UNIVERSITY OF EDUCATION, WINNEBA

BOARD STRUCTURE DYNAMICS AND SHAREHOLDERS' WEALTH: THE MEDIATING ROLE OF DIVIDEND POLICY

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DECLARATION

Candidate's Declaration

I, DAVID KWABLA ADEGBEDZI, declare that this dissertation, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE:..

DATE:......08/12/2022..................................

Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis/dissertation/project as laid down by the University of Education, Winneba.

Supervisor: MICHAEL AMOH AGEDJC

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Date:...08/12/2022..

ABSTRACT

The overarching aim of this study was to assess the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth. A sample of thirteen (13) Ghanaian listed manufacturing firms were selected using a census sampling technique. The study employed descriptive and correlational research designs and a quantitative approach anchored on positivists' paradigm. Fixed effect panel regression technique and Baron and Kenny's mediated regression procedure augmented by Sobel test were used to achieve the study objectives. The findings revealed that board structure dynamics indicators such as CEO duality, audit committee effectiveness, board size, board composition with the exception of board gender dynamics had statistically significant effect on shareholders' wealth. Again, dividend policy was also found to have a significant and positive effect on shareholders' wealth. Finally, dividend policy played a significant partial mediating role in the relationship between board structure dynamics and shareholders' wealth. It was therefore concluded that a high representation of independent directors, a considerable number of audit committee, an optimum board size and an independent board chair are essential in ensuring a maximized shareholders' wealth. It was also concluded that Ghanaian investors prefer higher dividend pay-out and regular dividend payment to future capital gains, an indication of a lower risk appetite in investment. Also, ensuring better board structure dynamics to influence shareholders' wealth is largely contingent on prudent dividend policy decisions. It was therefore recommended that frantic efforts be made to ensure higher representation of independent directors, a considerable audit committee size, an optimum board size, an independent board chair and a higher and regular dividend payments in order to attain a maximized shareholders' wealth.

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DEDICATION

To my lovely Mum Mary Aku Normeshie, my mentor Miss Josephine Akpene Kwame and my siblings Wisdom Adegbedzi, Selasi Yawo Adegbedzi and Godsway Adegbedzi

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The importance of dividend policy as a promoter in large firms has been demonstrated globally (Chenchehene & Mensah, 2015). Corporations are the backbone of the economy as a whole; they are a major source of employment and, without a doubt, the economy's greatest taxpayer (Ofori-Sasu et al., 2017). Cash dividends appear to be the most popular form of distribution in worldwide firms in recent years. In the market, we may encounter companies that do not pay cash dividends or do not pay any dividends at all meanwhile a consistent dividend policy sends a favorable message to shareholders and might be seen as good corporate performance (Livoreka et al., 2014). Ofori Sasu et al. (2017) found that dividend policy decision has significant predictive potential in predicting shareholder value. The board structure, which includes the collective role of board members as well as board characteristics, has an impact on dividend distribution decisions as well as investor confidence (Fuzi et al., 2016). Furthermore, the diverse board structure compositions are important determinants of dividend policy (Alias et al., 2016). As a result, dividend policy decisions and board structure characteristics are crucial for enhancing shareholder value. According to studies, board members make appropriate dividend payment decisions in order to impact a company's shareholders' wealth. The key questions in countries with weak investor protection are: (1) do board structure dynamics have a direct effect on shareholders' wealth? (2) does dividend policy mediate the causal relationship between board structure dynamics and shareholders' wealth?

Ghana's manufacturing sector is experiencing major changes as part of the country's industrialization strategy, which aims to make it the top manufacturing hub on the African continent capable of competing in the global economy (Afum, 2020). From 2006 through 2017, the sector's average contribution to GDP was GH¢ 2173.25 million, with an all-time high of GH¢ 2543 million in 2017 (GSS, 2017). In addition, the sector accounts for 17.2 percent of the total number of companies listed on the Ghana Stock Exchange. Despite all these, the sector's portion of GDP has steadily declined since 2006, shedding more than 40% of its 2006 share of 10.2 percent (Addo, 2017). This claim is supported by the Ghana Statistical Service Report, which revealed that the sector's share of GDP was 10.2% in 2006, 9.1% in 2007, 7.9% in 2008, 6.9% in 2009, 6.8% in 2010, 6.9% in 2011, 5.8% in 2012, 5.3 percent in 2013, 4.9 percent in 2014, 4.8 percent in 2015, 4.6 percent in 2016, and 4.5 percent in 2017. In the years 2018 and 2019, the scenario was the same, with its percentage of GDP fluctuating on a quarterly basis.

Among the plethora of factors accounting for the poor performance of the sector were inadequate access to finance and poor management (Osei, 2017).

Figure 1: Manufacturing Sector's Declining Share of GDP

Source: Ghana Statistical Service, 2018

A drop in a business's financial performance would invariably diminish investment value and company value, reducing shareholder wealth which is the fundamental goal of a corporation (Ofori-Sasu et al., 2019). As a result, strong financial success is accompanied by strong shareholder wealth in the form of a high stock price and a high business value (Abdullahi et al., 2018). On the back of this, corporate executives must make informed decisions that maximize the wealth of shareholders and other stakeholders in the long run. Investment, financing, and dividend decisions are three of the most common decisions made by company executives (Kumar & Sujit, 2018). Managers, practitioners, and researchers are all interested in the financial success of their companies (Hunjra, 2018). The stronger a company's success, the bigger the expected dividend distributions to investors, and the tendency will invariably raise the value of shareholders as reflected in share prices (Abdullahi, et al., 2020).

According to Putri and Purbawangsa (2019), the goal of investors investing in businesses is to receive a return on their investment in the form of dividends and other returns. The dividend policy pertains to the board's decision on how much profit should be distributed to shareholders and how much profit should be retained for company investments (Brigham & Houston, 2013). This policy will influence whether the firm's profits are distributed to shareholders as dividends or utilized as retained earnings to be reinvested in the company (Jaara et al., 2018). The board of directors' dividend policy decision is one of their strategic financial decisions. Companies cannot disregard the decision to pay dividends to shareholders or hoard earnings for future benefits, since the dividend policy has a positive impact on shareholders' wealth (Ofori-Sasu et al., 2017). As a result, the board of directors has a significant impact on dividend policy in order to

increase shareholder value. In order to achieve an enhanced shareholder value, an efficient board structure mechanism that assures a prudent dividend policy choice is emphasized (Ranti, 2013).

Despite this, a thorough review of the literature in the field indicates that studies that look at the relationship between dividend policy, board structure dynamics, and shareholders' wealth simultaneously have fewer findings than studies that look at two of these variables separately. For example, board characteristics and firm dividend policy (Tahir et al., 2020), board gender composition and dividend policy (Benjamin & Biswas, 2019), board gender diversity and firm performance (Galbreath, 2018), dividend policy, sales growth, and liquidity (Karismawati1 & Suarjaya, 2020), liquidity, profitability, leverage, and dividend policy (Karismawati1 & Suarjaya, 2020). However, these studies' findings on board structure dynamics, dividend policy and shareholder wealth yielded mixed, fragmented and inconclusive results. It is necessary to have clearer picture about whether dividend policy has the tendency of playing an intervening role in the relationship between board structure dynamics and shareholders' wealth. It is on this premise that this study seeks to address the inherent gap in the extant literature by assessing the mediating role of dividend policy on the relationship between board structure dynamics and shareholders' wealth to serve as a guide to shareholders, board of directors, managers and other equally important stakeholders in making sound financial decisions which is a precursor to achieving a better result so as to improve the sector's share of the country's GDP.

1.2 Statement of the problem

To maximize the wealth of stockholders of an organization, management develops a variety of financial policies (Nkuah & Yusif, 2016). These policies are; investment policy, financing policy and dividend policy. Dividend policy is considered the most vital of these three policies because it has a significant effect on financing policy, which in turn has significant influence on the choice of investment strategy (Nkuah & Yusif, 2016; Pinto et al., 2019) and stock prices (Sudiani & Wiksuana, 2018). Board dynamics and dividend policy are crucial concepts that have generated the most debate to date (Ofori-Sasu et al., 2022). A review of relevant dividend policy theories revealed that there are different schools of thought holding conflicting positions regarding the relevance or irrelevance of dividend policy in enhancing shareholders' wealth. From the review, three assertions were identified. Some theorists claimed that dividend policy is not relevant in determining shareholders' wealth (Miller & Modigliani, 1961) as others contend that dividend payment is relevant in enhancing shareholders' wealth (Lintner, 1956; Gordon & Linter, 1962). In contrast, other authorities also opined that payment of dividend reduces shareholder value since investors prefer future capital gains to current dividend payments (Litzenberger & Ramaswmy, 1982). These conflicting positions held by these theorists have left the researcher in a quandary. The big question: What is the dividend policy preference and risk appetite of Ghanaian investors? Also, corporate governance theories such as agency theory and stewardship theory also held varying positions regarding different board mechanisms and their effect on shareholders' wealth.

A review of empirical literature also revealed that studies on board dynamics, dividend policy and shareholders' wealth have received a considerable research attention in the finance and corporate governance literature. As others have studied the effect of board dynamics on shareholders' wealth (Ofori-Sasu et al., 2019, Mubaraq et al., 2021; Ofori-Sasu et al., 2017; Ovbiebo et al., 2019; Awodiran, 2019; Nazar, 2021), others have studied the effect of dividend policy on shareholders' wealth (M'rabet & Boujjat, 2016; Maladjian & El Khoury, 2014; Kumaraswamy et al., 2017; Abdullahi, 2019; Murtaza et al., 2020; Ofori- Sasu et al.,2017; Ozuomba et al., 2016). Some studies also focused on

effect of board attributes on dividend policy (Tahir, *et al.*, 2020; Benjamin & Biswas, 2019). Unfortunately, majority of these studies were conducted in developed economies. However, most of these studies on the relationship between dividend policy, board structure dynamics and shareholders' wealth simultaneously have fewer findings than studies on two of these variables separately. Again, these studies were inconsistent as they yielded mixed, fragmented and inconclusive results. As others found positive effect of board dynamics on shareholders' wealth (Awodiran 2019; Odunayo, 2019), others found negative effect of board dynamics on shareholders' wealth (Tahir et al., 2020; Ovbiebo et al., 2019; Omoye & Eriki, 2014). Again, as others found positive effect of board dynamics on dividend policy (Tahir et al., 2020; Rajput & Jhunjhunwala, 2019), others found negative effect of board dynamics on dividend policy (Nazar, 2021, Sanan, 2019). Additionally, empirical literature on the effect of dividend policy on shareholders' wealth was also seen to yield conflicting results (Ozuomba et al., 2016; Eniola & Akinselure, 2016).

A review of Ghanaian studies (Ofori-Sasu, 2017; Ofori-Sasu; 2019, Adam et al., 2020; Yakubu et al., 2022) indicated that no known study has assessed the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth. Also, it was unclear on the representation of manufacturing firms in the sampled firms of these studies. These studies also failed to consider other factors (firm age, firm size, tax, tangibility, GDP growth, interest rate, inflation rate) that could influence share prices (Ofori-Sasu, 2017) in their models. It is on the strength of these arguments that this study seeks to fill the gaps identified by assessing the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth in the Ghanaian manufacturing sector. The result from this study is unique as it will help bring clarity to the issues regarding dividend policy preference and risk appetite of Ghanaian investors to serve as basis for recommendation to industry players and policymakers to devise better corporate governance strategies and prudent dividend policies which will inure to the sector's benefit by enhancing its financing ability in order to achieve its resolve to becoming the sub-region's leading manufacturing hub.

1.3 Brief Theoretical review

The issue of whether corporate board structure dynamics and dividend policy decisions are relevant or irrelevant to shareholders' value maximization is corroborated by corporate governance and dividend policy theories. According to corporate governance literature, agency theory (Einsenhardt, 1989), stewardship theory (Donaldson & Davis, 1991), and resource dependency theory (Pfeffer & Salancik, 1978) extensively explain how the board of directors behaves, how it is structured and how this affects shareholders' wealth. Additionally, the relevance or irrelevance of dividend policy to influence shareholders' wealth is also explained by existing dividend policy theories. These theories are Dividend Irrelevance Theory (Miller & Modigliani, 1961), Bed-in-Hand Theory (Gordon & Linter, 1962), Signaling Theory (Ross, 1995), The Tax preference theory/ Tax aversion theory (Ehrhardt & Brigham, 2008) and Agency Costs and Free Cash Flow theory of Dividend Policy. These theories are adequately explained in chapter two of this work.

1.4 Purpose of the Study

The overriding aim of this study is to assess the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth in Sub-Saharan Africa, particularly Ghana, using listed manufacturing firms. Addressing this issue is necessary as it will help appreciate the extent to which dividend decision translates the actions of board of directors into shareholders' wealth maximization. Indeed, the outcome of this study will put into better perspective how critical dividend decision is among the many decisions taken by the board.

1.4.1 Research Objectives

The specific objectives of this study are to:

1. examine the effect of board structure dynamics on shareholders' wealth of listed manufacturing firms in Ghana.
2. assess the effect of dividend policy on shareholders' wealth of listed manufacturing firms in Ghana (i.e., assessing the dividend policy preference and risk appetite of Ghanaian investors).
3. ascertain the mediating effect of dividend policy in the relationship between board structure dynamics and shareholders' wealth.

1.5 Research Hypotheses

Drawing from the review of relevant dividend policy and corporate governance theories as well as empirical literature, the following hypotheses are proposed.

H1a: Board size has a statistically significant and positive effect on shareholders' wealth of listed manufacturing firms.

H1b: Female presence (Board Gender Diversity) has statistically significant and positive effect on shareholders' wealth of listed manufacturing firms.

H1c: Non-executive directors (Board Composition) representation on the board has a statistically significant and positive effect on shareholders' wealth of listed manufacturing firms.

H1d: CEO duality has as statistically significant and negative effect on shareholders' wealth of listed manufacturing firms

H1e: There is a statistically significant positive effect of board audit committee effectiveness on shareholders' wealth of listed manufacturing firms

H2a: Board size has a statistically significant and negative effect on dividend policy of listed manufacturing firms.

H2b: Female presence (Board Gender Diversity) has no statistically significant effect on dividend policy of listed manufacturing firms.

H2c: Non-executive directors (Board Composition) representation on the board has a statistically significant and positive effect on dividend policy of listed manufacturing firms.

H2d: There is a statistically significant negative effect of CEO duality on dividend policy of listed manufacturing firms.

H2e: There is a statistically significant positive effect of board audit committee effectiveness on dividend policy of listed manufacturing firms.

H3a: Dividend policy has a statistically significant positive effect on shareholders' wealth of listed manufacturing firms.

H4a: Board size has indirect and significant relationship with shareholders' wealth through dividend policy of listed manufacturing firms on the Ghana Stock Exchange.

H4b: Female presence (Board Gender Diversity) has indirect positive and significant relationship with shareholders' wealth through dividend policy through dividend policy of Ghanaian listed manufacturing firms.

H4c: Non-executive directors (Board Composition) representation on the board has indirect positive and significant relationship with shareholders' wealth through dividend policy of Ghanaian listed manufacturing firms.

H4d: CEO duality has indirect negative and significant relationship with shareholders' wealth through dividend policy of Ghanaian listed manufacturing firms

H4e: Board audit committee effectiveness has indirect positive and significant relationship with shareholders' wealth through dividend policy of Ghanaian listed manufacturing firms.

1.6 Significance of the Study

The findings of this study will be of great relevance as it will immensely contribute to theory, policy direction as well as practice. The result from this study is unique as it will help bring clarity to the issues regarding dividend policy preference and risk appetite of Ghanaian manufacturing sector investors to serve as a basis for recommendation to industry players and policymakers to devise better corporate governance strategies and prudent dividend policies which will inure to the sector's benefit by enhancing its financing ability in order to achieve its resolve to becoming the sub-region's leading manufacturing hub. It will help safeguard the interest of shareholders and other stakeholders via recommendations made from the study by fashioning mechanisms for resolving symptoms of poor corporate governance. This study will therefore aid policymakers and regulators such as Ghana Stock Exchange (GSE), Securities and Exchange Commission (SEC) and government agencies to devise better board structure policies to complement the recommendations by Cadbury Committee (1992) on good corporate governance mechanisms (Nurchaqiqi & Trisni, 2018; Jiang, et al. 2016; Hashim, 2017) in a bid to implement dividend policies that affect shareholders wealth in the quest to make Ghana's manufacturing sector a manufacturing hub in the African sub region to compete globally (Afum *et al*.,2020). The study will contribute to the existing literature by responding to calls from previous studies (for example, Ofori-Sasu *et al.,* 2019, Nurchaqiqi & Trisni, 2018) that argue for increase in research attention on the mediating role of dividend policy

respectively on the relationship between board structure dynamics and shareholders' wealth in Sub-Saharan African particularly, Ghana using listed manufacturing firms. Finally, this work will serve as a reference material and shoulder for other researchers who would like to delve into this subject matter.

1.7 Research Delimitation

The focus of this study is to assess the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth. The study is delimited to Dividend Payout Ratio (DPR) as proxy for dividend policy. The study is also delimited to audit committee effectiveness, board composition, board gender dynamics, board size and CEO Duality as indicators of board structure dynamics. Again, the study is delimited to earnings per share, return on equity and market value added as indicators of shareholders' wealth. The study also considers a sample of seven Ghanaian listed manufacturing firms. The study also considers other firm-specific and macroeconomic factors as control variables in order to ensure validity of the outcome of the study. However, the study did not consider other external factors such as political will to grow other sectors of the economy, socio-cultural factors, technological changes, legal factors among others. However, these delimitations will not have impair the validity of the work since all the variables needed to achieve the research objectives are present. Also, due the inclusion of other macroeconomic factors as control variables, the study's outcome will serve its intended purpose.

