

# The Empirical Study of the Effect of Corporate Governance on earnings management based on FTSE350, UK

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## Keywords

Corporate governance, earnings management, earnings quality

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## Abstract

*While the interests of shareholders contradict with the interests of the managers, agency problem appears. However, the principle of the agency theory is to establish the relationship between the shareholders and managers; and this paper relies on the involvement of corporate governance who can resolve the issues between earnings management and the underlying causes.*

*The main aim of this study is to identify the impact of corporate governance on controlling the discretionary accruals based on the FTSE350 by considering the performance matched discretionary accruals model. It has considered the OLS regression model and tested the hypotheses. The findings of this paper reveal the mixed results as board independence, the presence of female in the board, non-executive director's fees and block holder have significant impact whereas board size and board meeting do not have significant impacts on controlling discretionary accruals.*

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First submission received: 25<sup>th</sup> July 2022

Revised submission received: 9<sup>th</sup> September 2022

Accepted: 20<sup>th</sup> September 2022

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## 1. Introduction:

Since the beginning of 21<sup>st</sup> century earnings management has been a huge issue within the corporations, their internal and external stakeholders. In the conference in September 1998, the chairman, Arthur Levitt, of the Security of Exchange Commission proclaimed that "the SEC in no uncertain terms to a serious, high-priority attack on earnings management" (Loomis, 1999, P. 76), hence, they formed a Blue-Ribbon Panel by the Public Oversight Board. There used to be long arguments on earnings management concerns. It is so widespread that the managers and directors of the organisations used to adopt earnings management practice as a tool to meet the expectations of different parties involved in the organisation (Loomis, 1999).

Hence, the relevance of the controlling device of the earnings management has been the area of interest to ensure that the earnings quality has been properly maintained. This research endeavours to estimate the value of discretionary accruals by adopting performance matched discretionary accruals and identifies associations between various factors of corporate governance and discretionary accruals.

This paper aims to analyse the impact of corporate governance on controlling the practice of earnings management in the UK based on FTSE350 companies. First objective is to estimate the value of earnings management. There are various models developed to estimate the earnings management but based on the prior researchers (Wu, 1973 & Klein, 2012), it is identified that performance matched discretionary accruals have more explanatory power than other models; hence this study has adopted the performance matched

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discretionary accruals to estimate the value of earnings management. Second objective of this study is to assess and analyse the impacts of corporate governance variables on controlling earnings management.

### 1.1. Earnings Quality and Earnings Management

Various models have been identified to estimate the value of earnings management. Since Healy (1985), this topic has drawn the attention of researchers, regulators, accountants, auditors, financial analysts, and other users of financial statements. This research has adopted the method of estimating earnings management driven through accruals accounting system; hence, identify the impacts of governance factors on manipulating earnings quality.

Subsequently, the development in the study of discretionary earnings management model has been abundantly moved forward. It was developed by Deangelo (1986) with a minor change from Healy (1986). He assumed that the nondiscretionary accruals are constant. This model has ignored the economic changes of the business. Further, Jones (1991) developed the model where the consideration of changes in revenue and property, plant and equipment was considered to compute non-discretionary accruals. This model was further developed by Dechow, Sloan, and Sweeney (1995) which is also called as modified Jones' model. This model has been developed by inserting changes in total receivables while computing non-discretionary accruals. changes in receivables have been reduced from changes in revenue, in the model.

Modified Jones' model (1995) was later concluded as less powerful model in case of extreme financial performance by Dechow et al (1986); the reason is that in these situations isolating discretionary accruals is an issue. The other important changes in advancing models of earnings management appeared when Kasznik (1999) developed Kasznik model. This model was formed by introducing another independent variable which is changes in net cash flow from operating activities.

After Kasznik Model (1999) another effective earnings management model has been identified as Kothari-Jones Model (2005). This model was formed based on firm performance; hence, this is also called Performance Matched discretionary accruals Model. The contribution in developing models after performance matched discretionary accruals has not been very significant despite changes in IFRS and Corporate Governance codes.

Therefore, the importance of the research on earnings management is increasing. Identifying the better explanatory models of earnings management is equally important. The use of manipulating earnings figures has been very important since the rise of larger corporations. Accounting scandals at the start of first decade of this century has reached in culmination and many corporates has faced bad fortunes due to audit failures around the world for instance; Xerox, Enron, WorldCom, Health South in the USA, Parmalat, Vivendi in Europe, Satyam Computer Services, Sino-Forest in Asia (Abdullahi, 2015).

Hence, Lev (1989) suggests that the earnings quality is major part to be considered in the research on continuous basis since there can be manipulations all the time. The managers and directors consider their discretionary rights and smooth earnings relying on the accounting principles. Hence, the practice of earnings management is undeniable as per the practice of these concepts in today's activities of the corporations (Barnea et al, 1976).

