The Effect of Cash Dividend Pay-out Policy on Stock Price Performance: A Case Study of Commercial Banks Listed in Dar es Salaam Stock Exchange

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Abstract

This study investigates the effect of the cash dividend pay-out policy on the stock price performance of commercial banks listed on the Dar es Salaam Stock Exchange (DSE) in Tanzania. The study was conducted in the United Republic of Tanzania, focusing specifically on commercial banks listed in DSE. The study population comprised eight financial reports of commercial banks listed in DSE from which a sample of five commercial banks were purposively selected. These financial reports served as secondary data sources for evaluating the effect of dividend pay-out policy on the stock price performance of the chosen banks during the period spanning from 2016 to 2022. Employing a correlation research design, this study adopted a quantitative research approach, and data analysis involved a combination of descriptive and inferential statistical techniques, supported by statistical software STATA. The panel data regression models of Fixed Effect and Random Effect were employed to analyse the panel data. The results of Hausman test were used to select the best model, where Random Effect model were found appropriate. Findings reveal that the cash dividend pay-out ratio has moderate and positive relationship with stock price performance. Likewise, Cash dividend pay-out ratio is statistically significant at 5% significance level in influencing the stock price performance at equal magnitude. This implies that the dividend pay-out ratio has significant effect on stock price performance, the fact which concurs with signalling theory. The increase in dividend pay-out is associated to increase in stock price performance and the decreasing dividend payments weakens stock price performance. The study recommends Tanzanian banks adopt a balanced dividend approach, considering financial stability and shareholder expectations. Future research should explore long-term dividend trends and decision-making processes with longitudinal and qualitative methods.

Keywords: Cash Dividend Pay-out Ratio, Stock Price Performance, Commercial Banks, Dar es Salaam Stock Exchange.

1. Introduction

The stock price performance of listed firms in various stock markets around the globe have been of great concern since the global economic depression and financial crisis in 2008 due to unsatisfactory and unpredictable dividend distribution pattern among the listed firms particularly commercial banks following the successive loses due to financial crises (Lunogelo, H. B., Mbilinyi A., & Hangi, M., 2009). The firms listed in Dar es Salam Stock Exchange (DSE) were also affected in the similar manner as the rest of the global stock exchange (Massele, J., Darroux, C., Jonanthan, H., & Fenju, X.,
2013). Long before then, Miller & Modigliani, (1961) studied the relationship between stock price performance and dividends pay-out policy which later become an area of interests among scholars in the field of finance (Gordon, 1963; Bhattacharya, 1979; Gordon, 1963. Despite the various measures taken since then, the recent pandemic of COVID-19 has brought this complex relationship between dividend pay-out policy and stock price performance of listed firms into attention of researchers, financial analyst and investors of which the listed firms in DSE were not exceptional (Werema, 2020). The cash dividend pay-out policy plays a pivotal role in shaping the stock price performance of companies worldwide, with significant implications for shareholders and market stability. It involves the strategic allocation of earnings by management, balancing dividends for shareholders and retained earnings for business growth (Araoye et al., 2019). According to Lymo and Mtawa (2021), dividend payouts trends of firms were deteriorating for some of the commercial banks listed in DSE for the period observed while the stock prices of listed firms at DSE fell soon after the COVID-19 pandemic (Werema, 2020). Thus, this study seeks to examine the effect of dividend payouts on stock price performance for commercial banks listed in DSE.

Across the globe, different countries have witnessed diverse approaches to dividend pay-out policy, yielding valuable insights into its effects. For instance, in China, efforts to enhance market confidence led to a trend of increased dividends among banks, supported by regulatory mandates (Camileri et al., 2018). In contrast, the United States, traditionally known for regular dividend payments, faced dividend reductions during the 2008 global financial crisis (Budagaga, 2017). Similarly, the United Kingdom grappled with dividend policy debates, with regulators emphasizing the need for capital buffers during economic crises (Enebrand & Magnuson, 2018).

