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## **Roles of board of directors and earnings management across SMEs life cycle: Evidence from the United Kingdom**

**Running head:** Roles of board of directors and earnings management across SMEs life cycle

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## **Roles of board of directors and earnings management across SMEs life cycle: Evidence from the United Kingdom**

### **Abstract**

**Purpose:** This study aims to examine the role of the board of directors in affecting earnings management practices across SMEs life cycle.

**Design/methodology/approach:** Data is collected from 280 SMEs listed on the London Stock Exchange during the period of 2009-2016. Fixed effects regression analysis is used to test the hypotheses.

**Findings:** This study shows that the impact of the board of directors' roles on earnings management practices varies depending on the SMEs life cycle stage. In the introduction, growth, and decline stages of SMEs, the wealth creation role of the board is negatively significant with earnings management, while the wealth protection role of the board is positively significant in the growth and maturity phases. Results suggest that the board's responsibility to create wealth deters early-stage earnings management strategies, while protecting shareholder interests, in latter stages, leads to a decrease in earnings management.

**Practical implications:** The findings suggest that corporate governance should be customized to the specific stage of the SMEs life cycle. Additionally, different life cycle stages may impose different requirements on corporate boards to shape the effectiveness of these mechanisms and constrain earnings management practices.

**Originality/value:** This study offers one of the first insights on the UK SMEs to understand how board functions and earnings management practices vary over SMEs life cycles. It will offer important information on the effect of board features on earnings management in SMEs in the UK, and is anticipated to be of importance to policymakers, regulators, investors, and practitioners.

**Keywords** board of directors, the United Kingdom, discretionary accruals, earnings management, wealth creation, wealth protection, SMEs

## 1. Introduction

Effective corporate governance system plays essential role in deterring earnings management (EM) behavior (Bajra & Cadez, 2018; Pucheta-Martínez et al., 2016). The role of the board of directors is to oversee the management of a company and to make decisions that serve the best interests of the company and its shareholders. This includes setting strategic goals, evaluating the performance of senior executives, and ensuring the company complies with legal and ethical standards (Fama and Jensen, 1983; Hillman and Dalziel, 2003; Zahra and Pearce, 1989). Thus, board characteristics can serve as an effective corporate governance tool that helps in reducing information asymmetry, hinder the opportunistic behavior of insiders and mitigate managerial incentives targeting the manipulation of reported earnings (Chen et al., 2015; Pham et al., 2019). Empirical evidence shows that characteristics of board of directors is important in preventing reporting errors in the accounting and hence protect the shareholders' interests (e.g., Bergstresser and Philippon, 2006; Cornett et al., 2008; Bouaziz et al., 2020; Klein, 2002).

Although, previous literature provides evidence of how board characteristics influence EM practices in large enterprises (e.g., Abdou et al., 2021; Alves et al., 2023; Chatterjee & Rakshit, 2023; Chee et al., 2021; Cho & Chung, 2022; Cornett et al., 2009; Elsheikh et al., 2023; Goel & Kapoor, 2022; Liu & Lu, 2007;; Mensah & Boachie, 2023; Mensah & Onumah, 2023; Musa et al., 2023; Prencipe & Bar-Yosef, 2011; Widagdo et al., 2022; Roy & Alfian, 2022; Sáenz González & García-Meca, 2014; Sehrawat et al., 2019; Sultana et al., 2017) and EM practices in SMEs (Balachandran et al., 2021; Chansarn & Chansarn, 2016; Chiu et al., 2020; Duarte, 2022; Gajdosikova et al., 2022; Gandía & Hugué, 2021; Höglund & Sundvik, 2016; Huang et al., 2022; Maglio et al., 2020; Martínez-Martínez et al., 2021; Park, et al., 2021; Séverin & Veganzones, 2021). However, there is little research examining the link between the roles of board of directors and earning management practices among SMEs (e.g., Chiu et al., 2020 and Maglio et al., 2020) and none specifically examines such relation among SMEs operating in the UK context. According to the UK Parliament's business statistics, there were 5.9 million SMEs in the UK, accounting for over 99% of all businesses (Ward & Rhodes, 2014). Moreover, the European Commission's SME Review found that the gross value added of SMEs is €473 billion or 49.8% of the UK economy (Ward & Rhodes, 2014). Despite the high number of SMEs and their importance to the UK economy, there is noticeably little empirical evidence on the role of boards of directors in SMEs in the UK (e.g., Shehata et al., 2017). On the one hand, extant evidence exists on how the role of board of directors can differ based on the organizational life cycle (e.g., Amin et al., 2021; Bonn & Pettigrew, 2009; Filatotchev et al., 2006; Shaheen et al., 2020) but it fails to provide how such role can affect EM practices in SMEs life cycles. Thus, moving outside the context of large enterprises and examining a single characteristic of board of directors (e.g., Belot & Serve, 2018; Shehata et al., 2017) to explain how wealth creation and protection roles of board of directors can affect EM across SMEs life cycle remain an unexplored research area. This study consequently addresses this gap in literature. Our study further expands the literature in the area of characteristics of board of directors and EM as follows.

First, prior research has analyzed the relationship between various board characteristics and earnings quality (Abousamak & Shahwan, 2018; Elsayed, & Elshandidy, 2020; Elsayed et al.,

2022, 2023; Habbash et al., 2010; Osma and Noguer, 2007). However, previous research on the relationship between board characteristics and earnings quality has largely focused on large companies in developed countries. Hence, the findings may not be generalizable to “SMEs” (Bajra and Cadez, 2018; Bouaziz et al., 2020), motivating us to expand the analysis to a different context, (i.e., SMEs) which is a necessity to take a new look at evidence that could be revealed. Second, corporate boards are primarily designed to watch over and safeguard shareholders from self-interested managers, according to agency theoretical perspectives (Fama & Jensen, 1983). However, as part of their fiduciary duty, corporate boards must also help managers make decisions that will maximize profits (Filatotchev et al., 2006; Pearce & Zahra, 1992). In line with Filatotchev et al. (2006) and Kim and Ozdemir (2014), we refer to the aspects of effective corporate governance that minimize shareholder risk from managerial opportunism on the downside as “wealth protection” and maximize shareholder value from a firm's upside potential as “wealth creation”. The board can fulfil its fiduciary duty through both activities. However, little knowledge is available on how firms pick and prioritise governance functions (Kim and Ozdemir 2014), how both “wealth protection” and “wealth creation” board roles are emphasized in SMEs and whether it may have different impacts on EM. Hence, our study addresses such gap in previous literature. Third, it seems reasonable to see the novelty of contribution provided by our study in terms of recognizing that firms are heterogeneous (Uhlener et al., 2007), ranging from start-ups, small to large established ones. In line of such thought, boards in small enterprises are typically expected to carry out less formal advisory duties, compared to boards in large enterprises, as well as other enterprising tasks, such as service duties like establishing the company's reputation, developing and/or approving organizational strategy, and networking for the business (Van den Heuvel, 2006). Additionally, when small businesses mature throughout the course of their existence, the nature of this position may vary (Filatotchev and Wright, 2005). Therefore, it is crucial to make sure that the right governance structures and procedures are in place and that changes to these structures and mechanisms happen on time as small held enterprises develop. Considering such an argument, it is crucial to address how roles of board of directors might affect EM in SMEs as they evolves over their life cycles.

Using a large sample of British SMEs for the period 2009–2016, the present study examines EM practices across the SMEs life cycle stages, as well the effect of the different roles of board of directors over these practices. In doing so, we classify the firms included in the sample according to their life cycle stage into either: introduction, growth, maturity, or decline. EM practices are calculated using the Modified Jones Model. The fiduciary role of boards along two dimensions: (1) boards as wealth protectors and (2) boards as wealth creator are determined. The main results of the study reveal that the effect of board of directors’ roles on EM in SMEs differs among stages. In specific, results show negative relationship between wealth creator role of board of directors and EM during the introduction, growth, and decline stages. No evidence, on the other hand, exists to support the relation between wealth creator role of board of directors and EM in the maturity stage. Results also show that there is a significant relationship between the wealth protector role of board and EM in the growth and maturity stages. Without any evidence to support the relationship in introduction and decline stages.

The present study offers several key practical implications. The results of this study indicate that the effectiveness of the roles of the board of directors can vary according to the SMEs life cycle. Thus, the structure of the board of directors of SMEs should be tailored to the stage of the firm to effectively reduce EM. The findings also suggest that regulators and policymakers should reevaluate their policies and reforms to provide a suitable code of corporate governance for firms of different sizes, as certain rules and regulations may be effective in large firms but not in SMEs and vice versa. Managers, practitioners, and investors should therefore consider individual dimensions of effective board characteristics to enhance corporate governance practices in deterring EM. The study's results also highlight that board size may effectively deter EM, and investors, regulators, and practitioners should consider this as a key factor in improving financial reporting quality.

The current study contributes and adds to the body of knowledge about EM and corporate governance. First, few studies have given much consideration to SMEs and have instead concentrated on large companies in developed nations. Hence, there is a need for more studies in this field given the significance of SMEs to many economies (Abor & Adjasi, 2007; Smit, 2015) and specifically to the UK economy. As a result, the study adds to the limited amount of existing research on the topic in the context of SMEs, which advances the academic literature on EM and corporate governance. Second, since, little is known about how enterprises choose and rank governance functions (Kim and Ozdemir 2014), how, in specific, SMEs emphasize "wealth protection" and "wealth creation" board duties, and whether these roles may have different effects on EM. The findings of the study, hence, provide one of the first insights on how the board's roles and EM practices evolve over different life cycles of SMEs.

The structure of the rest of the paper is as follows; in section 2 we discuss relation between EM and the different roles of the board of directors, section 3 contains our research methodology, sample selection and data collection, and variables measurement discussions. We present our results in Section 4 and discussion and conclusion in Sections 5 and 6 respectively.

## **2. Literature Review and Hypotheses Development**

Studies that address effective internal governance practices are agency-based, where the board of directors mainly monitor and protect shareholders from self-interested managers (Fama & Jensen, 1983). However, the board of directors as part of their fiduciary role, is expected also to provide managers with advises to assist with profit maximizing decisions (Filatotchev et al., 2006). Hence, effective internal corporate governance mechanisms can be achieved, as referred to by Filatotchev et al. (2006), through minimizing downside shareholder risk from managerial opportunism as "wealth protection" and through maximizing shareholder value from the upside potential of firms as "wealth creation". Moreover, the two governance functions are not mutually exclusive, since the structure of the boards can serve either functions, only one or neither.

Literature discusses these two functions of corporate governance using various terms. In this study, we follow the terms put forward by Filatotchev et al. (2006) and use wealth protecting versus wealth creating as two aspects of corporate governance. Following these thoughts, the next section is devoted to discussing both functions and how they can affect EM practices in relation to organizational life cycle. Since evidence exists that supports that the effectiveness of role of board can vary based on organizational context such as organizational life cycle (Filatotchev & Nakajima, 2010).