### 1.2. Corporate Governance and Earnings Management

Earnings management does not reflect the true value of the financial performance of the organisation; hence, this sometime is not reliable resource to use as a tool for financial decision-making factor. This practice may misguide the stake holders while making financial decision. On the other hand, if the managers' opportunistic behaviour is avoided, the practice of earnings management may create reliable financial report, hence, may help investors and shareholders in making right decision (Wild, 1996; Dechow et al, 1995). The implications of earnings management can have impact on stock markets regulators,

shareholders, creditors, suppliers, investors, and other concerned stakeholders. The rise in the concept of earnings management have been started since the larger organisation as mentioned earlier have been collapsed.

Hence, all the interested parties are more interested in controlling earnings management from when corporate governance started playing very important role. These are considered as monitoring system to earnings management. The main idea of developing the strategy of putting corporate governance in place is to resolve the issues and concerns of the agent. The agency problem is a tension between the shareholder's interest and manager's interest (Wild, 1996).

The remaining part of the paper gets followed by section 2 which deals with the literature review and hypothesis development. Further, section 3 deals with research design, section 4 embraces the empirical models and discussions. In the end, section 5 includes the conclusions and future research context.

## **2 Literature Review and Hypothesis Development**

Earnings management is basically considered as the manipulative activities of the financial statements by considering various types of strategies like big bath, cookie jar, income smoothing and aggressive accounting. The managers use their discretionary rights to manipulate earnings by underestimating assets, overestimating liabilities in the statement of financial position. Earnings management is connected with the discretionary behaviours of the managers where managers make earnings forecasting, choose the favourable accounting methods and estimate the accruals. Hence, this research has considered the earnings management as proxy of discretionary accruals (Peasnell et al, 2005).

Further, the theoretical approaches in terms of corporate governance cannot be bound in certain fixed framework as there are various point of views in establishing, operating and developing the business activities. However, this study mainly deals with four different types of theoretical framework names as agency theory, stakeholder theory, stewardship theory and institutional theory.

### **2.1 Theoretical Framework**

Agency theory deals with the relationship between the owners and the managers. This theory alludes that all the interested parties are motivated by their own interest; hence, this may cause the contradiction between the parties' interest. For instance, employees are interested to bonuses and pay-rise while shareholders are interested in profit maximisation and wealth maximisation. Therefore, the organisation needs someone who basically represent the agent and play the intermediary role to solve the issues among different parties (Xu et al, 2010) while stewardship theory basically deals with psychological and sociological drive. This is quite opposite concept of agency theory; as per stewardship theory, the objectives of the organisation and the shareholders play key role while the corporate executives perform their role within the organisation. This concept basically rests on empowerment and facilitation rather than control and direct. This theory does not accept the concept of the agency theory because agency theory is more individualistic and relied on the fact that the corporate executives are more motivated with their self-interest (Kankanamage, 2015).

Further, the concept of the stakeholder theory was developed around 1940s and re-emerged in 1980s which defines stakeholder as the party who can influence and gets influenced by the organisations' objectives. Hence, stakeholder incorporates many different parties who have interests on the organisation. There are some stakeholders like employees, investors, customers who are considered as direct stakeholders. Government is considered as indirect stakeholders who indirectly influence the organisation (Hasan & Ahmed, 2012).

Moreover, Institutional theory believes on the organisational rules and regulations; and these rules and regulations actually govern the organisation efficiently. The access to the resources, the activities in the

organisation have to be legitimately managed. However, it cannot be guaranteed that conformation of the rules and regulation actually lead the company successfully (Effendi et al, 2007). In terms of corporate governance as suggested by institutional theory, they are established to ascertain the goals and objectives of the organisation are clearly defined. Corporate governance has to ensure that the business environment, social structure, historical context is in the line with the objectives of the organisation (Effendi et al, 2007).

In conclusion, agency theory has drawn the attention of the most researchers. It has been argued that the managers and directors of the organisation most likely practice the manipulation of the earnings quality because of the opportunistic behaviour. On contrary, the other theories; stewardship theory, stakeholder theory and institutional theories condemn the ethics concerns and anti-social activities in the organisation for personal benefit. Hence, it can be agreed that the adoption of these theories can reduce the practice of earnings management. The roles of corporate governance and external audit can ethically and socially be guided; hence, they can have impacts on controlling earnings management.

## **2.1 Hypothesis Development:**

### **2.1.1 Board Independence**

Fama (1980) has demonstrated in their paper as the board of directors are strong organ of the corporations. Corporate governance structure can be viewed as internal and external governance structure in which board of directors are considered as an internal corporate governance structure. In addition to this, they made an argument on the status of board of the company whose main objective is to make effective monitoring to the management actions.

