08174	5	-72.12	-3.50
135	SSP Group PLC	2010	1,250,200	7	1	95.11	6.09698	4	78.44	9.03
136	UDG Healthcare Public Limited Company	2014	1,116,836	12	9	88.03	6.04799	66	23.43	8.71
137	UDG Healthcare Public Limited Company	2013	1,062,798	14	12	107.14	6.02645	65	8.33	2.75
138	UDG Healthcare Public Limited Company	2012	919,211	11	14	78.46	5.96342	64	13.77	5.12
139	UDG Healthcare Public Limited Company	2011	806,620	12	10	67.99	5.90667	63	11.62	4.74
140	UDG Healthcare Public Limited Company	2010	809,552	12	11	77.62	5.90824	62	14.78	5.77
141	JD Sports Fashion PLC	2014	599,585	5	9	32.77	5.77785	29	22.27	9.65
142	JD Sports Fashion PLC	2013	502,507	6	9	24.85	5.70114	28	23.18	10.97
143	JD Sports Fashion PLC	2012	487,833	6	9	29.87	5.68827	27	31.33	13.82
144	JD Sports Fashion PLC	2011	367,791	6	10	21.89	5.5656	26	42.71	21.38
145	JD Sports Fashion PLC	2010	306,225	5	8	27.00	5.48604	25	44.11	20.05
146	WH Smith PLC	2014	457,000	6	8	73.27	5.65992	10	110.89	24.51
147	WH Smith PLC	2013	463,000	6	9	71.57	5.66558	9	105.88	23.33
148	WH Smith PLC	2012	467,000	7	9	15.44	5.66932	8	68.46	21.84
149	WH Smith PLC	2011	477,000	7	8	17.31	5.67852	7	59.62	19.50
150	WH Smith PLC	2010	513,000	7	8	14.52	5.71012	6	47.85	17.35
151	Howden Joinery Group PLC	2014	644,800	7	4	52.87	5.80943	27	64.02	29.28
152	Howden Joinery Group PLC	2013	508,900	8	7	26.79	5.70663	26	51.17	26.31
153	Howden Joinery Group PLC	2012	449,000	7	7	161.52	5.65225	25	99.38	24.97
154	Howden Joinery Group PLC	2011	405,500	7	7	255.41	5.60799	24	156.70	27.13
155	Howden Joinery Group PLC	2010	379,500	7	7	868.83	5.57921	23	436.80	26.59
156	Cranswick PLC	2014	459,254	9	11	13.62	5.66205	42	18.09	11.92
157	Cranswick PLC	2013	426,980	8	10	14.65	5.63041	41	17.33	11.11
158	Cranswick PLC	2012	400,157	8	10	23.08	5.60223	40	19.66	12.08
159	Cranswick PLC	2011	377,695	8	12	29.71	5.57714	39	21.32	12.47
160	Cranswick PLC	2010	362,587	8	12	40.40	5.55941	38	22.60	12.07
161	Ocado Group PLC	2014	538,200	11	10	83.82	5.73094	5	3.30	1.34
162	Ocado Group PLC	2013	498,100	12	14	81.52	5.69732	4	-6.18	-2.51
163	Ocado Group PLC	2012	448,300	13	14	71.66	5.65157	3	-0.29	-0.13
164	Ocado Group PLC	2011	361,665	12	14	64.91	5.55831	2	-1.40	-0.67
165	Ocado Group PLC	2010	301,955	10	21	43.40	5.47994	1	-7.11	-4.04
166	Senior PLC	2014	737,300	8	9	39.75	5.86764	81	19.58	10.93
167	Senior PLC	2013	660,400	9	9	42.82	5.81981	80	23.18	12.69