In Africa, dividend policy holds immense sway over stock price performance (Bhattara, 2016). Different nations exhibit distinct patterns influenced by regulatory environments and economic conditions. Egypt experiences fluctuations in dividend pay-out ratios across sectors (Singh & Tandon, 2019; Haife & Karroum 2023), while Nigeria grapples with capital allocation challenges (Bello & Olarinde, 2020). Kenya's Nairobi and South Africa Securities Exchange attract income-oriented investors, favoring consistent dividends (Kibet, Jagongo, Ndebe, 2016). Moreover, South Africa uses dividends to attract investors in stock exchange (Sharif, 2015).

In Tanzania, the dividend pay-out ratio is a crucial element of corporate financial decisions, guiding the allocation of earnings (Kiangi, Willium & Milambo, 2022). As a key player in Tanzania's financial landscape, the DSE provides a platform for listed companies to navigate economic conditions and regulatory frameworks influencing dividend choices (Munisi, 2017). Tanzanian companies, especially commercial banks, face capital allocation complexities, balancing shareholder rewards with earnings preservation (Kiangi, Willium & Milambo, 2022). In light of these complexities and challenges, the present study endeavors to delve into the effects of dividend pay-out ratios on the stock price performance of commercial banks listed on the DSE. While the available research has explored the relationship...
between stock prices and dividend policy in various contexts (Masum 2016; Lyimo & Mtawa 2021; Loretta & Grace 2016; Sharif 2019). Therefore there is a notable gap in local studies concerning specific context of Tanzanian commercial banks.

The dividend pay-out policy embraced by commercial banks listed on the DSE in Tanzania significantly influences their stock price performance and, in turn, shapes investor perceptions. Nevertheless, the precise effects of dividend pay-out policy, such as cash dividend pay-out ratios, on the banks’ stock prices remain uncertain (Abor & Bopkin, 2020). Investors are eager to comprehend how these dividend choices impact the appeal of bank stocks and the potential returns on their investments.

Moreover, commercial banks operating within the Tanzanian financial landscape encounter unique challenges in capital allocation (Lyimo & Mtawa, 2021). With varying economic conditions and regulatory frameworks, the decision-making process for dividend distribution becomes intricate and demands careful consideration (Ushahidi, 2018). On one hand, banks must address the imperative to reward shareholders with stable and attractive dividends to retain investor confidence and loyalty. On the other hand, they need to strike a strategic balance by preserving sufficient retained earnings for reinvestment in the business to fuel growth and seize new opportunities (Massele, Darroux, Jonathan & Fenju, 2013). These complexities make it essential to conduct a comprehensive study on the assessment of the effects of dividend pay-out ratios on the stock price performance of commercial banks listed at the DSE.

The present study is useful to government bodies, policymakers, and the academic community, with each group poised to derive substantial benefits

2. Literature Review

This study finds its base in the ground work of dividend irrelevance theory and signaling theory which were used to establish a link between stock price performance and dividend payout policy in the plenty of finance literatures Miller & Modigliani, (1961) and (1963) & Bhattacharya (1979).