As the corporate governance is very important, they mainly have to play the role of being vigilant to obtain profit maximisation as well as wealth maximisation. The involvement of non-executive directors primarily is for the purpose of making independent decisions and supporting those ones. They actually play mediatory role in which they work for both shareholders and managers. Moreover, non-executive directors do make overview of the decisions before they are implemented from which they can make a judgement of the impact on each stakeholder (Bao and Lewellyn, 2017).

*H1: The independent boards and discretionary accruals are negatively associated.*

### **2.1.2 Board Meetings**

Aligning with the principle of the best practice of corporate governance, this enriches the overall performance of the organisation. However, the issue in the research is to test whether earnings quality gets affected from corporate governance. Hence, number of board meetings are considered as one of the independent variables in this research which can have impact on earnings quality (Bassiouny et al, 2016).

Other researchers Abdel (2012) and Salch et al (2020) have argued on board meeting as one of the most important aspects in integrating earnings quality as this frequently aware management about the ethical aspects of financial preparation. On the other hand, Zuo and Guan (2014), Lopes (2018) have advised that there is issue on finding right time for meeting for every member of the board. Hence, lack of time management becomes an issue to get collective work from the involvement of all members of the board. However, they have brought same ideas as Abdel (2012) and Salch et al (2020), which signifies the better earnings quality when making board meeting frequently. Shareholder's interests also get addressed due to this practice.

*H2: Board meetings and earnings management are negatively associated.*

### 2.1.3 Board Size

The research on the topic of the impacts of corporate governance on earnings management is continually done since accounting manipulation reached in its pinnacle point. Board size has been chosen as one of the variables which has impact on earnings quality. This independent variable in relation to discretionary variables has been discussed from various dimension by (Bassiouny et al, 2016).

Board size in this study represents the number of members in a board. Hence, agency theory emphasizes on larger size of the board. They believe that larger board size can be vigilant to address agency problems. The management may have been directed for their self-interest. As the members are more in larger boards, they have better efficiency to control agency problems. Moreover, the organisation is governed by the dominance of CEO (Seng and Findley, 2013).

*H3: The size of board and discretionary accruals are negatively associated.*

### 2.1.4 Non-executive directors' Fees

The former researchers (Bhagat et al., 1999) have documented in their report about shared ownership. They argue that higher share ownership helps the organisation to be on the line of agency theory. The directors get monitored sufficiently in this model of the firm. Other statement on the behalf of this topic is found as "NEDs remuneration can be a useful and legitimate way of aligning the directors' interests with those of shareholders" (Hampel Report, 1997, p.10).

Other researcher Eccles (2001) has investigated the agency problem based on larger equity ownership and smaller equity ownership. The report has identified that the larger equity ownership is more favourable to reduce the agency cost and improve the cost effectiveness than the smaller equity ownership. In addition to this, Seg and Findley (2013) also recognises the positive relationship between reducing discretionary accruals and non-executives' ownership.

*H4: The relationship between non-executive director's fees and earnings management is negatively associated.*

### 2.1.5 Block holders' Leadership

As discussed by (Shleifer and Vishny, 1997), block holders have more influences in decision making in the company than small shareholder those are acting externally. These researchers actually started identifying if block holders affect in managing accounting manipulation. Shleifer and Vishny (1997) were those ones who studied on block holders to examine whether they can have impact on agency cost and identified that block holders make very positive impact on reducing agency cost. The reason is that the block holders can effectively control the behaviour of the manager and can monitor in the discretionary rights of the managers (Shleifer and Vishny, 1997).

The data collection is being considered from the company's annual report to collect block holder's ownership. In this research, the data is considered from UK firms, hence this variable to identify is feasible because the listed companies have to disclose the report if an entity has more than 3% shares in accordance with sections 198 to 208 of the Company Act 2006. Therefore, the hypothesis is created as following:

*H5: A block holding of 10% or more; and earnings management are negatively associated.*

## 3 Data and Methods:

### 3.1 Data

The data is collected based on the FTSE350 companies of the UK. The data has been collected mainly from FAME (Financial Analysis Made Easy). The time period used in this research is from 2013 till 2019. It is very widely discussed and many researchers (Bao & Lewellyn, 2017; Abdel, 2012) have identified that in

the economic crisis and economic growth terms, the earnings management practice becomes exceptional. Hence, this study has not included the data before 2012 and after 2019. The reason is that the impact of economic recession in the UK was existing till the first quarter of 2012 while the pandemic has hit the economic condition after 2019 in very different manner.

This study has considered the UK Corporate Governance Code based on which the data has been collected. As the UK Corporate Governance Code keeps on changing, hence, its impact on the financial reporting may result differently. Therefore, measuring the current situation of the earnings management, and the impact on this by corporate governance is very essential. This helps to identify the situations of earnings management and the effectiveness of corporate governance in current business context.