168	Senior PLC	2012	624,300	8	10	54.52	5.79539	79	26.65	13.36
169	Senior PLC	2011	589,300	8	12	59.07	5.77034	78	26.31	12.34
170	Senior PLC	2010	504,000	9	12	70.92	5.70243	77	23.06	10.34
171	Glencore PLC	2014	9,193,610	8	5	332.1	6.96349	5	1.05	26.58
172	Glencore PLC	2013	93,541,000	8	5	152.21	7.971	4	-14.10	-4.55
173	Glencore PLC	2012	64,925,000	9	5	152.74	7.81241	3	3.44	1.02
174	Glencore PLC	2011	55,444,000	9	4	119.99	7.74385	2	13.68	4.65
175	Glencore PLC	2010	50,960,000	11	5	188.66	7.70723	1	22.13	5.44
176	Dunelm Group PLC	2014	322,656	10	8	21.37	5.50874	11	61.13	35.95
177	Dunelm Group PLC	2013	313,193	9	8	63.12	5.49581	10	54.66	34.50
178	Dunelm Group PLC	2012	318,016	9	11	0.14	5.50245	9	46.49	30.27
179	Dunelm Group PLC	2011	256,702	7	10	0.41	5.40943	8	53.21	32.59
180	Dunelm Group PLC	2010	196,223	7	10	0.62	5.29275	7	68.11	39.12
181	KAZ Minerals PLC	2014	3,665,000	9	6	153.45	6.56407	10	-8.02	-2.95
182	KAZ Minerals PLC	2013	5,203,000	9	5	87.98	6.71625	9	-52.28	-25.58
183	KAZ Minerals PLC	2012	6,146,000	10	5	46.47	6.78859	8	-35.22	-22.06
184	KAZ Minerals PLC	2011	7,595,000	9	6	24.73	6.88053	7	18.39	13.75
185	KAZ Minerals PLC	2010	7,023,000	9	5	24.59	6.84652	6	19.39	14.47
186	AO World PLC	2014	128,711	8	12	11.46	5.10962	11	-13.01	-5.87
187	AO World PLC	2013	64,958	8	10	56.23	4.81263	10	67.80	12.54
188	AO World PLC	2012	42,478	7	10	115.60	4.62816	9	-39.37	-5.38
189	AO World PLC	2011	34,513	8	11	52.45	4.53798	8	34.73	8.92
190	AO World PLC	2010	28,022	8	12	68.63	4.4475	7	15.44	3.76
191	Supergroup PLC	2014	366,000	10	9	12.87	5.56348	5	17.41	10.49
192	Supergroup PLC	2013	313,500	9	11	14.68	5.49624	4	23.18	14.37
193	Supergroup PLC	2012	271,500	10	10	18.75	5.43377	3	27.93	16.38
194	Supergroup PLC	2011	232,400	9	11	25.80	5.36624	2	31.37	19.88
195	Supergroup PLC	2010	141,059	10	4	17.80	5.1494	1	22.34	16.11
196	Fed Baker PLC	2014	201,610	6	10	33.27	5.30451	17	34.73	19.31
197	Fed Baker PLC	2013	164,674	6	12	20.59	5.21663	16	29.25	17.56
198	Fed Baker PLC	2012	133,092	6	12	9.64	5.12415	15	28.47	18.22
199	Fed Baker PLC	2011	116,757	6	10	2.03	5.06728	14	31.87	20.75
200	Fed Baker PLC	2010	96,140	6	9	1.86	4.9829	13	29.41	20.29
201	Diploma PLC	2014	246,000	7	7	7.48	5.39094	15	27.01	20.24
202	Diploma PLC	2013	231,500	7	7	6.16	5.36455	14	27.42	20.95
203	Diploma PLC	2012	226,400	7	6	9.53	5.35488	13	27.74	20.32
204	Diploma PLC	2011	221,100	6	6	11.33	5.34459	12	23.89	17.73
205	Diploma PLC	2010	196,700	6	6	9.77	5.2938	11	19.62	13.57
206	Moneysupermarket.Com Group PLC	2014	249,661	12	9	25.47	5.39735	7	44.53	26.42
207	Moneysupermarket.Com Group PLC	2013	249,844	11	9	59.78	5.39767	6	32.20	17.24
208	Moneysupermarket.Com Group PLC	2012	250,576	9	9	7.99	5.39894	5	15.79	12.59
209	Moneysupermarket.Com Group PLC	2011	225,461	10	9	13.96	5.35307	4	14.58	10.77
210	Moneysupermarket.Com Group PLC	2010	248,475	10	8	17.17	5.39528	3	5.88	4.44
211	DCC Public Limited Company	2014	3,704,028,771	11	8	127.40	9.56867	38	16.04	4.07
212	DCC Public Limited Company	2013	3,392,198,932	10	8	109.03	9.53048	37	15.49	4.07
213	DCC Public Limited Company	2012	3,157,752,451	10	10	107.81	9.49938	36	13.16	3.51
214	DCC Public Limited Company	2011	2,749,132,102	11	7	103.51	9.4392	35	20.39	6.09
215	DCC Public Limited Company	2010	2,618,255,552	10	8	118.28	9.41801	34	19.78	5.60
216	Lookers PLC	2014	1,121,000	8	11	156.36	6.04961	104	23.04	5.28
217	Lookers PLC	2013	951,400	9	11	140.65	5.97836	103	19.31	4.61
218	Lookers PLC	2012	832,500	8	11	145.84	5.92038	102	17.36	4.24
219	Lookers PLC	2011	733,400	8	11	110.77	5.86534	101	15.96	4.28
220	Lookers PLC	2010	683,700	8	10	123.62	5.83487	100	17.13	4.55

Abbreviation:

- Return on assets (ROA) = Operating profit divided by total assets and multiplied by 100%.
- Return on equity = net income (after distribution of preferred stock dividends but before the distribution of ordinary dividends) divided by total equity (excluding preferred shares) and multiplied by 100%.
- β_0 = the constant.
- Frequency of board meetings (FBM) = the number of meetings of the board of directors annually.
- Board size (BS) = Number of directors on a company's board.
- Firm size (FS) = Natural log of total assets (by using excel data set)
- Leverage (LEVE) = Total debt divided by total assets.
- Firm age (FA) = the company is the number of years since the company was founded.