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## Firm Size and Market Value of Firms Trading at the Nairobi Securities Exchange: Does Dividend Policy Offer an Indirect Path?

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### **Abstract:**

*Objective:* Research focuses on the direct effect of firm size on the market value at the expense of covariates such as dividend policy. Therefore, this study investigated the mediation effect of dividend policy on the relationship between firm size and market value.

*Methodology:* Panel research design was employed with a target of 54 companies listed at the Nairobi security exchange in Kenya, operational in the relatively stable economy period between 2008 and 2017. Data were sourced from published audited financial reports. Analysis was done using both descriptive and inferential statistics. The study tested for full mediation, partial mediating, or lack of mediation. Data analysis was facilitated using STATA (version 15) software.

*Findings:* The results showed that firm size had a negative and significant effect on market value ( $b_1 = -0.378$   $p < 0.001$ ) and that dividend policy had no significant effect on market value,  $b_2 = -0.035$ ,  $p > 0.05$ . The researcher concluded that there was no ground for mediation.

*Originality:* The results confirm that dividend policy does not mediate between firm size and market value, albeit in the Kenyan Nairobi Securities Exchange (NSE) context, and provides reasons to explore other proxies of dividend policy. In finding that dividend policy does not mediate in the relationship between firm size and market value, this study becomes the first one to justify working from home during the COVID-19 pandemic since the issue of dividends does not arise working at home.

*Practical Implications:* The negative effect of firm size on market value is an interesting finding that implies that with the emergence of technology, firm size is inversely proportional to market value. Consequently, small firms can exploit technology more effectively than large firms to boost their market value.

**Keywords:** Firm size, Dividend policy, Market value, Security exchange, Nairobi

### **1. Introduction**

Information on share price signals the future trends in business and provides investors with bases for determining investment policies. The stock prices represent the market value which influences the investor's rating of the overall financial performance of companies (Sholichah et al., 2021). Previous studies have identified various factors which determine market value. Murni (2015) identified profitability as a key factor. The study found that profitability had a positive effect on dividend policy. On the other hand, Vo (2019) established that leverage impacted more strongly and negatively on high-growth potential firms than low-growth potential firms.

Market Value plays a critical role in enabling firms involved in the transfer of assets to have a realistic picture of the worth of assets held. Defined as the price an asset is likely to fetch in the marketplace (Chen, 2018), the market value provides a concise approach to eliminating ambiguity or uncertainty in determining an asset's worth. Stock markets are central to determining a company's market value measured through market capitalization. Consequently, higher share prices signify a company's worth. According to van Straten (2019), creating value which occurs when profits surpass investment over a given period, is the main aim of firms. In the securities markets, market value relates to the market capitalization of publicly traded companies (Almumani, 2018). Apart from playing the critical role of enabling a clear picture of assets' worth, market valuation indicates a firm's past, present, and future economic aspirations and demand for securities (Palepu et al., 2020). Nevertheless, market volatility leads to market value fluctuations over time (Alaali, 2020).

Several ratios measure market value, including earnings per share, book value per share, and price-earnings, which are prevalent (Dergiades et al., 2020), and market value per share, market/book ratio, and dividend yield ratio, which are occasionally used. These ratios evaluate the economic level of publicly traded firms (Gomez-Navarro et al., 2017). The argument advanced by these scholars is that a combination of these ratios indicates the financial capacity of listed firms. The ratios also enable firm management to know what investors think of the firm's performance and future aspirations (Myskova & Hajek, 2017).

Market Value has also been perceived as an indicator of a firm's profitability, whereby an increase in profit is commensurate with an increase in market value ratios such as earnings per share, price-earnings, and book value (Machmuddah et al., 2020). Research shows that investors are guaranteed higher prospects if firms register high profits (Al-shattarat et al., 2018; Beyer et al., 2018; Sungkar & Debora, 2021). Several factors have been identified as determinants of market value, including profitability, debt load, market environment, and firm sector (Alaali, 2020). For listed firms, factors such as firm size and dividend policy feature consistently in existing research (Albuquerque et al., 2021).

Interest in market value has been exacerbated by the COVID-19 pandemic. Research shows that the pandemic is exerting pressure on the demand and pricing of stocks in the securities markets (Bradley & Stumpner, 2021). They argue that the business environment has undergone an unfolding journey that has led to instability in share prices. Meanwhile, the volatility in demand is such that market value has to be viewed from a time series perspective. According to Abdelnour et al. (2020), meeting pricing challenges would require firms to target long-term value creation instead of short-term gains. This essentially negates awarding of dividends in lieu of wealth creation. Besides, evidence has shown that the pandemic affects real estate markets differently (Balemi et al., 2021). Therefore, a study on listed firms that include firms from the real estate sector need not ignore the pandemic impacts.