As mentioned by Maurya (2015) the firms listed in FTSE350 index are highly monitored by corporate governance law, hence, the data in relation to this index is quite relevant to measure the effect of both of them on earnings management. The corporations used in this study are listed companies, hence, the data are publicly available.

On the other hand, there are various regulations and compliances the publicly listed companies have to abide; hence, this study has chosen these corporations to identify the impact of corporate governance on earnings management. The regulations set by corporate governance are strongly adopted in these organisations. Hence, these, public listed companies are chosen in this research as the factors of corporate governance can have impact on shaping earnings quality in such corporations.

Further, since the data of all the variables and all the years have not been available via FAME, this study has used other sources MSN, National statistics, Gurufocus, and Nasdaq for data collection.

#### Variables and Measures:

Moreover, there are 6 independent variables and 4 control variables based on corporate governance which has been used to form first regression model. The independent variables used in the study are Board Independence, Board Meetings, Board Size, Non-executive directors' Fees, Block holders' Leadership whereas the dependent variable is earnings management.

#### Earnings management Variables:

In this empirical research, two main factors have been included to examine the impact of corporate governance on earnings management. Firstly, earnings management has been estimated by using performance matched discretionary accruals which considers different variables as below:

$$TAC_{i,t} = \alpha \left( \frac{1}{TA_{i,(t-1)}} \right) + \beta_1 \left( \frac{\Delta Rev_{i,t} - \Delta Rec_{i,t}}{TA_{i,(t-1)}} \right) + \beta_2 \left( \frac{PPE_{i,t}}{TA_{i,(t-1)}} \right) + \beta_3 (ROA_{i,(t-1)}) + \epsilon_{i,t} \dots \dots \dots (1)$$

Healy (1985) and Jones (1991) have used balance sheet approach, as mentioned in equation (1), to calculate total accruals, following formula has been used. This can be mentioned as below:

$$TA_t = (\Delta CA_t - \Delta Cash_t - \Delta CL_t + \Delta STDEBT_t - Dep_t) \dots \dots \dots (2)$$

Where,

$\Delta CA_t$  = Change in current assets in year t.

$\Delta Cash_t$  = Change in cash in year t.

$\Delta CL_t$  = Change in current liability in year t.

$\Delta STDEBT_t$  = Change in current maturities of long-term debt and other short-term debt included in current liabilities between current year t and previous year t-1.

$Dep_t$  = Depreciation and amortisation expense in year t.

Further, the first stage uses balance sheet approach to calculate total accruals as mentioned above while the second stage is used to compute non-discretionary accruals as below:

Estimates of the firm specific parameters  $\beta_1, \beta_2, \beta_3$  are generated using the following model in the estimation period.

$$NDA_{i,t} = \alpha \left( \frac{1}{TA_{i,(t-1)}} \right) + \beta_1 \left( \frac{\Delta Rev_{i,t} - \Delta Rec_{i,t}}{TA_{i,(t-1)}} \right) + \beta_2 \left( \frac{PPE_{i,t}}{TA_{i,(t-1)}} \right) + \beta_3 (ROA_{i,(t-1)}) \dots \dots \dots (3)$$

The heteroscedasticity in this model could be the problem because of the variables involved in the regression analysis due to which the original variables are deflated by total asset at (t-1) as many researchers (Chen & Zhang, 2012; Greene, 2014) admit that variables used in performance matched discretionary accruals models are deflated by average total assets to lessen heteroscedasticity.

Thirdly, discretionary accruals are computed by  $DA_{i,t} = TA_{i,t} - NDA_{i,t} \dots \dots \dots (4)$

While calculating the value of discretionary accruals, this research has not paid attention on the particular event and concentrate on the values of the earnings management. It does not consider the signs while making regression analysis. Hence, the absolute value of the discretionary accruals has been created for the analysis; the reason behind this is because the manipulation can be done in both positive and negative ways to meet the contractual obligations (Warfield & Wild, 1995; Klein; 2012).

### 3.1.1 Corporate Governance Variables

This research has considered corporate governance as a monitoring device of earnings management. Hence, independent variables are the attributes of corporate governance like board size, board independence, board meetings, presence of female in the board, non-executive directors' fees, and block holder those have been considered in this research.

Much research in the past have relied on the performance matched discretionary accruals while estimating the value of earnings management. Performance matched discretionary accruals is basically developed from a cross-sectional regression of the modified Jones Model (1991). While comparing the models, the cross-sectional model by Kothari et al (2005) has been found as more effective than the time series model developed by Peasnell et al (2005).

#### Control Variables:

As per the nature of corporate governance and earnings management, the number of exogenous variables is to be controlled. The reason for that is because the estimation of earnings management gets affected by these exogenous variables.