## **Wealth Creation Role of board of directors and EM**

The role of wealth creation is achieved by blending diverse knowledge and skills. Effective strategic management requires a board with a mix of directors (Kim & Ozdemir, 2014). The board plays a key role in decision making related to wealth creation (Filatotchev & Nakajima, 2010). To execute this role, the board's composition should encompass directors from diverse backgrounds, including nationality, gender, occupation, and education (Kim & Ozdemir, 2014). Resource dependency theory suggests that a diverse board can bring various advantages and resources to the company. With a range of talented directors, the board can provide a wealth of experience and knowledge. The human capital theory also supports the idea that directors with varying backgrounds, skills and gender can enhance a company's performance. A diverse board can result in better resource utilization, improved management performance, and stronger financial results (Farak & Mallin, 2017).

There are two perspectives of wealth creation role. One perspective is that the board enables the company to have different external social networks that help the company to have financial and legal support. Another perspective is that the board offers advisory and consultancy roles that helps in selecting, formulating, and implementing corporate strategies (Kim and Ozdemir, 2014). Accordingly, the board can be effective in the strategic management process. Kim and Ozdemir (2014) argued that increasing levels of diversity is positively associated with increasing level of performance. Additionally, board diversity leads to an effective decision-making process due to the different options provided by diverse directors and different searches and opinions. In addition, board diversity increases creativity and innovation, enables better understanding of complex environment, provides different numbers of alternatives and solutions, which can reduce EM practices (Kim et al., 2009).

Diverse board can reduce EM practices especially when board is diversified in terms of gender since female are more trustworthy than males and they are less likely to involve in any manipulation of financial figures (Farak & Mallin, 2017; Kim and Ozdemir, 2014). Additionally, gender diversity boards can increase board independence and better monitoring (Gallego-Alvarez et al., 2010). Gallego-Alvarez et al. (2010) find that gender diversity board might involve less in EM practices, which means that board diversity board can provide much reliable financial figures and report.

In addition to gender diversity, diversified boards in terms of nationality can also reduce EM. External directors have advanced abilities to detect any manipulation in financial reporting, they have more career concerns, and they consider reputation in their behavior, which makes them avoid any tolerance in misreporting (Masulis et al., 2012). National diversity board increased board independence, which leads to improvement in monitoring and control. Since independence is negatively associated with EM, when the board has foreign directors, EM decreases. Foreign directors increase independence as they have low relationship with top management, so they can act independency and better check managers' actions in financial reporting (Frijns et al., 2016). On the other hand, diverse boards can be costly; high knowledgeable and reputable directors are financially expensive, and it is difficult to find them. Additionally, diverse boards are time consuming as it increases the time of decision making and limit fast actions (Kim and Ozdemir, 2014).

Filatotchev & Nakajima (2010) report that the effectiveness of role of board could vary based on organizational context such as organizational life cycle. Moreover, O'Connor and Byrne (2015) suggest that the quality of corporate governance is not constant but will be improving throughout the corporate life cycle. Firms need different corporate governance codes at different stages of their life cycle, since wealth creation and protection roles of corporate governance change as the firm matures (O'Connor & Byrne, 2015). For instance, the introduction stage requires a prominent level of resource role, i.e.: wealth creation (Filatotchev et al., 2006). During such a stage, the agency problems do not exist accordingly, the resources are particularly important to increase flexibility and ensure firms growth and survival in the long term. In growth stage, firms can have a reduction in the wealth creator role of BOD due to market floating and growth opportunities, such practices can help in developing financial and non-financial resources. Eventually, the importance of resource role decreases in growth stage (Filatotchev et al., 2006). While in the maturity stage, the role of wealth creator is low due to the existence of high level of cash flow (Filatotchev et al., 2006). Finally, during the decline stage, there is a low level of income or even some level of loss, so the role of resources is low. Based on the above discussion, the development of the first hypothesis is as follows:

**H1: There is a relationship between the wealth creation role of board of directors and EM across the organizational life cycle stages.**

### **Wealth Protection Role of board of directors and EM**

The role of the board of directors is critical in ensuring that managers do not engage in activities that would result in private benefits at the expense of shareholder wealth. This protection role of the board is instrumental in mitigating agency problems that result from the misalignment of interests between managers and shareholders (Kim & Ozdemir, 2014; Smit, 2015). To address agency problems, companies should implement incentive mechanisms based on performance for managers (Filatotchev & Toms, 2003; Kim & Ozdemir, 2014). The protection role of the board serves to monitor and control the actions of managers, ensuring that they are acting in the best interest of shareholders (Filatotchev & Nakajima, 2010; Kim & Ozdemir, 2014;).

The board structure for the protection role should include a high number of directors and ones that are more independent. It also should separate the roles of CEO and chairperson. Additionally, the wealth protector board should provide a suitable board size to ensure effective monitoring and protection of shareholders' interest. Such monitoring can increase the level of company's performance (Filatotchev & Nakajima, 2010). Klein (2002) finds that effective monitoring can constrain EM practices and ensure that the reported earnings are accurate and reflect the actual level of firm's performance. The number of board members is an essential element of factors that can affect earning management. Evidence exists supporting that the number of board members should be high to mitigate earning management (e.g., Azzoz & Khamees, 2016; Kamran and Shah, 2014).

Regarding the effect of board size on EM, there are opposing opinions. On the one hand, if the number of board members were small, the monitoring of the managers would be of small power as well. Hence, there would be a high chance of witnessing more information asymmetry

problems and EM incidences (Gonzalez & Garcia-Meca, 2014). Accordingly, in such a case, a larger number of board members would be favorable to have better supervision and monitoring on the management team. Thus, better company performance and less risk of financial manipulations will result. On the other hand, excessive board size could act as an obstacle for effectual and competent communication, which might result in decreasing the power of management supervision. Likewise, Garven (2015) suggests that high number of board members would result in more independent directors with more corporate and financial experience, therefore, they would be better at preventing EM.

On the other hand, Waweru & Riro (2013) propose that there is a positive relationship between the board size and EM, this implies that the smaller the board size, the less discretionary accruals, and much more informative financial statements. Similarly, Azzoz & Khamees (2016) conclude that companies having a big board size should reduce the number of board members to increase the function of monitoring and to assess the company performance that in turns increase the quality of earnings and capability in discovering EM. However, excessive monitoring and controlling can have some negative effects such as decreasing managers' incentives and increasing communication time between board and managers. Accordingly, companies should choose the appropriate level of monitoring that satisfies protection role. Controlling roles consists of different activities such as evaluating and assessing performing CEO and firm's management, providing management incentives, and evaluating company's overall performance (Filatotchev & Nakajima, 2010).

Waweru & Riro (2013), on the other hand, discuss that board independence is the most essential element in board composition that has influence over the quality of company's financial reporting. The controlling and monitoring will be effective when the independent directors serve on the board. The level of EM is associated with the high level of controlling. Accordingly, the existence of independent directors reduces the level of EM (Azzoz & Khamees, 2016; Garcia-Meca & Sanchez-ballesta, 2009). Klein (2002), Chang & Sun (2009), Cornett et al. (2009) and Xie et al., (2003) support that the independent directors reduce EM practices because they are concerned about their reputation and the chance of obtaining new directorships in other companies. Furthermore, non-executive directors have special technical knowledge and can spot opportunistic reduction in certain types of expenses such as research and development expenses. Hence, they can easily identify cases of real EM. Evidence exists that companies with stronger board independence can witness fewer accounting manipulations and frauds (Cornett et al., 2009). Furthermore, the separation of position of chairperson and CEO is crucial to provide effective control (Kamran & Shah, 2014). It is also important for the reliability of the financial information since most of the fraud cases occur in companies where the CEO and chairperson positions are the same (Kamran & Shah, 2014).

On the other hand, according to Filatotchev and Nakajima (2010), the organizational context, such as the organizational life cycle, might affect the efficacy of the role of the board. For instance, during the introductory stage, firms are less likely to engage in EM practices as no pressure exists to meet profit or reported earnings. Firms only focus on investment and do not have to reduce spending on innovation and marketing activities to meet targeted earnings. Accordingly, the monitoring role of board (wealth protector role) can be low. In growth stage, low level of EM is also expected (Nagar and Radhakrishnan, 2017).



Growing firms are concerned with established good corporate governance to be able to get external financing and increase profitability which is important to increase firm value (O'Connor & Byrne, 2015). In such a stage, the importance of wealth protector role increases since the ownership structure of the firm changes and more external shareholders exist. Accordingly, the importance of monitoring and controlling role increases to ensure alignment of interest and detect any earnings manipulations. In the maturity stage, firms apply high quality corporate governance rules and achieve high levels of resources, indicating that the protection rule is important compared to the creation role (O'Connor & Byrne, 2015). Mature firms are more likely to engage in EM practices to reach targeted earnings (Nagar and Radhakrishnan, 2017). Nagar & Radhakrishnan (2017) and O'Connor & Byrne (2015) argue that agency conflicts in mature firms are severe due to the existence of surplus in free cash flow, which encourages the manager to make benefits. Hence, the role of wealth protector board remains essential. Finally, during the decline stage, firms suffer from high commercial risk, low level of income or even some level of loss, both low levels of return on investment and demand for firms' products and services. Moreover, firms can face liquidity problems resulting in increasing the level of EM (Ebadi, 2016).

Based on the above discussion, the development of the second hypothesis is as follows:

**H2: There is a relationship between the wealth protection role of board of directors and EM across the organizational life cycle stages.**

### **3. Research Methodology**

#### *3.1. Sample Selection and Data Collection*

The study utilizes a sample of 1939 firms listed on the London Stock Exchange, of which only 829 met the European Commission's criteria for small and medium enterprises (SMEs), with less than 250 employees and assets under 50 million Euro. These companies are selected as they represent a diverse range of industries and account for a substantial portion of the UK's economic output. Excluded from the study are financial sector firms, as the discretionary accruals model does not apply to this industry. Additionally, 511 financial institutions and 38 firms were dropped due to data unavailability, resulting in a sample size of 280 SMEs for which all necessary data is available. The study period spanned eight years from 2009 to 2016<sup>1</sup>, with a preliminary data set of 2240 firm-year observations, with outliers being removed resulting in a final data set of 1822 firm-year observations. Table 1 presents the final sample classified by industry over the specified time.

***Insert Table 1 here***

To collect data about firms' board of directors, we merged ORBIS database, available by Bureau van Dijk, which is widely used by researchers, as well as the annual reports of the

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<sup>1</sup> The researchers started the data collection, during the first quarter of 2017. Initial screening showed that dataset can be collected over the period of eight years extending from year 2009 till year 2016. Such period is selected as it included all the available information for key variables that are crucial for the model estimation required in the subsequent data analysis.

firms included in the sample. ORBIS dataset is a collection of business records on public and private firms, and it includes panel data for millions of firms around the world. Since ORBIS collects firm-level information over an extended period; it allows the construction of longitudinal panels. Board characteristics data is collected from BoardEx database as well as firms 'annual reports.

### 3.2. Variables Measurement

#### 3.2.1. Independent Variables

In this study, two independent variables are employed to assess the impact of wealth protection and wealth creation on EM. These variables consist of composite scores of various board characteristics, as proxy measures of the board's wealth protection and creation abilities. To assess the wealth protection aspect, the literature provides three commonly used measures: (1) the ratio of independent directors on the board, (2) the presence of a CEO-Chairman duality, and (3) board size. To assess the wealth creation ability, the study focuses on two key characteristics identified in the literature: (1) board national diversity and (2) board gender diversity. These variables have been discussed extensively in previous research (Cannella & Shen, 2001; Grosvold & Brammer, 2011; Hillman, 2005; Hillman & Dalziel, 2003; Kim et al., 2009; Wiersema & Zhang, 2011; Zahra & Pearce, 1992; Zhang & Rajagopalan, 2004).