Firm size relates to the volume or scale of operation and asset base that significantly affects the firm's profitability and efficacy (Sudrajat & Setiyawati, 2021). Firm size is measured using either input measures or output measures. The typical input measures of firm size include capital employed, net worth, total assets, labour employed, and raw materials and power consumed (Dang, Li & Yang, 2018). According to Dang et al. (2018), capital employed subsumes owned capital and borrowed capital and is directly proportional to the firm's size. Meanwhile, net worth relates to the excess of assets over liabilities and compares the size of different firms. Fauzan et al. (2019) identify total assets as another measure of firm size that takes cognizance of the amount invested in fixed, current, and intangible assets. The number of labourers and raw materials and the amount of power consumed are also indicators of firm size.

Output measures often used to measure firm size include the volume of output, the value of output, and value addition. Kumar & Kaur (2016) point to the number of goods produced or services rendered as a good indication of firm size, with larger firms producing more goods and services. However, scholars often refer to firm size without necessarily distinguishing between small and large firms when examining their impacts on performance. Consequently, the natural logarithm of total assets used in this study has become a suitable proxy for measuring firm size (Adi et al., 2020).

Several studies have underscored the direct influence of firm size on financial performance measured through various indicators (Hung et al., 2021; Meiryani et al., 2020; Lopez - valeiras et al., 2016; Wayongah & Ochieng, 2019). However, little attention has been paid to the potential influence of firm size on market value via dividend policy. Dividend policy involves deciding how to share a firm's earnings among shareholders and what is to be ploughed back into the firm. Consequently, dividend policy allows small firms to remain sustainable by making prudent decisions. Indeed, empirical evidence shows that dividend policy mediates relationships involving market value as the dependent variable (Mas Santika et al., 2020).

A stable dividend policy aims to achieve predictable and steady annual dividend payments irrespective of increases and decreases in earnings; scholars have demonstrated that dividend policy intervenes in the relationship between financial performance and market value (Handayania et al., 2018). Despite the inherent potential for dividend policy to influence the relationships, no study has been conducted to interrogate the mediation effect of dividend policy on firm size and market value.

In line with the Kenya Government's focus on Small and Medium Enterprises (SMEs) as levers of economic growth, poverty eradication, and employment creation as envisioned in vision 2030, the Kenyan security market has undergone a massive restructuring that has widened the security portfolios offered for trade. For instance, the Capital Markets Authority (CMA) set up a middle capital (Mid Cap) market segment by approving rules and regulations governing the operations of the Growth Market Segment (GEMs) (Anyanzwa, 2019). The understanding was that SMEs could get listing on the Bourse through the Mid Cap market segments and diversify their long-term capital avenues. At the same time, capital markets could also raise their savings and investments. In essence, getting listed could result in SMEs tapping into a new pool of funds, increasing their asset base and market value (Anyanzwa, 2019).

Investors make investment decisions based on the financial performance of listed firms. Firm size features strongly as a factor that impacts financial performance. By seeking to have SMEs listed, the NSE took cognizance of the research fallacy that small firms have a small asset base that may not create sustainable value in the market. For instance, Muhindi and Ngaba (2018) determined that, unlike small firms, large firms, measured in terms of capital base and customer deposits, were likely to influence the financial performance of listed banks and even advocated for the merger of small firms. However, large firms have not been exempted from experiencing financial distress, which has seen some of them put under receivership and eventual closure. In Kenya, for instance, Dubai bank was put under receivership in 2015 despite being a large firm. Similarly, in 2016 Chase Bank and Uchumi Supermarkets were placed under receivership despite their large stature.

In today's markets, innovations and globalization have rendered the notion of the unsustainability of small firms null and void. A small firm can undertake massive operations with a relatively small asset base. Scholars are now arguing

that other factors act alongside firm size to influence financial performance and market value. For instance, Wayongah and Ochieng (2019) introduce age and asset tangibility to the observed positive influence of firm size on the financial performance of non-financial firms listed at the NSE. Wayongah and Ochieng (2019) posit that small firms employ other performance practices to circumvent the small firm syndrome.

However, in this era of the COVID-19 pandemic, the question of firm size has become a central one, given the containment measures that have made teleworking and home-based working prominent. Therefore, the motivation of dividends to influence market value needs to be investigated from an indirect effects perspective. However, little or no interest has been shown toward the potential for dividend policy to offer an indirect route. The study sought to address this gap by examining whether dividend policy mediates the relationship between firm size and the market value of firms listed at the NSE.

## 2. Literature Review

### 2.1. Firm Size and Market Value

Firm size is a major factor determining company profitability. The company's size is measured using the value of assets and the number of employees (Meiryani et al., 2020). Therefore, firm size is a primary factor in determining the benefits that accrue to large-scale operations, including but not limited to market value. Studies have, however, reported contradictory views on firm size and profitability. Sudiyatno et al. (2020), for instance, established that firm size had a positive and significant effect on the profitability of firms listed on the Indonesia Stock Exchange from 2016 to 2018. However, this finding was contradicted by the findings of Yadav et al. (2020), whose findings showed a negative relationship between firm size and profitability—giving an impression that large size may breed inefficiency.