1.8 Organization of chapters

This work is split into five chapters. Chapter one includes background of the study, statement of the problem, purpose of the study, research objectives, research questions, research hypotheses, justification/significance of the study, delimitation of the study. Chapter two comprises theoretical review, empirical review and conceptual review/framework. Chapter three which is the research methodology focuses on philosophical underpinning, research approach, research design, population of the study, sample size and sampling technique, data and data collection instrument, study variables, data analysis and presentation. Chapter four involves data analysis and discussion and finally, chapter five involves summary, conclusion and recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews relevant dividend policy and corporate governance theories, relevant extant literature and eventually develops a conceptual framework for the study. The dividend policy theories reviewed in this chapter are Dividend Irrelevance Theory (Miller & Modigliani, 1961), Bed-in-Hand Theory (Gordon & Linter, 1962), Signaling Theory (Ross, 1995), The Tax-effect hypothesis/ Tax aversion theory (Ehrhardt & Brigham, 2008) and Agency Costs and Free Cash Flow Hypothesis of Dividend Policy. Also corporate governance theories under consideration in this study are agency theory (Einsenhardt, 1989), stewardship theory (Donaldson & Davis, 1991) and resource dependency theory (Pfeffer & Salancik, 1978).

2.1 Theoretical review

The issue of whether corporate board structure dynamics and dividend policy decisions are relevant or irrelevant to shareholders' value maximization is corroborated by corporate governance and dividend policy theories. According to corporate governance literature, agency theory (Einsenhardt, 1989), stewardship theory (Donaldson & Davis, 1991), and resource dependency theory (Pfeffer & Salancik, 1978) extensively explain how the board of directors behaves, how it is structured and how this affects shareholders' wealth. Additionally, the relevance or irrelevance of dividend policy to influence shareholders' wealth is also explained by existing dividend policy theories. These theories are; Dividend Irrelevance Theory (Miller & Modigliani, 1961), Bed-in-Hand Theory

(Gordon & Linter, 1962), Signaling Theory (Ross, 1995), The Tax preference theory/ Tax aversion theory (Ehrhardt & Brigham, 2008) and Agency Costs and Free Cash Flow theory of Dividend Policy.

2.1.1 Agency Costs and Free Cash Flow Hypothesis of Dividend Policy

The Agency Theory presupposes that humans are rational, self-interested, and opportunistic (Einsenhardt, 1989). The absence of any conflicts of interest between managers and shareholders is one of the underlying premises of M&M's perfect capital market. In situations when the firm's owners are separate from its management, this assumption is, nonetheless, debatable in practice. In these situations, managers are always imperfect shareholders' agents. For example, managers may consume excessive perquisites or overinvest in managerially gratifying but unprofitable activities, which are acts that are costly to shareholders. This is because managers' objectives are not always the same as shareholders' interests. As a result, shareholders incur agency costs to oversee managers' actions, which are an implicit cost brought on by a potential conflict of interest between shareholders and corporate management. By limiting the amount of discretionary funds accessible to managers, dividend payments may help to align interests and alleviate agency issues between managers and shareholders (Rozeff, 1982; Easterbrook, 1984; Jensen, 1986; Alli, et al., 1993). The possible conflict between shareholders and bondholders is another component of the agency costs problem that could be impacted by dividend policy. Shareholders are seen as the agents of bondholders' funds. In this situation, excessive dividend payments to shareholders could be interpreted as shareholders expropriating wealth from bondholders (Jensen & Meckling, 1976). Because shareholders have limited

responsibility and can access the company's cash flow before bondholders, bondholders desire to limit dividend distributions to secure their claims. Shareholders, on the other hand, want substantial dividend payments for the same reasons (Ang, 1987). Easterbrook (1984) claimed in a widely cited essay that dividends may be utilised to diminish managers' free cash flow. Furthermore, Eastbrook believed that dividend payments would compel managers to seek funds from the capital market. Investment specialists, such as bankers and financial analysts, will be able to monitor managers' behaviour in this instance. As a result, shareholders can monitor managers at a lesser cost and minimise any collective action problems. This shows that dividend payments boost management scrutiny from outsiders while decreasing the likelihood of managers acting in their own self-interest. However, Easterbrook noted that raising dividend payouts may compel managers to adopt unfavourable activities such as expanding business leverage, which may occasionally raise the firm's riskiness.

Jensen (1986) offered another explanation for dividend payments based on the agency costs theory, similar to Easterbrook's. Jensen maintained that organisations with surplus (free) cash flow allow management more freedom to use the funds in ways that benefit themselves but not the best interests of shareholders. He contended that managers had incentives to grow their organisations above the appropriate size in order to increase the resources under their control and, moreover, to enhance their income, which is frequently tied to firm size (Gaver & Gaver, 1993). As a result, if a company has a large cash surplus, the overinvestment problem becomes more pronounced, and managers may attempt negative NPV initiatives. Extraction of extra funds from free cash flow that management controls can help to alleviate the overinvestment problem. Increasing

dividend payouts may serve to mitigate the free cash flow within managers' control, restricting them from investing in initiatives with a negative net present value (NPV). As a result, increasing dividend payments reduces the agency costs between managers and shareholders. Furthermore, Jensen has suggested that debt, like dividends, may reduce the agency costs of free cash flow by reducing the funds under management control. As previously stated, M&M believes that a company's dividend policy is distinct from its investment philosophy. The free cash flow hypothesis, on the other hand, indicates that dividend policy and investment decisions are linked. It is suggested that increasing dividend payments will lessen the "overinvestment" problem, which will have a positive influence on the firm's market value, all other things being equal (Lang & Litzenberger, 1989). Accepting the premise that rising dividends will lower the money available to managers and drive them to be in the market to acquire funds means that shareholders must be willing to face the risk of the corporation becoming more indebted as well as pay higher personal tax rates on dividends. In other words, shareholders must weigh the costs and benefits of increasing dividends. This theory is relevant to this study as it explains the rationale behind why shareholders prefer high dividend payout to future capital gains and by extension, why high dividend payout could lead to a maximized shareholders' wealth.

2.1.2 Stewardship Theory

According to the stewardship hypothesis, a steward protects and maximises shareholder capital through business performance. Stewards are company executives and managers who aim to protect and increase profits for shareholders. When the company succeeds, the stewards are delighted and motivated. It emphasises the need of employees

or executives behaving autonomously to maximise shareholder returns. Employees accept responsibility for their jobs and work hard to complete them (Donaldson & Davis, 1991). There is no agency problem, according to this opinion, because the CEO has the ultimate obligation to perform successfully in order to be held accountable for his or her stewardship. This theory is relevant to the study as it justifies why CEO duality or lower representation of outside directors may not be injurious to shareholders' interest and for that matter may not reduce shareholders' wealth. In effect, it demonstrates how irrelevant board independence is in influencing shareholders' wealth.

2.1.3 Resource Dependency Theory

The Resource Dependency Theory looks at how board directors ensure that the organisation has access to the resources it needs. It contends that directors, through their links to the outside world, play a critical role in supplying or acquiring critical resources to a company. The availability of resources benefits both organisational effectiveness and the firm's longevity. The board of directors provides the company with information, expertise, and access to key stakeholders such as suppliers, consumers, public politicians, and social organisations, as well as credibility (Pfeffer & Salancik, 1978). It lends support to the notion that a firm's external resources have an impact on its behaviour. Companies can attain their objectives thanks to the various resources available to them. Nonexecutive directors of the board are able to employ resources, particularly information not available internally to the organisation, while also favouring shareholders' interests (Ofori-Sasu et al., 2019). This theory is relevant to the current study as it explains the essence of board dynamics in maximizing shareholders' wealth.

2.1.4 Dividend Irrelevance Theory

Miller and Modigliani (1961) propose that dividend policy has no effect on the market price of shares under the following conditions of a perfect capital market: rationally behaving investors, absence of tax discrimination between dividend income and capital appreciation, and the firm's given investment policy. It is stated that the firm's worth is determined by its earnings, which are derived through the company's investment program. They said that dividends and capital gains are the two most common ways for a company's profits to be distributed to its shareholders. When a company chooses to distribute profits to its shareholders as dividends, the stock price is automatically decreased by the amount of the dividend per share on the ex-dividend date. So, they posited that in a perfect market, dividend policy does not affect the shareholder's return. In their study, Black & Scholes (1974) built 25 common stock portfolios on the New York Stock Exchange to examine the influence of dividend policy on share price from 1936 to 1966. They tested the relationship between dividend yield and projected return using the capital asset pricing model. There was no significant relationship between dividend yield and predicted return, according to their research. There is no evidence that various dividend policies contribute to different stock prices, according to them. Black (1976) goes on to say that there are no compelling reasons to pay dividends, referring to dividend policy as a "dividend riddle." The dividend irrelevance hypothesis was supported by their findings. Hakansson (1982) validated Miller and Modigliani's irrelevance argument, claiming that dividends, whether informative or not, have no impact on a firm's value when investors have homogenous belief and time additive utility, and the market is fully efficient. This theory is critical to the current study as it rationalizes why dividend policy is irrelevant in influencing shareholders' value and

therefore supports those studies whose findings indicates insignificant effect of dividend policy on shareholders' value.

2.1.5 The Bird in Hand Theory

Dividends are preferred by shareholders over future uncertain financial gains, according to Gordon and Linter (1962). They believe that because the future is unknown, it is best to live in the present. In contrast to the irrelevance argument, Gordon and Linter (1962) proved that dividends are relevant in an uncertain environment when investors are rational and risk cautious, preferring present payouts to uncertain future capital gains. As a result, dividend payment is less hazardous than capital gains from price appreciation since dividends are paid right after they are announced, but capital gains are reflected in the future (Bhattacharya, 1979). Because most investors advance funds to companies that pay current dividends rather than future capital gains, the Bird in the Hands hypothesis is pertinent to the research. When contrasted to the future, this boosts a company's current financial leverage and growth. According to the theory, a firm's existing financial leverage and growth will rise in the future. Firms should maintain a greater dividend payment ratio and permit a higher dividend yield since dividends are considered to be more certain than capital appreciation. This policy would aid in the rise of stock prices (Lintner, 1956; Gordon & Shapiro, 1956; Gordon, 1959). Fisher(1961) substantiates this claim.

Despite the tax consequences of paying dividends, management continues to do so in order to send a good message about the company's prospects. Cash dividends are taxed more heavily than capital gains as a result of this signaling. This claim is supported by the tax-preference effect theory, which established the relevance of taxes in dividend policy

decisions and claims that investors prefer a low dividend payment to a greater dividend payout due to the favorable tax treatment of capital gains over dividend yield. As a result, proponents of this theory advise companies to maintain minimal dividend distributions in order to avoid a greater tax liability. While some investors prefer capital gains to reduce their tax burden, others may prefer dividends due to a pressing financial need. They also assumed that assets that management invests in outlast management's tenure in office, and that ownership of the assets is passed to subsequent management over time. This theory is relevant to this study because it gives a theoretical backing to why high dividend payout could have the tendency of enhancing shareholders' wealth.

2.1.6 The Signaling Effect Theory

The Signaling Effect Theory, also known as information content theory, proposed by Lintner (1956), contends that dividend payment conveys substantial information about the stock market's performance prospects to shareholders and investors. The firm's management have access to critical financial and costing information that investors and existing shareholders do not. The management used this data to generate a financial projection for the company's future potential growth. This information might be utilised for or against the shareholders' benefit. External information is used by shareholders to assess the intentions of management and the firm's prospects. As a result, investors and current shareholders can rely on external pieces of information, one of which is the dividend payment, to forecast the firm's business prospects. As a result, dividend policy has information content that functions as a signal. As a result, the capital market reacts fast to share buyback announcements since they provide new information that is sometimes

referred to as a signal to shareholders or investors about a company's future and hence its share price (Panigrahi & Zainuddin, 2015).

The signaling theory has two key assumptions: (1) outside investors have incomplete knowledge about the firm's future cash flows and capital gains, and (2) dividends are taxed at a higher rate than capital gains. Both assumptions are valid in the actual world: the capital market system is imperfect. Dividends, according to Bhattacharya (1980), may also serve as an indicator of expected future cash flows. This viewpoint is also consistent with Hatta (2002), who claimed that dividend policy is frequently viewed as a signal for investors when evaluating a company's strengths. Under these imperfect market assumptions, enterprises would prefer dividend payment even if there is a tax disadvantage for payouts in order to convey good signals to investors and shareholders who do not have first-hand information about the firm. Though Modigliani and Miller (1961) assumed that investors and management had complete knowledge of a business, several studies have argued that management has more precise and timely information about the firm than outside investors. As a result, there is a schism between managers and investors, and to overcome this schism, management use dividends as a vehicle to convey confidential information to shareholders (Al-Malkawi, 2007, Al-Malkawi et al., 2010). The dividend record and prospects have traditionally been the most essential aspect of regulating investment quality and value for the majority of common stocks (Graham & Dodd's Security Analysis, 1988). Ross backs up this allegation (1995). This theory is relevant to the current study because it offers a theoretical support to why high dividend payout positively influences shareholders' wealth.

2.1.7 Tax-Preference Theory/Tax Aversion Theory

It has long been assumed that there is no tax distinction between dividends and capital gains. In the actual world, however, taxes exist and can have a significant impact on dividend policy and the firm's value. Dividends and capital gains are often taxed differently, and because most investors prefer after-tax returns, the impact of taxes may influence their demand for dividends. Taxes may also affect dividend distribution if management respond to this tax preference by increasing the earnings retention ratio in order to improve shareholder wealth (firm value).

Low dividend payout ratios, according to the tax-effect theory, lower the cost of capital and enhance the stock price. In other words, low dividend payout ratios contribute to the maximisation of a company's value. This argument is based on the assumption that dividends are taxed at a greater rate than capital gains. Furthermore, dividends are taxed right away, whereas capital gains are not taxed until the stock is sold. These tax advantages of capital gains over dividends predisposition investors who have favourable capital gains tax treatment to prefer firms that retain the majority of their revenues rather than paying them out as dividends, and are willing to pay a premium for low-payout corporations. As a result, a low dividend payment ratio lowers equity costs while increasing stock price. This prediction is nearly the opposite of the Bird in Hand Hypothesis, and it, of course, violates the Dividend Irrelevance Hypothesis' strict form. Dividends are taxed at a higher rate than capital gains in many countries. As a result, investors in high tax brackets may require larger pre-tax risk-adjusted returns to hold dividend-paying companies. A proposed tax-effect theory is based on the relationship between pre-tax equity returns and dividend yields (Litzenberger & Ramaswmy, 1982).

Brennan (1970) developed an after-tax version of the capital asset pricing model (CAPM) to examine the relationship between tax risk-adjusted returns and dividend yield. According to Brennan's model, a company's pre-tax returns should be positively and linearly related to its dividend yield and systematic risk. Greater pre-tax risk-adjusted returns are connected with larger dividend yield equities to compensate investors for the tax disadvantages of these gains. Due to the disadvantage of higher taxes associated with dividend income, a stock with a higher dividend yield will sell at a lower price, all other things being equal. This theory is relevant to the current study as rationalizes the negative relationship between dividend policy and shareholders' wealth.

2.2.0 Empirical Literature

Corporate governance has a long history of being a source of concern for academics and businesses, and it has a wide range of definitions. Corporate governance is defined as the process through which varied stakeholders' interests, such as investors and managers, are aligned for improved organization management, eventually resulting in the best interests of investors (Mandac & Gumus, 2010). Thus, it is concerned with how to link the governance mechanisms within the boundaries of corporations and society's conception of the scope of corporate accountability together (Garcia-Meca & Juan 2009). According to Kyereboah-Coleman (2007), corporate governance comprises the structures, processes, and procedures established by commercial organizations with the goal of lowering the magnitude of problems that these companies face as a result of the separation of ownership and control. The dividend policy of a company is also taken into account when making funding decisions. This is a decision on how much of the current earnings will be

distributed as a replacement dividend for the investments made and how much will be kept for internal reinvestment (Brigham & Houston, 2010).

2.2.1 Board Structure Dynamics and Shareholders' Wealth

The board is tasked with a number of responsibilities, including establishing a link with the outside world, determining objectives and plans, allocating resources, and overseeing managers' operations (Vu et al., 2018). The success of a corporate board in fulfilling those tasks is determined by a variety of factors, including the size of the board, the proportion of outside/independent directors on the board, female representation on the board, audit committee effectiveness and CEO duality. Certain previous research (Muttakin et al., 2012; Terjesen et al., 2016; Kao et al., 2018) found that several features of board characteristics have a considerable impact on shareholders' wealth. These are discussed below.

2.2.1.1 Board Size and Shareholders' wealth

Malik et al. (2014) look at the impact of board size on earnings per share in Pakistani firms. A sample of chosen enterprises listed on the Karachi stock exchange was employed in the study. Data was gathered from the firms' annual reports during a five-year period, from 2008 to 2012. The approach of data analysis was linear regression analysis. The findings show that board size has a large and beneficial impact on earnings per share. In Pakistan, Haider et al. (2015) investigate the impact of board size on earnings per share. A sample of chosen enterprises listed on the Pakistan stock exchange was employed in the study. For a period of five years, from 2008 to 2012, data was gathered from the firms'

annual reports. Multiple regression analysis was used as the method of data analysis. The findings show that board size has a significant and positive impact on earnings per share. In Canada, Sayumwe and Amroune (2015) investigate the effect of board size on earnings per share. The research looked at 36 publicly traded firms in Canada listed on the Toronto Stock Exchange. From 2011 to 2013, data was gathered from the yearly report over a three-year period. The influence of board size on earnings per share was studied using a multiple regression approach. The findings show that board size has a significant and positive impact on earnings per share.

Cheema and Din (2013) investigate the impact of board size on earnings per share in Pakistan. The study examined a sample of 15 cement companies registered on the Karachi stock exchange. Data were acquired from annual reports of corporations from 2007 to 2011. The data was analysed using multiple regression analysis. The findings support the association between board size and earnings per share, but only insignificantly. Ahmad and Hamdan (2015), who investigated the impact of board size on earnings per share in Bahrain, verified the previous conclusion. The study sampled 42 publicly traded companies from the Bahrain Stock Exchange database. From 2007 through 2011, data were gathered from the yearly report. The influence of board size on earnings per share was studied using multiple regression approaches. The findings give only marginally negative support for the effect of board size on earnings per share. In Sri Lanka, Azeez (2015) investigates the relationship between board size and earnings per share. The study examined a sample of 100 Colombo Stock Exchange-listed companies. For three years, from 2010 to 2012, data were gathered from the annual report. The influence of board size on earnings per share

was investigated using a multiple regression technique. The findings provide small but unfavourable support for the relationship between board size and earnings per share.