The firm size is considered as a control variable which is calculated by the log of total asset of the firm. Firm size is considered as an exogenous variable because the larger firms can be more opportunistic to manipulate earnings. Managing earnings downward becomes their prime importance to avoid the political costs (Watts and Zimmerman, 1983). Further, according to Zalata & Roberts (2015), they identified that the user of the financial statement finds really difficult to detect overstatement of assets, liabilities and other components of financial statements because of the larger firm size and the nature of the complexity. In contrast, there is other evidence (Atik, 2009) which argued that the larger firms have less opportunity to manipulate earnings quality as the governance of the internal processes and external processes are strongly monitored.

The other exogenous variable is considered as the profitability of the firm which is measured by return on asset (ROA). As per the findings by Jaggi et al. (2009), ROA has negative relationship with earnings management while other researcher Kasznik (1999) has identified positive relationship between return on asset and earnings management. However, in this research, both firm size and return on asset are considered as non-directional prediction because of the different types of impact on earnings management.

Further, the other exogenous variable is considered as Leverage (LEV) as Bekiris & Doukakis (2011) identified that earnings management can be negatively impacted by firm capital structure. On the contrary, the other researchers Klein (2012) has identified that firm capital structure is positively associated with earnings management; hence, the sign of the coefficient has been ignored in this research.

**3.2 Model Specification:**

This paper basically deals with testing hypothesis by considering OLS (ordinary least square) analysis (e.g., Zona et al., 2018) to identify the impact of corporate governance on earnings quality.

Hence, the empirical model is formed as below:

$$DAC_{i,t} = Boardsize_{i,t} + BoardInd_{i,t} + BrdMeet_{i,t} + FemaleBoard_{i,t} + NEDFee_{i,t} + Blockholder_{i,t} + Leverage_{i,t} + CFO_{i,t} + ROA_{i,t} + Size_{i,t} \dots\dots\dots (5)$$

$DAC_{i,t}$  = Discretionary Accruals (for firm i during the time t) in its absolute value based on performance matched discretionary accruals Model, where discretionary accruals have been considered as a proxy of earnings management. Further, this paper presents the empirical analyses, comprising the descriptive statistics, bivariate correlations & multivariate regression.

Independent variables used in the above equation can be summarised as below:

Boardsize = The total number of directors in the board committee.

BoardInd = The independence of the board measured dividing total board members by independent non-executive members.

BrdMeet = The number of meetings held in an accounting period by the board members.

FemaleBoard = The percentage of female presence in the board.

NedFee = The total amount in a year paid to each non-executive director.

Blockholder = This is regarded as a dummy variable. The value one is considered when the external stockholder owned 10% and more; zero otherwise.

Control variables used in the above model can be summarised as below:

Leverage: This is ratio between the long-term debt and total asset.

CFO: This is calculated dividing cash flow from operating activities by value of total asset of the beginning of the accounting year.

ROA: The percentage of return on Asset.

Size: This is log value of total assets at the end of the accounting period.

**4 Empirical Analysis**

**4.1 Descriptive statistics and Analysis**

**Table 2: Descriptive statistics**

Descriptive Statistics										
	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
<b>Panel A: Dependent Variable; Earnings management</b>										
DAC	1520	0.0002	1.3384	0.4882	0.3139	0.0985	0.125	0.063	-1.050	0.125
<b>Panel B: Independent Variables; Corporate Governance</b>										
BoardSize	1520	3.0000	16.0000	9.8289	2.4524	6.0142	0.104	0.063	0.089	0.125
BoardInd	1520	30.0000	70.0000	48.7529	8.0342	64.5476	0.210	0.063	-0.376	0.125
BrdMeet	1520	4.0000	8.0000	4.7533	0.9153	0.8377	1.229	0.063	0.974	0.125



FemaleBoard	1520	13.3333	100.000	46.9460	14.0105	196.2955	0.391	0.063	0.065	0.125
NEDMeet	1520	0.0000	1.0000	0.7368	0.4405	0.1940	-1.077	0.063	-0.842	0.125
NEDFee	1520	26341.7	98135.8	51963.9	15177.4	230352111.3	0.544	0.063	-0.577	0.125
Blockholder	1520	0.0000	1.0000	0.7007	0.4581	0.2099	-0.877	0.063	-1.232	0.125
<b>Panel C: Control Variables</b>										
Size effect	1520	0.0000	1.0000	0.2493	0.4328	0.1873	1.160	0.063	-0.655	0.125
ROA	1520	-63.2525	311.173	8.3777	18.5684	344.7854	9.581	0.063	129.379	0.125
CFO/TA	1520	-6.2717	0.9915	0.0231	0.4065	0.1653	-3.821	0.063	47.596	0.125
Growth	1520	0.1330	850.713	29.1752	49.1624	2416.9384	8.803	0.063	107.791	0.125
Leverage	1520	-211.8571	330.92	0.6223	16.3619	267.7121	13.255	0.063	301.635	0.125
Valid N (listwise)	1520									