The positive effect of firm size on the firm value measured through profitability is best explained by Marom et al. (2019). They argue that owners of larger firms pursue strategies loaded with innovation but having minimum risk. On the contrary, owners of medium and smaller firms pursue strategies that are higher in risk yet lower innovative-wise. Such findings, therefore, show that firm size influences the level of financial performance. According to Meiryani et al. (2020), large companies tend to influence firm value. The larger the company, the larger the firm value. The larger companies have higher value of Assets, which are utilized to attract considerable financial resources. Since they are used as collateral security with adequate financial resources, companies can undertake massive operational activities edge.

Firm size is the size, scale, or variable that explains the size of the firm based on various determinants, including total assets, market value, total sales, total revenue, total capital, and others (Sudiyatno et al., 2020). Brigham and Hauston (2015) measure firm size using total net sales for the year up to many years. According to Brigham and Hauston (2015), firm size affects its performance because large firms have a broader view and opportunities to use their resources. At the same time, large firms' executives are more flexible in managing and developing their resources. Laila et al. (2017) conducted a study on the effects of firm size on profitability, and the results showed that firm size had a positive and significant effect on market value. Hirdinis (2019) supported this finding, whose results concurred with that of Laila et al. (2017). It was reported that large firms can mount aggressive sales promotions and other strategies to gain a competitive edge and obtain significant levels of financial performance.

However, Hossain (2016) posited that firm size does not affect the firm's profitability. This finding was conflicting and confounding. A study by Shen and Rin (2012) reported that firm size positively and significantly affected performance. This result means that the larger the firm, the higher the financial performance of firms. Vu et al. (2019) used Vietnamese listed firms to establish that firm size was one of the factors that determined firm performance across the listed firms. According to Fernández et al. (2019), while investigating firm and industry effects, the firm effect explains the performance of large and small firms. However, the industry effect explains the performance of medium firms. This argument implies that firm size has a role to play in overall performance and value creation, with larger firms having the upper hand. This result was attributed to the process of large firms to withstand stiff competition, attract a huge capital base, and diversify markets and products. Consequently, it leads to higher market values. The results of a study carried out in Namibia determined that small firms in the investment management context can improve their performance by raising the level of their assets (Shikuyele, 2019). The findings showed that the effect of the bigger firms was more pronounced than that of the smaller ones. This was attributed to the value of assets and the power to take opportunities when they arise among the bigger firms.

- H<sub>1</sub>: Firm size has no significant effect on the market value of firms trading at the Nairobi Securities Exchange

### 2.2. Dividend Policy and Market Value

Memon et al. (2017) examined the market value of listed firms' dividend policy and market value in the context of Pakistan. The results showed that dividend policy decisions affected the market value significantly. It postulated that lower dividend payout increases retained earnings or profits. Retained earnings were later converted into shares, indirectly increasing the market value. According to Munawar (2018), dividend policy had a positive and insignificant effect on market value. This study used a fixed effects model to examine the effects. It was carried out at Indonesia Stock Exchange, concentrating on one sector. This study used diverse sectors to see if the results could change.

Kanakriyah (2020) investigated the relationship between dividend policy and the financial performance of Amman Securities Market and singled out the industrial and service sector. The result showed that dividend policy strongly influenced financial performance. Dividend payout signals bring future, and potential investors are attracted to buy more shares to gain from future dividend payout. This attraction of investors puts more financial resources at the disposal of company executives. The vast financial resources are used to acquire more modern assets, carry out product

and market research and gain a competitive advantage. Ubesie and Emujulu (2020) investigated the role of dividend policy on the financial performance of Nigerian firms. The study reported that dividend policy had a positive effect on financial performance. This study received support from Roman (2015), who studied commercial banks and Islamic banks listed on the Jordanian Amman Stock Exchange and determined that dividend policy positively impacted the financial performance of firms in the banking sector.

The findings of Naz and Siddique (2020) showed that dividend policy positively affected the price volatility of stocks listed in security markets. They measured dividend policy using dividend yield and dividend payout. Kadim et al. (2020) reported that dividend policy had a positive and non-significant relationship with market value. The study reported that dividend payout would reduce retained earnings and drain available financial resources, which would otherwise be used to beef up the capital base. De Wet and Mpinda (2013) investigated dividend policy and market value. The study posited that dividend policy had a negative and significant effect on market value. It indicated that once a dividend payout is made, it leaves the firm without financial reserves, which shields it against adverse financial performance. This lack of financial reserves implies that dividend payment drains internal sources of finance, making the firm vulnerable to violent market vagaries.

At the same time, Setiyowati et al. (2018) confirmed the findings of De Wet and Mpinda (2013) that dividend policy affected market value, albeit negatively. According to Bezawada and Tati (2017), dividend policy had negative and non-linear effects on market value. This study focused on electrical equipment and the manufacturing industry. Dividend policy was reported to negatively correlate the dividend payout ratio and price volatility (Dang et al., 2018). These findings shed light on and support other scholars' views that capital gains were the antecedents of optimal dividend policy. Sadi'ah (2018) posited that dividend policy had a negative effect on market value. The higher the dividend payout, the lower the market value, and vice-versa. This finding was supported by Gunawan et al. (2018). Butar-Butar et al. (2019) studied the Indonesian securities exchange and established that dividend policy negatively affected market value.