The dividend irrelevance theory, introduced by economists Franco Modigliani and Merton Miller in their seminal work "Dividend Policy, Growth, and the Valuation of Shares" which was published in 1961, serves as a fundamental cornerstone for this research. The theory states that, under certain ideal assumptions, such as perfect markets and the absence of taxes or transaction costs, dividend policy would be inconsequential in determining stock prices (Miller, M. H., & Modigliani, F., 1961). Their proposition is based on the idea that investors are indifferent between receiving dividends and capital gains since they can achieve their desired cash flows by either selling shares for cash or reinvesting dividends to compound their investments (Loretta & Grace, 2016). The theory was further extended by Sethi, (1995), which was a model of using traditional of dividend payment approach to value finite streams of cash flows of a firm. This groundbreaking theory challenges the conventional notion that dividend policy significantly impacts a firm’s stock price performance (Ushahidi, 2018). The dividend irrelevance was supported by work of Neugebauer et al, (2020):
Ahmeti & Prenaj, (2015). However, the dividend irrelevance theory has been challenged theoretically by Gordon, (1963) and Bhattacharya, (1979). Similarly empirical studies reveals that dividend payout policy do affects stock price performance of firms (Bella & Olarinde, 2020). , The dividend irrelevance theory was employed in the present study as a theoretical framework to assess whether dividend policy indeed exerts a significant influence on stock prices within the Tanzanian financial market. The research scrutinized the extent to which changes in dividend policy impact stock prices, accounting for the complexities and deviations from the ideal assumptions posited by Modigliani and Miller in real-world scenarios (Enebrand & Magnuson, 2018). Specifically, the study assessed the implications of the cash dividend payout ratio, representing the proportion of earnings distributed as cash dividends, on stock price performance. According to the theory, this ratio is deemed irrelevant to stock prices, as investors can achieve their desired cash flows through alternative means, like share transactions (Bello & Olarinde, 2020).

Through a thorough analysis of these theoretical propositions and their practical implications, the study seeks to shed light on the interplay between dividend policy choices and stock price performance among commercial banks, listed at the Dar es Salaam Stock Exchange. The purpose of the research was to offer insightful information on the dynamics of dividend policy and its potential impact on the market value of commercial banks by investigating the applicability of the Dividend Irrelevance Theory within the Tanzanian context.

The signaling theory, initially proposed by Miller and Modigliani in 1961, and later expanded upon by Bhattacharya in 1979, posits that dividend policy acts as an important signal to investors about a company's financial health and future prospects (Vijitha & Nimalathasan, 2014). As per the signaling theory, when a company pays dividends or increases dividend payments, it sends a positive signal to investors, indicating that the management is confident in the company's future profitability and growth prospects (Bhattacharya, 1979). This confidence is assumed to be based on the company's strong financial position and successful business operations (Budagaga, 2017). On one hand, higher dividend payments are expected to associate with an increase in stock prices, as investors perceive the company as financially robust and expect positive future performance (Mukhatasyam, Pagalung & Arifudin, 2020). On the other hand, a reduction or omission of dividends might be perceived as a negative signal by investors. Such a decision could indicate that the company is facing financial difficulties or has limited growth opportunities, leading investors to perceive the company as less financially secure. As a result, a decrease in dividends may be associated with a decrease in stock price performance, as investors may become more cautious and hesitant to invest in the company (Camileri & Grima, 2018).

The cash dividend payout ratio represents the proportion of earnings after tax distributed as cash dividends to equity holders (Kiangi, William & Milamo, 2022). A higher cash dividend payout ratio may be seen as a positive signal, indicating that the company is willing and capable of sharing a larger portion of its profits with shareholders, leading to a potential increase in stock prices. Similarly, the use of share dividends as a dividend distribution method may be examined within the
signaling theory framework (Budagaga, 2017). Offering share dividends could be interpreted as a signal that the company aims to conserve cash for reinvestment in the business, potentially indicating future growth opportunities. Investors may perceive this positively, leading to a positive impact on stock prices (Bello & Olarinde, 2020).

The signaling theory guided this study by providing a theoretical framework to explore how cash dividend payout policy, serve as signals to investors and subsequently impact the stock price performance of commercial banks, listed at the DSE. The study intended to obtain deeper understanding of the signaling effect of dividend policy on investor views and market valuation in the Tanzanian financial landscape by examining these interactions.