**Board as Wealth Protector Variable.** There are different measures of wealth protection role of board of directors (Cannella & Shen, 2001; Zhang & Rajagopalan, 2004; Wiersema & Zhang, 2011). We use three measures commonly used by researchers which are ratio of independent directors, CEO duality and board size. In our study the board's wealth protection variable is a composite score calculated through the combination of these three different board composition measures.

**Board Independency.** Independent directors are those ones who are not owners or even employed in the firm (Daily et al., 2003; Finkelstein et al., 2009). Fama and Jenson (1983) believe that independent directors are important in any firm since they can provide the entity with more knowledge and expertise, and which will increase firm performance. Independent directors also increase monitoring and controlling over the board so the level of EM can be decreased during their existence. Board independence ratio is measured by total number of independent directors divided by the total number of board members (Al-Shaer & Zaman, 2016; Azzoz & Khamees, 2016; Conyon & He, 2017). This measurement's theoretical minimum and maximum values are 0 and 1, respectively. In our dataset, both of these extremes are present.

**CEO Duality.** Chairman is responsible for appointing board of directors, however, in some companies; the CEO can take the role of chairman and fills the position. This duality gives the CEO more power (Ciampi, 2015; Petra, 2005), since he can have two conflicting roles; the role of being CEO and thus responsible for managing the different activities of the firm and second role of being the chairman of the board whom responsible for overseeing and monitoring the direction of the firm (Petra, 2005). However, evidence exists supporting that CEO duality can result in ineffective monitoring role (Garcia-Meca & Sanchez-ballesta, 2009). Hence, based on the agency theory, the position of chairman and CEO should be separated to provide the effective control for the managers (Kamran & Shah, 2014). Additionally, it is

important to keep both roles separated to ensure reliability of the financial information since most of the fraud cases happen in companies where the CEO and chairman positions are kept by the same person (Kamran & Shah, 2014). In the current study, CEO duality is measured as a dummy variable that equal to zero if the two roles of CEO and chairman are combined and one if otherwise (Azzoz & Khamees, 2016; Conyon & He, 2017).

*Board size.* Board of director is elected by shareholders to act on their behalf (Man & Wong, 2013). Main responsibilities of board of director are monitoring, advising, discipline, and hold effective management (Vafeas, 1999; Raheja, 2005). Several scholars present the argument that larger boards are not efficient: resulting in more conflicts and in increasing the coordination cost. Jensen (1993) supports that small boards are more effective in monitoring since the large number of members can lead to challenging communication problems. In the current study, board size is measured by the total number of members on board (Al-Shaer & Zaman, 2016; Azzoz & Khamees, 2016; Conyon & He, 2017). To match the range of this variable to the other two variables that form the composite wealth protection dependent variable, we rescale this variable so that the minimum in our data is 0 and maximum is 1.

After calculating these three different board characteristic variables, we compute the composite board's wealth-protecting score by calculating their average and then standardize this variable with mean of 0 and standard deviation of 1. The higher values in this composite score represent stronger, and lower values represent weaker, wealth-protection capability of the board.

***Board as Wealth Creator Variable.*** Extant literature also discusses several different board characteristics that can help us proxy the board's ability to help with wealth creation (Grosvold & Brammer, 2011; Hillman, 2005; Hillman & Dalziel, 2003; Kim et al., 2009; Pearce & Zahra, 1992). We focus on two elements highlighted in the literature: (1) board gender diversity and (2) board national diversity.

*Gender diversity board* is considered as a prominent issue in corporate governance (Gallego-Alvarez et al., 2010). Gender board diversity means the presentation of female in board of director (Senor & Karaye, 2014). The presentation of female on board is considered as an interesting issue among practitioners, researchers, and policymaker in recent years (Conyon & He, 2017). Regarding agency theory, gender diversity board can increase board independence and better monitoring (Gallego-Alvarez et al., 2010). Gallego-Alvarez et al. (2010) find that gender diversity board may involve less in EM practices which mean that board diversity board can provide more reliable financial figures. Moreover, it can improve a firm's financial performance and firm value due to effective monitoring. According to Croson and Buchan (1999), when the board includes females, this leads to a decrease in EM practices since female are more trustworthy than males and they are less likely to involve in any manipulation of financial figures. In the current study, gender diversity is measured by the number of females on board divided by total number of board members (Al-Shaer & Zaman, 2016; Conyon & He, 2017). Next, we scale the variables so that the minimum value is 0 and the maximum observed in our data is 1.

*National diversity.* Board national diversity is an essential dimension of board diversity. It means that the board should include at least one foreign director (Staples, 2007). Foreign directors can improve advisory capabilities of board since they have extensive network of foreign contacts and have the knowledge and awareness of international and foreign markets (Frijns et al., 2016; Masulis et al., 2012). Since the board has an important monitoring role, the

presence of foreign directors can enhance this role for distinct reasons. In the current study, board national diversity is measured by the number of foreign directors on board divided by the total number of board members. Next, we scale the variable so that the minimum value is 0 and the maximum observed in our data is 1.

After calculating the two different board level variables that capture the potential aid the board can offer to wealth creation, we compute the board as wealth creator independent variable as a composite score of these two measures by averaging them and then standardize this variable with a mean of 0 and standard deviation of 1. Greater values in this composite score represent higher capability of the board on this dimension, and smaller values represent a lower capability.

### 3.2.2. *Dependent Variable*

The current study measures EM, the dependent variable, through discretionary accruals, which are calculated using the Modified Jones Model. This model is widely considered the most effective method for detecting EM (Yurt & Ergun, 2015). The Modified Jones Model is used to estimate total accruals and non-discretionary accruals, with the difference, discretionary accruals, serving as a proxy for EM (Gonzalez & Gracia-Meca, 2014; Waweru & Riro, 2013; Azzoz & Khamees, 2016). The estimated model is as follows:

$$\frac{TA_t}{A_{t-1}} = \alpha_1 * \left(\frac{1}{A_{t-1}}\right) + \alpha_2 * \frac{(\Delta REV - \Delta REC)}{A_{t-1}} + \alpha_3 * \left(\frac{PPE}{A_{t-1}}\right) \quad (1)$$

Then, we apply the estimated coefficient derived from equation (1) to calculate the non-discretionary accruals ( $NDA_t$ ) from the modified Jones Model (Dechow et al., 1995) with lagged Total Assets as follows:

$$NDA_t = \alpha_1 * \left(\frac{1}{A_{t-1}}\right) + \alpha_2 * \frac{(\Delta REV - \Delta REC)}{A_{t-1}} + \alpha_3 * \left(\frac{PPE}{A_{t-1}}\right) \quad (2)$$

Where,

$NDA_t$  = non-discretionary accruals in year t scaled by lagged assets,

$A_{t-1}$  = total assets in the year end of year t-1.

$\alpha_{1-3}$  = parameters of the firms.

$\Delta REV$  = change in revenues (Sales) in year t,

$\Delta REC$  = change in account receivables in year t, and

$PPE$  = property, plant and equipment in year t

Finally, we calculate the discretionary accruals ( $DACC_t$ ) using the total accruals ( $TA_t$ ) minus the non-discretionary accruals ( $NDA_t$ ).

### 3.2.3. *Moderating Variable*

Organizational life cycle is presented and used in the current study as the moderator variable. The current study chooses to follow Dickinson (2011) methodology for measuring organizational life cycle. Dickinson (2011) uses the signs of operating, investing, and financial cash flows as proxy for life cycle stages of each firm and then classifies the firm stage based on the combination of these signs. Details of Dickinson' methodology used in this research study is presented below.

*Operating cash flow*, in introduction stage, firms suffer from lack of knowledge about revenues and costs that can lead to negative operating cash flow, while in growth and maturity stage, operating cash flow is positive due to increase in investment and efficiency. In decline stage, decreasing growth rate led to decrease in prices and eventually operating cash flow decreases (Dickinson, 2011; Nagar and Radhakrishnan, 2017).

*Investing cash flow*, in the introduction stage and growth stage, managers are encouraged to make investment that prevent competitors from entering market so cash flow from investing are negative while in mature stage, managers decrease investment as they need to maintain capital so that the investing cash flow is negative. In declining stage, firms tend to liquidate assets to pay existing debt and support operations which result in positive cash flow (Dickinson, 2011; Nagar & Radhakrishnan, 2017).

*Financial cash flow*, in introduction and growth stage, firms are requiring funds to grow so they depend on debt which means they increase leverage, and it will decrease cash flow from financing so financing cash flow expected to be positive. In maturity stage, firms can have negative cash flow from financing as there are few investment opportunities, so the need of borrowing is decreased, and the opposite is true as firms experience positive cash flow, so they overinvest. Accordingly, firms either distribute cash to shareholders as they have positive net present value investment opportunities, or they overinvest in optimal projects. However, literature suggests that firms distribute cash flow to shareholders to prove that they are investing in profitable projects. Finally, during the decline stage there is no direction for financing cash flow exists (Dickinson, 2011; Nagar and Radhakrishnan, 2017).

In the current study, the methodology used to measure the corporate life cycle is as follows, introduction, if  $CFO < 0$ ,  $CFI < 0$ , and  $CFF > 0$ ; growth, if  $CFO > 0$ ,  $CFI < 0$ , and  $CFF > 0$ ; mature, if  $CFO > 0$ ,  $CFF < 0$ ; decline, if  $CFO < 0$ ,  $CFI > 0$ , and  $CFF \leq$  or  $\geq 0$ . After identifying the life cycle stage of each firm, a dummy variable is created as follows; 1 if the firm belongs to the introduction stage, 2 if the firm belongs to the growth stage, 3 if the firm belongs to the maturity stage, and finally 4 if the firm belongs to the decline stage.

#### 3.2.4. Control Variables

The control variables are selected, as suggested by prior literature, which might affect EM. These control variables are the audit firm type, leverage, firm performance, industry sector type, and assets turnover ratio.

*Audit Firm Type*. Yasar (2013) finds that the big four audit firms can provide more quality audited reports than non-big four audit firms. Big audit firms spend more money on auditor training and education to improve their capabilities in detecting any problem (Ahmad et al., 2016). Moreover, the big four audit firms are concerned about their reputation, hence trying to provide high quality audit reports (Abdul Hamid et al. 2014; Lopes, 2018). Defond et al. (2005) argue that the big four auditors are considered as a proxy for quality of auditing and perceived to be competent in constraining opportunistic managerial behavior regarding financial reporting. Evidence exists that companies which are audited by non-big four auditors can manage earnings by discretionary accruals more than companies audited by big four auditors (Yasar, 2013; Lopes, 2018; Defond et al., 2005). In the current study, audit firm type is a dummy variable equal to 1 if the firm is audited by big four and 0 if otherwise (Yasar, 2013; Lopes, 2018).

*Leverage* is included as a control variable and is computed as the ratio of total long-term debt to total assets. Since, firms with high leverage are found to engage less in EM practices due to control of creditor inhibiting companies to manipulate any financial figures (Lazzem and Jilani, 2018). Additionally, firms with high leverage experience low free cash flow due to interest expenses; accordingly, managers do not invest in any non-value maximizing project and this behavior can control them from any manipulation and accruals creation (Lazzem and Jilani, 2018).