Scholars' contradictory findings on the relationship between dividend policy and market value have been reflected in many studies investigating the relationship. Many scholars have reported a positive impact on market value (Brahamaia & Ravi, 2017; Gunawan et al., 2018; Naz & Siddique, 2020; Kadim et al., 2020). Another equally big group of scholars comprising Setiyowati et al. (2018), Lumapow & Tumiwa (2017), Duy et al. (2019), and Hasan et al. (2015) has reported negative results. On the other hand, another body of research findings showed there were no significant effects (Wijaya et al., 2013; Sadi'ah, 2018; Memon, Channa, and Khoso, 2017).

- H<sub>2</sub>: Dividend policy has no direct effect on firm value of firms trading on the Nairobi Securities Exchange

### 2.3. Mediating Effect of Dividend Policy

Mas Santika et al. (2020) shared that dividend policy mediates the relationships between the profitability and market value of firms listed on the Indonesian Stock Exchange. This mediation implies that dividend policy has the potential to mediate between other variables necessitating further investigation of its mediation on firm size and market value. According to Mansourfar et al. (2017), dividend policy mediated the relationship between the quality of corporate governance and informative income. The results showed that dividend policy mediated the link between corporate governance and financial performance.

However, Ridhani et al. (2020) posited that dividend policy did not mediate the relationship between shareholder activism and profitability. This study focused on property and real estate firms. A study carried out by Husain et al. (2020) on the mediation effect of dividend policy posited that dividend policy did not mediate the relationships between shareholder activism and market value. This lack of mediation made the need for the current study to explore another variable to underscore the mediation effect of dividend policy. Ramirez and Ferrer (2021) investigated the mediating role of dividend policy on the impact of capital structure and corporate governance mechanisms on firm value among publicly listed companies in the Philippines. The results showed that capital structure, board size, and CEO duality are significant negative effects. However, executive compensation had a significant positive effect on firm value.

The study concluded that the impact of capital structure and corporate governance mechanism on firm value was not mediated by dividend policy. This implied that macro-economic factors such as government legislation, compulsory operational costs, and information distribution among the security holders, executives, and stockholders provide a significant impetus in influencing market value. Baker et al. (2011) assert that the choice of dividend policy or the pronouncement of dividend payout will indirectly affect the firm's outcomes. It influences the overall corporate policies.

Booth and Zhou (2017) postulated that dividend policy indirectly defines corporate governance policies geared toward solving agency problems. The results showed that companies with high corporate governance scores received higher shareholder satisfaction toward a high dividend payout. However, Smith and co-researchers argued that dividend policy mediates the relationships between firm variables, albeit negatively (Ramirez & Ferrer, 2021). They argued that dividend policy mediates high corporate governance and firm financial performance. Faulkender and Mibourn (2006, cited in Ramirez & Ferrer, 2021) concluded that dividend policy mediates the relationships between the interest of shareholders and the optimal mix of capital structure. Hashemijoo et al. (2012) demonstrated that dividend policy significantly mediated the relationship involving capital structure as the predictor variable and market value measured through financial performance as the criterion variable. This finding indicated the potential for dividend policy to offer an avenue for an indirect relationship involving market value.

Mas Santika et al. (2020) used the Indonesian securities exchange to show that profitability indirectly affected market value through dividend policy. In essence, dividend policy shaped profits into share capital which, alongside asset value, are cardinal factors that influence market value. Handayania et al. (2018) determined that dividend policy

significantly mediated the influence of institutional ownership on market value. This finding further testifies to the potential for dividend policy to mediate relationships between several factors and market value.

However, some studies have given contradictory findings showing that dividend policy did not mediate relationships involving market value. For instance, Husain et al. (2020) used the automotive and components firms' context to show that dividend policy did not mediate the effect of shareholder activism on market value. Similarly, Mansourfar et al. (2017) used the property and real estate firms listed on the Indonesian Stock Exchange to show that dividend policy was not a significant mediator of the relationship between shareholder activism and profitability.

Due to the forgoing intriguing relationships, the current study examined the firm size and market value relationship through dividend policy. As a result of such contradictory findings regarding the mediating potential of dividend policy, we question whether it can mediate the relationship between firm size and market value and help small firms listed at the NSE circumvent the firm size syndrome. Therefore we postulate that:

- H<sub>3</sub>: Dividend policy does not mediate the relationship between firm size and market value.

Therefore, the following schematic diagram illustrates the conceptual framework that the researchers adopted.