The concern on earnings management has been immensely an important topic of discussion since 2000 and after. Currently, the discussion on this topic has not prioritised, hence, this research has been done to re-open the discussion on earnings manipulation. From above table, the absolute minimum value of earnings management is 0.001 which is similar value to the previous research done by Klein (2012) based on the US firms. However, the absolute minimum value is quite far away from the absolute mean value (0.49) which is different from the researchers of the past researchers (Habbash, 2011). The difference between minimum value and mean value was quite closer in the research done in the past literatures as the minimum value is 0.0001 and the mean value is 0.05. Hence, it can be said that the practice of earnings management in recent days are widely made. Similarly, the absolute mean based on Canadian firms are found as 0.06 and 0.03 based on the French firms by Klein (2012). Moreover, it can be argued that the various values of discretionary accrual between firms signifies that the different managers have different level of opportunistic behaviours and different level of discretionary rights.

## 4.2 Correlation Coefficient

Table 3: Correlation Test

Correlations											
	DAC	BoardSize	BoardInd	BrdMeet	FemaleBoard	NEDFee	Blockholder	Size effect	ROA	CFO/TA	Leverage
DAC	1.0										
BoardSize	0.0	1.0									
BoardInd	0.0	.115**	1.0								
BrdMeet	0.0	-	-.065*	1.0							
FemaleBoard	0.0	-	0.0	.146**	1.0						
NEDFee	.092**	.116**	-.066*	0.0	0.0	1.0					
Blockholder	0.0	0.0	.382**	-	0.0	-	1.0				
Size effect	.132**	0.0	-	0.0	0.0	.058*	0.0	1.0			
ROA	0.0	0.0	.104**	-	0.0	.084**	0.0	-	1.0		
CFO/TA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.06*	0.0	1.0	
Leverage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

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

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

There is no concern on the collinearity matter in this model; hence, other independent variables have not any type of threat. While making close observation on the value of Pearson correlation, it has been identified that the highest correlation which is about -0.567; between board independence and presence of female members in the board but this value is considered as adoptable and advised as no harm for the model. While analysing the research paper by Abdul Rahman and Ali et al (2006), it has been found that they have considered 77% of the Pearson correlation value and reported that there is no harm in this matter. This concerns have been importantly dealt and identified that many prior researchers have similar type of concerns. Gujarati, (2003) has recommended that the threat of the multi-collinearity threshold is 0.80. Some Other Researchers Soyemi, (2020) have claimed that the threshold of the multi-collinearity concerns between the independent variables can be up to 0.9. Hence, the Pearson Correlation in the above table signifies that there are no issues in between independent variables.

### 4.3 Hypothesis Testing

**Table 4: Multivariate Analysis**

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	0.412	0.093	4.439	0
	BoardSize	0.001	0.004	0.133	0.894
	BoardInd	-0.002	0.001	-1.431	0.015
	BrdMeet	0.006	0.009	0.669	0.503
	FemaleBoard	-0.6	0.001	-0.82	0.039
	NEDFee	0.000002	0	3.28	0.001
	Blockholder	0.041	0.019	2.168	0.03
	Size effect	0.094	0.019	5.045	0
	Leverage	0	0	0.796	0.426
	CFO/TA	0.004	0.02	0.188	0.851
	ROA	0	0	0.639	0.523

The table 4 incorporates the variables of corporate governance. These variables are included in the first model to identify the impact of the variables of the corporate governance on the earnings management. The estimation of the discretionary accruals has been identified; therefore, the proxy of earnings management has been considered as discretionary accruals.

In the table the positive and negative sign represents the relationship of the independent variables with the dependent variable. This study has adopted earnings management as an independent variable. The table also presents the P-value. This p-value actually represents the significance of the relationship between an independent variable and dependent variables.

As this table presents the  $\beta$ -value and P-value, the hypotheses test has been made clearer and easy to make interpretation. This clearly shows the type of relationship; whether positive or negative, between

dependent and independent variables. The hypotheses created based on each independent variable has been individually dealt as the following.

#### 4.3.1 Board Independence

*H1: The relationship between independent boards and discretionary accruals is negatively associated.*

As mentioned in the hypothesis testing, the proportion of the board independence and the earnings management have negative relationship to each other. As per the result found in the table, coefficient  $\beta = -0.002$ , and P value is less than 0.05). This study finds that board independence has significantly negative relationship with earnings management. This finding is similar to the findings based on Anglo-American countries.

Further, the result found in this research is similar to the previous research based on UK data by Peasnell et al. (2005). In the finding they have identified that the independence of the board directors is negatively related to managerial discretionary rights, especially while performing income-increasing earnings management; hence, they perform the task to eliminate reporting losses and earnings reductions.