*Firm Performance* is controlled for, as well, as measured by current return on assets (ROA), measured as net income before interest expense for a year divided by total assets of the same year.

*Industry and Time Dummies* are included in our regression model, since EM level can vary between different industries as managers have different flexibility in selecting different strategies regarding financial reporting based in the type of industry and other specifications (Wang & Huang, 2014). Additionally, the extent of EM may differ over time (Arun et al., 2015). Hence, *INDUSRTY* is a dummy variable according to the Industry Classification Benchmark (ICB) and *YEAR* is a dummy that indicates fiscal year. Table (1) summarizes the distribution of the final sample over time in accordance. Financial industries are excluded from the sample due to its unique nature and regulations, which may affect the results.

*Assets Turnover ratio* represents annual total sales divided by total assets. Previous studies suggest that this is the best proxy for the agency cost of outside equity because it reflects managerial effectiveness in using company resources (Hijazi and Conover, 2011).

*Loss* is represented by a dummy variable of *DLoss*, which is an indicator variable denoting a reported loss in the year, so that it takes the value of 1 if the firm reports a net loss, 0 otherwise (Srinidhi et al., 2011). We expect *DLoss* to be negatively related to the earning management, as consistent with earlier studies (Ashbaugh et al. 2003), suggesting that managers in loss-making firms have less discretion in their accrual estimates.

*Firm Size* is included to control for the potential impact of firm size on the EM. Firm size is the logarithm of total assets. We expect *SIZE* to be positively associated with earning managements. Market pressure is greater for larger companies, and thus are more likely to engage in EM practices (Watts and Zimmerman, 1990). Table 2 presents a summary of the variables used in the empirical analysis.

***Insert Table 2 here***

### 3.3. *Regression Model*

To achieve the main purpose of this study, we use the following multiple regression model to examine the effect of role of board of directors on EM using discretionary accruals as a proxy for EM. The model is tested, separately, across each stage of organizational life cycle. Four regression models, which are applied using wealth creator board and wealth protector board as independent variables and discretionary accruals, the measure of accrual-

based EM, as dependent variables, are used to run regression equation models across the four stages of organizational life cycles. The regression analysis models are done using year-, and firm- fixed effects.

$$DAC = \alpha + \beta_1 \text{Wealth Creation} + \beta_2 \text{Wealth Protection} + \beta_3 \text{AudType} + \beta_4 \text{ROA} + \beta_5 \text{Leverage} + \beta_6 \text{ATO} + \beta_7 \text{LOSS} + \beta_8 \text{SIZE} + \varepsilon \quad (4)$$

Where:

$\alpha$  = intercept;

*Wealth Creation* = composite score of three variables; board size, board independency, and CEO Duality

*Wealth Protection* = composite score of two variables; board gender diversity and board national diversity

*AudType* = dummy variable equals to 1 if the firm is audited by big four and 0 if otherwise

*ROA* = net income before interest expense for a year divided by total assets of the same year

*Leverage* = total long-term debt divided by total assets

*ATO* = assets turnover ratio or annual total sales divided by total assets

*LOSS* = dummy variable equals to 1 if the firm reports a net loss and 0 if otherwise

*SIZE* = log of total assets

## 4. Empirical Results

### 4.1. Descriptive Analysis and Correlation

Table 3 presents the descriptive statistics of the variables for the overall sample and across different stages of the SMEs life cycle. The results indicate that the mean value of discretionary accruals for the overall sample is .029, which is consistent with previous research. Abdou et al. (2021) report a mean value of discretionary accruals in the UK to be .05, while Iqbal and Strong (2010) report the mean value to be .02. These findings align with the results presented in Table 3. The introduction stage has the highest mean of discretionary accruals (2.962%), followed by the maturity stage (2.999%). The lowest mean of discretionary accruals is observed in the growth stage (2.917%) and decline stage (2.960%). The wealth creation composite score has its highest value in the growth stage (mean of .356), while the lowest value is found in the introduction stage (mean of .305). The wealth protection composite score shows higher values in the introduction and growth stages (mean of .584 and .578, respectively) and lower values in the maturity (mean of .547) and decline (mean of .563) stages. The board size has its lowest mean in the mature stage (5.022) and highest in the growth stage (5.976). The highest mean for board independence is in the introduction stage (.540), followed by the mature stage (.528) and growth stage (0.518), with the lowest mean in the decline stage (.498). The same mean value of CEO duality is reported in the growth and mature stages (.010) with lowest value (0.000) in introduction and decline stages (0.000; .020, respectively), indicating that the CEO and Chairman are the same person with high percentage in the growth stage whereas the two position are separated with high percentage in decline stage.

Mature stage reported high level of mean of gender diversity (.238) compared to lowest value of mean of national diversity (.145), indicating that the level of presence of female on board is high with low level of foreign directors in mature stage. In the introduction stage, national diversity shows the highest mean value (.247), and the gender diversity shows the lowest mean value (.132) which indicate high level of foreign directors and low level of females on board.

***Insert Table 3 here***

An examination of the correlation matrix, shown in Table 4, indicates that all correlation coefficients are less than .80, suggesting that multicollinearity does not constitute a major concern (Gujarati, 2003). Table 4 shows that there are some significant correlations among independent and control variables. Discretionary accruals are negatively correlated with wealth creator variable indicating that lower EM is associated with firms that structured its board to be wealth creator. Moreover, the correlation matrix shows the negative correlation of discretionary accruals with wealth protector variable. Additionally, results of correlation matrix illustrate that discretionary accruals are negatively associated with the control variables of audit type firm, leverage, assets turnover ratio, ROA, firm size, and loss suggesting that firms with lower EM are the ones that have higher debt levels, higher level of firm performance, audited by Big 4 audit firm, larger in size and suffer from financial losses.

***Insert Table 4 here***

#### ***4.2. Results of Hypotheses Testing***

Table 5 displays the results of the regression equation models across four stages of SMEs life cycles which were run using four regression models which were applied using wealth creator board and wealth protector board management, as independent variables, and discretionary accruals, which is the measure of accrual-based EM, as dependent variables. The regression analysis models are done using year- and firm- fixed effects. The Hausman specification test is performed to examine the validity of fixed effects (FE) and random effects (RE) parameters. The Hausman test shows that the difference between the FE and RE coefficients is statistically significant, thus indicating that the FE model is more appropriate for this study.

***Insert Table 5 here***

Results reported in model 1 apply to SMEs in the *introduction stage* of their life cycle. The  $R^2$  is 0.071, which means that the model explains 7.1% of the variations in discretionary accruals measures. The model appears significant since F-statistics is 0.355 and p- value for F test is 0.00 indicating significant effect of the independent variables on dependent variable in the introduction stage of SMEs life cycle. Results in Table 5 indicate a significant relationship between wealth creator role of board of directors and EM in introduction stage of SMEs life cycle. This is obvious as the estimated coefficients are negative and statistically significant at the 10% level. Accordingly,  $H_1$  is supported. Such result is consistent with (Azzoz & Khamees 2016; Garcia-Meca & Sanchez-ballesta, 2009; Kim & Yoon 2008). The wealth creator role is vital during the introduction stage to provide SMEs with the required resources, since diverse directors can secure many different resources, which is vital especially during the introduction



stage to ensure increase flexibility and guarantee SMEs' growth and survival on the long term (Filatotchev et al. 2006). On the other hand, the wealth protection role of board of directors has a non-significant relationship with the discretionary accruals although the direction of relationship in negative. Thus, H<sub>2</sub> cannot be supported. During the introduction stage, the conflict of interests between managers and principles is not severe and the board of the SMEs will need to emphasis more the wealth creator role compared to the wealth protector role. Such result corroborates the findings of Azzoz & Khamees (2016), Garcia-Meca & Sanchez-ballesta (2009), and Kim & Yoon (2008).

Results from model 2 are shown in Table 5, which depicts SMEs at the growth stage of their life cycle. The R<sup>2</sup> is .051, which means that the model explains 5.1% of the variations in discretionary accruals measures. The model appears significant since F-statistics is 0.988 and p- value for F test is 0.000 which means that there is significant effect of the independent variables on dependent variable in the growth stage of SMEs life cycle. The findings indicate a negative association between the board of directors' role in wealth creation and EM during the growth stage of the SME's life cycle. This is clear as the estimated coefficient is negative and statistically significant level at 5%. Therefore, H<sub>1</sub> is supported. Such result indicates that the wealth creation role of board can reduce EM practices in SMEs. This result supports the claims made by Kim and Ozdemir (2014) and Farag & Mallin (2017) that the presence of a wealth creator board can reduce EM. Such a board consists of diverse directors who can work as independent directors and detect any manipulation. Filatotchev et al. (2006) find that the resource role can be decreased in growth stage due to market floating and growth which help the firms to develop financial and non-financial resources, so the wealth creator role does not focus on providing resource so that it can be effective in detecting EM. Concerning the effect of wealth protection role of board on EM, the results reveal negative estimated coefficient that are statistically significant level at 5%, which suggested that when board of directors of SMEs takes the role of wealth protection, EM level would be reduced. H<sub>2</sub> is supported. Such result corroborates the findings of Azzoz & Khamees (2016), Garcia-Meca & Sanchez-ballesta (2009), and Kim & Yoon (2008). Such line of prior studies reveals that wealth protection role of board can reduce EM due to the existence of independent directors and the separation of roles of CEO and chairman. Wealth protection role of board is associated with effective monitoring which can make it difficult for managers to manipulate any financial figure (Azzoz & Khamees, 2016; Garcia-Meca & Sanchez-ballesta, 2009; Kim & Yoon, 2008). The importance of wealth protector role is high in this stage as the ownership structure of the SMEs changes and the external shareholders exists so the monitoring and controlling roles are important to ensure alignment of interest and detect any earnings manipulations (Filatotchev et al., 2006; Nagar and Radhakrishnan, 2017).

Results from model 3 are depicted in Table 5 and indicate SMEs at the maturity stage of their life cycle. The R<sup>2</sup> is .053, which means that the model explains 5.3% of the variations in discretionary accruals measures. The model appears significant since F-statistics is 1.944 and p- value for F test is 0.00, which means that there is significant effect of the independent variables on dependent variable in the maturity stage of SMEs life cycle. The result shows a significant relationship between protection role and EM, which is statistically significant level at 1% with negative coefficient. Accordingly, H<sub>2</sub> is supported. The result is consistent with Azzoz & Khamees (2016), Garcia-Meca & Sanchez-ballesta (2009), and Kim & Yoon (2008).

Since the wealth protection role places a strong emphasis on monitoring and controlling activities, our findings are justified given that efficient monitoring can limit EM strategies and guarantee that reported earnings are accurate and accurately reflect the firm's performance (Klein, 2002). Such a finding is consistent with Filatotchev et al. (2006), who contend that since agency conflicts are at their greatest during the maturity stage, the role of wealth protector is highly important. There is a high level of cash flow which means that there is a surplus of unused cash, so the board should monitor managers to prevent them from making any personal benefits out of this cash. Additionally, SMEs face difficulties in this stage in achieving targeted earnings; as a result, SMEs are more likely to use EM techniques in this stage to achieve targeted profits (Nagar and Radhakrishnan, 2017). The results indicate no association, even though the relationship is in a negative direction, between the board of directors' role in wealth creation and EM during the maturity stage of SMEs. Therefore, H<sub>1</sub> cannot be accepted.