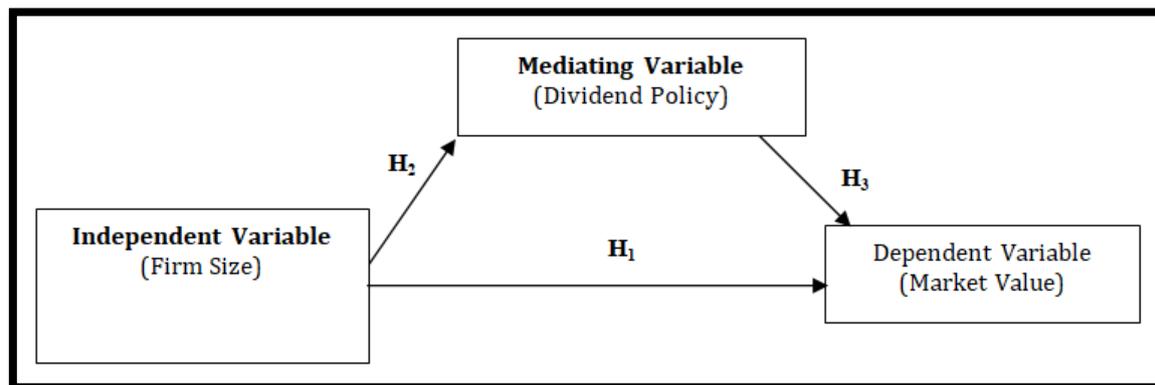


Figure 1: Conceptual Framework

### 3. Methodology

The panel research design was employed to investigate the mediating effect of dividend policy on the relationship between firm size and the market value of 54 companies listed at the NSE. The target population of this study was all 54 firms across twelve sectors, namely: Agriculture, Telecommunications & Technology, Banking, Automobile & Accessories, Real Estate Investment Trust, Commercial and Services, Construction And Allied, Energy and Petroleum, Insurance, Investment & Investment Services, Manufacturing & Allied, and Exchange Traded Fund as listed at the NSE and operational in the period 2008 – 2017. Quantitative secondary data relating to firm size (In Total Assets), dividend policy (Ratio of dividend per share to the market price per share), and market value (ratio of total market value to total asset value) covering panel data for the firms were sourced from audited annual financial reports. A checklist was used to record the secondary data.

Data were analyzed using both descriptive and inferential statistics. Descriptive statistics included determining overall means and associated standard deviations, minimum and maximum value, and establishing the between-firm and within-firm means and their standard deviations (Lind et al., 2017; MacRae, 2019; Stapor, 2020). The inferential analysis involved three steps. Under step 1, firm size was directly related to market value. In step 2, firm size was related directly to dividend policy. In step 3, firm size and dividend policy were concurrently related to market value. The researcher then tested for full mediation, partial mediation, or lack of mediation. Data analysis was facilitated using STATA (version 15) software.

#### 3.1. Mediation Effect Model Specification

The mediation model presented in figure 1 was used to examine the mediating effect of dividend policy on the relationship between firm size and market value. In this conceptualization, 'c' offers the direct route between firm size and market value, 'a' offers the direct route between firm size and dividend policy, and 'ab' offers the indirect route between firm size and market value.

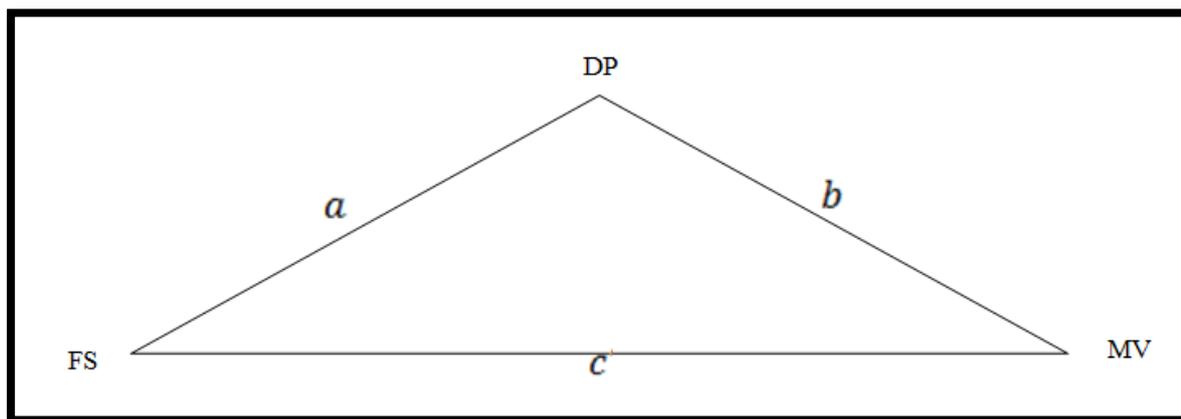


Figure 2: Model Formulation

Therefore, the following model specifications were formulated for the direct and indirect effects.

- $DP_{it} = i_3 + a FS_{it} + e_{it}$  ..... equation 1  
Equation 1 modelled the direct effect of Firm size on dividend policy which is a pre-condition for mediation (Markham & Rodgers, 2017).
- $MV_{it} = i_2 + c_2 DP_{it} + e_{it}$  ..... equation 2  
Equation 2 modelled the direct effect of dividend policy on market value. The assumption was that equation 1 and equation 2 would offer the indirect path under investigation.
- $MV_{it} = i_1 + c_1 FS_{it} + b DP_{it} + e_{it}$  ..... equation 3  
Assuming that direct effects in equation 1 and equation 2 existed, equation 3 modelled the effect of Firm size on market value via dividend policy.