These results contradict with findings of some Asian countries like Malaysia (Atik, 2009), and Hong Kong (Jaggi et al, 2009). The results based on those countries have been found as no significant relationship between outside directors and earnings management.

#### 4.3.2 Board Meetings

*H2: The relationship between Board meetings and earnings management is negatively associated.*

As per the expectations, the result is not consistent with hypothesis. It is positive coefficients, and p-value is greater than 0.05 which represents that there is no significant relationship between reducing earnings management and increasing number of board meetings.

There are various opinions on this variable of the corporate governance. The meeting held by the board is not to control the practice of abnormal accrual, it is rather to focus on the urgent manner of the business planning and decision making. This was interpreted and alluded in research by Wu (1973) and Lorsch & MacIver (1989). As per their papers, it has been explained that the meeting is held in urgent matter, hence, there is increment in the numbers of meeting if the business complexities grow. Hence, it cannot be concluded that the number of meetings causes the improvement in the earnings quality.

While making observation on the result of the impact of board size on earnings management, it can be argued that the number of members in the board have negative impact on earnings management, on the other hand, the number of meetings of the board have no significant relationship in earnings quality. Hence, the conclusion can be as the larger numbers of the directors, it is difficult to come to the conclusive decision, hence, the frequency of meetings can be higher since the constructive and potential decision out of the meeting have not been achieved. Therefore, the fruitful decision can be occurred with a smaller number of members in the board. Considering board size in this study, generally, the board size in FTSE350 companies have been larger, the board meetings have not been effective.

Despite of the above interpretation, it cannot be in explained that activities of managers are less effective in terms of delegating meetings to constrain the abnormal accruals. The regressors used in this study cannot ensure that this is the perfect outcome as quantitative research methods cannot measure capture other many measures of the board diligence (Bepari et al, 2013).

### 4.3.3 Board Size

*H3: The relationship between board size and discretionary accruals is negatively associated.*

The hypothesis, in terms of the relationship between board size and abnormal accrual has not been rejected; hence, it is argued that there is no significant relationship between board size and earnings management. This study is in the line with the research evidence from Taiwanese and Malaysian firms by Kao & Chen (2004) and Abdul and Ali (2006) respectively. Bhattacharya et al (2015) have also commented that the board size is significantly related to the manipulation of earnings quality and the recommended that they are negatively associated.

However, this finding is different from Cimini et al (2015) who have identified that the board size constrains the practice of earnings management, hence, have negative relationship to each other. The argument is that the larger board comprises expertise from accounting and finance background, experienced people. They also argued that the inclusion of more members attracts the opportunity to involve the independent directors.

Despite of the hypothesis being rejected in this study; it cannot be argued that the smaller sizes of the board are less effective. If the comparison is made from the relationship of abnormal accruals to board meetings and board size; the similar kind of effect have been found. The number of meetings in this study have not been found as effective corporate governance variables to constrain earnings management and so the board size do. There are compatibilities in board size and board meetings in relation to controlling earnings management, which concludes that there is no significant relationship between abnormal accruals and board size.

### 4.3.4 Board Gender diversity

*H4: The relationship between number of women in the board and earnings management is negatively associated.*

The hypothesis overlooks the view of the negative relationship between the presence of female members in the board. This study finds that there is significant relationship between the female presence and earnings quality. The findings in this study supports the view that the gender diversity can restrain the earnings management. This research has identified that there is negative relationship between the earnings management and the presence of female in the board. The P-value is quite lower than 0.05; hence, the result presents that the presence of female in the board has negative and significant relationship with earnings management.

Some research based on past papers have identified that there is positive impact on earnings quality by the presence of female members in the board. Huse & Solberg, (2016) argue that the nature of women is risk averse; and concludes that gender is the factor which is effective in ethical aspects of the business activities.

Further, it has not been identified, so far, in the research based on UK corporations, that the presence of women in the board has impact earnings quality. This may be because the presence of female members in the board is not still sufficient so that they can make significant impact in this matter.

However, the presence of women has been increased in recent days which is supported by this study too. In the descriptive study, the average value of the presence of female in the board is 46.7% which was only 33% as per the research conducted by Maurya, (2015). Hence, this study advises that to make significant impact on earnings quality, the presence of women and their activities still need to be increased in the board.

### 4.3.5 Non-executive Director's Fees

*H5: The relationship between non-executive director's fees and earnings management is negatively associated.*

This study based on FTSE350 companies of the UK, has identified that non-executive director's fees are positively associated to earnings management and this is in significant level where Coefficient = -0.000002

and P-value = 0.001. This finding is consistent with the notion that committed independent outside directors are effective monitors of accrual management and that firms with highly paid outside directors tend to be less involved in accrual management.