Sayumwe and Amroune (2017) investigate the impact of board size on market price per share in Canada. The study examined a sample of 50 publicly traded Canadian firms on the Toronto Stock Exchange. Data were gathered from the annual report for a five-year period, from 2009 to 2013. The regression analysis approach was used to investigate the impact of board size on market price per share. The findings offer significant and positive support for the influence of board size on market price per share. Similarly, Dobbin and Jung (2008) investigate the impact of board size on market price per share in US corporations. The survey included 432 firms from the United States. Data were gathered through yearly reports over a nine-year period, from 1997 to 2005. The ordinary least squares approach was used to estimate the influence of board size on market price per share. The findings offer significant and positive support for the link between board size and market price per share. Ferrer and Banderlipe (2012), on the other hand, investigate the link between board size and market price per share in Philippine corporations. The study employed a sample of 29 firms from the Philippines. To assess the impact of board size on market price per share, regression analysis was used. The results show that the size of the board has no influence on the market price per share. Drawing from the above review, the following hypothesis has been developed.

H1a: Board size has a statistically significant and positive effect on shareholders' wealth of listed manufacturing firms.

2.2.1.2 Board Gender and Shareholders' wealth

In Canada, Sayumwe and Amroune (2015) investigate the impact of board gender on earnings per share. The research looked at 36 publicly traded firms in Canada listed on the Toronto Stock Exchange. From 2011 to 2013, data was gathered from the yearly report over a three-year period. The effect of board gender on earnings per share was investigated using a multiple regression approach. The findings show that the effect of board gender on profits per share is significant and positive. In a similar vein, Shittu et al., (2016) investigate the impact of board gender on earnings per share in Malaysia. A sample of full-fledged Islamic banks in Malaysia was employed in the study. From 2010 to 2015, data was gathered from the yearly report over a six-year period. The effect of board gender on earnings per share was investigated using a multiple regression approach. The findings show a significant but positive relationship between board gender and earnings per share.

Ayesha et al., (2015), on the other hand, investigate the impact of gender on board gender on earnings per share in Sri Lanka. The research looked at 26 manufacturing businesses that were publicly traded on the Colombo Stock Exchange. From 2009 to 2014, data was gathered from the yearly report over a six-year period. The effect of board gender on earnings per share was investigated using a multiple regression approach. The findings confirm both the positive and negative effects of board gender on earnings per share.

Ferrer and Banderlipe (2012) investigate the impact of board gender on market price per share in Philippine enterprises. The study employed a sample of 29 firms from the Philippines. The estimation method of regression analysis was used to estimate the effect of board gender on market price per share. The findings show that board gender has a significant positive influence on market pricing. Similarly, Ferrari et al., (2018)

investigate the impact of board gender on market price per share in Germany. The survey included 245 firms from the United States. Data were gathered from the annual report during a four-year period, from 2011 to 2014. The ordinary least squares approach was used to calculate the influence of board gender on market price per share. The findings give significant positive support for the relationship between board gender and market price per share. On the other hand, Dobbin and Jung (2008) investigate the impact of board gender on the market price per share in US corporations. The survey included 432 firms from the United States. Data were gathered through yearly reports over a nine-year period, from 1997 to 2005. The study employed ordinary least squares approach to assess the effect of board gender on market price per share. The findings suggest a negative significant link between board gender and market price per share. From the foregoing review, the following has been hypothesized.

H1b: Female presence (Board Gender Diversity) has statistically significant and positive effect on shareholders' wealth of listed manufacturing firms.

2.2.1.3 Board Composition and Shareholders' Wealth

Non-executive directors are seen to be more independent and capable of protecting shareholders' interests (Gosh & Sirman, 2003). Non-executive directors, on the other hand, have a reputation to defend and will behave differently than executive directors (Fama & Jensen, 1983). Non-executive directors, on the other hand, have less firm-specific skills and knowledge and spend less time than executive directors, thus they will not be able to make as excellent judgments as executive directors. The board of directors is ultimately responsible for not just preventing bad management practices that might lead to company

failures, but also ensuring that enterprises take advantage of possibilities that increase shareholder value (Terjesen et al., 2016; Yusoff & Adamu, 2012). The corporate board has significant ability to oversee and monitor the activities of managers (Jonsson, 2005; Terjesen et al., 2016). To this end, the board should acknowledge a combination of talents and capacities for the governance function's performance. To promote the independence of the board from management, agency theory promotes the engagement of independent non-executive directors. Outside directors are needed to bring their new ideas, objectivity, and specialist information garnered from their particular field of activity (Borokhovic et al., 1996).

According to Officer (2011), assigning a larger number of outside directors to the board is linked to the board's performance in monitoring functions. According to Ghabayen (2012), firms with more effective management oversight are less likely to participate in corporate fraud, and non-executive directors have less reason to do so. In the American context, he confirms that the percentage of outside members on the board of directors for fraud businesses is lower than for non-fraud firms. He also believes that having a large number of independent directors will help to avoid fraud and improve shareholder value. For this reason, Dzingai and Fakoya (2017) discovered a positive and significant relationship between board independence and shareholders' wealth.

In Malaysia, Yusoff and Adamu (2012) investigate the impact of non-executive independent directors on earnings per share. The study looked at 813 businesses that were publicly traded on the Malaysian stock exchange, Bursa Malaysia. From 2009 to 2011, data was gathered from the yearly report over a three-year period. The hypotheses on the links between non-executive independent directors and earnings per share were tested using

correlational analysis. The findings show a significant positive relationship between non-executive independent directors and earnings per share. Adebayo et al., (2013) investigate the impact of board independence on earnings per share in non-financial enterprises in Nigeria. The study looked at 30 publicly traded manufacturing, financial, and service companies. From 2005 to 2010, data was gathered from the yearly report over a six-year period. The influence of board independence on earnings per share was studied using a multiple regression approach. The findings support the impact of board independence on earnings per share in a significant and positive way. Meyer and Wet (2014) also look at the link between non-executive board members and earnings per share in South Africa. A total of 126 publicly traded South African firms were included in the research. From 2010 to 2012, data was gathered from the yearly report over a three-year period. The influence of non-executive board members on earnings per share was studied using a multiple regression approach. The findings provide strong and encouraging evidence for the impact of board non-executive on earnings per share.

In contrast to the previous research, Azeez (2015) investigates the impact of board independence on earnings per share in Sri Lanka. A sample of 100 listed businesses on the Colombo Stock Exchange was employed in the study. From 2010 to 2012, data was gathered from the yearly report over a three-year period. The influence of board independence on earnings per share was studied using a multiple regression approach. The findings indicate the negative relationship between board independence and earnings per share. Ayesha et al., (2015.) investigate the impact of non-executive director independence on earnings per share in Sri Lanka. The research looked at 26 manufacturing businesses that were publicly traded on the Colombo Stock Exchange. From 2009 to 2014, data was

gathered from the yearly report over a six-year period. The effect of board non-executive independence on earnings per share was studied using a multiple regression approach. The findings indicate the negative relationship between board independence and earnings per share. This finding is further supported by Nguyen et al., 2010 and Adeabah et al., 2019.

Ahmad and Hamdan (2015), on the other hand, look at the effect of board independence on earnings per share in Bahrain. The study looked at 42 publicly traded firms from the Bahrain Stock Exchange database. From 2007 to 2011, data was gathered from the yearly report over a five-year period. The influence of board independence on earnings per share was studied using a multiple regression approach. The findings show insignificant negative support for the effect of board independence on earnings per share. Similarly, Faramarzi and Amini (2016) investigate the impact of board independence on earnings per share in Tehran. The survey included 109 companies from the Tehran Stock Exchange. Data from the yearly report were collected for eight years, from 2005 to 2012. The effect of board independence on earnings per share was studied using multiple regression approaches. The findings provide insignificant and negative support for the relationship between board independence and earnings per share.

In India, Samontaray (2010) investigates the impact of board characteristics on market price per share. A sample of 50 Indian Stock Exchange-listed firms was employed in the study. From 2007 to 2008, data was gathered from these firms' annual reports during a three-year period. The influence of board characteristics on market price per share was investigated using the regression analysis approach. The findings show that the influence of board composition on market price per share is positive and significant. In Canada, Sayumwe and Amroune (2017) investigate the impact of board composition on market

price per share. The research looked at 50 publicly traded firms in Canada that are listed on the Toronto Stock Exchange. From 2009 to 2013, data was gathered from the yearly report over a five-year period. The influence of board compositions on market price per share was studied using regression analysis. The findings confirm both the positive and negative effects of board composition on market price per share. Similarly, Dobbin and Jung (2008) investigate the impact of board composition on market price per share in US corporations. The research looked at 432 firms in the United States. From 1997 to 2005, data was gathered from the yearly report over a nine-year period. The effect of board compositions on market price per share was estimated using the ordinary least square approach. The findings confirm the positive and negative aspects of the link between board composition and market price per share. On the other hand, Ferrer and Banderlipe (2012) investigate the impact of board composition on market price per share in Philippine corporations. A total of 29 firms from the Philippines were included in the research. The effect of board compositions on market price per share was estimated using the regression analysis estimation technique. The results show that board composition does not influence the market price per share.

H1c: Non-executive directors (Board Composition) representation on the board has a statistically significant and positive effect on shareholders' wealth of listed manufacturing firms.

2.2.1.4 CEO duality and Shareholders' wealth

An independent board has a more significant proportion of independent directors and distinct individuals for the posts of CEO and chairman (Dalton & Kesner, 1987). The

link between CEO duality and corporate performance is the subject of theoretical discourse. According to stewardship theory, the phenomenon of CEO duality aids in the establishment of a cohesive command and control system in enterprises. According to agency theory, CEO duality increases the CEO's power, which exacerbates agency conflicts and, as a result, the firm's performance suffers. According to Fama and Jensen (1983), the roles of CEO (decision management) and chairman (decision control) must be distinct; otherwise, a strong CEO may render the board unproductive. Empirical data on CEO duality and business success are equivocal (Bertoni et al., 2014; Judge et al., 2003; Ramón-Llorens et al., 2017). Using panel data from small and medium-sized businesses in Ghana, Abor and Biekpe (2007) discovered a positive relationship between CEO duality and firm performance.

In contrast, Judge et al., (2003) in Russian and Ehikioya (2009) in Nigeria discovered that CEO duality had a negative impact on business performance. CEO duality reduces the board's capacity to oversee and regulate the management, and organizations with CEO duality have been discovered to conceal information about share options (Forker, 1992). CEO duality, according to Efendi et al. (2007), pushes business managers to distort or manipulate financial statements. Furthermore, CEO duality leads to corporations announcing more significant returns than actual and manipulated earnings (Masulis et al., 2007). As a result, institutional investors avoid investing in companies that are known to conceal or falsify facts about their actual financial condition (Efendi et al., 2007). According to a study of research in developing nations, CEO duality exacerbates agency problems in enterprises and has a negative impact on performance and governance mechanisms. CEO duality becomes a more controlling phenomenon than board size in

nations with weak political environments (Kamran & Shah, 2014) since CEO duality is either in the hands of enterprises' founding families or has tight relationships with founding families (Javid & Iqbal, 2010) as the agency theory postulates that the concentrated ownership is an effective internal corporate governance component to control agency problems.

H1d: CEO duality has as statistically significant and negative effect on shareholders' wealth of listed manufacturing firms

2.2.1.5 Audit Committee Effectiveness and Shareholders' wealth

According to Menon and Williams (1994), the composition of audit committee members is one of the indicators of a functional committee. In this context, Yasser et al. (2015) discovered a significant positive link between the audit committee and two business performance metrics in a sample of 30 Pakistani firms listed between 2008 and 2009. (ROE and PM). Proponents of agency theory, such as Hillman and Dalziel (2003), contended that a bigger auditing committee would remove the monitoring process and reduce business performance. Furthermore, Vafeas (1999) determined that a bigger audit committee had a negative impact on the performance of the organization. Proponents of resource dependency theory, on the other hand, argue that the need for a broader audit committee cannot be overstated. To that end, the committees might hire persons with various skills to oversee the integrity of accounting operations (Choi et al., 2004). The expanded audit committee will hold more meetings, resulting in more effective oversight (Raghunandan et al., 2001). Although Wei (2007), Al Matari et al. (2014) and Oradi et al. (2017) found no evidence of a significant nexus between audit committee size and business performance,

Al-Mamun et al. (2014) and Reddy et al. (2010) found that audit committee size had a positive effect on firm performance. Furthermore, Rezaei and Abbasi (2015) demonstrated that the size of an Iranian firm's audit committee influences corporate performance. Given the financial distress of Iranian companies between 2010 and 2015, it is expected that more specialists with different knowledge and ideas in the audit committee can control the accuracy of accounting techniques and improve the economic performance level of the company.

H1e: There is a statistically significant positive effect of board audit committee effectiveness on shareholders' wealth of listed manufacturing firms

2.2.2 Board Structure Dynamics and Dividend Policy

Previous empirical studies have discovered a mixed association between board structure dynamics and dividend policy. Alias et al. (2016), for example, discovered a significant positive association between independent directors and free cash flow on dividends, as well as a significant negative relationship between CEO duality and dividend per share. According to Dzingai and Fakoya (2017), independent boards are positively linked to business value, however, CEO duality is negatively related. In China, Benjamin and Biswas (2019) found a negative relationship between CEO dualism and dividend disbursements. In a survey of 296 American companies listed on the NYSE from 2009 to 2011, Gill and Obradovich (2012) revealed that CEO duality and dividend policy are positively and significantly related. Amidu (2007) observed that corporate board structure influences dividend policy decisions, which affects shareholder wealth. It is obvious that the dividend policy decision is critical to increasing shareholder value and wealth.

In line with this assumption, Ofori-Sasu et al. (2017) investigated the influence of dividend policy decisions on the value of Ghanaian listed businesses' shareholders and discovered that dividend per share had a favorable effect on the value of listed companies' shareholders in Ghana. Between 2006 and 2011, Gul et al., (2012) investigated the influence of firm-specific variables on the dividend policy of listed banks on the Karachi Stock Exchange. They discovered a significant relationship between profitability and company size with dividend policy, as well as a negative link between leverage and firm risk with dividend policy. Monoarf (2018) investigated the influence of dividend policy and company size on consumer goods profitability and value among businesses listed on the Indonesia Stock Exchange (IDX). The study's findings revealed that the dividend policy had a negative influence on profitability, whereas the company's size had no effect. The dividend strategies, the company's size, and profitability characteristics all have an impact on the company's valuation. Profitability did not reveal a mediation impact between the dividend policy and the company's valuation, but it did mediate the influence of the company's size on its value. Drawing from the preceding arguments, the following hypotheses has been developed:

H2a: Board size has a statistically significant and negative effect on dividend policy of listed manufacturing firms.

H2b: Female presence (Board Gender Diversity) has no statistically significant effect on dividend policy of listed manufacturing firms.

H2c: Non-executive directors (Board Composition) representation on the board has a statistically significant and positive effect on dividend policy of listed manufacturing firms.

H2d: There is a statistically significant negative effect of CEO duality on dividend policy of listed manufacturing firms.

H2e: There is a statistically significant positive effect of board audit committee effectiveness on dividend policy of listed manufacturing firms.

2.2.3 Dividend Policy and Shareholders' Wealth

An ample of empirical literature has been reviewed across developing and emerging economies to understand the effect of dividend policy on shareholders' wealth. Among the studies is the work of Khan et al., (2016) which examined whether dividend policy makes an influence on the firm performance among Pakistan firms listed on stock exchange covering a time period of 2010 to 2015. The study developed three models using return on assets, return on equity and Tobin Q as dependent variables regressed on ratio of market value of assets to book value of assets, dividend per share divided earning per share, Size, leverage, and sales growth. The OLS technique for regression analysis showed that dividend policy has positive relation with firm performance.

Ansar et al., (2015) also examined the relationship between shareholders wealth and dividend policy covering an annual Reports of 30 firms from textile, cement and chemical sector quoted in Karachi stock exchange in Pakistan from 2007 to 2011. The study employed market price of shares as dependent variable while dividend per share, retained earnings, lagged price and return on equity were the independent variables. The multiple regression model was used for data analyses. The result showed that dividend has a positive relationship with shareholder wealth. Murekefu and Ouma (2013) aimed to investigate the relationship between dividend payout and firm performance using 41

companies listed in Nairobi Securities Exchange from 2002 to 2010. With the help of Net profit after tax as the dependent variable and independent variables being actual dividends paid, total assets and revenue, the regression analyses showed a strong positive relationship between dividend payout and firm performance. Further to this, Priya and Nimalathasan (2013) employed annual reports of selected Hotels & Restaurants in Sri Lanka from 2008 to 2012 to examine the effect of dividend policy ratios on firm performance. The study build two regression models involving Return on Asset and Return on Equity as dependent variables. The explanatory variables to the two models were Earnings Per Share, Price to Earnings Ratio, Price/Book Value Ratio/ the results from Correlation and multiple regression analysis showed that all the variables of dividend policy has significant correlation with firm performance variables. Further findings showed that dividend policy ratios do not have significant effect on firm performance.

From the Nigerian perspective, Ozuomba et al., (2016) examines how shareholders wealth is affected by dividend policies. The study involved a sample of 120 questionnaires distributed to finance managers, chief accountants, directors of 10 quoted companies in the Nigeria stock exchange. The data were analyzed using ANOVA. The findings showed that Dividend policies influence the wealth of shareholders. A similar study from Nigeria (Uwuigbe et al., 2012) examined the relationship between the financial performance and dividend payout with a sample of 50 listed firms' in Nigeria from 2006 to 2010. Dividend policy was proxied by Dividend Payout ratio as the dependent variable while Return on Equity, Ownership structure and Firms size served as the independent variables and financial performance indicators of the study. Ordinary least square (OLS) Regression analysis indicated a significant positive association between the performance of firms and

dividend policy. Further to the above, Eniola and Akinselure (2016) employed 25 quoted companies in Nigeria to investigated the relationship between Earning per share and Dividend policies. The data covered a time frame from 2004 to 2013. Two simple regression models were developed using two dependent variables as Dividend yield ratio and Dividend payout ratio respectively; and Earnings per share as the independent variable. The result of the Ordinary Least Square (OLS) Regression analysis method carried out showed a significant relationship between dividend and market value.