Results from model 4 are relevant to SMEs, as indicated in Table 5, which are in the decline stage of their life cycle. The R<sup>2</sup> is .096, which means that the model explains 9.6 % of the variations in discretionary accruals measures. The model appears significant since F-statistics is 0.378 and p-value for F test is 0.00, which means that there is significant effect of the independent variables on dependent variable in the decline stage of SMEs. The results show significant relationships between wealth creation role of board of directors and EM in decline stage although the direction of relationship is negative. So that H<sub>1</sub> can be accepted. This can be justified by Filatotchev et al. (2006) who claim that the presence of wealth creator role in decline stage is low. Obviously, the results show non-significant relationships between wealth protection role of board of directors and EM in decline stage of organizational life cycle. Accordingly, H<sub>2</sub> cannot be accepted. This result can be justified that in this stage, commercial risk is increased besides the low level of income of the firms or even facing some loss, return on investment is small that can lead to extreme level of EM (Ebadi, 2016).

## 5. Discussion

The aim of this study is to examine the impact of the roles of the board of directors on EM across SMEs life cycles. The study provides valuable insights into the two crucial roles of the board of directors, and how these roles can influence EM levels in SMEs and how their importance may differ across different phases of the organizational life cycle. The results demonstrate that the wealth creator role of the board has a significantly negative effect on EM during the introduction, growth, and decline phases, while the wealth protector role of the board shows a negative but non-significant effect on EM in the growth and maturity phases.

According to this study's results, the board of directors' influence on EM changes depending on the life cycle stage of the SMEs. In particular, the introduction stage exhibits a significant negative relationship between the wealth creator role of the board of directors and EM. The wealth creator role is vital in this stage as it provides the firm with the necessary resources. Such result is consistent with Filatotchev et al. (2006) in which they argue that a diverse group of directors can secure a multitude of resources, which are crucial to the firm's growth and survival in the long term, particularly during the introduction stage, when the firm must have increased flexibility. On the other hand, the relationship between the wealth protection role of the board of directors and EM as measured by discretionary accruals is found

to be non-significant. This result is in accordance with previous research by Azzoz & Khamees (2016), Garcia-Meca & Sanchez-Ballesta (2009), and Kim & Yoon (2008), and can be attributed to the limited conflict of interest between managers and shareholders during the introduction stage of the organizational life cycle. During this stage, the board of directors places more emphasis on the role of wealth creation than protection.

In the growth stage, there is a significant negative relationship between the wealth protection role of the board of directors and EM. This finding aligns with the previous research of Azzoz & Khamees (2016), Garcia-Meca & Sanchez-Ballesta (2009), and Kim & Yoon (2008), which suggest that the wealth protection role of the board can reduce the level of EM through effective monitoring. In this stage, the ownership structure of the firm changes and the presence of external shareholders necessitates the board's monitoring role to ensure alignment of interests and detect any earnings manipulation (Filatotchev et al., 2006; Nagar & Radhakrishnan, 2017).

The results also show a significant relationship between the wealth creation role of the board of directors and EM during the growth stage, with the wealth creation role reducing EM practices. This finding aligns with the research of Kim and Ozdemir (2014) and Farag & Mallin (2017), whom suggest that the presence of a wealth creating board can decrease EM. Such a board, comprised of diverse directors, can work as independent monitors and detect manipulations. According to Filatotchev et al. (2006), the focus of the wealth creation role in this stage is to provide resources to facilitate effective monitoring.

In the maturity stage, there is a significant negative relationship between the wealth protection role of the board of directors and EM. Filatotchev et al. (2006) argue that in this stage, the importance of the wealth protection role is high due to the presence of high levels of agency conflict and unused cash. The board is expected to monitor managers to prevent the use of this cash for personal gain. Additionally, firms in this stage are more likely to engage in EM to enhance their credibility and reputation (Nagar & Radhakrishnan, 2017), highlighting the key role of the board in protecting the firm from such behavior. However, the relationship between the wealth creation role of the board of directors and EM during the maturity stage is found to be non-significant, with a negative direction. This result can be explained by the low importance of the wealth creation role in this stage, as high levels of financial cash flow reduce the need for the resource role (Filatotchev et al., 2006).

In the decline stage, there is no significant relationship between either the wealth protection role or the wealth creation role of the board of directors and EM. The non-significant relationship can be attributed to the high levels of EM practices in this stage, as high liquidity problems, losses, and low-income result in increased EM (Ebadi, 2016).

## **6. Conclusion**

Previous accounting studies have regarded the board of directors as a crucial factor in mitigating EM; however, the impact of this effect on SMEs and the various roles that the board of directors play in influencing the level of EM across organizational life cycle stages has not been well documented. This study aims to address this gap by enhancing the comprehension of the role of the board of directors in SMEs and how their structure as wealth protectors or wealth creators can restrict EM. To achieve this objective, data is collected from 280 SMEs listed on the London Stock Exchange during the period of 2009-2016, which will contribute to

the empirical knowledge of EM in an under-researched group of firms. Furthermore, this study extends the literature on the life cycle by directly evaluating the impact of the role of the board of directors on EM throughout various life cycle stages, since the role of the SMEs life cycle in determining EM has received little attention. Given the importance of SMEs to the UK economy (Ward & Rhodes, 2014), the lengthy process of improvement to implement the current corporate governance code (Habbash et al., 2010), and the shortage of empirical data on the role of boards of directors in SMEs in the UK (Shehata et al., 2017), it is remarkable that the UK was chosen as the research context.

The present study offers several key practical implications for various stakeholders. The findings suggest that the structure of the board of directors and corporate governance mechanisms should be customized to the specific stage of the SMEs life cycle. Such can imply that there is no universal governance template and that corporate governance mechanisms may vary based on transitions from one stage to another in the firm's life cycle. Findings also suggest that board size and diversity can play an important role in deterring EM of SMEs, and that manager, practitioners, and investors should consider individual dimensions of effective board characteristics when improving corporate governance practices. Furthermore, the results suggest that regulators and policymakers should revisit their policies and reforms in order to provide a code of corporate governance suitable to the size of firms, as some rules and regulations may be effective in large firms but not in SMEs and vice versa. The findings also recommend that regulators and policymakers should encourage board committees of the SMEs to be diverse in terms of gender and nationality and ensure that outside directors are independent from the management to enhance monitoring and resource provision functions of the board.

The present study has some limitations. Firstly, defining board size, independence, and CEO duality as wealth protection and board diversity as wealth creation is relatively subjective. These variables collectively may contribute to both wealth protection and creation. Secondly, gender and nationality are only one aspect of board diversity, and future research should analyze the effects of other characteristics such as education, experience, age, and culture on the relationship between board diversity and EM. Thirdly, this study only uses discretionary accruals to measure EM, and future studies should use other measures of earnings quality such as earnings persistence, earnings predictability, and conservatism. Fourthly, endogeneity is inherent in corporate governance studies. Therefore, the results of this study should be interpreted with caution, as they may be subject to endogeneity bias. Finally, this study is limited to the United Kingdom. Although it is one of the leading economies in Europe and the world, comparative research in other markets would provide new insights into the effects of the role of the board of directors and other corporate governance mechanisms on EM in different environments that may have different regulatory frameworks, economic conditions, and cultural differences.

## References

- Abdou, H.A., Ellelly, N.N., Elamer, A.A., Hussainey, K. and Yazdifar, H. (2021), "Corporate governance and EM nexus: Evidence from the UK and Egypt using neural networks", *International Journal of Finance & Economics*, Vol. 19 No.3PP 151-169.
- Abdul Hamid, F.A., Eddine, C.O.H., Ayedh, A.M. and Echchabi, A. (2014), "Firms' financial and corporate governance characteristics association with earning management practices: a meta-analysis approach", *Economic Review: Journal of Economics and Business*, Vol. 12 No. 2, pp. 49-72.
- Abor, J. and Adjasi, C.K. (2007), "Corporate governance and the small and medium enterprises sector: theory and implications. Corporate Governance," *The international journal of business in society*. Vol. 71 No.2, pp187-208.
- Abousamak, A., & Shahwan, T. M. (2018). Governance mechanisms and EM practices: evidence from Egypt. *International Journal of Corporate Governance*, Vol. 9 No. 3, pp. 316-346.
- Ahmad, L., Suhara, E., & Ilyas, Y. (2016), "The effect of audit quality on earning management within manufacturing companies listed on Indonesian stock exchange", *Research journal of Finance and Accounting*, Vol. 7 No. 8, pp. 132-138.
- AlHares, A., Elamer, A. A., Alshbili, I., & Moustafa, M. W. (2020). Board structure and corporate R&D intensity: evidence from Forbes global 2000. *International Journal of Accounting and Information Management*, 28(3), 445–463.
- Al-Shaer, H. and Zaman, M. (2016), "Board gender diversity and sustainability reporting quality", *Journal of Contemporary Accounting & Economics*, Vol. 12 No. 3, pp.210- 222.
- Alves, S. (2023), "CEO duality, earnings quality and board independence", *Journal of Financial Reporting and Accounting*, Vol. 21 No. 2, pp.217-231.
- Amin, H. M., Mohamed, E. K., & Hussain, M. M. (2021), "Corporate governance practices and firm performance: a configurational analysis across corporate life cycles", *International Journal of Accounting & Information Management*, Vol. 29 No. 5, pp. 669-697.
- Arun, T. G., Almahrog, Y. E., & Aribi, Z. A. (2015). Female directors and EM: Evidence from UK companies. *International Review of Financial Analysis*, 39, 137-146.
- Ashbaugh, H., R. LaFond, and B. W. Mayhew. (2003), "Do non-audit services compromise auditor independence? Further evidence," *The Accounting Review*, Vol.78, No. 3, pp. 611–39.
- Azzoz, M., Abdel, A.R. and Khamees, B.A. (2016), "The Impact of Corporate Governance Characteristics on Earnings Quality and EM: Evidence from Jordan", *Jordan Journal of Business Administration*, Vol. 12 No.1.
- Bajra, U. and Cadez, S. (2018), "The impact of corporate governance quality on EM: evidence from European companies cross-listed in the US", *Australian Accounting Review*, Vol. 28 No. 2, pp. 152-166.
- Balachandran, B. V., Chatterjee, C., & Chakrabarti, A. (2021), "Board quality and EM: a system GMM approach", *International Journal of Corporate Governance*, Vol. 12 No. (3/4), pp.209-228.
- Belot, F., & Serve, S. (2018), "Earnings quality in private SMEs: do CEO demographics matter?", *Journal of Small Business Management*, Vol. 56 No.1, pp.323-344.
- Bergstresser, D. and Philippon, T. (2006), "CEO incentives and EM", *Journal of Financial Economics*, Vol. 80 No. 3, pp. 511-529.
- Bonn, I., & Pettigrew, A. (2009), "Towards a dynamic theory of boards: An organizational life cycle approach", *Journal of Management & Organization*, Vol. 15 No. 1, pp. 2-16.
- Bouaziz, D., Salhi, B., & Jarboui, A. (2020), "CEO characteristics and EM: empirical evidence from France", *Journal of Financial Reporting and Accounting*. Vol. 18 No.1, pp. 77-110.
- Cadbury, A. (1992), *Cadbury report: The financial aspects of corporate governance. Tech report*, HMG, London.
- Cannella, A. A. and Shen, W. (2001), "So close and yet so far: Promotion versus exit for CEO heirs apparent, *The Academy of Management Journal*, Vol. 44, pp. 252–270.
- Chang, J.C. and Sun, H.L. (2009), "Crossed-listed foreign firms' earnings informativeness, EM and disclosures of corporate governance information under SOX", *the International Journal of Accounting*, Vol.44 No.1, pp.1-32.