Several previous studies including Masum (2014) explored the effect of dividend policy decisions on the stock prices of firms, a topic extensively researched in investments and finance. The debate centers on whether dividend policy truly influences stock prices, with some arguing for its irrelevance, emphasizing firm value’s dependence on earning power and business risk. Opponents contend that dividends matter, as investors focus on total returns, regardless of their form. The study examines excess stock market returns for 30 banks, listed on the Dhaka Stock Exchange. Data were collected from secondary source of annual financial reports from 2007 to 2011. The employed correlational research design and quantitative approach to analyze the data. Using a panel data approach, it analyzes dividend policy's relationship with stock market returns in Bangladesh's private commercial banks. The findings reveal that dividend policy significantly impacts stock prices. The findings concludes in similar manners as signaling theory did, however the results from various stock markets vary due to the influence of multiple internal and external factors on stock prices. This study did include the private and public commercial banks in their analysis and finds its relevance in Bangladesh context, however it did not analyze the single specific sector of public commercial banks in other financial markets like DSE in Tanzania hence creates a void which this study seeks to fill (Masum, 2014).

Ushahidi (2018) aimed to assess the influence of dividend payout on company’s performance, with a specific focus on investigating dividend policies, rates, and frequencies among the listed firms in the DSE. Additionally, it sought to explore the association between dividend payout ratios and firm’s performance while determining the overall impact of dividend payout ratios on firm performance. Employing a descriptive research design, the study analyzed data from four listed firms over a ten-year period from 2007 to 2016. Quantitative analysis, facilitated by SPSS and STATA, revealed that each firm in the study maintained its distinct dividend policy, rate, and frequency. Moreover, the study shows a weak and insignificant positive correlation between dividend payout ratios and firm profits. However, controlled variables such as investment, total assets, and firm size displayed a significant linear relationship with firm performance. Multiple regression analysis yielded significant impacts on firm performance only for dividend payout ratios, total assets, firm growth, and leverage, while firm size and investment showed no significant effects. The study recommends that firm management allocate more time to make informed decisions and design dividend policies that contribute to
enhanced firm performance (Ushahidi, 2018). However the study has included six independent variables including Dividend pay-out ratio, total assets, firm growth, and leverage, while firm size and investment on the analysis of their effect on firm performance but did not consider the effect of dividend pay-out policy alone without including other variables on stock performance the matter which this study seeks to find.

Likewise, Singh and Tandon (2019) aimed at assessing the effect of dividend policy on the market prices of shares of companies, listed in the Nifty 50 index on the National Stock Exchange during the period of 2008-2017. The data were collected from 50 listed companies in Indian National Stock exchange for the period of 10 years. The employed correlational research design and quantitative approach to analyze the data. The analysis is conducted using multiple panel data regression models, including pooled regression, fixed effect model, and random effect model. The Hausman test is employed to identify the most appropriate regression model. The results of the Hausman test support the use of the random effect model, which further substantiates the relevant approaches of dividend policy. Thus, the study concludes that dividend policy significantly affects the stock price of firms. This results aligns with signaling theory in the Indian financial context with multi-sectorial firms for the period observed, however the study did not assess assessment of firms in a single specific sector such as commercial banks in Tanzania financial Market hence this creates a gap which this study seeks to fill by assessing the effect of dividend pay-out policy in specific financial sector of Banking in Tanzania context (Singh & Tandon, 2019).

Moreover, Putra & Rasyid (2020) aimed at investigating the effect of dividend policy on share prices, with profitability serving as a linking variable, among manufacturing firms, listed on the Indonesia Stock Exchange. The study population consisted of all manufacturing firms, listed on the Indonesia Stock Exchange from 2014 to 2018, using secondary panel data. Purposive sampling was employed as the sampling technique, resulting in a total of 370 samples (comprising 74 companies over a 5-year research period). Data analysis was performed using path analysis and the Sobel test on the SPSS 25 program. The findings reveals that dividend policy has a positive and significant impacts on stock prices, and profitability also positively influences stock prices. Moreover, profitability acts as a linking variable in the relationship between dividend policy and stock prices, with a positive and significant effect on the mediation process (Putra & Rasyid, 2020). However, the study did not assess the sole effect of dividend pay-out policy on stock price performance but included other mediating variables such as profitability thus creates the gap which this study seeks to fill by examining the effect a dividend pay-out policy alone can cause to stock price performance commercial banks listed in DSE.