From Morocco, M'rabet and Boujjat (2016) carried a panel study involving 44 listed firms operating in different industries within a five-year period from 2010 to 2014 on the relationship between dividend policies and financial performance. Two models developed for the study involved Profit after Tax and market capitalisation as dependent variable. The explanatory variables were actual dividends paid and total Asset. Panel Regression Analysis employed for data analysed showed that dividend policy is an important factor affecting firm performance. In Kenya, Kibet et al., (2016) used a sample of 55 listed firms in the Nairobi Securities Exchange covering five year time series from 2001 to 2011. The core objectives examined the effect of dividend policy (cash and share dividend) on the stock prices using equity Market Price as dependent variable and the independent variables as cash dividend and share dividend. A panel result obtained from Ordinary Least Square regression indicated positive relationship between cash dividend and share prices, and insignificant negative relationship between share dividend and share prices.

A similar Kenyan study by Mokaya et al., (2013) examined the effect of Dividend Policy on Market Share Value using a sample of 100 shareholders drawn from a target

population of 47,000 shareholders of National Bank. The study used market value of NBK shares as dependent variable while dividend payout, dividend growth rate, and regularity of dividend declaration were the independent variable. The Likert Scale questionnaire was employed for data collection and analyzed using correlation and regression techniques. The results showed that dividend policy had a significant effect on the market share value. Studies from Bangladesh were also reviewed. One of them from Al- Hasan et al., (2013) examined the effect of dividend policy on market price per share using 28 companies selected from 4 four industries in Bangladesh from 2005 to 2009. The analyses of the study involved descriptive statistics, correlation and multiple regression techniques. Market price per share was used as the dependent variable while dividend per share and retained earnings per share were the independent variables. The result showed that dividend policy has significant effect on market share price. Another study from Bangladesh from Al Masum (2014) posed question: do dividend policy decisions affect a firm's stock price. The problem was investigated using 30 banks listed in Dhaka Stock Exchange, from 2007 to 2011. It employed Market Price as the dependent variable and the explanatory variables were dividend yield, retention ratio, profit after tax, earnings per share, and return on equity. Using a panel data approach, Fixed and Random Effect Model were employed. The results showed that dividend Policy has significant positive effect on Stock Prices. The following hypothesis has been developed following the preceding arguments advanced:

H3a: Dividend policy has a statistically significant positive effect on shareholders' wealth of listed manufacturing firms.

Drawing from the entire literature review and propositions by Baron and Kenny (1986), taking into account the different perspectives such as relationships between board structure

dynamics and shareholders' wealth, board structure dynamics and dividend policy as well as dividend policy and shareholders' wealth, the following hypotheses have been developed:

H4a: Board size has indirect and significant relationship with shareholders' wealth through dividend policy of listed manufacturing firms on the Ghana Stock Exchange.

H4b: Female presence (Board Gender Diversity) has indirect positive and significant relationship with shareholders' wealth through dividend policy through dividend policy of Ghanaian listed manufacturing firms.

H4c: Non-executive directors (Board Composition) representation on the board has indirect positive and significant relationship with shareholders' wealth through dividend policy of Ghanaian listed manufacturing firms.

H4d: CEO duality has indirect negative and significant relationship with shareholders' wealth through dividend policy of Ghanaian listed manufacturing firms

H4e: Board audit committee effectiveness has indirect positive and significant relationship with shareholders' wealth through dividend policy of Ghanaian listed manufacturing firms.

2.3 Conceptual Framework

This is the summary of the research objectives and the research hypotheses. Here, the framework models the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth. The framework explains how dividend policy (Dividend Pay-out Ratio (DPR) mediates the relationship between board structure dynamics and shareholders' wealth. proxied by Financial Market Price Based Measures

(FMPBM) such as Market Value Added (MVA) and Accounting Based Measures (ABM) such as Earnings Per Share (EPS) and Return on Equity (ROE).

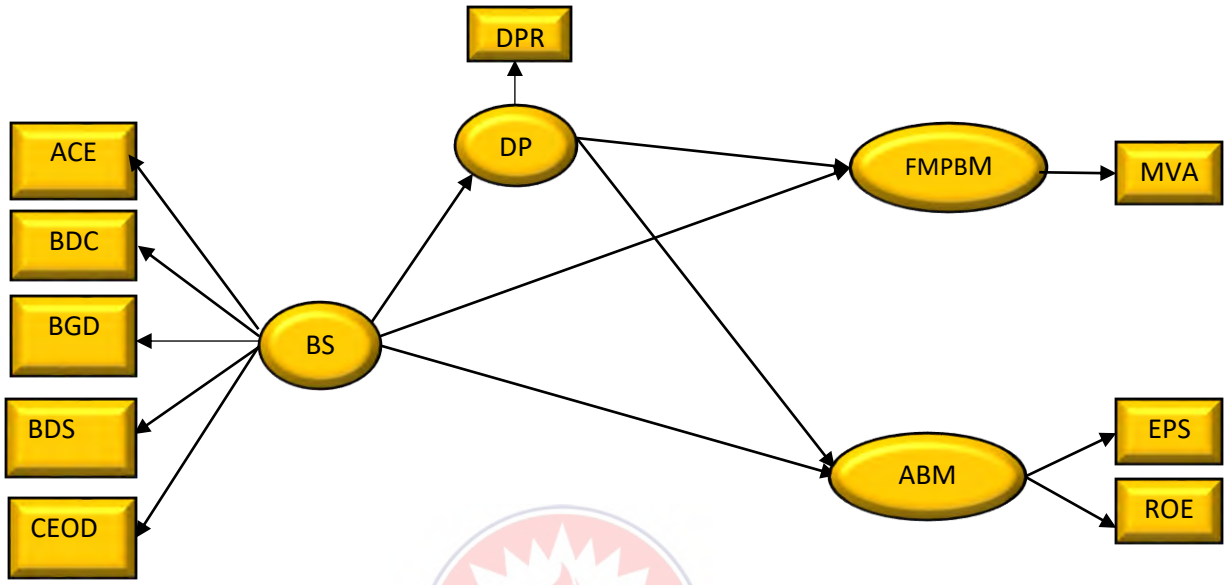

Figure 2 Mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth

Source: Owner's Construct (2022)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This study sought to examine the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth of listed manufacturing firms on the Ghana Stock Exchange (GSE). Board structure dynamics were proxied as Audit Committee Effectiveness (ACE), Board Composition (BDC), Board Gender Dynamics (BGD), Board Size (BDS), and CEO Duality (CEOD). Additionally, shareholders' wealth was represented by Financial Market Price Based Measures (FMPBM) such as Market Value Added (MVA) and Accounting Based Measures (ABM) such as Earnings Per Share (EPS) and Return on Equity (ROE) whereas dividend policy was proxied by Dividend Pay-out Ratio (DPR). This chapter therefore provides a description of the research methodology to be employed in this study including the philosophical underpinning, research approach, research design, population of the study, sample size and sampling procedure, data and instrument for data collection, study variables as well as data analysis techniques.

3.1 Philosophical Underpinning

This study took the positivist/scientific paradigm which was premised on the realist ontological assumption and objectivism epistemology. Realism is positivism's ontological position. Realism is the belief that objects exist independently of the knower (Cohen et al., 2007). As a result, a discoverable reality exists apart from the researcher (Pring, 2000). Most positivists believe that our senses do not mediate reality. Language plays a

representational role because it is linked to the world through some designative function; as a result, words derive their meaning from the objects they identify or indicate (Frowe, 2001). Objectivism is the positivist epistemology. Positivists explore the world objectively in search of absolute knowledge about objective reality. The researcher and the studied are separate entities. Meaning exists solely in objects, not in the researcher's conscience, and it is the researcher's goal to obtain this meaning. Positivistic statements are factual and descriptive. Because scientific hypotheses are based on data and facts, the scientific paradigm is fundamental (House, 1991). This discoverable knowledge is seen as absolute and value-free; it is not embedded in a political or historical context.

The goal of positivist methodology is to explain relationships. Positivists seek to identify the factors that impact outcomes (Creswell, 2009). Their goal is to create laws that can be used for prediction and generalization. A deductive technique is used. Correlation and experimentation are used to break complex interactions down into their component pieces. Direct experience and observation are used to gather verifiable evidence; this frequently includes empirical testing, random samples, controlled variables (independent, dependent, and moderator), and control groups. Quasi-experiments are chosen above true experiments. Cohen et al. (2007) define nomothetic as an approach characterized by procedure and methods meant to discover general laws. Positivists consider their process to be value neutral, and hence the knowledge produced is value neutral. Because the scientific paradigm seeks predictions and generalizations, procedures frequently produce quantitative data. Standardized tests, closed-ended questionnaires, and descriptions of phenomena using standardized observation techniques are some examples (Pring, 2000a).

Descriptive and inferential statistics are used in analysis. Sample results can be extrapolated to populations using inferential statistics.

This paradigm was suitable for the study since the researcher sought to employ statistical tools in quantitatively analysing the secondary data collected from the financial statements of the sampled companies under review to scientifically ascertain the interrelationships among board structure dynamics, dividend policy and shareholders' wealth and hence draw conclusions and inferences from the results.

3.2 Research Approach

A research approach, according to Creswell (2013), is a plan and procedure that consists of the steps of broad assumptions to detailed methods of data collection, analysis, and interpretation. It is therefore based on the nature of the research problem being addressed. A research approach could be quantitative, qualitative or mixed approach (Jebreen, 2012). The study employed a deductive approach. Deductive approach to data analysis and conclusion is the generic rule of the positivism philosophy (Crowther & Lancaster, 2015). By implication, the study adopts a quantitative approach in its data collection and analysis.

3.3 Research Design

According to Osuala (2005), research design is the process through which diverse components of a study are systematized in an intelligible and rational manner, assuring an effective approach to tackling the research topic. It is also a summary of the fundamental components of a study that includes the framework provided for data collection,

measurement, and analysis (Bulmberg et al., 2011). This study employed a descriptive research design and a correlational research design in its analysis. These designs were suitable for the study since the research sought to describe the profile of the collected data and as well establish relationship among the study variables and hence draw meaningful inferences from the analyses which will serve as a basis for generalization; a characteristic of the positivists paradigm.

3.4 Population of the study

Sekaran and Bougie (2016) opine that population for a study refers to the total number of audiences or elements that resides or are found within the jurisdiction of a research case study where the researcher prefers to make generalization based on sample statistics. Weeks (2020) also opined that population is an entire group of individuals, events or elements who possess an interested characteristic. This view was supported by Yin (2018) who asserted that a study's interested population is the number of respondents in the entire environment of interest to the researcher (Yin, 2018). The population for this study is all the 13 manufacturing firms listed on the Ghana Stock Exchange (GSE).

3.5 Sample and sampling technique

Sample refers to any group or a sub-group of the total population. As per the account of Flick (2013), representative respondents selected from a research population from which data would be collected for analysis is termed as the sample. A census sampling techniques was employed to select all the listed manufacturing firms on the Ghana Stock Exchange. According to Gupta and Kapoor (1970), a census sampling is a type of sampling

technique that considers all elements in the target population. This technique is suitable if the population is small (i.e. 200 or less), according to Singh and Masuku (2014).

Table 1: Sampled Firms for the Study

Item No.	Firm	Type of Institution
1	Aluworks Ltd	Manufacturing
2	Benso Oil Palm Plantation Ltd	Manufacturing
3	Camelot Ghana Ltd	Manufacturing
4	Cocoa Processing Company	Manufacturing
5	Fan Milk Ghana Ltd	Manufacturing
6	Guinness Ghana Breweries Ltd	Manufacturing
7	Unilever Ghana Plc	Manufacturing
8	African Champion Industries Limited	Manufacturing
9	Ayrton Drug Manufacturing Limited	Manufacturing
10	Golden Web	Manufacturing
11	Hords Limited	Manufacturing
12	Sam Wood Limited	Manufacturing
13	Samba Foods Limited	Manufacturing

Source: Ghana Stock Exchange (2022)

3.6 Data and Instrument for Data Collection

The study examined a 10-year panel financial and corporate governance data of listed manufacturing firms from 2010 to 2019. This data is of course, a secondary data measured at the ratio level of measurement. The data was obtained using the published audited financial reports of these firms retrieved from the fact book of the Ghana Stock Exchange (GSE).

3.7 Study Variables

Here, the variables understudy are defined. These include; dependent variable (shareholders' wealth), independent variable (board structure dynamics), mediating variable (dividend policy) as well as the control variables (size of firm, age of the firm, tangibility, firm risk, interest rate, inflation rate, GDP Growth). These concepts and measures are explained accordingly under the following sub-headings.

3.7.1 Dependent Variables of the Study

Shareholders' wealth is the dependent variable for the study. Literature on the effects of dividend policy and board structure dynamics on firms' performance have utilized accounting-based measures, for example, return on equity (Adjaoud et al., 2007; Mufidah & Sucipto, 2020), return on investment (Boyd, 1995; Adjaoud et al., 2007) and return on assets (Yermack, 1996; Shrader et al., 1997; Kiel & Nicholson, 2003), and the Tobin's Q as the market-based measures (Yermack, 1996; Weir et al., 2002; Kiel & Nicholson, 2003), as intermediaries for firm performance. Haniffa and Hudaib (2006) contended that no single measure has been chosen as the best measure of business performance by scholars worldwide. Again, they were of the view that each indicator has its own specific qualities and shortcomings; consequently, no particular indicator is the best intermediary in terms of financial performance. This study considers one of the comprehensively used firm performance indicators, specifically, ROE which is similarly considered in this study as intermediary for book keeping return. This intermediary is embraced as the fundamental variable understudy by taking after past studies (Nadeem et al., 2013; Kashif & Sardar, 2013; Siagian et al., 2013; Dewiningrat & Baskara, 2020). Also,

several metrics have been used to measure shareholders' wealth. For example, shareholders' wealth proxied as Market Value Added (Ofori-Sasu et al., 2019), return on equity (Ofori-Sasu et al., 2019, Kania, 2005, Pattiruhu & Paais, 2020, Dewiningrat & Baskara, 2020), Earnings per share (Wanjohi, 2017, Farrukh et al., 2017, Aminu & Salawudeen, 2019), Market price per share (Gejalakshmi & Azhagaiah, 2017). For the purpose of this study, both Financial Market Price Based Measures (FMPBM) and Accounting Based Measures (ABM) were used to measure shareholders' wealth. The Financial Market Price Based Measure used was Market Value Added (MVA) and the Accounting Based Measures were Earnings per share (EPS) and Return on Equity (ROE).

3.7.2 Mediating Variable of the Study

Dividend Policy (DP) supposes the time ahead dividends the stockholder's desire to acquire from the retention or payment of firm earnings. Many authors have viewed DP from different lenses. For instance, DP was measured as Dividend payout ratio (*dividend / net income)* (Titman et al., 2013; Mokaya et al., 2013; Gejalakshmi & Azhagaiah, 2015). Brealey et al. (2008) and Moeljadi (2006) also measured it as dividend per share / income per share. Again, Matthew et. al. (2014), Bawa & Kaur (2013), Ponsian et al. (2015) and Vasantha (2016) measured DP as dividend paid / number of shares outstanding (Dividend per share). For Wet and Mpinda (2013), Al-Masum (2014) and Bilal and Jamil (2015), DP is measured as dividend per share/market price per share (Dividend Yield). For the purpose of this study, DP was measured using Dividend payout ratio (Gejalakshmi &Azhagaiah, 2015).

3.7.3 Independent Variables of the Study

For the purpose of achieving the aim of this study, CEO duality, board composition, board gender diversity, board audit committee effectiveness and size of board are considered as proxies of board structure dynamics serving as the independent construct for the study.

3.7.3.1 Measurement of Board Composition

This looks at the percentage of outside executives on board. Its proxy is estimated as percentage of outside directors as a fraction of the board size (Chancharat et al., 2012). In line with this statement, this study defines outside directors as the external directors. In a different literature, Dalton et al. (1999), board composition was computed by dividing the summation of independent and non-executive directors by the board size. The study will use the composition indicator to represent board composition because it forms part of the literature below the agency theory proposition, which requires outside directors to be free from management control enhance the monitoring responsibility of the outside executives (Fama, 1980).

3.7.3.2 Measurement of Board Gender Diversity

This indicator represents the number of females present on the board for an organisation. Proxies used to represent board gender diversity were variables equivalent to "1" representing at least a female on the board and "0" representing no female representation on the board (Hillman et al., 2007; Rose, 2007). The choice of this measure is informed by prior literature (Campbell & Minguez-Vera, 2010).

3.7.3.3 Measurement of Board Size

From an agency point of view, bigger organizations require greater boards to check, monitor and control the activities of management (Kiel & Nicholson, 2003). An alternative perspective is that it is not the size that is vital, rather it is the quantity of outside executives (Dalton et al., 1999). In the academic literature, this variable is measured utilising total number of directors a company has (Abdullah, 2004; Kiel & Nicholson, 2003). The same technique was used as a part of the current study.

3.7.3.4 Measurement of the size of Audit Committee

As suggested by the Cadbury report (1992), a board should consist of separate audit groups for reviewing of the financial statements, monitoring the compensation of executives and appointing new executives to the board. The above practices were likewise incorporated into the 2003 and 2008 Code of Best Practice on Corporate governance issued by ICSAL. The presence or absence of board's audit committee is exhibited by dummy variables in past studies. In this study, the size of audit committee represents the number of people that form the audit committee.

3.7.3.5 Measurement of CEO Duality

CEO Duality is where a single individual (i.e., Chairperson) of a board is the same as the Chief Executive Officer. In this study, ''1" is used if the Chairman or Chairwoman also holds the position of CEO and "0" represents otherwise (Dahya et. al, 2009; Hewa-Wellalage & Locke, 2011).

3.7.4 Control Variables

Alongside the dependent and independent variables above, past studies (Yermack, 1996; Shin & Stulz, 2000; Daines, 2001; Gompers et al., 2003; Black et al., 2006; Chenhall & Moers, 2007; Ofori-Sasu, 2019) utilised diverse control variables. These variables include; size of firm, firm age, tangibility, inflation rate, interest rates, firm risk and GDP growth. Firm tangibility refers to the extent of dominance of non-current assets in the asset pool of the business. These were used by researchers in the sense that, the independent and mediating variables under study are not the only variables that could affect shareholders' wealth. Hence, all such variables are of no interest to the researcher hence are controlled.