- Chansarn, S., & Chansarn, T. (2016), “EM and Dividend Policy of Small and Medium Enterprises in Thailand”, *International Journal of Business and Society*, Vol. 17 No. 2.
- Chatterjee, R., & Rakshit, D. (2023), “Association between EM and corporate governance mechanisms: A study based on select firms in India”, *Global Business Review*, Vol. 24 No.1, pp.152-170.
- Chee, K. D., & Tham, Y. H. (2021), “The role of directors with multiple board seats and earnings quality: A Singapore context”, *Journal of Corporate Accounting & Finance*, Vol. 32 No. 1, pp. 31-47.
- Chen, X., Cheng, Q. and Wang, X. (2015), “Does increased board independence reduce EM? Evidence from recent regulatory reforms”, *Review of Accounting Studies*, Vol. 20 No. 2, pp. 899-933.
- Chiu, A. A., & Wei-Hua, L. (2020), “EM and seasoned equity offerings: Evidence from Taiwan started go incubation board for startup and acceleration firms”, *Investment Management & Financial Innovations*, Vol.17 No. 2, pp.183.
- Cho, S., & Chung, C. (2022), “Board Characteristics and EM: Evidence from the Vietnamese Market”, *Journal of Risk and Financial Management*, Vol.15 No. 9, pp.395.
- Ciampi, F. (2015), “Corporate governance characteristics and default prediction modeling for small enterprises: An empirical analysis of Italian firms”, *Journal of Business Research*, Vol. 68 No. 5, pp.1012-1025.
- Canyon, M.J. and He, L. (2017), “Firm performance and boardroom gender diversity: A quantile regression approach”, *Journal of Business Research*, Vol.79, pp.198-211.
- Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009), “Corporate governance and EM at large US bank holding companies”, *Journal of Corporate Finance*, Vol. 15 No.4, pp. 412-430.
- Cornett, M.M., Marcus, A.J. and Tehranian, H. (2008), “Corporate governance and pay-for performance: the impact of EM”, *Journal of Financial Economics*, Vol. 87 No. 2, pp. 357-373.
- Cornett, M.M., McNutt, J.J. and Tehranian, H. (2009), “Corporate governance and EM at large US bank holding companies”, *Journal of Corporate Finance*, Vol.15 No.4, pp.412-430.
- Croson, R. and Buchan, N. (1999), “Gender and culture: International experimental evidence from trust games”, *American Economic Review*, Vol. 89, No. 2, pp.386-391.
- Daily, C. M., Dalton, D. R., and Cannella, A. A. (2003), “Corporate governance: Decades of dialogue and data”, *the Academy of Management Review*, Vol. 28, pp. 371–382.
- Dechow, Patricia M., Sloan, R. G., and Sweeney, A. P. (1995), “Detecting EM”, *Accounting Review*, Vol. 70, pp. 193-225.
- DeFond, M.L., Hann, R.N. and Hu, X. (2005), “Does the market value financial expertise on audit committees of boards of directors?”, *Journal of Accounting Research*, Vol.43, No.2, pp.153-193.
- Dickinson, V. (2011), “Cash flow patterns as a proxy for firm life cycle”, *the Accounting Review*, Vol.86 No.6, pp.1969-1994.
- Duarte, A. F., Lisboa, I., & Carreira, P. (2022), “Does earnings quality impact firms’ performance? The case of Portuguese SMEs from the mold sector”, *Journal of Financial Reporting and Accounting*, (ahead-of-print).
- Ebadi, T. (2016), “The effect of corporate life cycle on the accounting conservatism”, *Journal of Accounting and Management*, Vol. 2 No. 1, pp. 1-11.
- Elsayed, M., Elshandidy, T., & Ahmed, Y. (2023). Is expanded auditor reporting meaningful? UK evidence. *Journal of International Accounting, Auditing and Taxation*, Forthcoming.
- Elsayed, M., Elshandidy, T., & Ahmed, Y. (2022). Corporate failure in the UK: An examination of corporate governance reforms. *International Review of Financial Analysis*, 82, 102165.

- Elsayed, M., & Elshandidy, T. (2020). Do narrative-related disclosures predict corporate failure? Evidence from UK non-financial publicly quoted firms. *International Review of Financial Analysis*, 71, 101555.
- Elsheikh, T., Hashim, H. A., Mohamad, N. R., Youssef, M. A. E. A., & Almaqtari, F. A. (2023), “CEO masculine behavior and EM: does ethnicity matter?”, *Journal of Financial Reporting and Accounting*, ahead-of-print.
- Fama, E.F. and Jensen, M.C. (1983),” Separation of ownership and control”, *the journal of law and Economics*, Vol. 26 No.2, pp.301-325.
- Farag, H. and Mallin, C. (2017), “Board diversity and financial fragility: Evidence from European banks”, *International Review of Financial Analysis*, Vol. 49, pp.98-112.
- Filatotchev, I. and Nakajima, C. (2010), “Internal and external corporate governance: An interface between an organization and its environment”, *British Journal of Management*, Vol. 21 No. 3, pp.591-606.
- Filatotchev, I., & Toms, S. (2003), “Corporate governance, strategy and survival in a declining industry: A study of UK cotton textile companies”, *Journal of Management Studies*, Vol. 40 No. 4, pp. 895-920.
- Filatotchev, I., Toms, S. and Wright, M. (2006), “The firm's strategic dynamics and corporate governance life-cycle”, *International Journal of Managerial Finance*, Vol. 2 No. 4, pp. 256-279.
- Finkelstein, S., Hambrick, D. C., & Cannella, A. A. (2009), “*Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards*”, Oxford University Press: New York.
- Frijns, B., Dodd, O. and Cimerova, H. (2016), “The impact of cultural diversity in corporate boards on firm performance”, *Journal of Corporate Finance*, Vol. 41, pp.521-541.
- Gajdosikova, D., Valaskova, K., & Durana, P. (2022), “EM and corporate performance in the scope of firm-specific features”, *Journal of Risk and Financial Management*, Vo. 15 No. 10, pp.426
- Gallego-Álvarez, I., García-Sánchez, I.M. and Rodríguez-Dominguez, L. (2010), “The influence of gender diversity on corporate performance”, *Spanish Accounting Review*, Vol. 13 No. 1, pp. 53-88.
- Gandía, J. L., & Huguet, D. (2021), “Audit fees and EM: differences based on the type of audit”, *Economic Research-Ekonomska Istraživanja*, Vol. 34 No. 1, pp. 2628-2650.
- García-Meca, E. & Sánchez-Ballesta, J. P. (2009), “Corporate governance and EM: A meta-analysis”, *Corporate Governance: an International Review*, Vol. 17, pp. 594–610.
- Garven, S. (2015), “The effects of board and audit committee characteristics on real EM: Do boards and audit committees play a role in its promotion or constraint?”, *Academy of Accounting and Financial Studies Journal*, Vol. 19 No.1, p.67.
- Goel, S., & Kapoor, N. (2022), “Is EM related to board independence and gender diversity? Sector-wise evidence from India”, *International Journal of Disclosure and Governance*, Vol. 19 No. 4, pp. 363-373.
- Gonzalez, J.S. and García-Meca, E. (2014), “Does corporate governance influence EM in Latin American markets?”, *Journal of Business Ethics*, Vol. 121 No.3, pp.419-440.
- Grosvold, J., & Brammer, S. (2011),” National institutional systems as antecedents of female board representation: An empirical study”, *Corporate Governance: an International Review*, Vol. 19 No. 2, pp. 116-135.
- Gujarati, D. (2003), *Basic Econometrics*, 4th ed., McGraw Hill, New York, NY
- Habbash, M., Salama, A., Dixon, R. and Hussainey, K. (2010), “The effects of non-executive directors' commitment and chairman independence on EM: UK evidence”, *Journal of Applied Accounting Research*, Vol. 10 No. 1.

- Hillman, A.J. (2005), "Politicians on the board of directors: Do connections affect the bottom line?", *Journal of Management*, Vol. 31 No. 3, pp.464-481.
- Hillman, A.J. and Dalziel, T. (2003), "Boards of directors and firm performance: Integrating agency and resource dependence perspectives", *Academy of Management Review*, Vol.28 No.3, pp.383-396.
- Höglund, H., & Sundvik, D. (2016), "Outsourcing of accounting tasks and tax management: evidence from a corporate tax rate change", *Applied Economics Letters*, Vol. 23 No. 7, pp. 482-485.
- Huang, X., Wang, X., Han, L., & Laker, B. (2022), "Does sound lending infrastructure foster better financial reporting quality of SMEs?", *The European Journal of Finance*, Vol. 29 No. 5, pp. 542–566.
- Iqbal, A. and Strong, N. (2010), "The effect of corporate governance on EM around UK rights issues" , *International Journal of Managerial Finance*, Vol.6 No.3 PP168-189
- Jensen, M.C. (1993), "The modern industrial revolution, exit, and the failure of internal control systems", *the Journal of Finance*, Vol. 48 No. 3, pp.831-880.
- Kamran, K. and Shah, A. (2014), "The impact of corporate governance and ownership structure on EM practices: Evidence from listed companies in Pakistan", *The Lahore Journal of Economics*, Vol. 19 No. 2, pp.27-70.
- Kim, B., Burns, M.L. and Prescott, J.E. (2009), "The strategic role of the board: The impact of board structure on top management team strategic action capability", *Corporate Governance: an International Review*, Vol. 17 No.6, pp.728-743.
- Kim, H.J. and Yoon, S.S. (2008), "The impact of corporate governance on EM in Korea", *Management & Accounting Review*, Vol. 7 No.1, pp.43-59.
- Kim, Y.U. and Ozdemir, S.Z. (2014), "Structuring corporate boards for wealth protection and/or wealth creation: The effects of national institutional characteristics", *Corporate Governance: An International Review*, Vol. 22 No. 3, pp.266-289.
- Klein, A. (2002), "Audit committee, board of director characteristics, and EM", *Journal of Accounting and Economics*, Vol. 33 No. 3, pp. 375-400.
- Kothari, S.P., Leone, A.J. and Wasley, C.E. (2005), "Performance matched discretionary accrual measures", *Journal of Accounting and Economics*, Vol. 39 No.1, pp.163-197.
- Lazzem, S. and Jilani, F. (2018), "The impact of leverage on accrual-based EM: The case of listed French firms", *Research in International Business and Finance*, Vol. 44, pp.350-358.
- Liu, Q., & Lu, Z. J. (2007), "Corporate governance and EM in the Chinese listed companies: A tunneling perspective", *Journal of Corporate Finance*, Vo. 13 No. 5, pp. 881-906.
- Lopes, A.P. (2018), "Audit quality and EM: Evidence from Portugal", *Athens Journal of Business & Economics*, Vol. 4, No. 2, pp.172-182.
- Maglio, R., Rey, A., Agliata, F., & Lombardi, R. (2020), "Connecting EM and corporate social responsibility: A renewed perspective", *Corporate Social Responsibility and Environmental Management*, Vol. 27 No. 2, pp. 1108-1116.
- Man, C. K., & Wong, B. (2013), "Corporate governance and EM: A survey of literature", *Journal of Applied Business Research*, Vol. 29 No. 2, pp. 391-418.
- Martinez-Martinez, D., Andrades, J., Larrán, M., Muriel, M. J., & Lechuga Sancho, M. P. (2021), "Determinants of EM in Spanish SMEs and its relationship with CSR: the relevance of sector life cycle stage", *Journal of Small Business and Enterprise Development*, Vol. 28 No.3, pp. 399-428.
- Masulis, R.W., Wang, C. and Xie, F. (2012), "Globalizing the boardroom—The effects of foreign directors on corporate governance and firm performance", *Journal of Accounting and Economics*, Vol.53 No.3, pp.527-554.