This paper identifies that non-executive directors are motivated by the fees paid to them. The time they spend and the contribution of the knowledge they make for the companies are mainly relied on the amount of the fees the organisations pay to them. They actually attend meetings, bring ideas from their past experiences and knowledges which indeed require to be paid reasonably. Therefore, it can be concluded that this finding has supported the view of UK regularity 231 recommendations on Greenbury's guidance, which stated that the non-executive directors have to be paid for their time, knowledge, experience, effort and contributions.

The other researchers Adams and Ferreira (2008) have also identified similar results in their study where they have collected the larger panel date. They studied the impact of attendance of the directors on earnings management, where data were collected from 2005 to 2012 from publicly listed firms of Australia. They have concluded that the directors have to be financial rewarded for their contribution in the organisation so that they can be positively motivated to improve the earnings quality.

#### **4.3.6 Block holder's Ownership**

*H6: The relationship between a block holding of 10% or more; and earnings management is negatively associated.*

While analysing data, in the table above, it has been identified that block holder's ownership is positively related to the value of discretionary accruals, and they are highly significant. The coefficient is 0.041 and p-value is 0.030. This finding is not on the line with hypothesis as the hypothesis is created as they have negative relations. This finding contradicts while the hypothesis presents the negative relationship with reducing earnings management.

As recommended by Zang (2011) the shareholders who owns higher level of stock in the organisation exerts pressure to the management in terms of lowering the opportunistic behaviour of the managers. This actually reduces the agency problem, but this study argued that there is positive relationship between the manipulation of the earnings quality and block-holder's ownership. This approves that the block holders are not effective attribute as suggest by agency theorists in terms of reducing the agency problem and controlling the earnings management practices.

In terms of the relationship between earnings management and block holders' ownership, the prior researchers have not contributed much in this context. However, Pratiwi and Siregar (2019) have made empirical study to investigate the impact of block holder's ownership on the quality of earnings, but their study also has not found the controlling impact on the discretionary accruals. Further, in context of the UK organisation, Goergen et al, (2005) have developed the opinion that the corporate governance system who has practised the institutional ownership, managerial ownership and block holder's ownership, they create their specific type of agency cost and problems.

The findings of the research have been supported by Zhong et al, (2007) who has identified that the block holders' want to control the earnings management if their control on the management is higher than the shareholders; at the same time, these block holders may be influenced by obtaining higher return, hence, they may exert pressure to the management for earnings manipulation. He has studied about this topic based on US firms; 1994 to 2003. They have concluded that the block holders do not have power to control the earnings management when they have small portion of the shares; hence, cannot have influence on earnings quality. However, when they obtain significant number of shares, they actually put pressure on the management to obtain the higher return, hence, higher manipulation.

## 5 Conclusion and Areas For Future Research

There are substantial numbers of research being carried out under the effects of corporate governance on the discretionary accruals. The findings in most of the research are mixed. The outcome in this study too is mixed. Board size and female board have insignificant relations with earnings management whereas board independence, board meetings and non-executive directors' fees have negative significant relationship with discretionary accruals.

The research has considered the performance matched discretionary accruals model to estimate the value of earnings management. This study presents the importance of board independence in terms of reducing the practice of earnings management. The relationship is highly significance at 5% confidence level.

The research provides some major contributions to the existing discourse of this topic area. First, the data is collected from FTSE350 companies who are abided to follow the UK corporate governance code which actually helps to measure the impacts of corporate governance on earnings management realistically. This provides specific insights under the topic area.

Secondly, this research mainly considers the corporate governance variables rather than other factors like another institutional environment and structural. This study also highlights the importance of internal corporate governance in terms of controlling the values of earnings management. Further, the institutional environment and the discretionary rights of the managers can influence in controlling earnings quality.

This research has made several contributions in the field of earnings management and corporate governance. Firstly, this research has embraced the independence of the board directors as one of the variables. Maintaining independent board becomes tougher part for the board. Hence, this research has investigated the influence of board independence on earnings management in FTSE350 companies. Secondly, this study creates the awareness by which users of financial statement can go through additional scrutiny while making financial and non-financial decisions. Thirdly, the reliance on financial statement is very crucial for the users of financial statement. This research actually alerts the stakeholders and other users of the financial statements and also provide the credibility on the financial information of the company. Fourthly, these outcomes also alarm the regulators and policy makers to bring changes in adopting the rules and regulations of the accounting principles and corporate governance principles while preparing financial statements.

This research is entirely based on the data of the UK, FTSE350. In the future, the research can consider other countries and make comparative analysis to identify what sort of corporate governance can effectively monitor the earnings manipulations. The real earnings management has not been under the consideration in this research which could be further investigated and find the impacts of corporate governance on real earnings management.

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