Kadiri, Olorunmade and Raji (2022) investigated the relationship between dividend policy and stock price movements among companies listed on the Nigerian Stock Exchange. The data analysis approach involved panel regression analysis and Generalized Methods of Moments (GMM). Panel data spanning the years 2011 to 2020 were collected from the financial statements of twenty companies, listed on the Nigerian stock exchange. The findings indicate a negative relationship
between dividend yield and share price movement. Additionally, dividend yield was found to have a negative and significant association with share price, while firms’ size exhibited a significant positive relationship with share price volatility. The study recommends that stakeholders of listed companies should ensure that the percentage of earnings distributed as dividends to equity holders positively impacts the value of the firm’s common stock in the stock market consistently (Kadiri, Olorumnade & Raji, 2022). Temirov, Urinov, Zakirova & Yuldashova, (2023) analyzed the impact of the dividend policy of joint-stock companies on the regulation of the stock price in the Republic of Uzbekistan. The study employed methods of a systems approach, fundamental and technical analysis of economic grouping, comparison and synthesis. The mechanism of market pricing shares, provides methods of calculating market value shares, illustrates dependence of share formation prices on the chosen dividend policy. The study recommends on the calculation of the capital cost, improvement of dividend policy, disclosure of information by joint-stock companies in terms of dividends (Temirov, 2023).

Bhatti, Patoli, and Kumar, (2023) investigated the dividend policy in the chemical industries and how it affects market prices. Data were gathered from 16 out of 26 companies in Pakistan’s chemical sectors for the period spanning from 2013 to 2022. A correlational research design and Quantitative approach were employed to analyze the data. Panel data have been examined for fixed effect model using Software called Eviews. Panel regression assumptions were checked where, the Levin li chu, Hausman, Wald, VIF, Tolerance, Durban Watson, Normality and Homosedacity tests were run. The findings reveals that, all explanatory factors are shown to be significant except for profit after tax. It further concludes that dividend policy has an impact on share prices which resonated with signaling theory. Firms are recommended to develop a dividend policy based on the current market price. This study finds its empirical significance in the context of chemical industries in Pakistan unlike in commercial banks in Tanzania which different circumstances and economic forces, thus requires further analysis (Bhatti, Patoli & Kumar, 2023).

While there exists plenty of literature on the relationship between dividend policy and stock prices, however, the existing studies including local studies did not consider the sole effect of dividend pay-out policy’s on stock price performance in the context of single specific banking sector of Tanzanian, thus creating a gap. This study aims to fill this void by assessing this aspect among DSE-listed commercial banks, providing valuable insights for investors, regulators, and analysts, and enhancing understanding of the dividend pay-out ratio’s impact on market valuation.

In this, study stock price performance is the dependent variable while dividend pay-out ratio is the independent variable (Bhattacharya, 1979). The stock price performance is measure by the ration of difference between opening stock price and closing stock price to that of the opening stock price for particular year (Gitma & Zutter, 2015). Also Dividend pay-out policy is represented by dividend payout ratio measured by amount of earning after tax distributed to shareholders to the amount of earnings after tax a firm obtained during course of business of the particular year (Pandey, 2015).
3. Methodology

The research was conducted in the United Republic of Tanzania, focusing specifically on commercial banks, listed on the Dar es Salaam Stock Exchange (DSE). Employing a correlation research design, this study adopted a quantitative research approach, with its population comprising 8 financial reports of commercial banks listed in DSE. Sample of 5 commercial banks were purposively selected from 8 commercial banks listed in DSE due to availability of data as the rest of 33 commercial banks do not have data for the period observed spanning from 2016 to 2022 (DSE, 2023). These financial reports served as the secondary data source for evaluating the impact of dividend pay-out ratio on the stock price performance of the chosen banks during the period spanning from 2016 to 2022. The study focused on the commercial banks as they contribute heavily in the financial sector and took large proportion of listed firms in the financial sector in DSE (BOT, 2022). The study included CRDB, NMB, DCB, MBP, and MCB banks in its analysis (DSE, 2023). Data analysis involved a combination of descriptive and inferential statistical techniques, with the primary analysis conducted using STATA, a robust statistical software package capable of performing panel data regression.