- Mensah, E., & Boachie, C. (2023), “Corporate governance mechanisms and EM: The moderating role of female directors”, *Cogent Business & Management*, Vol. 10 No.1, pp. 2167290.
- Mensah, E., & Onumah, J. M. (2023), “Women on boards, firm EM (EM) and performance nexus: does gender diversity moderate the EM–performance relationship?”, *Corporate Governance: the International Journal of Business in Society*, ahead-of-print.
- Musa, A., Abdul Latif, R., & Abdul Majid, J. (2023), “CEO attributes, board independence, and real EM: Evidence from Nigeria”, *Cogent Business & Management*, Vol. 10 No. 1, pp.2194464.
- Nagar, N. and Radhakrishnan, S. (2017), “Firm life cycle and real-activity based EM”, *Working paper Indian Institute of Management and University of Texas*.
- O'Connor, T. and Byrne, J. (2015), “When does corporate governance matter? Evidence from across the corporate life-cycle”, *Managerial Finance*, Vol. 41 No. 7, pp. 673-691
- Osma, B.G. and Noguer, B.G.D.A. (2007), “The effect of the board composition and its monitoring committees on EM: Evidence from Spain”, *Corporate Governance: An International Review*, Vol. 15 No. 6, pp.1413-1428.
- Park, S. B., Kim, S. K., & Lee, S. (2021), “EM of insolvent firms and the prediction of corporate defaults via discretionary accruals”, *International Journal of Financial Studies*, Vol. 9 No. 2, pp. 17.
- Pearce, J.A. and Zahra, S.A. (1992), “Board composition from a strategic contingency perspective”, *Journal of Management Studies*, Vol. 29 No. 4, pp.411-438.
- Petra, S.T. (2005), “Do outside independent directors strengthen corporate boards?”, *Corporate Governance: the international journal of business in society*, Vol. 5 No. 1, pp. 55-64
- Pham, H.Y., Chung, R.Y.M., Roca, E., and Bao, B.H. (2019), “Discretionary accruals: signaling or EM in Australia?”, *Accounting and Finance*, Vol. 59 No. 2, pp. 1383-1413.
- Prencipe, A., & Bar-Yosef, S. (2011), “Corporate governance and EM in family-controlled companies”, *Journal of Accounting, Auditing & Finance*, Vol. 26 No. 2, pp. 199-227.
- Pucheta-Martínez, M.C., Bel-Oms, I. and Olcina-Sempere, G. (2016), “Corporate governance, female directors and quality of financial information”, *Business Ethics: A European Review*, Vol. 25 No. 4, pp. 363-385.
- Raheja, C.G. (2005), “Determinants of board size and composition: A theory of corporate boards”, *Journal of Financial and Quantitative analysis*, Vol. 40 No.2, pp.283-306.
- Roy, T., & Alfian, E. (2022), “Does Gender Diversity Moderate the Nexus Between Board Characteristics and EM?”, *Asian Journal of Business and Accounting*, Vo. 15 No. 12, pp.31-77.
- Sáenz González, J., & García-Meca, E. (2014), “Does corporate governance influence EM in Latin American markets?”, *Journal of Business Ethics*, Vol. 121, pp. 419-440.
- Sehrawat, N. K., Kumar, A., Lohia, N., Bansal, S., & Agarwal, T. (2019), “Impact of corporate governance on EM: large sample evidence from India”, *Asian Economic and Financial Review*, Vol. 9 No.12, pp. 1335-1345.
- Şener, İ., & Karaye, A. B. (2014), “Board composition and gender diversity: comparison of Turkish and Nigerian listed companies”, *Procedia-Social and Behavioral Sciences*, Vol. 150, pp.1002-1011.
- Séverin, E., & Veganzones, D. (2021), “Can EM information improve bankruptcy prediction models?”, *Annals of Operations Research*, Vol. 306 No. 1/2, pp. 247-272.
- Shaheen, S., Nazir, R., Mehar, N., & Adil, F. (2020), “Impact of organizational life cycle stages on quality of corporate governance: Empirical evidence from Pakistan’s corporate sector”, *International Journal of Economics and Financial Issues*, Vol. 10 No. 4, pp.271.
- Shehata, N., Salhin, A., & El-Helaly, M. (2017), “Board diversity and firm performance: evidence from the UK SMEs”, *Applied Economics*, Vol. 49 No. 48, pp. 4817-4832.

- Smit, A. (2015), "The quality of reported earnings and the monitoring role of the board: Evidence from small and medium companies", *Southern African Business Review*, Vol. 19 No. 2, pp.52-73.
- Srinidhi, B. I. N., Gul, F. A., & Tsui, J. (2011). "Female directors and earnings quality," *Contemporary Accounting Research*, Vol. 28, No. 5, pp.1610-1644.
- Staples, C.L. (2007), "Board globalization in the world's largest TNCs 1993–2005", *Corporate Governance: an International Review*, Vol. 15, No. 2, pp.311-321.
- Sultana, N., Cahan, S. F., & Zhang, F. (2017), "Board sub-committees and earnings quality", *International Journal of Corporate Governance*, Vol. 8 No. 3/4, pp. 205-235.
- Uhlener, L., Wright, M., & Huse, M. (2007), "Private firms and corporate governance: An integrated economic and management perspective", *Small Business Economics*, Vol. 29, pp. 225-241.
- Vafeas, N. (1999), "Board meeting frequency and firm performance", *Journal of Financial Economics*, Vol. 53 No. 1, pp.113-142.
- Van den Heuvel, J. (2006). *Governance and Boards in Small and Medium-sized Family businesses*, Universiteit Hasselt (Belgium).
- Wang, Y.S. and Huang, P.C. (2014), "Earnings Manipulation and Profitability". *Economic Computation & Economic Cybernetics Studies & Research*, Vol. 48 No.1.
- Ward, M., & Rhodes, C. (2014), "Small businesses and the UK economy". Standard Note: SN/EP/6078. Office for National Statistics.
- Watts, R. L., & Zimmerman, J. L. (1990), "Positive accounting theory: a ten year perspective", *Accounting Review*, Vol. 65 No. 1, pp.131-156.
- Waweru, N.M. and Riro, G.K. (2013), "Corporate governance, firm characteristics and EM in an emerging economy", *Journal of Applied Management Accounting Research*, Vol. 11 No.1, pp.43.
- Widagdo, A. K., Rahmawati, Djuminah, Arifah, S., Goestjahjanti, F. S., & Kiswanto. (2022), "The Impact of Ownership Characteristics and Gender on EM: Indonesian Companies", *Journal of Risk and Financial Management*, Vol. 16 No. 1, pp.17.
- Wiersema, M. F. & Zhang, Y. (2011), "CEO dismissal: The role of investment analysts", *Strategic Management Journal*, 1182: 1161–1182.
- Xie, B., Davidson III, W.N. and DaDalt, P.J. (2003), "EM and corporate governance: the role of the board and the audit committee", *Journal of Corporate Finance*, Vol.9 No.3, pp.295-316.
- Yasar, A. (2013), "Big four auditors' audit quality and EM: Evidence from Turkish stock market", *International Journal of Business and social Science*, Vol.4 No. 17.
- Yurt, C. and Ergun, U. (2015), "Accounting Quality Models: A Comprehensive Literature Review", *International Journal of Economic, Commerce and Management*, Vol. 3 No. 5, pp.33-66.
- Zahra, S.A. and Pearce, J.A. (1989), "Boards of directors and corporate financial performance: a review and integrative model", *Journal of Management*, Vol. 15 No. 2, pp. 291-334.
- Zhang, Y. and Rajagopalan, N. (2004), "When the known devil is better than an unknown God: An empirical study of the antecedents and consequences of relay CEO successions", *The Academy of Management Journal*, Vol. 47, pp. 483–500.

**Table (1): Final Sample Classified by Industry over time.**

	Year								Total
	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Oil and Gas</b>	29	26	26	23	27	26	22	29	208
<b>Industrial Goods &amp; Services</b>	12	12	15	16	14	15	16	12	112
<b>Health Care</b>	72	70	70	78	74	76	79	74	593
<b>Retail</b>	20	15	20	20	19	18	18	18	148
<b>Telecommunications</b>	20	22	22	24	25	20	25	25	183
<b>Technology</b>	78	76	72	70	66	73	70	73	578
<b>Total</b>	231	221	225	231	225	228	230	231	1822

Note: This table reports sample classified by industry based on aggregate samples 1822 firm-year observations obtained from 280 SMEs listed on the London Stock Exchange during the period of 2009-2016.



**Table (2): Variables' Definitions & Measurements**

Symbol	Proxy	Measurement
<b>Dependent variable</b>		
EM	Discretionary accruals	The difference between total accruals and non-discretionary accruals (Gonzalez & Gracia-Meca, 2014; Waweru & Riro, 2013; Azzoz & Khamees, 2016)
<b>Independent Variables</b>		
Wealth Protection role of BOD	Board size	Total number of board members (Azzoz & Khamees, 2016; Conyon & He, 2017; Al-Shaer & Zaman, 2016)
	Board independency	Number of non-executive directors/total number of board member (Azzoz & Khamees, 2016; Conyon & He, 2017; Al-Shaer & Zaman, 2016)
	CEO Duality	Dummy variable takes the value of 0 if the CEO and Chairman are the same person and take the value of 1 otherwise (Azzoz & Khamees, 2016; Conyon & He, 2017; Al-Shaer & Zaman, 2016)
Wealth creation role of BOD	Gender diversity	Number of female in board/ total number of board members (Conyon & He, 2017; Al-Shaer & Zaman, 2016)
	National diversity	Number of foreign members in board/ total number of board members (Masulis et al. 2012)
<b>Control Variables</b>		
Leverage	Leverage	Total long-term debt divided by total assets (Peni & Vahama 2010; Conyen & He, 2017; Kothari et al., 2005)
Firm Performance	ROA	Net income before interest expense for a year divided by total assets of the same year (Kothari et al. 2005; Conyen & He, 2017)
Audit Type	Audtype	Dummy variable equal to 1 if the firm is audited by big four and 0 if otherwise (Yasar, 2013; Lopes, 2018)
Industry	INDUSTRY	Dummy variables created according to Industry Classification Benchmark (Arun et al., 2015)
Year	YEAR	Dummy variables created to indicate fiscal years.
Assets Turnover Ratio	ATO	Ratio of total annual sales to total assets
Loss	LOSS	1 if the firm reports a net loss, 0 otherwise (Srinidhi et al., 2011)
Firm Size	SIZE	Log of total assets (Arun et al., 2015)
<b>Moderating Variable</b>		
Organizational Life Cycle Stage	OLC	Dummy variable is created as follows; 1 if the firm belongs to the growth stage, 3 if the firm belongs to the maturity stage, 2 if the firm belongs to the introduction stage, and finally 4 if the firm belongs to the decline stage (Dickinson, 2011)