Table 2: Summary of Measurement of variables

Variable	Acronym	Formula
Dividend Pay-out Ratio	DPR	$\frac{Dividend\ Per\ Share}{Earning\ Per\ Share}$
Market Value Added	MVA	$\frac{Market\ value\ of\ shares}{Book\ value\ of\ shareholders'equity}$
Return on Equity	ROE	$\frac{Net\ profit\ attributable\ to\ ord.shareholders}{Shareholders'Fund}$
Earnings per share	EPS	$\frac{Earings\ after\ interest, tax\ and\ preference\ dividend}{Weighted\ average\ no\ of\ ord.shares\ outstanding}$
Firm size	FIRM SIZE	Natural log of total assets
Firm age	FIRM AGE	Number of years since its incorporation
Firm risk	FIRM RISK	ơROA
Tangibility	FAT	$\frac{Fixed\ asset}{Total\ asset}$
Interest rate	INTrate	Interest rate per year
Inflation rate	INFrate	Inflation rate per year
GDP Growth	GDPgrowth	$\frac{GDP_i - GDP_{i-1}}{GDP_{i-1}}$

Source: Field Survey (2022)

3.8 Data Processing and Analysis

Data was collected and summarized using document content analysis. Descriptive and inferential statistics were employed in this study. The profile of the data namely; averages, deviations and the shape were described using descriptive statistics. Further, Pearson's Product-Moment Correlation was employed to ascertain the degree of relationship that exist between the study variables. Also, panel data analysis through Baron and Kenny's mediated regression (Baron & Kenny, 1986) was employed to ascertain whether dividend policy mediates the relationship between board structure dynamics and shareholders' wealth. The nature of the relationship between independent and dependent variables must be identified in the first step. To establish mediation, this relationship must be significant. Second, the independent variable must have a significant link with the mediating variables. Further, the mediating variables must be significantly related to the dependent variable (Saeidi et al., 2015). Finally, the significant relationship between the independent and dependent variables should cease to exist in order to prove that the mediating variable totally mediates the relationship (Saeidi et al., 2015). Relatedly, Sobel Test (Sobel, 1982) will be used to estimate the statistical significance of indirect effect of board structure dynamics on shareholders' wealth through dividend policy. Point effect analysis will be conducted to assess the indirect effect of board structure dynamics. For purpose of ensuring reliability of the results, both firm specific factors (i.e., firm size, firm age, tangibility, overhead expenses and firm risk) and external factors (i.e., interest rates, inflation rates, GDP growth and corporate tax) were held constant.

3.8.1 Models specification

The mediating effect of dividend policy on the relationship between board structure dynamics and shareholders' wealth:

Step 1

Step 1 indicates the first condition of establishing mediation according to Baron and Kenny (1986) which states that for mediation to be established, there must be a significant relationship between the predictor variable and the outcome variable. The model of this condition is stated below:

$$MVA = \beta_0 + \beta_1 BDC_{it} + \beta_2 BGD_{it} + \beta_3 BDS_{it} + \beta_4 ACE_{it} + \beta_5 COED_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 FAT_{it} + \beta_9 RISK_{it} + \beta_{10} INF_{it} + \beta_{11} INT_{it} + \beta_{12} GDPg_{it} + \varepsilon_{it}$$

$$EPS = \beta_0 + \beta_1 BDC_{it} + \beta_2 BGD_{it} + \beta_3 BDS_{it} + \beta_4 ACE_{it} + \beta_5 COED_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 FAT_{it} + \beta_9 RISK_{it} + \beta_{10} INF_{it} + \beta_{11} INT_{it} + \beta_{12} GDPg_{it} + \varepsilon_{it}$$

$$ROE = \beta_0 + \beta_1 BDC_{it} + \beta_2 BGD_{it} + \beta_3 BDS_{it} + \beta_4 ACE_{it} + \beta_5 COED_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 FAT_{it} + \beta_9 RISK_{it} + \beta_{10} INF_{it} + \beta_{11} INT_{it} + \beta_{12} GDPg_{it} + \varepsilon_{it}$$

Step 2

The step 2 illustrates the condition that the predictor variable must be significantly related with the mediating variable to establish mediation. This hypothesis is illustrated in the model below:

$$DPR = \beta_0 + \beta_1 BDC_{it} + \beta_2 BGD_{it} + \beta_3 BDS_{it} + \beta_4 ACE_{it} + \beta_5 COED_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \beta_8 FAT_{it} + \beta_9 RISK_{it} + \beta_{10} INF_{it} + \beta_{11} INT_{it} + \beta_{12} GDPg_{it} + \varepsilon_{it}$$

Step 3

It is also a prerequisite for the mediating variable to have a significant relationship with the outcome variable to establish mediation. This hypothesis is demonstrated in the model below:

$$MVA = \beta_0 + \beta_1 DPR_{it} + \beta_3 SIZE_{it} + \beta_4 AGE_{it} + \beta_5 FAT_{it} + \beta_6 RISK_{it} + \beta_7 INF_{it} + \beta_8 INT_{it} + \beta_9 GDPg_{it} + \varepsilon_{it}$$

$$EPS = \beta_0 + \beta_1 DPR_{it} + \beta_3 SIZE_{it} + \beta_4 AGE_{it} + \beta_5 FAT_{it} + \beta_6 RISK_{it} + \beta_7 INF_{it} + \beta_8 INT_{it} + \beta_9 GDPg_{it} + \varepsilon_{it}$$

$$ROE = \beta_0 + \beta_1 DPR_{it} + \beta_3 SIZE_{it} + \beta_4 AGE_{it} + \beta_5 FAT_{it} + \beta_6 RISK_{it} + \beta_7 INF_{it} + \beta_8 INT_{it} + \beta_9 GDPg_{it} + \varepsilon_{it}$$

Step 4

To establish full mediation, the mediating variable must be significantly related with the outcome variable while controlling with the predictor variable. Here, the relationship between the predictor variable and the outcome variable must become insignificant in order to establish full mediation. However, if the predictor variable still has a significant relationship with the outcome variable while controlling the relationship between mediating variable and the outcome variable, then, partial mediation is evident. This model is stated below:

$$MVA = \beta_0 + \beta_1 BDC_{it} + \beta_2 BGD_{it} + \beta_3 BDS_{it} + \beta_4 ACE_{it} + \beta_5 COED_{it} + \beta_6 DPR_{it} + \beta_7 SIZE_{it} + \beta_8 AGE_{it} + \beta_9 FAT_{it} + \beta_{10} RISK_{it} + \beta_{11} INF_{it} + \beta_{12} INT_{it} + \beta_{13} GDPg_{it} + \varepsilon_{it}$$

$$EPS = \beta_0 + \beta_1 BDC_{it} + \beta_2 BGD_{it} + \beta_3 BDS_{it} + \beta_4 ACE_{it} + \beta_5 COED_{it} + \beta_6 DPR_{it} + \beta_7 SIZE_{it} + \beta_8 AGE_{it} + \beta_9 FAT_{it} + \beta_{10} RISK_{it} + \beta_{11} INF_{it} + \beta_{12} INT_{it} + \beta_{13} GDPg_{it} + \varepsilon_{it}$$

$$ROE = \beta_0 + \beta_1 BDC_{it} + \beta_2 BGD_{it} + \beta_3 BDS_{it} + \beta_4 ACE_{it} + \beta_5 COED_{it} + \beta_6 DPR_{it} + \beta_7 SIZE_{it} + \beta_8 AGE_{it} + \beta_9 FAT_{it} + \beta_{10} RISK_{it} + \beta_{11} INF_{it} + \beta_{12} INT_{it} + \beta_{13} GDPg_{it} + \varepsilon_{it}$$

Where, ROE=Return on Equity; MVA=Market Value Added; EPS= Earnings Per Share; DPR=Dividend Pay-out Ratio; BDC=Board Composition; BDG=Board Gender Diversity; BDS=Board Size; ACE=Size of Audit Committee; CEOD=CEO Duality; SIZE=Firm Size; AGE=Firm age; FAT=Tangibility; GDPg=GDP growth; INF=Inflation rate; INT=Interest rates; and εi=Random Disturbance.

This model was appropriate for the study because it incorporates all relevant variables determined to represent a dividend policy, board structure dynamics, liquidity and shareholders' wealth. Moreover, this approach is in conformity with previous studies (Ofori-Sasu et al., 2019; Ahmed, Wang, & Khan, 2013; Kashif & Sardar, 2013; Aminu & Salawudeen, 2019).

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter seeks to achieve the research objectives by analyzing the data collected. The chapter involves the test of suitability of the panel regression analysis, descriptive statistics to assess the profile of the data collected, effect of board structure dynamics on shareholders' wealth, effect of dividend policy on shareholders' wealth, effect of both dividend policy and board structure dynamics on shareholders' wealth and the mediating effect of dividend policy in the relationship between board structure dynamics and shareholders' wealth.

4.1 Description of the profile of the collected data

This section basically describes the profile of the collected financial and corporate governance data. The profile description focuses on determining the maximum and minimum values, measures of central tendency (i.e. mean and median), measures of dispersion (i.e. standard deviation), shape of data (i.e. skewness) and kurtosis.

Table 3: Descriptive Statistics Summary

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	VIF
ROE	-1.16	-1.25	0.58	-80.69	9.80	0.27	1.23	-
EPS	0.17	0.04	3.05	-2.57	0.59	0.18	2.30	-
MVA	0.31	0.29	2.32	-0.88	0.73	0.31	1.36	-
DPR	0.23	0.20	0.74	0.00	0.20	0.52	1.66	2.36
ACE	3.41	3.00	5.00	3.00	0.81	0.55	0.59	1.25
BDS	9.47	9.00	12.00	8.00	1.64	0.49	0.86	1.16
BDC	0.57	0.59	0.68	0.39	0.07	0.56	0.98	2.36
BGD	0.84	1.00	1.00	0.00	0.37	-0.03	0.11	1.33
CEOD	0.37	1.00	1.00	0.00	0.49	-053	0.10	1.36
INTRATE	11.84	11.98	17.45	7.14	3.49	-0.63	6.90	1.29
INFRATE	11.84	11.19	17.46	7.14	3.49	0.55	9.55	2.11
GDPG	6.88	7.31	14.05	2.12	3.35	-0.52	2.68	1.14
FIRMS	6.27	6.45	9.11	3.57	1.59	-0.23	1.23	1.81
FIRMA	41.38	45.00	59.00	18.00	12.01	-0.54	1.33	2.22
FIRMR	0.34	0.25	2.40	0.02	0.43	0.25	0.55	1.13
FAT	0.62	0.65	0.93	0.20	0.18	0.35	1.25	1.55

Source: Field Survey (2022), No. of Obs=130

As indicated in Table 3, ROE averaged -1.16 with a maximum of 0.58 and a minimum value of -80.69. This indicates that most of the manufacturing firms have not performed well over the past years. This revelation is in concomitance with assertion by GSS (2017) which made a revelation of the sectors' declining contribution to the nation's GDP. Considering the sector's Earnings per share, it was indicated that the sampled listed manufacturing firms recorded an average EPS of 0.17 with a maximum of 3.05 and with a minimum value of -2.57. Again, the selected firms' market value added also averaged 0.31 with a maximum of 2.32 and with a minimum of -0.88. As far as dividend policy is concerned, dividend pay-out ratio (DPR) also averaged 0.23 with a maximum of 0.74 and with a minimum of 0.00. This again was indicative of the fact that some of the firms were not paying dividend which was partly a derivative of their inability to make profit for their stockholders. For audit committee effectiveness, the average number of members of audit committees averaged 3 with a maximum of 5 membership and with a minimum of 3. Concerning board size, the membership of the board of directors of the selected firms

averaged 9 with a maximum of 12 and with a minimum of 8 members. The proportion of external directors in the board (Board composition) averaged 0.57 with a maximum of 0.68 and with a minimum proportion of 0.39. For board gender dynamics, it was revealed that most of the boards have at least a woman as a member with a few not having female representation. With CEO Duality, most of the firms were did not subscribe the school of thought that the CEO should assume the board chair position. However, a few had their CEO serving as the board chair as well. The results further indicates that the data collected is approximately normally distributed as indicated by the skewness results, a justification for the conduct of parametric test. Furthermore, there was no presence of outliers in the data set of both the independent variables and dependent variables as the results of the kurtosis indicate values less than 3. Finally, no issues of multicollinearity was detected since the result of the Variance Inflation Factor (VIF) showed values less than 10, a threshold of the presence of multicollinearity (Kennedy, 2008).

4.2 Test of Suitability of Fixed Effect Panel Regression Analysis

This section is dedicated to justifying the need to run fixed effect panel regression to analyze the collected data. In doing so, Pooled Ordinary Least Square and Fixed Effect regression were compared after which Fixed Effect regression and Random Effect regression were also compared to ascertain the most suitable statistical technique to employ to achieve the research objectives. These tests are presented in Table 4 and 5.

Table 4: Redundant Fixed Effect Test

Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	236.486126	(12,111)	0.005
Cross-section Chi-square	254.269540	12	0.001

Source: Field Survey (2022)

Table 5: Correlated Random Effects - Hausman Test

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.765840	9	0.025

Field Survey, (2022)

The redundant fixed effect test in Table 4 was conducted to ascertain the choice between Pooled Ordinary Least Square and Fixed Effect regression premised on the null hypothesis; POLS is appropriate for the test. The p-value of the cross-section chi-square was 0.005 which is less than 0.05, therefore we reject the null hypothesis and conclude that fixed effect regression was suitable. Again, the Hausman Test as indicated in Table 5 was also conducted to ascertain suitability of fixed effect regression compared with random effect regression which was grounded on the null hypothesis; random effect regression is more suitable for the analysis. Since the p-value of the test was 0.025 which is less than 0.05, we reject the null hypothesis and conclude that fixed effect regression is most suitable for the analysis.

4.3 Effect of Board Structure Dynamic on Shareholders' Wealth

This subsection seeks to assess the effect of the various board structure dynamics indicators such as board composition, board size, CEO duality, audit committee effectiveness and board gender dynamics on market value added, earnings per share and return of equity.

4.3.1 Effect of Board Structure Dynamics on Market Value Added (MVA)

This section explains the extent to which board structure dynamics such as board independence, board size, board gender dynamics, CEO duality and audit committee effectiveness influences market value added of the firms under review.

Table 6: Effect of Board Structure dynamics on MVA

Dependent Variable: MVA
Method: Panel Least Squares
Date: 11/26/22 Time: 12:04
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.690646	1.109285	2.425568	0.0486
BDC	2.836855	0.684525	4.144268	0.0355
BGD	-0.031316	0.320821	-0.097612	0.9698
BDS	-4.176320	0.919941	-3.495554	0.0203
ACE	10.62753	1.257353	8.452304	0.0150
CEOD	-1.096799	0.230365	-4.761140	0.0301
FIRMS	0.182641	0.071866	2.541421	0.0443
FIRMA	0.500573	0.221550	2.259413	0.0489
FAT	0.978423	0.276680	3.536298	0.0230
FIRMR	0.647526	0.232033	2.790663	0.0475
INFRATE	7.184065	2.016269	3.563046	0.0250
INTRATE	6.146171	2.518152	2.440747	0.0251
GDPG	0.205658	0.070737	2.907361	0.0290
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.525327			
Adjusted R-squared	0.511488	Prob(F-statistic)		0.020023
F-statistic	52.312656	Durbin-Watson stat		2.197910

Source: Field Survey (2022)

It was indicated in Table 6 that board structure dynamics had statistically significant effect on market value added (MVA). For instance, board composition (BDC) had statistically significant and positive effect on MVA (β=2.84, p=0.036). This implies that the higher the composition of external or outside directors in the board composition, the higher the MVA (shareholders' wealth). Again, board gender dynamics was found to have no significant effect on MVA (β= -0.03, p=0.97). This is an indication that regardless of the representation of female on the board, the MVA (shareholders' wealth) may be reduced or increased. Furthermore, board size was found to have statistically significant and negative effect on MVA (β= -4.18, p=0.0203). This finding implies that the larger the membership of the board the less enhanced MVA will be achieved. Again, audit committee effectiveness was also found to have statistically significant and positive effect on MVA (β=8.45, p-value=0.015), an indication that an enhancement in audit committee effectiveness could lead to a maximized Market Value Added (MVA). Finally, it was also revealed that CEO duality had a significant and negative effect on MVA (β= -1.097, p=0.030) which implies that firms with CEOs serving as their board chairpersons do not enhance their market value added. The model is fit in predicting the criterion variable (MVA) since about 51 percent of the variations in MVA can be explained by the independent variables (Adj. R-Sq=0.51). All the indicators of board structure dynamics combined have statistically significant effect on MVA (F=52.3, p=0.020).

4.3.2 Effect of Board Structure Dynamics on EPS

This subsection offers an analysis of the effect of board structure dynamics on earnings per share. The analysis has made a determination on whether board composition, board size, board gender dynamics, CEO duality and audit committee effectiveness has a significant effect on earnings per share.

Table 7: Effect of Board Structure Dynamics on EPS

Dependent Variable: EPS
Method: Panel Least Squares
Date: 11/26/22 Time: 12:07
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.276975	1.867813	-0.148289	0.8827
BDC	9.631837	1.191679	-8.082577	0.0110
BGD	0.054304	0.284093	0.191149	0.7851
BDS	-2.012381	0.906210	-2.220661	0.0324
ACE	8.262253	0.939339	8.795816	0.0130
CEOD	-12.52763	1.803993	-6.944389	0.0230
FIRMS	0.211696	0.063638	3.326572	0.0310
FIRMA	0.504253	0.219083	2.301654	0.0253
FAT	0.270539	0.126317	2.141754	0.0352
FIRMR	0.039106	0.205470	-0.190323	0.8498
INFRATE	12.36718	5.213723	2.372042	0.0211
INTRATE	9.035703	4.115391	2.195591	0.0419
GDPG	2.006290	0.936073	2.143314	0.0426

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.702753		
Adjusted R-squared	0.690114	Prob(F-statistic)	0.015540
F-statistic	25.692304	Durbin-Watson stat	2.473373

Source: Field Survey (2022)

It was indicated in Table 7 that board structure dynamics had statistically significant effect on earnings per share (EPS). For instance, board composition (BDC) had statistically significant and positive effect on EPS (β=9.63, p=0.011). This implies that the higher the proportion of external or outside directors in the board composition, the higher the EPS (shareholders' wealth). Also, board gender dynamics was found to have no significance in influencing EPS (β=0.0543, p=0.785). This finding indicated that regardless of the presence of female of the board, EPS of the firm may increase or decrease. Additionally, board size also found to have significant and negative effect on EPS (β= -2.012, p=0.032). This revelation also indicated that the larger the board size, the poorer the firm's EPS

becomes. Audit committee effectiveness was again found to have significant and positive effect on EPS (β=8.262253, p=0.013). The more effective the audit committee is in terms of their number, the better its business success. Again, CEO duality was found to have a significant and negative effect on EPS (β= -12.52763, p=0.023). An instance of firms with CEOs also serving as the chairpersons of the boards is detrimental to the firm's EPS (shareholders' wealth). The model is fit in predicting the criterion variable (EPS) since about 69 percent of the variations in EPS can be explained by board structure dynamics (Adj. R-Sq=0.690). The combined effect of board structure dynamics on EPS is also significant (F=25.69, p=0.016).