The variables in this study are Stock price performance (SPP) and cash dividend pay-out ratio (CDPR). The independent variable in this study is CDPR which is measured as proportion of cash paid to share holder to net income (Pandey, 2015). Thus CDPR = (Cash dividend paid to shareholders / Net Income) * 100. And dependent variable in this study is SPP which is measured by ((Ending price - Beginning Price) / Beginning price) * 100 (Gitman & Zutter, 2015). The relationship between SPP and CDPR is represented by the following regression model.

\[ SPP_{it} = \beta_0 + \beta_1 \times CDPR_{it} + \epsilon_{it} \]

Where:
- \( SPP_{it} \) is the stock price performance of bank \( i \) at time \( t \).
- \( CDPR_{it} \) is the cash dividend pay-out ratio of bank \( i \) at time \( t \).
- \( \beta_0 \) is the average coefficient of intercepts or constant
- \( \beta_1 \) is the average coefficient of independent variable CDPR.
- \( \epsilon_{it} \) is the error term capturing unexplained variability.

This panel regression model allows to examine the effects of dividend policy variables while controlling for individual and time-specific factors, providing a robust framework for understanding the relationships between dividend policies and stock price performance among commercial banks quoted at the Dar es Salaam Stock Exchange during the specified period.

4. Findings

4.1. Descriptive Statistics

The study carried out the descriptive statistics as seen in table 1 below. The table shows, the mean, minimum and maximum of each variable as well as the standard deviation, kurtosis and skewness of each variable.
Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>28.0</td>
<td>38.1481</td>
<td>-0.14933</td>
<td>18.6619</td>
</tr>
<tr>
<td>CDPR</td>
<td>0.00</td>
<td>40.3320</td>
<td>12.1968</td>
<td>11.7815</td>
</tr>
</tbody>
</table>

Source: Field data (2023)

In assessing Stock Price Performance (SPP), the analysis reveals a wide range, from -28.00% (indicating declines) to 38.15% (suggesting growth). On average, SPP slightly declined -1.45% (mean) with notable variability (standard deviation: 18.66%). For Cash Dividend Pay-out Ratio (CDPR), the range spans 0.00% (no cash payment from net income) to 40.33% (generous cash dividends), with a 12.2% mean and substantial variation (standard deviation: 11.78%).

4.2. Correlation Analysis

This section examines the relationships between key variables essential to our investigation into the impact of dividend pay-out ratio on stock price performance in commercial banks, listed on the Dar es Salaam Stock Exchange (DSE). These variables include Stock Price Performance (SPP), Cash Dividend Pay-out Ratio (CDPR).

Table 2: Correlations

<table>
<thead>
<tr>
<th></th>
<th>SPP</th>
<th>CDPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPP</td>
<td>1.0000</td>
<td>0.6299</td>
</tr>
<tr>
<td>CDPR</td>
<td>0.6299</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Field data (2023)

SPP (Stock Price Performance) and CDPR (Cash Dividend Pay-out Ratio) exhibit a positive and strong correlation at 0.6299, implying a moderate association between the cash dividend pay-out ratio and stock price performance.

4.3. Normality and Homoscedasticity of error term in a panel data

Prior to panel data analysis the fundamental assumptions of OLS are checked for Normality of Error term by running Skewedness and Kurtosis tests of error term distribution. Also the Variance Inflation factor are computed to identify the correlation between independent variables. Similarly the heteroscedasticity test are run to identify the differences in variances of error terms.