**Table (3): Descriptive Statistics for overall sample and across the four stages of life cycle**

<i>Panel "A": Overall Sample</i>						
<b>Variables</b>	<b>N</b>	<b>MIN</b>	<b>MAX</b>	<b>Mean</b>	<b>Median</b>	<b>SD</b>
<b>DAC</b>	1822	.000	0.593	.029	.029	.070
<b>Board Size</b>	1822	1.000	13.000	5.337	5.000	1.810
<b>Board Independency</b>	1822	.000	1.000	.523	.500	.170
<b>CEO Duality</b>	1822	.000	1.000	.010	.000	.090
<b>Gender Diversity</b>	1822	.000	1.000	.170	.000	.370
<b>National Diversity</b>	1822	.000	1.000	.200	.000	.400
<b>Wealth Creation</b>	1822	.000	1.000	.320	.333	.150
<b>Wealth Protection</b>	1822	.000	1.000	.560	.5000	.170
<b>Audit Type</b>	1822	0.000	1.000	.290	.000	.450
<b>Leverage</b>	1822	.000	67.000	2.500	.000	7.190
<b>ROA</b>	1822	-8.000	7.000	-.197	.000	.718
<b>ATO</b>	1822	.000	.990	.543	.587	.185
<b>SIZE</b>	1822	.300	6.880	4.390	4.395	0.810
<b>LOSS</b>	1822	.000	1.000	.590	1.000	0.490
<i>Panel "B": Introduction Stage</i>						
<b>Variables</b>	<b>N</b>	<b>MIN</b>	<b>MAX</b>	<b>Mean</b>	<b>Median</b>	<b>SD</b>
<b>DAC</b>	634	.000	.059	.029	.029	.079
<b>Board Size</b>	634	2.000	11.000	5.022	5.000	1.699
<b>Board Independency</b>	634	.000	1.000	.540	.500	.188
<b>CEO Duality</b>	634	0.000	1.000	.010	.000	.079
<b>Gender Diversity</b>	634	.0000	1.000	.132	.000	.339
<b>National Diversity</b>	634	.0000	1.000	.247	.000	.432
<b>Wealth Creation</b>	634	.0000	.920	.306	.250	.156
<b>Wealth Protection</b>	634	.0000	1.000	.584	.500	.193
<b>Audit Type</b>	634	0.000	1.000	.230	.000	.421
<b>Leverage</b>	634	.000	67.000	3.566	.000	8.946
<b>ROA</b>	634	-6.000	4.000	-.228	-5.000	.706
<b>ATO</b>	634	.390	.990	.542	.392	.201
<b>SIZE</b>	634	1.750	6.200	4.167	4.177	.712
<b>LOSS</b>	634	.000	1.000	.905	1.000	.292
<i>Panel "C": Growth Stage</i>						
<b>Variables</b>	<b>N</b>	<b>MIN</b>	<b>MAX</b>	<b>Mean</b>	<b>Median</b>	<b>SD</b>
<b>DAC</b>	254	.100	.058	.029	.029	.073
<b>Board Size</b>	254	1.000	13.000	5.976	6.000	2.121

<b>Board Independency</b>	254	.000	.900	.518	.500	.145
<b>CEO Duality</b>	254	0.000	1.000	.000	.000	.063
<b>Gender Diversity</b>	254	.000	1.000	.146	.000	.353
<b>National Diversity</b>	254	.000	1.000	.221	.000	.415
<b>Wealth Creation</b>	254	.000	.920	.356	.333	.1607
<b>Wealth Protection</b>	254	.000	1.000	.578	.500	.187
<b>Audit Type</b>	254	0.000	1.000	.400	.000	.491
<b>Leverage</b>	254	.000	47.000	1.665	.000	5.424
<b>ROA</b>	254	-3.000	1.000	-.122	.000	.403
<b>Agency Cost</b>	254	.000	.990	.521	.392	.180
<b>SIZE</b>	254	2.660	6.880	4.783	4.713	.795
<b>LOSS</b>	254	.000	1.000	.413	.000	.493
<i>Panel "D": Maturity Stage</i>						
<b>Variables</b>	<b>N</b>	<b>MIN</b>	<b>MAX</b>	<b>Mean</b>	<b>Median</b>	<b>SD</b>
<b>DAC</b>	462	.000	0.599	.299	.0290	.086
<b>Board Size</b>	462	2.000	13.000	5.682	5.000	1.671
<b>Board Independency</b>	462	.000	1.000	.498	5.000	.154
<b>CEO Duality</b>	462	0.000	1.000	.010	.000	.104
<b>Gender Diversity</b>	462	.000	1.000	.238	.000	.426
<b>National Diversity</b>	462	.000	1.000	.145	.000	.352
<b>Wealth Creation</b>	462	.000	1.000	.356	.333	.151
<b>Wealth Protection</b>	462	.500	1.000	.547	.500	.147
<b>Audit Type</b>	462	0.000	1.000	.330	.000	.470
<b>Leverage</b>	462	.000	40.000	.980	.000	3.385
<b>ROA</b>	462	-5.000	3.000	-.125	.000	.575
<b>ATO</b>	462	.390	.990	.564	.587	.169
<b>SIZE</b>	462	3.090	.000	4.602	4.534	.6118
<b>LOSS</b>	462	6.790	1.000	.257	.000	.437
<i>Panel "E": Decline Stage</i>						
<b>Variables</b>	<b>N</b>	<b>MIN</b>	<b>MAX</b>	<b>Mean</b>	<b>Median</b>	<b>SD</b>
<b>DAC</b>	472	.100	.550	.296	.290	.077
<b>Board Size</b>	472	2.000	12.000	5.078	5.000	1.769
<b>Board Independency</b>	472	.000	1.000	.528	.500	.188
<b>CEO Duality</b>	472	0.000	1.000	.020	.000	.129
<b>Gender Diversity</b>	472	.000	1.000	.174	.000	.379
<b>National Diversity</b>	472	.000	1.000	.209	.000	.407
<b>Wealth Creation</b>	472	.000	1.000	.320	.333	.166

<b>Wealth Protection</b>	472	.000	1.000	.563	.500	.169
<b>Audit Type</b>	472	0.000	1.000	.280	.000	.449
<b>Leverage</b>	472	.000	59.000	3.006	.000	7.804
<b>ROA</b>	472	-8.000	7.000	-.265	.000	.946
<b>ATO</b>	472	.390	.990	.534	.392	.182
<b>SIZE</b>	472	.300	6.870	4.274	4.328	.969
<b>LOSS</b>	472	.000	1.000	.599	1.000	.490

Note: This table reports descriptive statistics based on aggregate sample of 1822 firm-year observations. The variables are as defined in Table 2.



**Table (4): Correlation Analysis**

	<b>BOD Creator</b>	<b>BOD Protector</b>	<b>Audit Firm Type</b>	<b>Leverage</b>	<b>ROA</b>	<b>D_accruals</b>	<b>ATO</b>	<b>Firm Size</b>	<b>Loss</b>
<b>BOD Creator</b>	1								
<b>BOD Protector</b>	.069**	1							
<b>Audit Firm Type</b>	.206**	-.042	1						
<b>Leverage</b>	-.248**	-.028	-.067**	1					
<b>ROA</b>	.088**	-.014	-.007	-.225**	1				
<b>D_accruals</b>	-.022	-.026	.015	-.004	-.013	1			
<b>ATO</b>	-.212**	.003	-.103**	.066**	-.030	-.009	1		
<b>Firm Size</b>	.212**	.032	.374**	-.134**	.085**	-.013	-.044	1	-.273**
<b>Firm Loss</b>	-.115**	.041	-.054*	.096**	-.033	-.012	-.042	-.273**	1

Note: This table presents pair-wise correlation coefficients which are based on sample of 1822 firm-year observations. The variables are as defined in Table 2. Asterisks indicate significance at 10% (\*) 5% (\*\*) and 1% (\*\*\*)

**Table (5): Fixed Effects Regression Analysis Models for the Life Cycle Stages**

Variable	Exp. Sign	Model 1 Introduction Stage	Model 2 Growth Stage	Model 3 Maturity Stage	Model 4 Decline Stage
(Constant)	?	.293 (10.956)	.377 (9.483**)	.419 (11.064)	.269 (9.600***)
Wealth Creation	-	-0.007 (-.319***)	-0.004 (.139***)	-0.016 (-.555)	-0.003 (-.120*)
Wealth Protection	-	-0.012 (-0.714)	-0.009 (-0.360**)	-0.044 (-1.590*)	-0.026 (1.244)
Audit Type	+	-0.002 (-.288***)	-0.007 (.656**)	-0.021 (2.202)	-0.000 (.024*)
Leverage	-	-4.973 (-.129**)	0.001 (.775**)	-0.002 (-1.788**)	--2.752 (-0.055*)
ROA	-	-0.002 (-.424**)	-0.006 (.489**)	-.011 (-1.569)	-0.000 (-0.081*)
ATO	-	-0.001 (-0.091)	-0.005 (-.184**)	-0.025 (-1.022***)	-0.000 (-.009***)
Firm Loss	-	-.002 (-.221)	-.003 (-.313***)	.002 (.268)	-.001 (-.116)
Firm Size	+	.003 (.696**)	-.017 (-2.496***)	-.015 (-2.108)	.004 (.247)
Oil and Gas		0.004 (.855***)	-0.003 (-.088***)	0.015 (-1.426*)	0.003 (-.789)
Industrial Goods & Services		0.007 (.936***)	-0.001 (.098)	-0.017 (-1.657)	-0.005 (-0.565)
Health care		0.015 (0.979)	0.021 (1.042)	-0.003 (-0.201)	-0.004 (0.247)
Retail		-.008 (-.663)	-.002 (-.154**)	-0.011 (-.755)	-0.017 (-1.166)
Telecommunications		0.219 (0.489)	-0.009 (-0.519)	-0.028 (-1.933)	-0.009 (-0.755)
Technology		.000 (-.016)	.034 (1.804)	-.034 (-2.071)	.002 (-.120)
Fixed-Effect		Year and Firm	Year and Firm	Year and Firm	Year and Firm
F-Statistics		0.355***)	0.988***)	1.944***)	0.378***)
R-Squared		.071	.051	.053	.096

Note: This table reports empirical results from estimating Eq. (4) using the fixed effect approach. Dependent variable: Discretionary Accruals. Industry effects are dummies. Model (1) applies to SMEs in the introduction stage of their life cycle. Model (2) applies to SMEs in the growth stage of their life cycle. Model (3) applies to SMEs in the maturity stage of their life cycle. Model (4) applies to SMEs in the decline stage of their life cycle. Asterisks indicate significance at 10% (\*), 5% (\*\*) and 1% (\*\*\*). The variables in all the regression tables are as defined under are reported in Table 2.