4.3.3 Effect of Board Structure Dynamics on ROE

This subsection gives a detailed analysis on the effect of board structure dynamics on the return on equity. The analysis bothers on establishing whether a particular board make-up will enhance or reduce the earnings left for shareholders.

Table 8: Effect of Board Structure Dynamics on ROE

Dependent Variable: ROE
Method: Panel Least Squares
Date: 11/26/22 Time: 12:07
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.727819	2.562509	2.235242	0.0487
BDC	11.58965	1.945792	5.956264	0.0209
BGD	0.437651	2.658051	0.164651	0.9256
BDS	-3.888895	1.041444	3.734137	0.0292
ACE	8.395064	1.284640	6.534955	0.0190
CEOD	-11.43191	1.944717	-5.878444	0.0230
FIRMS	2.150817	1.043431	2.061291	0.0431
FIRMA	0.137110	0.312892	0.438202	0.6632
FAT	5.040951	2.172868	2.319954	0.0293
FIRMR	0.486072	0.168929	2.877374	0.0214
INFRATE	13.91130	5.255334	2.647084	0.0292
INTRATE	10.27761	4.468068	2.300245	0.0352

GDPG	0.584089	0.201462	2.899254	0.0140
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.620200			
Adjusted R-squared	0.596258	Prob(F-statistic)		0.02300
F-statistic	28.76870	Durbin-Watson stat		2.781398

Source: Field Survey (2022)

It was shown in Table 8 that board structure dynamics had statistically significant effect return on equity (ROE). For instance, board composition (BDC) had statistically significant and positive effect on ROE (β=11.590, p=0.021). This implies that the higher the proportion of external/outside directors in the board composition, the higher the ROE (shareholders' wealth). Also, board gender dynamics was found to have no significance in influencing ROE (β=0.438, p=0.926). This finding indicated that regardless of the presence of female of the board, ROES of the firm may increase or decrease. It was also found that board size had significant and negative effect on ROE (β= -3.889, p=0.029). This revelation also indicated that the larger the board size, the poorer the firm's ROE becomes. Audit committee effectiveness was again found to have significant and positive effect on EPS (β=8.395, p=0.019). The more effective the audit committee is in terms of their number, the better its ROE. Again, CEO duality was found to have a significant and negative effect on ROE (β= -11.432, p=0.023). An instance of firms with CEOs also serving as the chairpersons of the boards is detrimental to the firm's ROE (shareholders' wealth). The model is fit in predicting ROE since about 59.6 percent of the variations in ROE can be explained by board structure dynamics (Adj. R-Sq=0.596). The combined effect of board structure dynamics on ROE is also significant (F=28.769, p=0.023).

4.4 Effect of Board Structure Dynamics on Dividend Policy

This section offers an analysis of the extent to which board structure dynamics affects dividend policy. In effect the analysis tries to establish how different board make-ups influence decision on dividend payments decision.

Table 9: Effect of Board Structure Dynamics on DPR

Dependent Variable: DPR
Method: Panel Least Squares
Date: 11/26/22 Time: 12:09
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.346207	0.283992	1.219072	0.2287
BDC	2.662509	0.226803	11.73930	0.0200
BGD	0.055511	0.043195	1.285134	0.2990
BDS	-0.713997	0.116149	-6.147254	0.0310
ACE	1.640552	0.121186	13.53747	0.0180
CEOD	-2.213653	0.131016	-16.89605	0.0010
0FIRMS	4.008903	1.909676	2.099264	0.0420
FIRMA	0.002910	0.002902	1.003057	0.3208
FAT	0.027798	0.118035	0.235505	0.8148
FIRMR	0.510470	0.231241	2.207524	0.0390
INFRATE	-2.046474	4.734270	0.432268	0.6674
INTRATE	-2.547092	3.736806	-0.681627	0.8675
GDPG	0.081527	0.055485	1.469358	0.5419

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.697697		
Adjusted R-squared	0.672565	Prob(F-statistic)	0.020159
F-statistic	33.723911	Durbin-Watson stat	2.706357

Source: Field Survey (2022)

As indicated in Table 9, board structure dynamics was found to have statistically significant effect on Dividend Pay-out Ratio (DPR). It was therefore revealed that board composition had a significant and positive effect on DPR (β=2.663, p=0.020) implying that the higher the percentage of external directors in the board makeup, the more favourable

the dividend policy and vice versa. Again, board gender dynamics was found to have positive but insignificant effect on DPR (β= 0.056, p=0.299. Again, board size also indicated to have statistically significant and negative effect on DPR (β= -0.714, p=0.031) which again implies that the larger the firms' boards, the more unfavourable the firms' dividend policy. Additionally, the audit committee effectiveness also had significant and positive effect on DPR (β= 1.641, p=0.018). This finding supports the view that the existence of effective audit committee could help champion the interest of the owners of the business, hence a favourable dividend policy. Again, board size was also shown to have statistically significant and positive effect on dividend payout ratio (β= -6.147, p=0.031), implying that for the board to take better dividend policy decisions, there is the need for an optimum board size. Finally, CEO duality also had a significant and negative effect on DPR (β= -2.214, p=0.001). This finding confirms the position that it is a disincentive to shareholders for CEOs to also serve as board chairpersons. The combined effect of board structure dynamics indicators were found to be significant in influencing DPR (F=33.72, p=0.020). the model is also fit in predicting DPR using the board structure dynamics owing to the fact about 67.3 percent of the variation in DPR can be explained by board structure dynamics (Adj. R-Sq=0.673).

4.5 Effect of Dividend Policy on Shareholders' Wealth

This subsection seeks to establish the extent to which dividend policy decisions influence the wealth of shareholders. Under this subsection, effect of dividend policy on market value added, earnings per share and return on equity were established.

4.5.1 Effect of Dividend Policy on Market Value Added (MVA)

This subsection details out an analysis to establish whether different dividend decisions could significantly affect market price of the firms under review.

Table 10: Effect of Dividend Policy on Market Value Added (MVA)

Dependent Variable: MVA
Method: Panel Least Squares
Date: 11/26/22 Time: 12:12
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.166853	1.394418	0.836803	0.4065
DPR	3.671488	0.910125	4.034048	0.0014
FIRMS	0.185029	0.060933	3.036579	0.0037
FIRMA	0.004745	0.019747	0.240290	0.8111
FAT	0.441312	0.818049	-0.539469	0.5919
FIRMR	0.552777	0.215786	2.561695	0.0134
INFRATE	12.77988	31.90927	0.400507	0.6904
INTRATE	12.74754	29.92430	0.425993	0.6913
GDPG	0.022141	0.038295	0.578175	0.5656

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.644776		
Adjusted R-squared	0.615769	Prob(F-statistic)	0.036038
F-statistic	25.824141	Durbin-Watson stat	2.221981

Source: Field Survey (2022)

As indicated in Table 10, dividend policy was found to have statistically significant and positive effect on Market Value Added (shareholders' wealth) as indicated by a regression coefficient of 3.671 with p-value of 0.001 . This is an indication that once the board of directors are able to make favourable dividend decision, shareholders' wealth will also be enhanced through share price appreciation. In effect, higher dividend payout will enhance shareholders' wealth. This again explains the reaction of investors to shares of firms that pay more dividend regularly. The model is fit for predicting shareholders' wealth

with a given dividend payout ratio as about 62% of the variability in shareholders' wealth can be explained by the predictor variables in the model (Adj. R-Sq=0.616).

4.5.2 Effect of Dividend Policy on Earnings per Share (EPS)

This subsection attempts to establish whether different dividend policy decisions could significantly affect earnings per share of the firms under review.

Table 11: Effect of Dividend Policy on EPS

Dependent Variable: EPS
Method: Panel Least Squares
Date: 11/26/22 Time: 12:20
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.048815	0.720874	0.067717	0.9463
DPR	6.160540	2.075417	2.968338	0.0329
FIRMS	0.034853	0.031501	1.106404	0.2736
FIRMA	0.007311	0.010209	0.716166	0.4771
FAT	0.532121	0.422908	1.258243	0.2139
FIRMR	0.058398	0.111555	0.523492	0.6029
INFRATE	15.55755	16.49618	0.943100	0.2658
INTRATE	18.55056	16.50395	1.124007	0.2662
GDPG	0.000901	0.019798	0.045507	0.9639

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.736107		
Adjusted R-squared	0.659985	Prob(F-statistic)	0.003000
F-statistic	36.669991	Durbin-Watson stat	1.491989

Source: Field Survey (2022)

It was also indicated in Table 11 that dividend policy had a statistically significant and positive effect on Earnings per Share (β=6.161, p=0.033). This finding is again in line with a bird-in-hand theory, signaling theory, agency cost and free cash flow theory as well as clientele effect of dividend policy. The finding again underscores the essence of regular

and higher dividend payment for which reason firms that pay more and regular dividends tend to have the wealth of their investors enhanced. The model is fit in predicting EPS having a specific value of DPR since about 66 percent of the variability in EPS can be accounted for by DPR (Adj. R-Sq=0.659985)

4.5.3 Effect of Dividend Policy on ROE

This subsection demonstrates whether different dividend policy decisions could have any influence on return on shareholders' fund.

Table 12: Effect of Dividend Policy on ROE

Dependent Variable: ROE
Method: Panel Least Squares
Date: 11/26/22 Time: 12:21
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.193281	20.87020	0.153007	0.8790
DPR	11.36260	5.131713	2.214192	0.0190
FIRMS	1.311997	0.911986	-1.438615	0.1563
FIRMA	0.133517	0.295550	0.451758	0.6533
FAT	10.36533	4.024370	2.575640	0.0011
FIRMR	0.110645	3.229653	0.034259	0.9728
INFRATE	39.28052	24.25845	1.619251	0.1122
INTRATE	27.28444	13.28096	2.054403	0.0324
GDPG	0.025929	0.573164	0.045238	0.9641

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.795246		
Adjusted R-squared	0.736895	Prob(F-statistic)	0.029510
F-statistic	22.841067	Durbin-Watson stat	2.687588

Source: Field Survey (2022)

As indicated in Table 12, dividend policy was found to have a significant and positive effect on Return on Equity (β=11.36260, p=0.019). This is also an indication that

once firms are able to pay more and regular dividend, the firms' return on shareholders' fund (shareholders' wealth) will also be enhanced. The model is hence fit since about 74 percent of the variability in the ROE can be accounted for by the dividend policy (Adj. R-square =0.737). The finding again justifies investors' preference for firms with higher and regular dividend payments.

4.6 Effect of Board Structure Dynamics and Dividend Policy on Shareholders' Wealth

This subsection is dedicated to establishing the effect of dividend policy on the wealth of shareholders in the presence of board structure dynamics. This is a critical step in Baron and Kenny's mediated regression procedure to test for the presence of a mediator.

4.6.1 Effect of Board Structure Dynamics and Dividend Policy on MVA

The focus of this subsection is to assess the effect of the mediating variable (dividend policy) on the outcome variable (market value added) while controlling with the predictor variable (board structure dynamics). This is an essential part of the analysis to establish mediation.

Table 13: Effect of Board Structure Dynamics and Dividend Policy on MVA

Dependent Variable: MVA
Method: Panel Least Squares
Date: 11/26/22 Time: 12:14
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.534086	2.034037	1.737474	0.1889
ACE	2.006704	0.953864	2.103763	0.0274
BDC	1.095183	0.289560	-3.782232	0.0182
BGD	-0.183207	0.308715	-0.593451	0.5557
BDS	-2.222657	0.993953	2.236179	0.0367
CEOD	-3.311640	0.197659	-16.75431	0.0020
DPR	1.736234	0.115674	15.00972	0.0070
FIRMS	0.241121	0.071058	3.393315	0.0014
FIRMA	0.004109	0.020595	0.199501	0.8427
FAT	2.497514	0.845280	2.954659	0.0090
FIRMR	0.618708	0.219201	2.822563	0.0070
INFRATE	10.47575	33.22846	0.315264	0.7540
INTRATE	10.43957	33.24623	0.314008	0.7549
GDPG	0.018705	0.038691	0.483453	0.6310
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.684694			
Adjusted R-squared	0.599883	Prob(F-statistic)		0.001168
F-statistic	32.74783	Durbin-Watson stat		2.369765

Source: Field Survey, 2022

Table 13 indicated that dividend policy was statistically significant in influencing MVA in the presence of board structure dynamics (β=1.736234, p=0.007). This is a prerequisite for assessing the mediating role of dividend policy. It was also indicated that audit committee effectiveness (β=2.007, p=0.027), board composition (β=1.095, p=0.018), board size (β=-2.223, p=0.037) and CEO duality (β=-3.312), p=0.002) were found to have significant effect on market value added (MVA) in when controlled by dividend policy. This, according to Barron and Kenny (1986), indicates a partial mediation of dividend policy. This is because the direct effect of board structure dynamics was significant and the mediator was also significant in influencing market value added. This revelation is an indication that aside the direct effect on board structure dynamics on market value added,

it also had an indirect effect on market value added through dividend policy implying that there are other decisions taken by the board apart from dividend decision that have an impact on shareholders' wealth. The model is fit in predicting MVA as about 60 percent of variability in the MVA can be explained by the predictor variables (i.e., Board structure dynamics and dividend policy). All the predictor variables combined have a significant effect on the criterion variable (F= 32.74783, p=0.001).

4.6.2 Effect of Board Structure Dynamics and Dividend Policy on ROE

This subsection attempts to establish whether dividend policy decision actually mediates the relationship between board structure dynamics and shareholders' wealth (Return on Equity).

Table 14: Effect of Board Structure Dynamics and Dividend Policy on ROE

Dependent Variable: ROE
Method: Panel Least Squares
Date: 11/26/22 Time: 12:18
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.700787	31.40973	0.308847	0.7588
ACE	2.892072	0.575980	5.021133	0.0190
BDC	2.994089	1.254607	-2.386476	0.0286
BGD	0.251448	4.767195	0.052745	0.7306
BDS	-1.493896	0.259673	5.752989	0.0000
CEOD	-4.006532	1.361100	-2.943599	0.0235
DPR	3.354354	1.507272	2.225447	0.0305
FIRMS	4.568660	1.997278	2.287443	0.0094
FIRMA	0.161564	0.318025	0.508021	0.6138
FAT	11.99705	13.05286	0.919113	0.3627
FIRMR	0.278741	3.384912	0.082348	0.9347
INFRATE	15.17940	12.71159	1.194139	0.0583
INTRATE	158.6695	513.3903	0.309062	0.7586
GDPG	0.090975	0.597476	-0.152266	0.8796
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.647831			
Adjusted R-squared	0.612241	Prob(F-statistic)		0.008759
F-statistic	55.74296	Durbin-Watson stat		2.868941

Source: Field Survey, 2022

It is again observed in Table 14 that both dividend policy and board structure dynamics indicators in exception of board gender dynamics have significant effect on Return on Equity. This finding also confirms the partial mediation of dividend policy in the relationship between board structure dynamics and Return on Equity since the independent variable was still significant when controlled by the mediator variable (dividend policy).

4.6.3 Effect of Board Structure Dynamics and Dividend Policy on EPS

As indicated earlier, this subsection is to further solidify the position on whether dividend policy decision mediates the relationship between board structure dynamics and Earnings per share (shareholders' wealth). This is illustrated in Table 15.

Table 15: Effect of Board Structure Dynamics and Dividend Policy on EPS

Dependent Variable: EPS
Method: Panel Least Squares
Date: 11/26/22 Time: 12:18
Sample: 2010 2019
Periods included: 10
Cross-sections included: 13
Total panel (balanced) observations: 130

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.700787	31.40973	0.308847	0.7588
ACE	2.792072	0.575980	4.847516	0.0000
BDC	-0.754089	0.224607	-3.357371	0.0086
BGD	0.051448	0.767195	0.067060	0.8306
BDS	-1.269253	0.122373	-10.37200	0.0000
CEOD	-5.146532	0.961100	-5.354835	0.0000
DPR	3.334354	0.507272	6.573109	0.0005
FIRMS	4.568660	1.997278	2.287443	0.0294
FIRMA	0.161564	0.318025	0.508021	0.6138
FAT	11.99705	13.05286	0.919113	0.3627
FIRMR	0.278741	3.384912	0.082348	0.9347
INFRATE	15.17940	12.71159	1.194139	0.0583
INTRATE	158.6695	513.3903	0.309062	0.7586
GDPG	0.090975	0.597476	-0.152266	0.8796

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.647831		
Adjusted R-squared	0.612241	Prob(F-statistic)	0.008759
F-statistic	55.74296	Durbin-Watson stat	2.868941

Source: Field Survey (2022)

It is again observed in Table 15 that both dividend policy and board structure dynamics indicators in exception of board gender dynamics have significant effect on EPS. This finding also validates the partial mediation of dividend policy in the relationship between board structure dynamics and EPS since the independent variable was still significant when controlled by the mediator variable (dividend policy) and the mediator was also found to be significant. This is again confirmed by the significance of the combined effect of both the dividend policy and board structure dynamics indicators in influencing EPS (F=55.74296, p= 0.009).

4.7 Mediating effect of Dividend Policy in the relationship between board structure dynamics and shareholders' wealth

Having scientifically established partial mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth, this subsection attempts to determine the mediation effect.