Table 3: Panel normality, Multicolinearity and Heteroscedasticity tests result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residuals sktest</td>
<td>Normality (adj chi2(2) Prob&gt;chi2</td>
<td>0.38 05</td>
</tr>
<tr>
<td>Heteroscedasticity</td>
<td>-intest of (Cameron &amp; Trivedi's decomposition of IM-test</td>
<td>0.02 54</td>
</tr>
<tr>
<td></td>
<td>-hittest of (Breusch-Pagan / Cook-Weisberg test for heteroskedasticity)</td>
<td>0.31 86</td>
</tr>
</tbody>
</table>

Source: Field data (2023)
Table 3 presents results for the normality test, where the Jack Bera test of skewness and kurtosis has a p-value of 0.1426, which is greater than 0.05, implying that the residuals are normally distributed. With this confidence, the coefficients of independent variables, namely CDR, SDVD, and LVG, can be estimated with efficiency, as the standard errors for each variable coefficient are not biased. Likewise, in assessing heteroscedasticity, the hettest have p-values of 0.2190, which are greater than 0.05, failing to reject the null hypothesis of constant variance at the 5% significance level. Therefore, the error term is free from the heteroscedasticity problem, which provides room for the use of OLS in the estimation of the coefficients of CDR, with consistency.

4.4. Panel Unit Root

In this section, the study assessed the stationarity of variables within the panel data framework, using various measurement tools, namely the Levin, Lin, and Chu (LLC) test, the Breitung test, the Im, Pesaran, and Shin (IPS) W-stat, the Augmented Dickey–Fuller (ADF) test, and the Fisher chi-square test (PP). Stationarity is crucial for econometric modeling, especially when studying commercial banks on the Dar es Salaam Stock Exchange.

Table 4: Panel unit Root result

<table>
<thead>
<tr>
<th>Variable</th>
<th>P-value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LL C</td>
<td>Breitung</td>
</tr>
<tr>
<td>SPP</td>
<td>0.0</td>
<td>0.010</td>
</tr>
</tbody>
</table>

Source: Field data (2023)

Table 4 presents crucial results from panel unit root tests designed for panel data analysis, assessing the stationarity of our variables, a fundamental prerequisite in time series and panel data econometrics. For Stock Price Performance (SPP), all test statistics—LLC, ADF, and PP—consistently yield very low p-values of 0.00 while IPS has low p-values of 0.1136, affirming SPP's stationarity robustly and ensuring a strong foundation for subsequent panel data analysis. Similarly, Cash Dividend Pay-out Ratio (CDPR) exhibits compelling evidence of stationarity, with p-values of 0.00 from LLC, ADF, and PP tests, while the Breitung test, with a p-value of 1.00, still aligns with stationarity criteria specific to that test. These outcomes firmly establish the stationarity of the four variables SPP and CDPR, within the panel data framework, laying a strong foundation for comprehensive panel data analysis to explore their interrelationships and their impact on stock price performance among commercial banks, listed on the Dar es Salaam Stock Exchange.

4.5. Regression Analysis

In the Regression analysis section, the study provides the outcomes of a comprehensive analysis aimed at uncovering the complex relationships between dependent variable Stock Price Performance (SPP) and independent variable Cash Dividend Pay-out Ratio (CDPR). By employing diverse regression models, including Ordinary Least Squares (OLS), Fixed Effects (FE), and Random Effects (RE), the study explores the
nuanced dynamics shaping the Tanzanian banking sector.