Note: the product  $ab$  estimated in Equations 1 and 3 measures the indirect or mediated effect. The coefficient  $c_2$  in equation 2 measures the total effect, while the coefficient  $c_1$  in equation 1 measures the direct effect.

3.2. Measures

This study used firm size as an independent variable. Various studies have used several measurement indicators (Ramezani, 2017), Gray and Nowland (2014), and Carter et al. (2010) used a Natural logarithm of Total Assets. Dividend policy was used as a mediating variable. Prior studies have used different measures of dividend policy. Memon et al. (2017) used dividend yield. The dividend yield is indicated by the ratio of dividend per share and market price per share ( $DY = DPS / MPS$ ). Market value relates to the buyer's perceived tangible benefits in price, service, and quality (Kotler and Keller (2006). Various scholars have used multiple measurements to measure market value. Adefila, Oladipo & Adeoti (2004) and Memon, Channa & Khuso (2017) used Tobin's Q, which is the ratio of the sum of the market value of equity, preference shares, and debt to the total value of assets ( $Q = \text{market value of equity} + \text{preference shares and Debt} / \text{Total Assets}$ ).

| Variables                                      | Measurements   | Formula   | Notation        |
|--|--|---|-----------------|
| <b>Mediating variable</b><br>• Dividend policy | Dividend yield<br>Adefila, Oladipo & Adeoti (2004); Almeida & Pereira (2015); Guizani (2014)                       | Log of dividend per share divided by market price per share (fiscal year ending stock price). | Log DPS/MPS     |
| <b>Dependent variable</b><br>• Market value    | Tobin's Q (Adefila, Oladipo & Adeoti (2004);   | Total market value of firm(equity+quasi equity+debt)/ Total asset value                       | TMV/ TAV        |
| <b>Control variables</b><br>• Firm size        | • Value of total assets (Ramezani et al., 2017; Gray & Nowland, 2014; Byun et al., 2012; and Carter et al., 2010). | Change in value of total assets   | Log $\Delta$ TA |

Table 1: Measurement of Study Variables Summary

4. Results

Descriptive results shown in table 2 indicated the following:

Dividend policy averaged 0.066 with an associated standard deviation of approximately 0.185. The mean of dividend policy being a low payout ratio, it was prudent to conclude that most listed firms were keener on ploughing back their earnings into developing the firms. The between-firms standard deviation was approximately 0.114, indicating big variations among firms in ploughing back earnings. However, some of the listed firms were paying out more dividends than their earnings could support, as demonstrated by the maximum dividend value of 2.61.

Meanwhile, the market value averaged a ratio of 1.363, with an associated standard deviation of 6.98. The between-firms standard deviation was 3.82, and the within-firms standard deviation was 5.86. Given that the market value ratio was above 1, the plausible conclusion was that most firms trading at the NSE from 2008 to 2017 were trading below their assets' worth due to undervalued stocks. The between-firms standard deviation indicated a significant variation in market value across firms. This variation depicts the significant differences in firm size confirmed by the range in firm size between a natural logarithm value of -0.518 and a natural logarithm value of 1.000 with an average of 0.0085.

| Variable         | Mean     | Std. Dev. | Min       | Max      | Observations |
|------------------|----------|-----------|-----------|----------|--------------|
| FirmSize overall | .0084981 | .0619644  | -.518     | 1        | N = 540      |
| between          |          | .0182817  | -.0374    | .1187    | n = 54       |
| within           |          | .0592532  | -.4825019 | .8897981 | T = 10       |
| M overall        | .0662748 | .1845878  | 0         | 2.607407 | N = 540      |
| between          |          | .1136675  | .0000874  | .7815075 | n = 54       |
| within           |          | .1461782  | -.7126946 | 1.892175 | T = 10       |
| Y overall        | 1.36303  | 6.980441  | .0001886  | 96.87669 | N = 540      |
| between          |          | 3.824423  | .1657705  | 24.43876 | n = 54       |
| within           |          | 5.860423  | -23.05497 | 82.38001 | T = 10       |

Table 2: Descriptive Statistics

4.1. Testing for Mediation Effects

- Step 1: The first step of mediation involved confirming whether firm size had a significant effect on market value, without which there would be nothing to mediate. Therefore, we regressed market value on the firm size as shown in equation (1).