Table 16: Mediating effect of Dividend Policy in the relationship between board structure dynamics and shareholders' wealth

Relationship	Direct effect			Indirect effect			Total Effect		
	Path Coef	T-value	p-value	Path Coef	T-value	p-value	Path Coef	T-value	p-value
ACE->MVA	2.007	2.578	0.027	4.489	2.569	0.030	6.496	5.166	0.018
ACE->ROE	2.892	5.021	0.010	5.503	2.196	0.038	8.395	6.535	0.014
ACE->EPS	2.792	4.848	0.013	5.470	5.913	0.012	8.262	8.796	0.003
BDC->MVA	1.095	3.782	0.021	1.742	2.457	0.024	2.837	4.144	0.016
BDC->ROE	2.994	2.386	0.029	8.596	2.183	0.029	11.590	5.956	0.011
BDC->EPS	0.754	3.357	0.021	8.878	5.735	0.010	9.632	8.083	0.000
BDS->MVA	-2.223	2.236	0.037	-1.954	3.602	0.025	-4.177	4.540	0.018
BDS->ROE	-1.494	5.753	0.012	-2.395	2.093	0.036	-3.889	3.734	0.022
BDS->EPS	-1.269	5.753	0.012	-2.381	2.093	0.036	-3.650	4.251	0.015
BGD->MVA	0.183	-0.593	0.556	0.152	1.235	0.217	0.031	-0.098	0.970
BGD->ROE	0.251	0.053	0.731	0.186	1.113	0.266	0.438	0.165	0.926
BGD->EPS	0.051	0.067	0.831	0.003	0.067	0.947	0.054	0.191	0.785
CEOD->MVA	-3.312	-16.754	0.000	-7.316	-2.159	0.031	-10.628	-8.452	0.000
CEOD->ROE	-4.007	-2.944	0.024	-7.425	-2.206	0.027	-11.432	-5.878	0.020
CEOD->EPS	-5.147	-5.355	0.012	-7.381	-6.126	0.000	-12.528	-6.944	0.002

Source: Field Survey (2022)

As indicated in Table 16, audit committee effectiveness was found to have a significant direct effect on MVA (β=2.007, p=0.027) and an indirect effect on MVA through dividend policy (β=4.489, p=0.030). Again, audit committee effectiveness was also found to have a significant direct effect on ROE (β=2.892, p=0.010) and a significant indirect effect on ROE through dividend policy (β=5.503, p=0.038) with a total effect represented by the path coefficient (β=8.395, p=0.014). Also, audit committee effective recorded a significant direct effect on EPS (β=2.792, p=0.013) and a significant indirect effect on EPS (β=5.470, p=0.012) with a total effect (β=8.262, p=0.003).

Additionally, board composition was found to have a significant direct effect on MVA (β=1.095, p=0.021) and an indirect effect on MVA through dividend policy (β=1.742, p=0.024) with a total effect (β=2.837, p=0.016). Again, board composition was also found to have a significant direct effect on ROE (β=2.994, p=0.029) and a significant

indirect effect on ROE through dividend policy (β=8.596, p=0.029) with a total effect represented by the path coefficient (β=11.590, p=0.001). Also, board composition recorded a significant direct effect on EPS (β=0.754, p=0.021) and a significant indirect effect on EPS (β=8.878, p=0.010) with a total effect (β=9.632, p=0.000).

Additionally, board size was found to have a significant direct effect on MVA (β= -2.223, p=0.037) and an indirect effect on MVA through dividend policy (β= -1.954, p=0.025) with a total effect (β= -4.177, p=0.018). Again, board size was also found to have a significant direct effect on ROE (β= -1.495, p=0.012) and a significant indirect effect on ROE through dividend policy (β= -2.395, p=0.036) with a total effect represented by the path coefficient (β= -3.889, p=0.022). Also, board size recorded a significant direct effect on EPS (β= -1.269, p=0.012) and a significant indirect effect on EPS (β=-2.381, p=0.036) with a total effect (β=-3.650, p=0.015). Board gender dynamics was found to be insignificant in influencing shareholders' wealth and for that matter did not meet the requirement testing for mediation according to Baron and Kenny.

Finally, CEO duality was found to have a significant direct effect on MVA (β= -3.312, p=0.024) and an indirect effect on MVA through dividend policy (β=-7.316, p=0.031) with a total effect (β=-10.628, p=0.000). Again, CEO duality was also found to have a significant direct effect on ROE (β= -4.007, p=0.024) and a significant indirect effect on ROE through dividend policy (β= -7.425, p=0.027) with a total effect represented by the path coefficient (β= -11.432, p=0.020). Also, CEO duality recorded a significant direct effect on EPS (β=-5.147, p=0.012) and a significant indirect effect on EPS (β= -7.381, p=0.000) with a total effect (β=-12.528, p=0.002).

Since both the direct and indirect effect are significant, it indicates the existence of partial mediating role played by dividend policy in the relationship between board structure dynamics and shareholders' wealth which further implies that board structure dynamics could partly influence shareholders' wealth without passing through dividend policy. This is an indication that the board structure dynamics does not influence only dividend policy to affect shareholders' wealth.

4.8 Discussion of Results

The purpose of this study is to assess the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth. To achieve this purpose, three objectives were set as follows: (1) To examine the effect of board structure dynamics on shareholders' wealth of listed manufacturing firms in Ghana. (2) To assess the effect of dividend policy on shareholders' wealth of listed manufacturing firms in Ghana (i.e., assessing the dividend policy preference and risk appetite of Ghanaian investors) and (3) To ascertain the mediating effect of dividend policy on the relationship between board structure dynamics and shareholders' wealth.

Effect of Board Structure Dynamics on Shareholders' wealth (Objective 1)

The results from the fixed effect panel regression analysis indicated that board structure dynamics indicators with the exception of board gender dynamics have had statistically significant effect on shareholders wealth. Since there was enough evidence to reject the research hypothesis (H1b), it was concluded that board gender dynamics has no statistically significant effect on shareholders' wealth. Furthermore, board composition was found to have statistically significant effect on shareholders' wealth. This result has

underscored the essence of independent outside directors on the board in protecting the interest of shareholders. Since there was not enough evidence to reject the alternative hypothesis (H1c) is therefore accepted. This finding is in conformity with agency theory, which has a pessimistic view of human behaviour, asserting that agents (management) may influence their activities to protect their own personal interests at the expense of shareholders (Deegan, 2006). For this reason, independent directors may play a crucial role in protecting the interests of shareholders in such instances by limiting management's unanticipated conduct. Independent directors have no or minimal conflicts of interest with principals/shareholders, according to this theory (Fama, 1980; Adams et al., 2010).

Furthermore, according to BSEC Corporate Governance regulations, independent directors must have at least 12 years of expertise in the fields of economics, law, accounting, and commercial operations (BSEC, 2018). Their knowledge in a variety of sectors, including business, economics, and law, is anticipated to broaden the scope of the monitoring ability of the board (Fama & Jensen, 1983). This viewpoint is also supported by resource dependency theory and upper echelons theory (Ruigrok et al., 2006; Terjesen et al., 2016). According to resource dependency theory, independent directors' enlarged networks and valuable resource knowledge help to improve a company's shareholders' wealth. Because of their extensive knowledge in commercial operations, the upper echelons theory also emphasizes the value addition capabilities of independent directors (Hambrick, 2007; Terjesen et al., 2016). Several other investigations (Muttakin et al., 2012; Kao et al., 2018) have also found evidence to support this finding. Again, board size was found to have statistically significant and negative effect on shareholders' wealth. Hence, the research hypothesis (HIa) is accepted. This finding implies that the larger the

membership of the board, the less shareholders wealth will be achieved. This finding is also on the same wavelength with previous studies (Sayumwe & Amroune, 2017; Terjesen et al., 2016; Kao et al., 2018). The fact that larger boards confront the challenge of disagreement over many crucial decisions owing to the lack of time available for board meetings might be one explanation for such a finding (Yermack, 1996). Furthermore, the matter is compounded by the differing viewpoints stated by numerous board of directors.

Furthermore, CEO duality also had statistically significant and negative effect on shareholders' wealth, a justification to fail to reject the research hypothesis (H1d). This is another indication of the view espoused by the agency theory on management being rational, optimistic and self-centered and for that matter pursue their own interests at the detriment of the shareholders. This revelation is in support of previous studies (Russian & Ehikioya, 2009; Ramón-Llorens et al., 2017) who posit that a strong CEO may render the board unproductive if he also serves as the board chair as agents were seen to be rational, optimistic and self-centered according to the agency theory. Again, audit committee effectiveness was also found to have statistically significant and positive effect on shareholders' wealth, a justification to accept the research hypothesis (H1e). This revelation is in support of the view that availability of effective audit committee in organizations will enhance surveillance and put management on its toes to take decisions that will maximize the interest of the shareholders. This finding is validated by previous findings (Al-Mamun et al., 2014; Reddy et al., 2010; Rezaei and Abbasi, 2015).

Effect of Dividend Policy on Shareholders' Wealth (Objective 2)

Regarding objective 2 of the study, the results revealed that dividend policy was found to have statistically significant and positive effect on shareholders' wealth. From the

results, research hypothesis (H2) is hence, accepted. This is an indication that once the board of directors are able to make favourable dividend decision, shareholders' wealth will also be enhanced through share price appreciation. This again explains the reaction of investors to shares of firms that pay more dividend regularly. This finding is in support of Nkuah & Yusif, 2016; Pinto et al., 2019 who asserted that dividend policy is central among the three financial policies (investment policy, financing policy and dividend policy) in enhancing shareholders' wealth because it influences financing policy and financing policy in turn influences the choice of investment policy. Again, the finding finding also validates the bird-in-hand theory (Lintner, 1956; Gordon, 1963), Signaling theory (Ross, 1977), Agency cost and free cash flow theory (Rozeff, 1982), Clientele Effects of Dividends Theory (Allen, Bernardo & Welch, 2000). This is because, the bird-in-hand theory(dividend relevance theory) posits that investors prefer to receive return on their investments(dividend) today to future capital gains due to the fact that the financial market is charaterised by uncertainties.

Again, investors also believe that due to the fact that firms operates under non-ideal condition which is characterised by information asymetry (ie, management having access to superior information at the expense of the shareholders), the only tool to communicate the firm's performance to the public is payment of dividend(signaling theory. Also, the finding also supports the agency cost and free cash flow theory because, agents (management) is seen as being rational, optimistic and self-centered and for that matter take decision that will create an opportunity for them to enjoy their bonuses and perquisites at the detriment of the owners(shareholders). For this reason, investors prefer today's receipt of dividend in order to reduce the free cash flow at the disposal of managment to

use so that they can approach the capital market for funding to support the business. As they approach the market for funding, shareholders belief that they(management) will be subjected to scrutiny by regulators and bankers and by implication, the shareholders are monitoring management throung regular receipt of dividend. Additionally, smaller sized investors also prefer dividend today's dividend payment due to the fact that they find themselves within smaller tax bracket as far as tax on dividend is concerned. Also, future capital gains is a disincentive to these types of investors due the fact that they have to incur transaction cost to offload their shares to realise their capital gains.

For this reason, investors prefer investing in firms that pay higer and regular dividend. Taking cognizance of detects of efficient market hypothesis (EMH), prices in the market reflect the nature and quantum of information in the market and therefore, once investors prefer today's dividend payments, they will respond to firms that subscribe to this perspective. By virtue of the law of demand and supply, once the investors react toward the stock of the firm in question by buying more of their shares, the prices of those stocks will increase ceteris paribus, which will in turn be an apprecition in the wealth of the existing shareholders. Again, the finding is a revelation of the dividend policy preference and the risk appetite of Ghanain investors. From the finding, it was revealed that Ghanaina investors are risk averse investors and for that matter they prefer today's dividend payment to future capital gains. The finding also validate some empirical studies (Sharif et al.,2015; Boujjat, 2016; Nazir et al., 2010).

Mediating Effect of Dividend Policy in the relationship between board structure dynamics and shareholders' wealth (Objective 3)

The results on objective 3 also indicated that dividend policy was found to play a significant partial mediating role in the relationship between board structure dynamics and shareholders' wealth. This is evident as board size, board composition, audit committee effectiveness and CEO duality all have significant indirect effect on shareholders' wealth through dividend policy. From the results the research hypotheses H4a, H4c, H4d and H4e are accepted. However, since board gender dynamics was found to have an insignificant indirect effect on shareholders' wealth through dividend policy, the research hypothesis (H1b) is rejected. This is a justification that among other equally important financial decisions taken by the board, dividend policy plays a crucial role in determining shareholders' wealth. This finding is in support of Nkuah and Yusif, 2016 and Pinto et al., 2019 who asserted that dividend policy is central among the three financial policies (investment policy, financing policy and dividend policy) in enhancing shareholders' wealth because it influences financing policy and financing policy in turn influences the choice of investment policy.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

4.0 Introduction

The overarching goal of this study was to assess the mediating role of dividend policy in the relationship between board structure dynamics and shareholders' wealth within the manufacturing sector of Ghana. The specific objectives of the study were to (1) assess the effect of board structure dynamics on shareholders' wealth, (2) assess the effect of dividend policy on shareholders' wealth and (3) ascertain the indirect effect of board structure dynamics on shareholders' wealth through dividend policy. To achieve the said objectives, the following statements were hypothesized: (H_1) board structure dynamics has a statistically significant effect on shareholders' wealth, (H_2) Board structure dynamics has a statistically significant effect on dividend policy, (H_3) dividend policy has statistically significant and positive effect on shareholders' wealth and (H_4) dividend policy significantly mediates the relationship between board structure dynamics and shareholders' wealth.

A sample of 13 Ghanaian listed manufacturing firms were selected using a census sampling technique. A 10-year (2010-2019) panel corporate governance, dividend policy and shareholders' wealth data were collected and analyzed making 130 observations. The data was accessed from the financial reports retrieved from the fact book of Ghana Stock Exchange. The study took a positivist paradigm which was premised on realists' ontology and objectivists' epistemology. A quantitative approach was employed in the data collection and the analysis. Document content analysis was done to collect and summarise

the needed data. Descriptive and correlational designs were used in achieving the said objectives. Descriptive statistics, including frequency were used describe the profile of the collected data. Objective 1 and 2 were achieved using fixed effect panel regression technique and objective 3 was achieved using Baron and Kenny's mediated regression procedure (Baron & Kenny, 1986) augmented by Sobel test (Sobel, 1982). Both Redundant fixed effect test and Correlated Random Effects - Hausman Test were conducted to assess the suitability of the panel regression used.

4.1 Summary of Key Findings

The findings revealed that board structure dynamics indicators with the exception of board gender dynamics had statistically significant effect on shareholders' wealth. For example, audit committee effectiveness was found to have a significant and positive effect on shareholders' wealth. Board composition was also found to have a significant and positive effect on shareholders' wealth. Again, both CEO duality and board size were found to have a significant and negative effect on shareholders' wealth. However, board gender dynamics had no significant influence on shareholders' wealth. Again, dividend policy was also shown to have a significant and positive effect on shareholders' wealth. For example, dividend pay-out ratio had statistically significant and positive effect on market value added (MVA). Dividend pay-out ratio was also observed to have a significant and positive effect on earnings per share (EPS) and return on equity (ROE). Finally, dividend policy played a significant partial mediating role in the relationship between board structure dynamics and shareholders' wealth. For example, both the direct effect of board structure dynamics on shareholders' wealth and the indirect effect on shareholders' wealth were found to be significant.

4.2 Conclusions

Based on the findings, it was concluded that the role of board of directors in shareholders' wealth maximisation is essential. It was further concluded that the dynamics of the board, be it board composition, board size, audit committee effectiveness and CEO duality must be given a critical attention as having an optimum board makeup will inure to much benefit of such firms. It could also be reliably inferred that Ghanaian investor subscribe to the bird-in-hand theory (dividend relevance theory), the signalling theory (information content theory) and the clientele effect of dividend policy theory. By implication, Ghanaian investors prefer higher dividend pay-out and regular dividend payment to future capital gains and for this reason, they have lower risk appetite in their investment decisions.

Furthermore, dividend policy decision of the board is very essential in maximizing shareholders' wealth which is the goal of every business. This is because the indirect effect of board structure dynamics on shareholders' wealth through dividend policy was bigger than its direct effect which is a validation of the fact that dividend policy's mediating role in the relationship between board structure dynamics and shareholders' wealth is very significant, even though partial mediation was recorded.

4.3 Recommendations

Two suggestions have been made considering the observations and conclusions reached in the foregoing sections: recommendations for action and recommendations for further research, as presented below.

4.3.1 Recommendation for action

Drawing from the findings, it is recommended to the policymakers and those in the helm of affairs as far as corporate governance is concerned to ensure that there is a higher representation of external directors (independent directors) and an effective audit committee to increase surveillance on management. It is also recommended that an independent person is appointed as the board chair so as to reduce agency problem. There is also the need to ensure an optimum board size (not too small and not too large board size) as larger board size tend to impair the board's resolve in making sound decision towards enhancing shareholders' wealth. It is also recommended to the boards of organisations in Ghana to take cognizance of the dividend policy preference and risk appetite of Ghanaian investors and respond by making a frantic effort to pay higher and regular dividend so as to maximize the wealth of their stockholders. It is also recommended to the boards of Ghanaian firms that among other financial decisions taken, critical attention should be paid to dividend policy decision as it was found to have a significant mediating effect in the relationship between board structure dynamics and shareholders' wealth.

4.3.2 Suggestions for Further Research

It is recommended that further studies delve into assessing the mediating role of other factors including financing decision and investment decisions in the relationship between board structure dynamics and shareholders' wealth. For the purpose of triangulation, further studies are recommended to use other qualitative means of assessing information on the dividend policy preference and risk appetite of Ghanaian investors in

addition to the quantitative approach; hence a mixed approach could be adopted in achieve this aim.