Table 5: Multiple Regression Results

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coefficient—Beta</th>
<th>OLS</th>
<th>FE</th>
<th>RE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Dividend Pay-out ratio</td>
<td>0.997802</td>
<td>1.065183</td>
<td>1.007136</td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>0.3968</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R2</td>
<td>0.3785</td>
<td>0.3968</td>
<td>0.3968</td>
<td></td>
</tr>
<tr>
<td>Prob &gt; F-stat.</td>
<td>0.0001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-stat</td>
<td>21.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob &gt; chi2</td>
<td>0.0009</td>
<td>0.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wald test Chi-square stat.</td>
<td>13.72</td>
<td>20.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hausman prob &gt; chi2</td>
<td>0.7496</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field data (2023)

The Table 5 regression results offer nuanced insights into stock price performance (SPP) and its relationship with the variable Cash Dividend Pay-out Ratio (CDPR). Various estimation methods, including ordinary least squares (OLS), fixed effects (FE), and random effects (RE), were employed to address panel data effects. Notably, CDPR shows a statistically significant positive influence on SPP in FE and RE estimations, highlighting its relevance in the panel data context. Both F-statistics and Wald tests confirm the presence of statistically significant independent variable related to SPP, and the Hausman test supports the use of the RE model. Therefore, these findings illuminate the intricate dynamics between dividend pay-out ratio and stock price performance in the Tanzanian banking sector, with CDPR positively and moderately associated with SPP implying that a unit increase in CDPR results to unit increase in SPP and vice versa is true when other factors are unchanged, particularly in the presence of panel data effects. These insights hold practical relevance for investors, analysts, and policymakers in the Tanzanian banking landscape.

5. Discussions

The study reveals a positive and moderate relationship between the cash dividend pay-out ratio (CDPR) and stock price performance (SPP) among commercial banks listed on the Dar es Salaam Stock Exchange (DSE), shedding light on the specific dynamics of dividend pay-out policy within this context (Singh & Tandon, 2019) also similar with the study of Haife & Karroum (2023). This aligns with signaling theory, suggesting that, cash dividend pay-out conveys signals on the prospect of the firm and thus affects stock price performance (Bhattacharya, 1979). Similarly, for DSE-listed commercial banks, this implies that the way they distribute earnings as cash dividends can influence their stock price performance. While the correlation between CDPR and SPP is moderate, its significance becomes more pronounced when considering individual and time-specific effects, emphasizing the importance of examining dividend pay-out policy over time and across banks (Temirov, Urinov, Zakirova & Yuldashova, 2023; Kadiri, Olorunmade & Raji, 2022; Singh & Tandon, 2019). Therefore, DSE-listed banks should carefully tailor their dividend pay-out policies, recognizing their...
potential impact on stock prices and their importance in attracting investors.
This positive yet moderate relationship between cash dividend pay-out ratio (CDPR) and stock price performance (SPP) among commercial banks listed on the Dar es Salaam Stock Exchange (DSE), offers valuable insights into the specific dynamics of dividend pay-out policy in this context (Masum, 2014). Moreover, this study's findings resonate with the outcomes of research in other markets, such as Indonesia, where dividend policy has a positive impact on stock prices (Bhatti, Patol, & Kumar, 2023; Putra & Rasyid, 2020). This implies that improving dividend pay-out policy, leads to enhanced stock prices. Thus, DSE-listed banks should consider these factors and tailor their dividend policies to align with market dynamics and investor expectations, recognizing their substantial impact on stock prices.

6. Conclusions
This study concludes that a Cash Dividend Pay-out Ratio (CDPR) significantly and positively influences Stock Price Performance (SPP) at equal magnitude for DSE-listed commercial banks, particularly when accounting for panel data effects. This underscores the importance of cash dividend pay-out policies in shaping the stock prices of Tanzanian banks, providing valuable insights for investors and analysts. However there are other complex factors and market dynamics which play a predominant role in influencing stock prices, highlighting the multifaceted nature of stock market interactions and offering guidance for strategic decision-making.

7. Recommendations
The study recommends Tanzanian banks to adopt a balanced dividend approach, considering financial stability and shareholder expectations. Integrating share dividends can boost investor confidence.
Future research should explore long-term dividend trends and decision-making processes with longitudinal and qualitative methods.

References


Masum, A., 2014. Dividend policy and its Impact on Stock Prices- A study of Commercial Banks listed in