$Y = b_0 + b_1X + e$ ..... equation 1

Table 3 presents the results of regressing market value on firm size. The table shows  $b_1 = -37.8$ ,  $p < 0.001$ . The significant  $b_1$  confirmed that mediation could be run.

| Y        | Coef.     | Std. Err.                         | z     | P> z  | [95% Conf. Interval] |          |
|----------|-----------|-----------------------------------|-------|-------|----------------------|----------|
| FirmSize | -37.76695 | 4.138978                          | -9.12 | 0.000 | -45.87919            | -29.6547 |
| _cons    | 1.683979  | .4723158                          | 3.57  | 0.000 | .7582575             | 2.609701 |
| sigma_u  | 2.9312409 |                                   |       |       |                      |          |
| sigma_e  | 5.7468097 |                                   |       |       |                      |          |
| rho      | .20645331 | (fraction of variance due to u_i) |       |       |                      |          |

Table 3: Regressing Market Value on Firm Size

- Step 2: In step 2, we sought to establish whether firm size significantly affected dividend policy. The assumption was that mediation could only make sense if firm size affected dividend policy. Consequently, dividend policy was regressed on the firm size, as highlighted in equation 2.

$M = b_0 + b_2X + e$ .....equation 2

Results from table 4 confirmed that  $b_2 = -0.035$ ,  $p > 0.05$ . In this case, firm size failed to predict dividend policy, so there was no ground for mediation.

| M        | Coef.     | Std. Err.                         | z     | P> z  | [95% Conf. Interval] |          |
|----------|-----------|-----------------------------------|-------|-------|----------------------|----------|
| FirmSize | -.0350817 | .1117288                          | -0.31 | 0.754 | -.254066             | .1839027 |
| _cons    | .0665729  | .0145684                          | 4.57  | 0.000 | .0380193             | .0951265 |
| sigma_u  | .09420636 |                                   |       |       |                      |          |
| sigma_e  | .1540997  |                                   |       |       |                      |          |
| rho      | .27205443 | (fraction of variance due to u_i) |       |       |                      |          |

Table 4: Regressing Dividend Policy on Firm Size

## 5. Discussion

The study findings confirmed no adequate evidence suggesting that dividend policy mediated the relationship between firm size affecting dividend policy, which meant that the indirect path was incomplete, and mediation could not allude in this case. Although firm size directly affects market value, as demonstrated by other scholars (Lumapow & Tumuwa, 2017), it remains a tool for structuring dividend payout to shareholders and is independent of firm size. Indeed, dividend irrelevance theory infers that dividend payouts have a minimal effect on stock prices. The findings of this study that dividend policy does not mediate the effect of firm size on the market vindicate the dividend irrelevance theory.

Whereas many companies regard dividend policy as an essential aspect of their corporate strategy, issues about amounts and timing remain inconclusive; this may explain the non-mediation influence of dividend policy. However, the result showing that dividend policy had no significant effect on market value contradicted scholars who, when using the natural logarithm of total assets as a proxy of the firm size, indicated a positive effect of firm size on dividend policy (Byun et al., 2012; Carter et al., 2010; Gray & Nowland, 2014). The study context and methodology could explain these contradictory findings.

On the other hand, the study revealed a positive effect of firm size on market value. This finding reflects the finding by Husain et al. (2020), showing that firm size measured by non-current assets, different serving locations, and total main hours positively impacted on profit levels of institutions in the Bangladesh context. The study established that firm size directly and significantly affected market value. This finding reflects the findings of Mead (2016), who established that firm size affects profitability. Large firms can exploit opportunities with a lot of processes to create a competitive edge over competitors and dominate the market, hence increasing market value.

The study findings are supported by Hossain et al. (2021), who posited that firm size significantly affected the profit levels in Bangladesh institutions. Other studies which support these findings include studies carried out by Hung et al. (2021) on Vietnamese Private Firms, Lopez-valeiras et al. (2016) and Wayongah and Ochieng (2019). The study's findings also confirm the findings of Ozcan and Unal (2017), whose longitudinal study concluded that firm size had a positive and significant effect on profit levels. Large firms can purchase their goods in large quantities and receive built discounts. They also enjoy economies of scale in financial, production, transport, and market economies. This minimizes operational costs and increases profit margins, hence market value. The positive effect of firm size on market value was contradicted by Abeyrathna and Priyadarshana (2019). Their study results posited that firm size had no statistically significant relationship with profit levels.

The result that dividend policy did not have a significant effect on market value is supported by Ofori-sasu et al. (2017), who used the Ghanaian context to analyze the effect of dividend policy on market value. They deduced that the dividend policy did not predict market value. Sadiah (2018) and Munawar (2018) posited that dividend policy did not significantly affect market value. However, the findings in this study contradicted the findings of Kadim et al. (2020), who established that dividend policy was a significant predictor of market value. Other findings contradicting the results included: Naz and Siddiqui (2020), Farrukh et al. (2017), Chaabouni (2017), and Kanakriyah (2020), who showed that dividend policy strongly affected the financial performance of firms. The non-significant effect of dividend policy on market value failed to support the results of Bezawada and Tati (2017) and De Wet and Mpinda (2013), who showed that dividend policy affects market value albeit negatively. This contradiction could perhaps be explained by using one variable to measure the dividend policy used in this study. Consideration of other measurements of dividend policy should be explored.