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APPENDIX

DOCUMENT CONTENT ANALYSIS ON BOARD STRUCTURE DYNAMICS, DIVIDEND POLICY AND SHAREHOLDERS VARIABLES

Year	ID	ACE	BGD	BDS	BDC	CEOD	DPR	MVA	EPS	ROE	FIRMS	FIRMA	FIRMR	FAT	INTrate	INFrate	GDPg
2010	1	3	1	12	0.636	0	0.350	1.200	-0.028	-0.113	6.478	50	2.300	0.766	10.733	10.730	7.900
2011	1	3	1	12	0.636	0	0.200	2.100	0.003	-0.083	6.596	51	2.400	0.794	8.728	8.730	14.050
2012	1	3	0	12	0.636	0	0.150	0.400	0.133	-0.054	6.650	52	0.140	0.676	11.186	11.190	9.290
2013	1	3	1	12	0.636	0	0.000	0.500	0.086	-0.230	6.603	53	0.250	0.769	11.666	11.670	7.310
2014	1	3	0	12	0.636	0	0.000	-0.520	-0.041	-1.099	6.588	54	0.020	0.703	15.490	15.490	2.860
2015	1	3	1	12	0.636	0	0.000	0.410	-0.215	-0.133	4.757	55	0.350	0.705	17.150	17.150	2.120
2016	1	3	0	12	0.636	0	0.420	0.120	-0.036	-0.534	4.535	56	0.100	0.711	17.455	17.460	3.370
2017	1	3	1	12	0.636	0	0.200	-0.240	0.022	-0.269	4.401	57	0.250	0.695	12.372	12.370	8.130
2018	1	3	0	12	0.636	1	0.670	0.250	0.078	-0.146	4.696	58	0.350	0.663	7.809	7.810	6.200
2019	1	3	1	12	0.636	1	0.550	0.289	0.059	-0.121	4.696	59	1.300	0.640	7.144	7.140	6.510
2010	2	3	1	8	0.590	1	0.620	0.380	0.287	-0.460	3.573	18	0.258	0.335	10.733	10.730	7.900
2011	2	3	1	8	0.590	1	0.150	0.123	0.482	-0.088	3.593	19	0.360	0.343	8.728	8.730	14.050
2012	2	3	1	8	0.590	1	0.460	0.742	0.252	0.031	3.741	20	0.570	0.363	11.186	11.190	9.290
2013	2	3	1	8	0.590	1	0.180	0.369	0.225	0.309	3.840	21	0.890	0.368	11.666	11.670	7.310
2014	2	3	1	8	0.590	0	0.200	0.258	1.820	0.155	3.822	22	0.550	0.743	15.490	15.490	2.860
2015	2	3	1	8	0.590	0	0.200	0.212	1.730	0.190	7.076	23	0.250	0.757	17.150	17.150	2.120
2016	2	3	1	8	0.590	0	0.520	0.360	0.625	0.243	7.191	24	0.370	0.270	17.455	17.460	3.370
2017	2	5	1	8	0.590	0	0.250	2.320	0.770	0.156	7.095	25	0.490	0.243	12.372	12.370	8.130
2018	2	5	1	8	0.590	0	0.000	0.400	3.053	0.168	7.302	26	0.250	0.198	7.809	7.810	6.200
2019	2	5	1	8	0.590	0	0.410	0.500	-2.565	0.129	7.359	27	0.390	0.409	7.144	7.140	6.510
2010	3	5	1	8	0.590	0	0.530	-0.520	0.160	0.247	4.314	50	0.300	0.432	10.733	10.730	7.900
2011	3	5	1	9	0.590	0	0.460	0.410	0.160	0.081	4.193	51	0.337	0.527	8.728	8.730	14.050
2012	3	5	1	9	0.590	0	0.200	0.120	0.230	0.122	4.287	52	0.323	0.538	11.186	11.190	9.290

2013	3	5	1	9	0.590	0	0.390	-0.240	0.190	0.325	4.542	23	0.308	0.615	11.666	11.670	7.310
2014	3	5	1	9	0.590	0	0.290	0.250	0.130	0.331	4.611	54	0.294	0.493	15.490	15.490	2.860
2015	3	5	1	9	0.590	1	0.470	0.289	0.430	0.255	6.410	55	0.279	0.289	17.150	17.150	2.120
2016	3	5	1	9	0.590	1	0.200	0.123	0.570	0.079	6.515	56	0.264	0.636	17.455	17.460	3.370
2017	3	5	1	9	0.480	1	0.200	0.742	0.410	0.225	6.642	57	0.250	0.612	12.372	12.370	8.130
2018	3	3	0	9	0.478	1	0.200	0.369	0.110	0.204	6.610	58	0.235	0.603	7.809	7.810	6.200
2019	3	3	1	9	0.587	1	0.000	0.258	0.220	0.121	6.648	59	0.220	0.511	7.144	7.140	6.510
2010	4	3	1	8	0.590	1	0.000	0.212	-0.011	-0.212	7.773	29	0.206	0.730	10.733	10.730	7.900
2011	4	3	1	8	0.590	0	0.200	0.360	-0.012	-0.675	7.658	30	0.191	0.657	8.728	8.730	14.050
2012	4	3	1	8	0.480	0	0.200	2.320	0.005	-80.692	7.925	31	0.176	0.684	11.186	11.190	9.290
2013	4	3	1	8	0.478	0	0.000	0.987	0.006	-3.564	7.950	32	0.162	0.794	11.666	11.670	7.310
2014	4	3	1	9	0.510	0	0.000	0.369	-0.008	-20.587	7.741	33	0.147	0.859	15.490	15.490	2.860
2015	4	3	1	9	0.680	0	0.000	0.780	-0.005	0.082	4.741	34	0.133	0.878	17.150	17.150	2.120
2016	4	3	1	9	0.640	1	0.000	-0.420	-0.003	0.432	4.916	35	0.118	0.902	17.455	17.460	3.370
2017	4	3	1	9	0.520	1	0.000	-0.360	-0.003	0.236	5.016	36	0.103	0.922	12.372	12.370	8.130
2018	4	3	1	8	0.498	1	0.000	-0.780	-0.004	0.302	5.038	37	0.089	0.871	7.809	7.810	6.200
2019	4	3	1	8	0.390	1	0.400	0.452	-0.001	0.441	5.168	38	0.074	0.869	7.144	7.140	6.510
2010	5	3	1	8	0.540	1	0.350	-0.360	0.021	0.166	8.642	47	0.059	0.619	10.733	10.730	7.900
2011	5	5	1	8	0.640	0	0.150	-0.879	0.030	0.182	8.625	48	0.045	0.603	8.728	8.730	14.050
2012	5	3	1	8	0.540	0	0.740	-0.079	0.045	0.189	8.711	49	0.030	0.522	11.186	11.190	9.290
2013	5	3	1	9	0.480	1	0.290	2.320	0.011	0.196	8.827	50	0.015	0.499	11.666	11.670	7.310
2014	5	3	1	9	0.570	1	0.560	0.280	0.037	0.200	8.898	51	0.368	0.447	15.490	15.490	2.860
2015	5	3	0	9	0.640	0	0.270	0.369	0.023	-0.279	5.411	52	0.378	0.429	17.150	17.150	2.120
2016	5	3	0	8	0.520	0	0.330	0.780	0.033	0.032	5.603	53	0.980	0.436	17.455	17.460	3.370
2017	5	3	0	8	0.498	1	0.620	-0.420	0.042	-0.026	5.865	54	0.347	0.364	12.372	12.370	8.130
2018	5	3	0	8	0.390	0	0.460	-0.360	0.005	-0.005	5.673	55	0.389	0.366	7.809	7.810	6.200
2019	5	3	0	8	0.540	0	0.200	-0.780	0.025	0.021	5.741	56	0.321	0.567	7.144	7.140	6.510
2010	6	3	0	12	0.640	0	0.200	0.452	0.077	0.231	5.133	34	0.025	0.685	10.733	10.730	7.900
2011	6	3	1	12	0.540	1	0.200	-0.360	0.275	0.212	5.303	35	0.035	0.581	8.728	8.730	14.050

2012	6	3	1	12	0.480	0	0.200	-0.879	0.385	-0.103	5.315	36	0.378	0.516	11.186	11.190	9.290
2013	6	3	1	12	0.587	1	0.390	-0.079	0.167	0.012	5.388	37	0.924	0.664	11.666	11.670	7.310
2014	6	5	1	12	0.590	0	0.480	2.320	0.353	0.180	5.466	38	0.059	0.676	15.490	15.490	2.860
2015	6	3	1	12	0.590	0	0.200	0.400	0.234	0.287	8.390	39	0.045	0.706	17.150	17.150	2.120
2016	6	3	1	8	0.480	0	0.200	0.500	0.233	0.459	8.641	40	0.030	0.703	17.455	17.460	3.370
2017	6	3	1	9	0.478	0	0.200	-0.520	0.314	0.420	8.801	41	0.015	0.682	12.372	12.370	8.130
2018	6	3	1	9	0.510	0	0.200	0.410	0.170	0.584	9.115	42	0.980	0.635	7.809	7.810	6.200
2019	6	3	1	9	0.680	0	0.000	0.120	0.277	0.206	9.066	43	0.347	0.588	7.144	7.140	6.510
2010	7	3	1	9	0.640	0	0.000	-0.240	-0.098	-0.167	7.631	32	0.389	0.758	10.733	10.730	7.900
2011	7	3	1	9	0.640	0	0.000	0.250	-0.038	-0.039	7.653	33	0.321	0.740	8.728	8.730	14.050
2012	7	3	1	9	0.540	0	0.000	0.289	-0.028	-0.151	7.739	34	0.025	0.611	11.186	11.190	9.290
2013	7	3	1	9	0.480	0	0.000	0.123	-0.011	-0.202	7.821	35	0.035	0.835	11.666	11.670	7.310
2014	7	5	1	9	0.587	0	0.000	0.742	-0.019	-0.024	7.916	36	0.220	0.827	15.490	15.490	2.860
2015	7	3	1	9	0.590	0	0.000	0.369	-0.063	-0.112	5.753	37	0.206	0.830	17.150	17.150	2.120
2016	7	3	1	8	0.590	1	0.000	0.258	-0.082	-0.218	5.734	38	0.191	0.821	17.455	17.460	3.370
2017	7	3	1	12	0.480	1	0.000	-0.541	-0.101	-0.318	5.869	39	0.176	0.892	12.372	12.370	8.130
2018	7	3	1	12	0.450	1	0.000	-0.369	-0.140	-0.311	5.988	40	0.162	0.927	7.809	7.810	6.200
2019	7	3	1	12	0.541	1	0.000	0.352	-0.102	-0.355	6.092	41	0.147	0.914	7.144	7.140	6.510
2010	8	5	1	9	0.530	1	0.085	0.254	0.114	0.114	5.633	15	0.121	0.695	10.733	10.730	7.900
2011	8	3	1	9	0.530	1	0.254	0.112	0.241	0.152	4.996	16	0.221	0.787	8.728	8.730	14.050
2012	8	3	1	9	0.530	1	0.153	0.321	0.121	0.210	5.325	17	0.133	0.855	11.186	11.190	9.290
2013	8	3	1	9	0.530	1	0.236	0.215	0.133	0.199	5.585	18	0.142	0.590	11.666	11.670	7.310
2014	8	3	1	9	0.530	1	0.185	0.221	0.125	0.114	5.655	19	0.214	0.699	15.490	15.490	2.860
2015	8	3	1	9	0.530	1	0.254	0.102	0.215	0.211	4.745	20	0.214	0.829	17.150	17.150	2.120
2016	8	3	1	9	0.530	1	0.000	0.121	0.121	0.231	4.987	21	0.214	0.655	17.455	17.460	3.370
2017	8	3	1	9	0.530	1	0.000	0.214	0.115	0.214	5.001	22	0.114	0.859	12.372	12.370	8.130
2018	8	3	1	9	0.530	1	0.000	0.232	0.124	0.149	6.774	23	0.211	0.556	7.809	7.810	6.200
2019	8	3	1	9	0.530	1	0.214	0.212	0.214	0.137	6.001	24	0.121	0.765	7.144	7.140	6.510
2010	9	3	1	9	0.440	1	0.254	0.123	0.145	0.099	6.365	46	0.124	0.855	10.733	10.730	7.900

2011	9	3	1	9	0.440	1	0.148	0.212	0.214	0.167	7.000	47	0.225	0.854	8.728	8.730	14.050
2012	9	3	1	9	0.440	1	0.137	0.012	0.199	0.255	6.232	48	0.254	0.525	11.186	11.190	9.290
2013	9	3	1	8	0.440	1	0.145	0.112	0.215	0.221	5.887	49	0.124	0.575	11.666	11.670	7.310
2014	9	3	1	8	0.440	1	0.025	0.121	0.121	0.235	5.859	50	0.122	0.867	15.490	15.490	2.860
2015	9	3	1	8	0.440	1	0.000	0.221	-0.145	-0.325	5.332	51	0.233	0.875	17.150	17.150	2.120
2016	9	3	1	8	0.440	1	0.000	-0.412	-0.245	-0.254	4.335	52	0.211	0.655	17.455	17.460	3.370
2017	9	3	1	8	0.440	1	0.085	0.124	0.214	0.232	5.667	53	0.221	0.854	12.372	12.370	8.130
2018	9	3	1	8	0.440	1	0.075	0.114	0.121	0.232	5.875	54	0.321	0.774	7.809	7.810	6.200
2019	9	3	1	8	0.440	1	0.254	0.121	0.255	0.125	7.886	55	0.141	0.853	7.144	7.140	6.510
2010	10	3	1	12	0.570	0	0.121	0.144	0.221	0.125	4.446	36	0.121	0.853	10.733	10.730	7.900
2011	10	3	0	12	0.570	0	0.235	0.211	0.085	0.232	4.999	37	0.111	0.633	8.728	8.730	14.050
2012	10	3	0	12	0.570	0	0.124	0.014	0.100	0.124	4.337	38	0.221	0.763	11.186	11.190	9.290
2013	10	2	0	12	0.570	0	0.214	0.100	0.113	-0.112	4.857	39	0.121	0.578	11.666	11.670	7.310
2014	10	3	0	12	0.570	0	0.059	0.365	0.135	-0.226	4.253	40	0.124	0.858	15.490	15.490	2.860
2015	10	3	0	12	0.570	0	0.124	0.215	0.254	0.190	4.475	41	0.121	0.657	17.150	17.150	2.120
2016	10	3	1	12	0.570	0	0.352	0.125	0.125	0.215	5.004	42	0.214	0.775	17.455	17.460	3.370
2017	10	3	1	9	0.570	0	0.321	0.221	0.254	0.189	4.856	43	0.114	0.658	12.372	12.370	8.130
2018	10	3	1	9	0.570	0	0.285	0.124	0.212	0.121	4.635	44	0.141	0.469	7.809	7.810	6.200
2019	10	3	1	9	0.570	0	0.254	0.121	0.125	0.254	4.553	45	0.121	0.858	7.144	7.140	6.510
2010	11	5	1	9	0.489	1	0.300	0.314	0.211	0.224	5.552	28	0.212	0.685	10.733	10.730	7.900
2011	11	5	1	9	0.489	1	0.352	0.124	0.214	0.123	4.663	29	0.114	0.669	8.728	8.730	14.050
2012	11	5	1	9	0.489	1	0.125	0.099	0.121	0.125	6.664	30	0.121	0.755	11.186	11.190	9.290
2013	11	5	1	9	0.489	1	0.254	0.178	0.122	0.214	6.221	31	0.125	0.875	11.666	11.670	7.310
2014	11	5	1	9	0.489	1	0.215	0.254	0.189	0.225	6.885	32	0.221	0.875	15.490	15.490	2.860
2015	11	5	1	9	0.489	1	0.235	0.214	0.200	0.212	6.335	33	0.214	0.659	17.150	17.150	2.120
2016	11	5	1	9	0.489	1	0.333	0.135	0.215	0.215	6.747	34	0.321	0.774	17.455	17.460	3.370
2017	11	5	1	9	0.670	1	0.355	0.123	0.189	0.221	6.774	35	0.121	0.745	12.372	12.370	8.130
2018	11	5	1	9	0.568	1	0.145	0.124	0.201	0.214	5.999	36	0.151	0.775	7.809	7.810	6.200
2019	11	5	0	9	0.568	1	0.254	0.214	0.125	0.215	5.857	37	0.215	0.887	7.144	7.140	6.510

2010	12	3	1	9	0.473	1	0.259	0.123	0.234	0.125	6.323	19	0.254	0.588	10.733	10.730	7.900
2011	12	3	0	9	0.473	1	0.000	0.214	0.215	0.125	6.003	20	0.121	0.655	8.728	8.730	14.050
2012	12	3	1	9	0.473	1	0.000	0.325	0.215	0.215	6.337	21	0.121	0.865	11.186	11.190	9.290
2013	12	3	1	9	0.473	1	0.231	0.333	0.124	0.215	6.520	22	0.141	0.685	11.666	11.670	7.310
2014	12	3	1	9	0.473	1	0.325	0.242	0.125	0.125	6.999	23	0.124	0.586	15.490	15.490	2.860
2015	12	3	1	9	0.473	1	0.321	0.089	0.215	0.215	7.212	24	0.112	0.823	17.150	17.150	2.120
2016	12	3	1	9	0.473	1	0.215	0.215	0.215	0.121	7.013	25	0.221	0.883	17.455	17.460	3.370
2017	12	3	1	9	0.473	1	0.332	0.214	0.214	0.212	6.890	26	0.155	0.742	12.372	12.370	8.130
2018	12	3	1	9	0.589	1	0.421	0.124	0.215	0.125	6.399	27	0.137	0.655	7.809	7.810	6.200
2019	12	3	0	9	0.589	1	0.232	0.214	0.215	0.215	7.363	28	0.124	0.775	7.144	7.140	6.510
2010	13	5	1	12	0.687	0	0.000	0.214	0.121	0.125	6.559	24	0.212	0.655	10.733	10.730	7.900
2011	13	5	1	12	0.687	0	0.000	0.121	0.187	0.231	5.325	25	0.125	0.745	8.728	8.730	14.050
2012	13	5	1	12	0.687	0	0.359	0.214	0.137	0.210	5.652	26	0.187	0.855	11.186	11.190	9.290
2013	13	5	1	12	0.687	0	0.299	0.214	0.254	0.412	5.325	27	0.126	0.700	11.666	11.670	7.310
2014	13	5	1	12	0.687	0	0.000	0.214	0.185	0.321	5.664	28	0.137	0.655	15.490	15.490	2.860
2015	13	5	1	12	0.687	0	0.215	0.214	0.189	0.212	5.654	29	0.125	0.765	17.150	17.150	2.120
2016	13	5	1	12	0.687	0	0.000	0.214	0.103	0.221	5.325	30	0.231	0.755	17.455	17.460	3.370
2017	13	5	1	12	0.687	0	0.221	0.175	0.121	0.232	5.586	31	0.215	0.687	12.372	12.370	8.130
2018	13	5	1	12	0.687	0	0.000	0.111	0.199	0.322	6.333	32	0.121	0.845	7.809	7.810	6.200
2019	13	5	1	12	0.687	0	0.113	0.135	0.121	0.322	6.002	33	0.125	0.745	7.144	7.140	6.510

Source: Field Survey, (2022)