Consequently, it can be argued that in designing dividend policies, it is prudent to interrogate the nature of shareholders and the perceived value attached to dividend payout. The inability of dividend policy to have a mediation effect on the relationship between firm size and market value was supported by the findings of Ridhani et al. (2020) and Mansourfar et al. (2017), who argued that dividend policy was not a significant mediator of the relationship between different variables of firms. This non-mediation provides a novel disclosure showing that dividend policy is irrelevant to financial performance as advocated by Modiglian and Miller's irrelevant theory.

However, the findings are not supported by Correia da Silva et al. (2004), Mas Santika et al. (2020), Handayania (2018), and Hashemijoo (2012), who postulated that dividend policy mediates the relationship between different variables and firm financial performance. Indeed, it may be conceivable to expect dividend policy to mediate market value relations when other factors are considered since dividend policy is in a position to decide how to channel profits into firm

value. The findings in this study in the context of Nairobi security exchange add to the existing discourse from the perspective of a developing nation.

## 6. Implication for Theory and Practice

The findings do not support the dividend relevance theory propagated by Myron Gordon in 1963. The theory postulated that the risk-averse nature of shareholders pushes for current dividends in the belief that they carry lower risk (Mwangi, 2017). This risk-aversiveness finally affects market value. However, it supports the dividend irrelevance theory by Modiglian and Miller (Allan et al., 2012). The MM theory dividend policy makes no sense in a perfect world devoid of bankruptcy costs. Therefore, policymakers should interrogate the MM theory and audit dividend policies to alert them to emerging firm size and market value issues. The findings showing that firm size positively affects the market value of firms listed at the Nairobi Security Exchange show that firms should exploit firm size by enhancing capital accumulation and capital formulation. This exploitation will beef up the value of no current assets.

Besides the value of assets, the company executive should also strive to increase the firm size to enable the capacity to become competitive and attract more investors. Besides, the stockholders must appreciate firm size as a major factor of market value sustainability and other performance indicators. The company should allocate more resources to increase the variables that constitute firm size. Contextual factors, such as the number of employees, diversification of products, diversification of markets, level of technology, and value of intangible assets, should be factored in while examining the effects of firm size and market value/dividend policy. Such factors are likely to influence dividend policy and inhibit the effects of firm size.

Meanwhile, firms should formulate strict dividend policies to ensure that a larger share of profits is retained to recoup the asset base. Firms listed at security exchanges should incorporate factors such as firm context and types of dividends paid, which potentially influence the mediating potential of dividend policy. When selecting dividend policies, firms strive at security exchanges to audit the nature of dividends, types of shareholders, and amount of capital invested in determining whether such policies balance out the benefits of different stockholders and stakeholders.

## 7. Conclusion

Using the results and discussions made above, we make the following inferences according to the objective:

The paper concludes that firm size had a negative and significant effect on market value. This negative influence insinuated that firm size is a key variable as far as market value is concerned and must therefore be incorporated in policy decisions to enhance the market value of listed firms on the securities exchange. The study concludes that dividend policy did not affect the market value and may be attributed to the measurement issued. Both are occasionally used to measure the financial performance of firms. Finally, since firm size failed to predict dividend policy, there was no ground to test for dividend mediation. Therefore, dividend policy does not mediate the relationship between firm size and market value.

## 8. Recommendations

The study recommends; that the Firms listed at NSE clearly outline the dividend policies appropriate to each type of firm in terms of size and sector. Thus policies may end up influencing market value. Firms listed at NSE need to practice a lot of prudence in policy dividend payout to avoid situations where policies are too liberal. The firm should consider contextual factors informing firm size and exploit them to enhance market value.

Considering the importance of dividend policies in setting out dividend payouts, firms at the Nairobi Securities Exchange need to practice a lot of prudence in policy formulation to avoid situations where such policies have no impact on financial performance. Firms should strive to formulate dividend policies to ensure that a broader segment of shareholders is satisfied. These policies will attract potential investors who will pump in more capital to acquire assets and other equipment to increase operations alongside market value.

It is paramount to avoid disconnect while deciding on the firm size firms at Nairobi security exchange balance on different variables affecting firm size. Therefore, the study proposes a further study incorporating shareholder activism as a moderating variable to complement the current findings.

## 9. Limitations and Further Research

This study focused on listed firms at NSE, a highly regulated security exchange. Financial reports are prepared under standard formats and assumptions, and principles. They publish what is only required by law and pronounce themselves loudly on what will give them a competitive edge. The concept of firm size was limited to the value of Assets. It is conceivable that firm size can take other dimensions such as market size, number of employees, product lines, and share capital.

Furthermore, the study focused only on 2008 – 2017, when the Kenyan economy was relatively stable. Therefore, the study findings are generalized to all listed firms found in developing economies during stable economic periods. The finding of this study is somehow inconclusive in many ways. Therefore, the study recommends further studies that may complement the current research. There is a need to examine the moderated mediation in the context of firm size and market value by incorporating shareholder activism as a moderator.

Practically, the study underscored the emerging role of technology in firms which renders the size of the firm irrelevant to market value. For instance, a small firm with elaborate technology can reach a wide scope of customers than a large firm without elaborate technology. Besides, the study demonstrated that investors will ultimately have the same goal irrespective of the size of the firm.

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